



4 Easy Projects:

- Lily Pad Box
- End-Grain Cheese Board
- Wood Earrings
- An Exploding Box

Seniors Working Wood

Solid Wood Countertops

p.42

Craft a Timeless ROCKING CHAIR

p.46

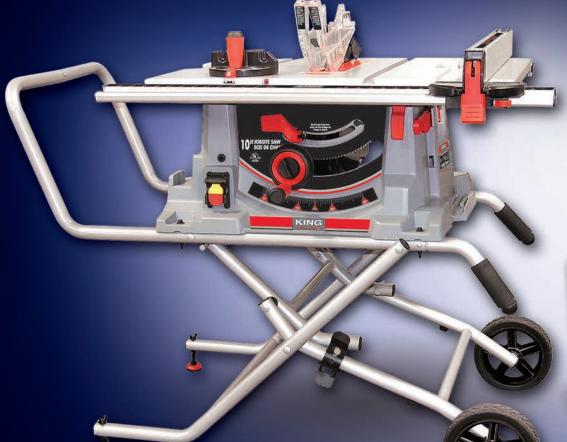


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DECEMBER/JANUARY 2015

FEATURES

18 2014 Hot Products BY CWM

With the holidays right around the corner, this feature will make the gift-giving season easier on you, and whoever's buying for you.

30 End-Grain Cutting Board

BY GEOFF COLEMAN

This easy to make project is sure to leave the recipient in awe.



BY CHARLES MAK

Mix and match different wood species and unique designs to create a one-of-a-kind piece of jewelry.

42 Solid Wood Countertops

BY JASON KLAGER

Wood countertops leave you with a stunning look and feel. Learn these tips to ensure success in the shop, and elegance in the kitchen.

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COVER STORY

Cover photo by Johanna Matthews

46 Craft a Timeless Rocking Chair

What would make a better Christmas gift than a handcrafted rocking chair? Get started now and it will be ready for the big day. BY JONATHAN OTTER



30

editor's letter

ith the holiday season upon us, it's once again our job as woodworkers to start thinking about gift projects to make for our friends and family. It's also a lot of fun to receive a hand-made gift. There's something heart-warming about knowing the gift was made with care especially for you. This issue is sure to get you started with your holiday gifts; we have five projects that are fun to make and are sure to impress once they're opened.



rbrown@canadianwoodworking.com

Four of the projects are on the simple side; a small gift box, an end-grain cutting board, a pair of earrings and an exploding box. Although I don't want to encourage procrastination (even though it's worked for me for decades) you could start these projects a few days before Christmas and still be ready for the big day.

The fifth project – the rocking chair on our cover – is much more complex. Don't wait around deciding if you should make one for this holiday season, or the decision will be made for you. This rocker merges traditional lines with sleek, crisp details. I might have to make myself one for Christmas. Come to think of it, I better finish my wife's gift first; the one I started this time last year. She'll never know it was a year late.

In addition to the many projects in this issue I hope you'll also enjoy our regular Canadian Quotes, Finer Details, Home Improvement, Top 10, Community and Woodchuckle columns. These articles cover a wide array of woodworking topics and are fun to read. If you ever have a suggestion for a Canadian woodworker to cover, a community woodworking event to showcase or an idea for a project to feature in our pages please send me an email. I love hearing from readers.

Rob Brown



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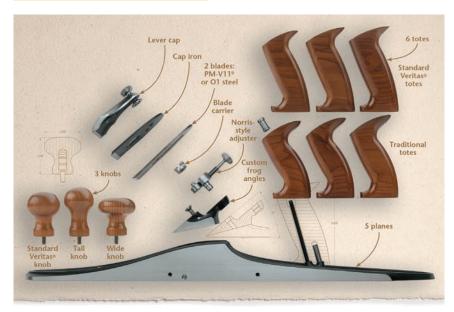


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Keeping Woodworking Alive as we Age



Keeping your mind and body active as you age is crucial to longterm happiness and health. Learn about what two Canadian centers have done for seniors by bringing woodworking into their facilities.

BY MELISSA MARTZ

emember when you were finishing school and people asked you what you wanted to do with your life, and getting advice to do something that complements your talents and gifts? Well, cultivating those talents, gifts and interests are as important when you're 65 as they were at 17. Nurturing your hobbies will help ensure you have a wonderful retirement, free of boredom.

Retirement and long-term care facilities, as well as community centers, have programs that cater to a wide array of areas of interest for seniors. These programs range from cards, gardening and exercise to crafts, lawn bowling and movies. One activity that's sometimes overlooked is woodworking. Many residents and retirees were wonderful tradespeople in their day, and that interest needs to be fulfilled in order to help them feel empowered and self-confident. They need to know they can still make wood creations of their own achievement and for others to enjoy.

Trinity Village Studios

Trinity Village Studios, in Kitchener, Ontario has had a woodworking shop since the facility opened in 2006. It was designed to be user-friendly for all residents, whatever their skill or ability.

Jason Gale, activities director at Trinity Village Studios, says, "anyone who wishes to use the wood shop needs to be assessed to make sure they are safe." One resident, a retired electrical engineer named Harry, 90, uses the workshop on a daily basis. Harry has made a wide range of things for the facility including a bar, TV stand, suggestion boxes (which have been dispersed throughout the facility) and wine racks that are sold in the tuck shop. Harry gets assistance from volunteer Bill, 74. For Christmas 2013, the residents collectively made a nativity scene. Harry did all the woodwork and other residents painted the pieces. It was a great community project that residents, staff and families admired.

The benefits of seniors being engaged in woodworking projects are many. As Gale notes, "the intellectual and physical stimulation helps residents be cognitively aware, and it gives them a sense of giving back to the community."

Kerby Centre

Keith Callbeck, senior manager of marketing and communication at Calgary's Kerby Centre, a non-profit organization providing programming for the 55-plus age group, agrees that woodworking provides numerous benefits for older adults. "Seniors are able to get out of their home, while staying active



Great Gifts – Ray Vantomme, in the workshop of Calgary's Kerby Centre. Ray completed these projects and gave them away as gifts. (Photo by Kerby Centre)

and helping others. They gain a feeling of being useful, and it's mentally healthy." One great way to preserve the memory is to engage in activities that use both the left and right hemispheres of the brain. This aids in focus, organization, thought processes, improved memory, increased alertness, self-esteem, confidence and more. Woodworking requires you to keep your mind sharp as you work with tools and blueprints.

The woodworking shop at Kerby Centre has been around since the early days of the center in 1975. "We had a woodworking program for several years but have since transitioned to a club that meets every Friday to socialize, and help one another with projects," Callbeck says. They also have several volunteers who are always present to assist, insure safety, and informally teach new skills. Some of the many projects that come out of that room include articles for fundraising initiatives. These articles include dollhouses, wooden toy trucks, cutting boards, and small shelves. Callbeck shared, "One individual brings in reclaimed wood for cutting sides

Apr/May Sub Draw Winner

Patricia Leppai

Patricia often woodworks with her husband, and they have completed many projects over the years, including birdhouses, book shelves, cabinets, planters and outdoor furniture. Their workshop is quite small, and their larger woodworking equipment is all mounted on castors to allow them to move easily to the open area of the shop when required.

The General dust collector is especially ideal for their small shop, as it has wheels and is compact.

Congratulations, Patricia!

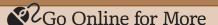


and fronts for bluebird houses, which he has made with the help of high school students. Part of his mandate is to get students interested in nature, and one surefire way to do that is make something with your hands that will be enjoyed in the great outdoors." Kerby Centre also has a member who is confined to a wheelchair, and to ensure he is able to fully participate, another member cuts the pieces and then he is able to glue them together, bringing a sense of self-worth and accomplishment.

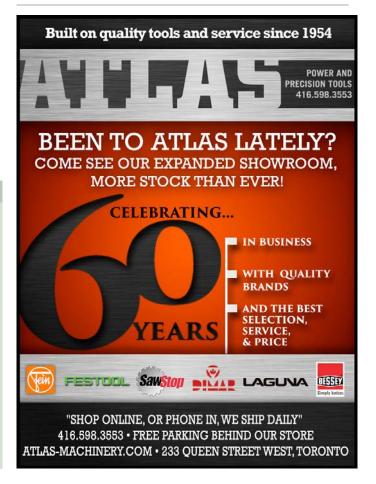
In short, the purpose of a woodworking shop in a seniors' center or retirement residence is to provide a facility where individuals can carry out their woodworking/hobby activities. Check out your local community center or retirement residence and see if it has a woodworking program in place. If not, you may want to suggest that one be implemented.

MELISSA MARTZ m.martz76@gmail.com





RELATED ARTICLES: Visit a Shop For Edmonton Seniors (*JunelJuly 2013*)



Canadianquotes

Keith Logan

...on power tools, the challenges of professional woodworking, and his studio in the country.

BY ROB BROWN



Keith Logan - 64 years old Keith Logan Woodworking loganwoodwork@gmail.com Location and Size of Studio -Northwest of Cochrane, Alberta; 2000 sq. ft. Education - BA in Economics - UCLA - 1970

How long have you been building furniture? Started woodworking in the early '70s, full-time woodworker since 1984.

What sort of furniture do you specialize in? My furniture is made for the office, home and church.

Tell us a couple of interesting things about you. We built our shop and house on our land, which has a mile of brown trout stream as the south boundary. It is here that I have taken many photographs through the years, which in turn inform my woodworking designs.

If you were not a furniture-maker, what would vou be?

A photographer or a writer.

Do you prefer hand tools or power tools? I definitely prefer power tools.

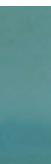
Solid wood or veneer? Solid wood.

Figured wood or straight grain? Figured wood.

What's your favourite power tool? 4 ½ inch angle grinder.

Flowing curves or geometric shapes? No doubt about it, curves.

Nesting Tables - Completed about 30 years ago, Logan drew this set of walnut nesting tables out full size, to ensure they all fit together properly.





quotes

My studio is located in the infamous downtown eastside of Vancouver. It has two levels, upstairs is woodworking and downstairs metalworking. I have several tenants who are also woodworkers or sculptors.



My shop is L-shaped with a 12-foot ceiling. Various rooms serve for lumber storage, construction, finishing and miscellaneous storage.



I must admit my schedule is often governed by the sun. In winter months I get up later than I do in the summer months.



I was giving a talk to a group of high school students when one of them asked what my favourite tool was. I thought briefly then answered: an angle grinder. Much of my work is sculptural and I find an angle grinder is the quickest way to remove material.



It is fair to say I receive much inspiration from the natural world.



I would like to think my woodworking reflects my integrity. I want my furniture to be honest in whatever way possible from the initial design to the final finish.



All of my work is commissioned. After spending time with a client I know what will work for them and they get a pretty good idea of how I work.



If I had any advice for a young woodworker who is passionate about the work, I would suggest they do work that resonates with their spirit.



My expectations are simply to do the best I can. That is why one reason I make solid wood frame and panel backs for all my casework. Does a writer leave off the last chapter, a playwright the last act?



Perhaps the most misunderstood part of custom furniture is that the quality and craftsmanship differ markedly from commercial products.

Custom work, because of its one-off nature and labour-intensive handwork, is often more expensive than similar commercial work. Clients must appreciate this fact if they wish to purchase hand-made furniture.



Woodworking guild exhibitions and media articles have helped raise public awareness of studio furniture.



Clearly, Sam Maloof has made a large impression upon me. Antoni Gaudi and James Hubbell are both architects I admire a great deal.



I think studio furniture making will always be a marginal profession. One person can only do so much work, and there are so few that do this work full-time that the vocation will never become part of mainstream culture. Thankfully, there appears to be enough people who appreciate the work to sustain this way of life for a few individuals.

Lots of Curves – This sapele desk, a fairly recent commission, was built with bent lamination techniques and lots of shaping.





I think the most positive change regarding woodworking in the last 50 years is that design borders have been removed. There are many talented individuals who surprise and delight with the imagination, courage and skill they bring to the craft.



The most satisfying part of my work is giving birth to an idea that my client has.



I have no idea whether Canada is a more or less welcoming place to build and sell custom furniture. I think, in general, we are more conservative than Americans but I have no way to compare the situations. Virtually all my furniture clients live in Canada.



My wife, Sandy, plays a critical part in all that I do. She once was asked by a guest what she did. She responded that Keith does the woodworking and photography and she does everything else. That is quite true.

Go Online for More

SLIDESHOW: Visit the Videos section of our website for a slideshow on Keith Logan's work.

MORE INFO: Read this article online for many more of Keith's quotes.



All of these projects can be made over a weekend or a week of evenings. For those who like to build from plans, we've included many projects from previous issues. If you're really pressed for time, make sure to select finishes that dry fast. Shellac, water-based finishes and acrylic paint are good choices.

Chopsticks — Once you get in the 'zone' you could make dozens of these from small scraps of leftover wood. The sticks can be round, square, or rectangular. Using exotic wood will really make them stand out. Chopsticks (Dec/Jan 2010).

Play Blocks — Not all the blocks have to be square or rectangular, as long as they're large enough not to be swallowed. You can create surface texture and decorative details with a table saw, router, rotary tool, rasps, chisels, and other hand tools. Sand all the corners and stick to foodsafe, non-toxic finishes, or better yet, leave the blocks unfinished. Children's Blocks (Dec/Jan 2012).

Oriental-Style Display Stand — This stand is a great way to show off just about any cherished gift. It's easy to make and requires only simple cuts with a table saw or handsaw. The plan calls for the top slats to be doweled to the feet, but you could also screw or glue them in place. Oriental Style Display Stand (Oct/Nov 2008).

Cutting Board — Family or friends who love cooking will appreciate a custom-made, food-safe cutting board. Choose a dense, close grained wood like maple, cherry, or purpleheart. Don't be confined to a square or rectangular shape – concave and convex curves, or even a harmonic curve, easily cut on the bandsaw, will add a lot of pizzazz to the board. Use a waterproof glue, and finish it with lightweight mineral oil. Go to canadianwoodworking.com and search 'cutting board' to read a number of articles.

Toy Train — This toy is bound to fascinate any youngster. You can make all the parts, or purchase the wheels and other locomotive gear - headlight, whistle and smokestack - from a craft supplier. Go to canadianwoodworking.com and search 'toy train' to read two articles.

worth their weight in gold as the holidays approach. **Keepsake Box** — Just about everyone has their own little 'treasures', knick-knacks that we like to hang onto. You'll find lot of ideas in last month's issue of

These simple

projects will be

Lilv Pad Box. Smart Device Stand — What tech aficionado wouldn't love a one-of-a-kind stand for their smartphone or tablet computer? You'll need a single piece of wood – think lustrous exotic wood – the width of the smart device, and about six inches long. Cut a groove, at about a 25° angle, slightly wider than the width of the

device and about 5/8" deep.

Tool Caddy — A length of dowel, five short boards, and a handful of screws or nails is all it takes. The fun part is in the variation: substitute a bamboo pole or neat looking tree branch for the handle; chip carve the top edge of the long side boards; or stencil the recipient's name on the side. They make great gifts for gardeners and painters alike. Build a Kid's Toolbox (Oct/Nov 2012).

Bird House — Bird houses are fun to make, and it's a great way to attract and keep them in your back or front yard. You can use almost any wood, even plywood. While you can apply an exterior finish, don't put a finish on the inside of the box. You can use any shape that comes to mind, but the crucial part is the overall size and access hole size. For a list of dimensions for common Canadian birds, visit canadianwoodworking.com/birdhouse-dimensions. Housing for the birds (Apr/May 2007).

Bookmark — The easiest way to make a bookmark is to cut a 1/16" or so slice from a 1" thick (2" wide or larger) board about 6" long. Hand plane the edge of the board before each cut so you'll only have one side of

the bookmark to scrape or sand smooth (don't run the piece over the jointer as it's much too short). You can then chip carve, paint, or stain the bookmarks.



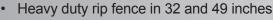
CARL DUGUAY cduguay@canadianwoodworking.com



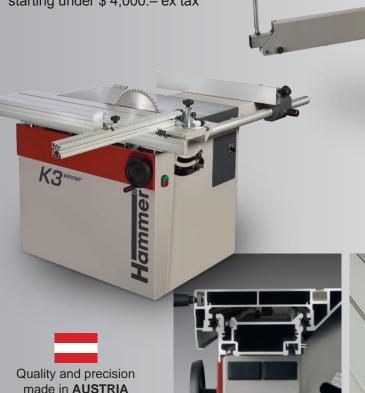
The precision sliding table saw for Canadian woodworkers

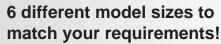
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Similar to a bandsaw box, I made this small box with the help of my scrollsaw. It can be crafted in many shapes inspired by the natural world. Leaves, flowers and stars are a few options if you want to design a similar box.

BY ROB BROWN

started by selecting quarter-cut material I could dress down to a blank 1 ¼" thick, 4" wide and about 15" long. I was able to get three boxes out of this one blank. I wouldn't suggest starting with a shorter blank, as cutting on the table saw will get dangerous. Use a blank no larger than twice the height that your table saw blade protrudes

above its surface, as the lid and bottom are removed using the table saw. You could use flat- or rift-cut material, but you might encounter warping down the road. The piece I used was a piece of rescued curly maple firewood that had been drying for about seven years.

Remove the lids and backs

With your blank cut to size, set your rip fence to $\frac{3}{16}$ ", raise your blade so it

will cut at least half way through the blank, and remove a layer that will be the bottoms of the boxes. The blank will be cut while on its edge. Because the first cut only reaches half way through the blank, you'll have to flip the blank over to complete the cut. This is where a longer-than-needed blank comes in handy, as you can keep a good grip on the piece, and keep your fingers a safe distance from the



Overall Shape – With the lid, main and bottom layers temporarily fixed together, cut the shape of the boxes out on a scrollsaw.



Create the Walls – After marking the walls at $^{3}/_{16}$ " thick, Brown drilled a pair of insertion holes in the main section of the box and cut the cavity.

blade. Next, flip the piece around and remove a ¼" thick layer for the lids. It's a good idea to mark the blank with cabinet-maker's triangles before making any cuts, so you can ensure all parts go back together properly.

Layout and cutting

On the upper surface of the lid, draw the outer shape of the boxes. Though double-sided tape would likely work, I tapped in a few small brads to keep the sandwich of parts from shifting during cutting, making sure the parts were flush on all outer edges. With a scrollsaw, I first cut the narrow Vs from the boxes, then trimmed their outer edges to shape. I again marked mating parts.

After putting the lids and bottoms away for now, I drew lines about $^3/_{16}$ " away from the outer edge of the center section of the box. On the drill press I drilled two $^1/_{16}$ " holes in each piece, located at the corner of the rounded edge and the start of the V, so I could insert my scrollsaw blade. I then carefully cut the outer wall of the boxes out and hand-sanded its inner surface.

With the center off-cut from the previous operation in my vise, I cut a shallow V-groove inside its outer perimeter, on

the surface that would be glued to the lid. This groove would help contain any glue squeeze-out during assembly.

I now drew a line on the center section's edge, about ¼" from its top surface. The ¼" piece I was going to cut off would eventually be glued to the underside of the lid, and locate the lid during use. Because this piece was round, my only option was to remove it by handsaw. Using a bandsaw was tempting, but would have been dangerous. I clamped the piece in my vise and cut off the upper ¼" of material. The resulting surface was rough, but would be smoothed later.

Start to re-assemble

Align the lid with the center section of the box and wrap masking tape around the outer edges, to keep the two parts firmly, and temporarily, together. Flip the pair of parts upside down and grab some glue and clamps. Apply some glue to the V-grooved lid locator and put it on the lid. There should be a small, even gap between the lid locator and the main section of the box. Clamp it in place and let dry.

When dry, apply a small bead of glue to the bottom edge of the center section of the box and position the bottom in place



Stop Squeeze-Out! – Brown cuts shallow V-grooves in the upper face of the lid locator before cutting it away from the waste.



Split it in Two – With the waste from the cavity removed, mark a line ¼" from its upper edge, and cut it off with a handsaw. The resulting surface will be rough, but can be cleaned up later.



Locate the Lid – While working on his first box, Brown double-sided taped the lid locator offcut to the lid locator and clamped it in place, to help disperse clamp pressure. He didn't bother doing this for subsequent boxes. Notice the masking tape around the outer perimeter of the box to keep the parts aligned.

with the help of some masking tape. Don't over-tighten the clamps or you may split the wood.

Sand the surfaces

With the bottom on, and the lid in place, squeeze the lid tightly with your fingers and sand the outer edge of the box. I used a belt sander standing on edge. Ensure the lid doesn't move while sanding or you will end up with uneven finished edges. A chisel, file and sandpaper will help smooth the outer edge of the lily pad's V.

Heavily ease the outer, top edge of the lid. This can be done by hand, though I again opted for my belt sander, standing on its edge. The belt sander works quickly, but the downside is removing too much material or sanding your fingers; neither make for enjoyable woodworking. Once the basic shape was roughed out I hand-sanded the lid to even the rounded edge.

Those little details

Check the lid fits evenly on the box. If it doesn't, you can adjust the upper edge of the box to mate nicely with the lid. If you want to give this box a more life-like quality you can add some shallow V-grooves in the upper surface of the box, to mimic the vein lines of a lily pad.

Sand all surfaces, and gently break all sharp edges. Options for a finish are numerous. I wiped on some polyurethane, but shellac would be another great option. If you wanted to paint the lid green, and the rest of the box a different colour you would have a more naturally coloured box ...but please, please don't paint your figured exotics.

What shapes from the natural world are you going to make your box? Post a comment on our website, in the comments section below this article.

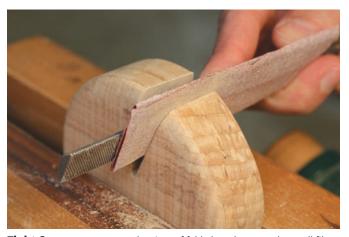


RELATED ARTICLES: Bandsaw Box (Feb/Mar 2005), Creating a Bandsaw Box (Aug/Sept 2011).

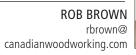


A Small Bead – To fix the bottom to the main section of the box, apply a small bead of glue to the lower edge of the box wall (above) and apply some clamps (below). You don't need to tighten the clamps much, but you do need even pressure around the box.





Tight Spaces – Brown used a piece of folded sandpaper and a small file to smooth the surfaces inside the V-groove.



Rob's four year-old daughter Annabelle helped him make one of these boxes. She gave it to her junior kindergarten teacher at the end of the year.

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HotProducts2014

With the wide selection of new products that come out annually, it can be overwhelming to have to keep up to date with everything that hits the market. To make this task easier on Canadian Woodworking & Home Improvement readers, we have assembled this list of "Hot Products" to kick off 2015.

DAMSTOM Panel Clamp

The D300 Panel Clamp is a new I clamping system invented and manufactured in Canada. Designed to laminate wooden pieces from 3/4" to 4-1/2" thick, and up to 38" wide, the two parallel rails keep panels flat at each clamping point for perfect results. The electrostatic finish over the steel rails is durable and prevents glue from sticking.

Why It's Hot: The D300 clamp is much lighter than conventional clamps, so panels can be moved out of the way easily. Also, you won't



need as many, since it keeps panels flat, so it speeds up the process before the glue sets.

Price: \$74.95 www.damstom.com

BESSEY's NEW Vertical Auto **Adjust Toggle Clamps**

 $B^{\hbox{\footnotesize ESSEY is launching two new vertical toggle clamps in Fall 2014.}}$ These versions will be additional to the horizontal and inline toggle clamp models that are currently available and will retail in the \$20 range. The vertical toggle clamps feeature a holding capacity up to 700 lbs, a range of clamping force and openings up to 1 % in.

Why it's Hot: These units are notable in that all models feature the ability to automatically adjust to



work piece dimensions while maintaining constant clamping force and, to have adjustable clamping force.

www.besseytools.com

Rockwell **BladeRunner X2**

The new Rockwell BladeRunner X2 cuts wood, metal, PVC, plastic, aluminum and ceramic tile using standard T-shank jigsaw blades. This saw makes quick rip, scroll, crosscut, and miter cuts. At 14.7 lbs., and 6 ¾ in. H off the tabletop, the compact, portable saw sets up in seconds. The innovative, 3,000 spm saw is powered by a 5.5-amp

Why it's Hot: BladeRunner X2's control arm assembly now accommodates longer and wider workpieces for ripping and crosscutting. A new blade guard assembly



incorporates a splitter to help keep straight cuts on track.

Rockwell BladeRunner X2 (RK7323) \$129.99

www.rockwelltools.com

Rockwell **Compact Circular Saw**

The Rockwell Compact Circular Saw cuts 2x4's in a single pass. At 5 lbs., the compact saw is up to 50 percent lighter than full-size 7-1/4" circular saws. Plus, left-handed blade design provides great cut-line visibility. Connect the 1-¼" dust port to a vac

Why it's Hot: The compact saw is easy to transport and maneuver. Its slim, inline grip design provides

for a dust-free environment.

comfort, balance and control.

The compact saw makes quick depth-of-cut adjustments up to 2". Its bevel cutting capacity is 0-45°. A push-button arbor lock provides fast blade changes.

Rockwell Compact Circular Saw (RK3441K) \$129.99

www.rockwelltools.com

Rockwell Sonicrafter F50 and F30 Series

R ockwell's new Sonicrafter F50 and F30 oscillating multi-tools are fast, real fast. In fact, they are up to twice as fast as competitors' oscillating tools. The F50 and F30 also feature industry leading oscillating angles of 5 and 4° respectively. These fully-featured tools are counterbalanced to offset vibration from faster speeds and increased oscillating angles. Working in cramped quarters with no light? No problem, two strategically placed LEDs on the F50 illuminate the work area for greater visibility.

The 4-amp F50 and 3.5-amp F30 work harder. These Sonicrafters keep working at 35 lbs. and 30 lbs. of force, while other competitors' tools bog down at 20.5 lbs. or less.

The Rockwell Sonicrafter oscillating tools have leaner, more tapered bodies. for greater handling and control. Plus, both multi-tools are equipped with true Universal Fit to accept every other brand's accessories. They also feature Hyperlock that locks-in accessories to eliminate blade slippage with one metric ton of force.

So what did all these upgrades cost consumers? Nada, nothing! The tools dropped in price!

Rockwell Sonicrafter F50 (RK5141K) \$159.99 Rockwell Sonicrafter F30 (RK5131K) \$139.99 The Rockwell Sonicrafters have a 3 year warranty.

www.rockwelltools.com





King 3-1/2" Mini Plunge Saw Kit

Ase plunge cuts up to 1-1/8" deep in wood, tile, aluminum, plastic, and metal. The worm-drive gearing system provides greater power. Laser guide for easy tracking, and connects to a 1-1/4" vacuum hose for dust-free cutting. Includes 3 blades, dust extraction adaptor, and edge guide.

Why It's Hot: Lighter and easier to use than a full-sized circular saw, especially when you need to make precision cuts. It's the ideal tool for making perfect cuts in hardwood and laminate flooring, cutting transitions, and wherever you need to make plunge cuts.





King **LED Work Light**

Delivers 1,670 lumens of bright light for shop or work site illumination. Tilt the head to position the light exactly where you need it. Consumes only 20 watts of power, and has an impressive 30,000 hour bulb life. 5-foot power cord.

Why It's Hot: This LED work light provides bright lighting without the heat build-up and fire risk that's typical of halogen lights, making for a safer work environment.

MSRP:

KC-1601LED \$49 KC-1602LED-ST \$99

(includes 2x lamps PLUS stand)

www.kingcanada.com



Oneida **Dust Deputy**

The Oneida Air Systems family of Dust Deputy's are high efficiency cyclonic pre-separators for wet/dry vacuums and single stage collectors. Patented cyclone design separates 99% of the waste before it reaches your system. Made of static conductive resin and are simple to use. Compact footprint and can retrofit to any system. Made in the USA.

Why it's Hot: The Dust Deputy converts your single stage collector or shop vacuum into a super cyclonic dust collector. The Dust Deputy keeps the filter in your collector or shop vacuum from clogqing during use and helps keep a



constant air flow with no loss of suction.

See website for Canadian dealers www.oneida-air.com

Grizzly 17" 2 HP Bandsaw, Anniversary Edition

In celebration of Grizzly's 30th Anniversary, they have taken two of their most popular saws and created a special edition color scheme that is sure to be the eye candy in workshops and small businesses nationwide. The G0513ANV is the exact same machine as the G0513 except for anniversary special edition colors.

Why it's Hot: For those that need a respectable cutting capacity at a respectable price, Grizzly offers this full-featured 17" Heavy-duty Bandsaw. The 2 HP motor powers through wood up to a maximum 12" cutting capacity, and the 16-¼" throat is plenty for most applications. Features include deluxe fence, heavy-duty miter gauge, dual 4" dust ports, microadjusting geared table, and European-style blade guides. Feature-packed at a hot price!

Reg. \$895 Sale \$825 www.grizzly.com



Grizzly 14" Deluxe Bandsaw

The G0555LANV 14" Deluxe Bandsaw has many of the same great specifications and features as the extremely popular G0555, but with the following notable differences:

- Computer-balanced cast iron wheels
- Rack-and-pinion guide post adjustment for upper blade guides
- Sturdy T-shape fence design
- CSA certified meeting CSA C22.2 #71.2-10 and UL 987-8th standards!

Why it's Hot: This is the best selling 14" bandsaw in the USA with industry magazine awards and reviews from end users. It features precision-ground cast iron table, quick-release blade tension lever, deluxe extruded rip-fence, miter gauge and more and now comes in eye-catching glossy black color.

Reg. \$545 Sale \$525 www.grizzly.com



Grizzly 8" Grinder / Sharpener

Experience the pleasure of using sharp cutting tools like never before with this 8"

Grinder/Sharpener. Sharpen like a pro in no time for the best cutting edges imaginable! Ideal for wood chisels, carving chisels, lathe tools, plane irons, scissors, knives, axes and more!

Why it's Hot: You won't find another German-designed tool of this caliber, at this price, anywhere but Grizzly. Thousands sold at an incredible price. T10010ANV Req. 199.95 Sale \$159.95

www.grizzly.com



Fuji Mini-Mite 3 T-70 **HVLP Spray System**

The Mini-Mite 3 T-Series utilizes a powerful 3-stage Turbine Motor installed in a durable Metal Turbine case. The lightweight and ergonomic T-Series Non-Bleed Spray Gun with Stainless Steel Fluid Components features an exclusive side mounted Pattern Control Knob and a High-Efficiency Air Cap for even less overspray. A 25ft hose with air control valve and quickconnect coupler included.

Why it's Hot: Award-Winning Hvlp Spray System - Best in Class! Ideal for spraying cabinets, furniture,



autos or pianos. Anything wood or metal is easy and effortless with this system. The Mini-Mite 3 T-Series Turbine develops 6.5psi. Powerful and portable perfect for all fine-finishing.

www.fujispray.com

DEWALT Heated Jackets / Hoodies

EWALT has expanded its 20V MAX/12V MAX heated gear line with four new heated jacket styles. New additions to the line include a khaki heated jacket with a hood (DCHJ064), a woman's heated jacket with a removable hood (DCHJ066), and two styles of heated hoodies (DCHJ067 and DCHJ068).

Why it's Hot: DEWALT's line of heated jackets provide the warmth and comfort demanded by building professionals and outdoor

enthusiasts along with enhanced features such as robust metal zippers, reinforced stitching, added wind protection and metal hood snaps instead of Velcro.

\$129 to \$289

Available at Home Depot, Canadian Tire. Lowe's and other retailers across Canada.

www.dewalt.com

Kreg Automaxx Bar Clamps

Kreg Automaxx Bar Clamps are the clamp to choose for large, hard-to-handle assemblies. Kreg's proven auto-adjust technology lets you clamp quickly and easily by simply sliding the clamp heads against the workpiece, and squeezing the handles to close the clamp with consistent pressure every time.

Why it's Hot: Automaxx Bar Clamps make it easy to clamp hard-to-handle assembles. They use the same auto-adjust technology found on Kreg's Automaxx Face and Bench Clamps, so you simply dial in the pressure you want, and clamp with consistent pressure every time.

Automaxx Bar Clamps are available in two styles and six sizes starting at \$29.99

www.kregtool.com



Stanley **High Velocity Hammer**

Whether you're a professional looking for performance and durability or a DIYer wanting accuracy and a multi-layer comfort grip, STANLEY's new FatMax High Velocity Hammers deliver it all. Hammer shafts have been created with a curve to increase hammer strength in addition to other features including claws that have been redesigned for improved nail pulling and magnetic nail starters on all but the drywall hammer provide convenient one-handed nail placement.

Why it's Hot: The 14-ounce checkered faced model 51-124 High Velocity Hammer strikes like a



28-ounce hammer but because it is lightweight, it provides a fast swing which helps to reduce fatigue.

\$39.99 to \$79.99 Available at RONA and other home centres.

www.stanleytools.com

BOSTITCH Smart Point Nailer

 $B^{\text{ostitch introduces a new Smart-}}_{\text{Point nailer that is ideal for a}}$ wide range of woodworking applications including molding, chair rails, furniture and cabinetry. The Bostitch BTFP12233 Smart-Point nailer drives 18 gauge brad nails between 5/8-inch and 2-1/8-inches long. The Smart-Point nailer delivers the world's first micro-nose design while offering Dial-A-Depth control and tool-free jam release.

Why it's Hot: The Smart-Point technology allows the tool to place the nail in tight spots and eliminates



the need to push against the work to drive a nail, thus reducing potential marks on the work surface.

Available in 15, 16 or 18 gauge at home centres.

www.bostitch.com

Kreg Foreman Pocket-Hole Machine

The Kreg Foreman Professional-Grade Pocket-Hole Machine lets you build with twice the speed and half the effort of a standard pockethole jig. You just pull the handle to start the motor, clamp the workpiece, and drill a perfect pocket hole. Plus, the Foreman creates all three types of Kreg pocket holes: Standard, Micro Pocket, and HD.

Why it's Hot: The new Foreman offers the features previously found only on Kreg's industrial-duty pocket holes machines, but sells for less than half the price of its predecessor.



That makes it a versatile, affordable, high-speed solution for pocket-hole construction.

\$399.99

www.kregtool.com



Rolair **AB5 Air Buddy Compressor**

R OLAIR's new AB5 "Air Buddy" is the much anticipated follow-up to the popular JC10. This new ½ HP compressor is capable of delivering .7 CFM at 90 psi. The long life induction motor features manual overload protection and the manifold includes a regulator, gauges and a ¼" universal quick-disconnect. All of this weighs in at a modest 25 pounds.

Why it's Hot: The super-quiet and portable design of this compressor will make it a light trim/finish carpenter's best friend. Tucked safely inside the protective roll-cage, the AB5's motor-pump delivers plenty of air for finish work, while drawing only 4.6 amps.

Suggested Retail Price: \$179.00 CAN www.rolair.com

Toronto Tool Pro Cut 50 Professional

The Pro-Cut 50 Saw and Router System is the next generation table saw designed to accurately rip-cut and cross-cut boards or panels up to full 4'x 8' sheets with ease. Switch from the saw to router in seconds and the Pro-Cut 50 becomes a full size "X" and "Y" direction router table for taking full advantage of the countless operations a router is able to perform.

Why it's Hot: The Pro Cut 50 is a precision tool designed for ease of use and accuracy to replace a shop full of tools saving valuable space. It's fast becoming the tool of choice for many home workshops



and professional custom woodworking shops.

Complete Package: \$998 www.torontotool.com

TASK Carabiner Clips

TASK Carabiner Clips offer unparalleled quality and practicality. Genuine Robertson 2-piece Screwdriver Bits feature hardened tool steel tips, colour-coded bodies, and the perfect cling-fit. TASK Impact Driver Bits (available in Robertson, Phillips, and Torx) offer superior performance for the most demanding professional end users and are laboratory proven to outlast and outperform all competitors' impact driver bits.

Why They're Hot: A ready supply of your most-used bits are always close at hand with TASK Carabiner Clips. The convenience,



vivid colour coding system, easily shop-able displays, and the unmatched product quality make them the #1 bit clip program on the market.

\$11.99 (MSRP) www.task-tools.com

CX-Series **Heavy Duty Air Filter** with LED Filter Change Indicator

This Air Cleaner will not only keep your air crisp and clean, but it will also tell you when it's time to change the filter with the all new LED light indication system, a first in its class. With a powerful 1400 CFM 1/5HP motor, 3 speeds and a 3 year warranty, this is a mainstay for any workshop.

Why it's Hot: The LED light indicator will help ensure you are changing your filter when you are supposed to and are using your air cleaner as efficiently as possible. Also includes a remote control and



ceiling mount. On sale for \$399 (Reg. \$499)

www.busybeetools.com

CX-Series 14" Deluxe Wood Band Saw

Looking for a 14" introductory band saw with the power and features of a larger unit? You've found it! This machine features a powerful 1HP motor, 2 speeds, cast iron wheels, quick tension blade release, a large cast iron table, and a 3 year warranty. With 7" cutting height and one piece body designed for stability, this great starter band saw has "big brother" features.

Why it's Hot: This saw also includes a free 28 minute DVD with complete assembly instructions, tips and techniques featuring Mark Eaton.

On sale for \$589 (Reg. \$799) www.busybeetools.com



Milescraft **AngleFinder**

Find angles between two surfaces on inside and outside corners with ease. AngleFinder features an angle measurement readout, allowing you to set your angle once



your angle in place while transferring it to your miter saw. The retractable edge guides allow you to transfer

Why it's Hot: Are you looking for a tool that automatically divides inside and outside angles in half? Look no further the AngleFinder does all the work for you. MSRP \$14.99

www.milescraft.com

Milescraft **DrillBlock**

With the Milescraft DrillBlock, you can accurately drill holes perpendicular to any surface in wood, through glass, metal and tile. The vertical center lines on all four sides let you auto-center the DrillBlock on any flat surface. The non-slip TPE feet prevent slipping and maring while drilling.

Why it's Hot: The Milescraft DrillBlock allows you to drill straight holes every time on flat and round surfaces and on corners. DrillBlock combines solid metal steel with high-impact resin that dissipates heat for both hand and clamped drilling.



MSRP \$9.99 www.milescraft.com

Milescraft PantographPRO

The only Pantograph that comes mostly assembled right out of the box. This gives you a complete routing system including 3 router bits, 3 stylus tips, 2 stencil fonts and line drawings. All necessary hardware is included, all you need is



your router and wood. Follow the design with your stylus and let the router do the work.

Why it's Hot: The Milescraft PantographPRO lets you expand your routers capabilities with fingertip control. Quickly connect/disconnect your router through the TurnLock Base Plate. Anything you can print out, you can rout. MSRP \$79.99

www.milescraft.com

Milescraft CabinetMate

Position and drill perfect shelf-pin holes every time with the CabinetMate. This iig allows you to accurately drill eleven holes, spaced 32mm apart, in one setting. The two indexing pins and spring loaded, self-centering drill bit are contained in the



closeable storage compartment. The custom spring-loaded-brad point drill bit allows the holes to self-center with the holes on the main body.

Why it's Hot: A stand-out feature of the CabinetMate is that it also allows you to mark the locations for euro-style hinges. This can be used on cabinets before assembly or already assembled cabinets. Even novice woodworkers can install wobble-free shelves.

MSRP \$29.99

www.milescraft.com

Milescraft JointPro

The Milescraft JointPro is the only doweling jig that allows you to drill up to six holes in one setting. This tool is all steel constructed. The bushing blocks are not only interchangeable they are also reversible for best results with standard board thicknesses.

Why it's Hot: The Milescraft JointPro allows you to quickly and accurately create stronger joints than pocket hole or biscuit joining. JointPro is a selfclamping system, which allows consistent alignment of boards. No marking or measuring required.



MSPR \$69.99 www.milescraft.com

Milescraft TriGrips

Milescraft TriGrips have an innovative triangular design with TPE surfaces on three sides that give you more possibilities that any other work support. The cone shaped tip formed into one corner offers great support when painting.

Why it's Hot: The Milescraft 4-pc TriGrips elevate the work piece



allowing users to rout, sand, drill, carve and paint without clamps. MSRP \$13.99

www.milescraft.com

Drill Doctor

Sharpen dull and broken drill bits with Drill Doctor. Don't get stuck in the middle of a project and run to the store for a new bit- just sharpen it and get back to work. Drill Doctors can sharpen a wide range of point angles and drill materials, probably everything you own. Visit website to learn about special offers.

Why it's Hot:

 You already own a lifetime supply of drill bits. Now sharpen them and save money!



- Fast, easy, works every time
- Sharper than new results
- Saves money pays for itself in just a few sharpenings
 - Models to fit any budget
- Durable- three-year warranty www.drilldoctor.com

Trend **Complete Sharpening Kit**

The Trend Complete Sharpening Kit contains: a precision double sided 300/600 grit credit card with extra thick plate and embossed grit sizes, a fine double sided half round/flat mini taper file, 100 ml. (3.4oz.) bottle of diamond abrasive lapping fluid, cleaning block and James Barry's Sharpening Made Easy DVD and booklet.

Why it's Hot: For a minimum investment, a woodworker can sharpen a multitude of products including: router bits, forstner bits, carbide and HSS inserts, turning



tools, pocket knives, fluted tooling and much more. The set is supported by James Barry's easy to follow instructions in DVD and booklet format.

MSRP \$99

www.trend-ca.com

Work Sharp **WS3000 Wood Tool Sharpener**

An easy to use, dry sharpening system for chisels, plane irons, lathe & carving tools and more.

Precision sharpening port has repeatable bevel angle settings: 20°, 25°, 30°, and 35°. Routed air flow and heat-sink cooling system. With NEW Tool Bar Attachment (\$59.95):

A faster, more consistent and repeatable way to sharpen lathe turning tools. Why it's Hot:

- Sharp blades mean better results
- Complete, frustration free sharpening system for your woodworking tools
- Consistent sharpening results
- Dry, air-cooled sharpening means less water mess

Complete package: two glass wheels, one Edge-Vision wheel, complete abrasive kit, instructional DVD, and more! \$249.95

www.worksharptools.com



Trend **Diamond Honing** and **Polishing Kit**

The kit contains: double sided 1000/300 grit fine/coarse monocrystalline diamond bench stone, heavy duty fabric tool pouch, honing guide with precision roller, horizontal clamping and angle setting device, 300 ml (3.4 oz.) diamond abrasive lapping fluid, micro fine honing compound, cleaning block, non-slip mat and James Barry's 'Sharpening Made Easy' DVD and 'Sharpening' Booklet.

Why it's Hot: This kit is ideal for the sharpening and maintenance of plane blades, chisels, knives and the 300 grit side of the precision bench stone is perfect for the flattening of water and oil stones so this kit is an all around sharpening polishing and flattening system.

Suggested Price \$239

www.trend-ca.com

Wolverine **Grinding Jig**

Producing razor sharp tools and finely finished bevels has moved from an art to a science. Any grinding job from skews, scrapers, bowl gouges or roughing gouges are all easy prey for this jig. The Wolverine will speed up your grinding, give you sharper tools and prolong the life of both tools and grinding wheels.

Why it's Hot: Makes sharpening skews and gouges a snap, which means less time grinding and your tools last longer.

Easy to set up. The best investment an amateur or occasional woodworker can make.

\$87.95

www.oneway.ca



Elmer's Carpenter's Colour **Change Wood Filler**

Apatented formula that helps Aindicate when your project is ready to be sanded, painted or stained to make the wood look just like new! Use it to fix holes, dents, and other defects on interior wood surfaces! Now available in two colours and sizes! Goes on Purple, Dries White and Goes on Pink, Dries Natural in 114g or 227g.

Why it's Hot: Elmer's Wood Fillers resists shrinking and cracking. This non-toxic and solvent-free wood filler is a perfect item to have around the house. The dry time can be seen right before your eyes! Just



after 75 minutes you will see the pink or purple fade into white or natural colour.

MSPR: \$3.99 114g \$5.99 227q www.elmers.ca

DMT 12-inch **Dia-Sharp** MagnaBase System

This system combines a large double-sided continuous diamond sharpening stone with a one-of-a-kind magnetic base. The stone enables longer and more consistent sharpening strokes for a variety of tools and blades, while the base affords quick and easy grit changes. As a whole, the system offers the ultimate in two-stage sharpening and delivers Made in America quality and performance.

Why it's Hot: DMT's largest continuous diamond surface: each side measures 12" x 3"

Available in Coarse/Extra-Coarse



and Extra-Fine/Fine grit combinations

- Precision-flat surfaces accommodate all sharpening including small or pointed tools
- Unique MagnaBase enables quick grit changes; offers safe knuckle clearance and stability MSRP \$199.99

www.dmtsharp.com

Forrest 48-Tooth Woodworker II

Forrest Manufacturing has taken its award-winning generalpurpose saw blade to a superior level of performance. The new 1048 Woodworker II has more teeth, a higher bevel and sharper points than the original 40-tooth Woodworker II, making it exceptionally good for cross-cutting everything from soft woods to plywood. It cleanly slices through wood fibers and operates quietly with virtually no vibration.

Why it's Hot:

Cross-cutting involves severing



the fibers in the grain, often resulting in splintering or a fuzzy cut. The 48-tooth Woodworker II eliminates those problems. It also produces smooth rips without side scoring or splintering, making it a good all-purpose combination blade.

Price: \$146.00 www.forrestblades.com

Dremel **3D Idea Builder**

The Dremel 3D Idea Builder is a high quality 3D printer that goes above and beyond your imagination, turning your ideas into reality. The software and touch screen are easy to use and the unit is fully enclosed for safety. The PLA filament is plant based and recyclable and available in 10 dynamic colours (sold separately).

Why it's Hot: The most innovative technology right in your home; unlock the creativity within your family. Easy to use straight out of the box, you're ready to start



building anything you need or want, or anything the world has been waiting for.

Dremel 3D Printer Model #3D20-01 MSRP \$1,299.99

3dprinter.dremel.com

Fein MultiMaster 350 Q

Introducing the next generation, the new FEIN MultiMaster FMM 350 O

Made in Germany, state-of-the-art design featuring a unique anti-vibration system for minimum physical strain and safe working.

Powerful 350 Watt motor with high copper content for continuous use and maximum power, combined with outstanding noise insulation, low weight, and easy handling.

Why It's Hot:

- Up to 35% more power!
- Up to 50% less operating noise!
- Up to 70% less vibration!
- Dare to compare!



Sold in sets starting at \$199. www.fein.ca

Roll & Stow

With the Roll&Stow you can stow, organize, and carry a wide range of supplies and tools. As a carrying case it can carry up to 40 pounds of job related accesso-

ries. The base serves as a mobile cart accommodating most paint trays, cans, pails and objects up to 150 pounds. As an anti-drying unit Roll&Stow stores paint, brushes, and rollers for up to 7 days without drying.



Why It's Hot: Improves Painting Productivity saving hours and valuable dollars. A product that is convenient, efficient, and a cost-effective way to organize, store, and transport supplies. Watch the videos!

www.rollandstow.com

Festool **Vecturo**

The Vecturo oscillating multitool provides the ultimate in versatility by combining unmatched functionality and power with exceptional controllability to deliver precision cutting in the trickiest of places.



The ergonomic handling and industry-first tool-less base allow for easy mounting of the Plunge Base and Depth-Stop, which translates to faster, more comfortable work with less downtime.

Why it's Hot: The accuracy capabilities. The Plunge Base allows users to achieve accurate, to-the-line cuts anywhere in the material, while the Depth-Stop provides depth control for exacting plunge-cuts. The firstof-its kind tool-less adapter allows both accessories to be installed and removed quickly.

www.festoolusa.com

General International Portable 1HP Dust Collector

All-steel frame mounted on a sturdy steel base with one swivel caster and two 7" wheels for smooth mobility. 1HP motor and 10" precision spin-balanced impeller provide smooth, quiet operation producing a maximum of 506 CFM. Supplied with 4" hose inlet and a 1 micron canister filter.

Why it's Hot: Affordable portability; an ideal dust collection solution well suited for small shops where mobility and single machine hook-ups are required. The 1 micron canister filter provides the same



ultra-efficient filtration as any fullsized dust collector.

10-030CF Retail Price: \$399.99 www.general.ca

General International 13" Planer with Helical Head

Powerful 2 HP 15 amp motor with thermal overload protection. Helical head comes equipped with 26 reversible two-sided carbide inserts and a pre-set stop for repeat planing to four commonly used stock thicknesses. Inset lifting handles and front and rear fold-down extension tables for easy storage.

Why it's Hot: Professional planing results from a portable bench top planer are now within reach. Cutterhead is supported at all four corners by threaded posts for



maximum head stability and minimal workpiece snipe.

30-005HC Retail Price: \$699.99

www.general.ca

NOVA Infinity Quick **Change System**

The NOVA Infinity Quick Change System is the ultimate woodturning chuck system that will speed up productivity. This system is powerful and versatile enough for all woodturning needs. The only system you'll ever need. The Infinity System not only includes our new Infinity chuck but may be retrofitted to your NOVA Chuck so you can upgrade them to quick change. Why it's Hot: The NOVA Infinity

Promotional price \$269.99.

www.novainfinitychuck.com

Quick Change System is the hottest chuck on the market. Powerful, Versatile, and Quick Change make is the only chuck system you'll need for all of your woodturning projects.

General International 12" x 17" Variable Speed Maxi-Lathe

Sturdy build with a full cast-iron head, tailstock, and bed. 3 variable speed ranges from 300-3600 RPM with forward/reverse switch, ideal for turning and sanding operations. Maximum distance between centers of 17



 $\frac{5}{16}$ " with 12" swing and a 180° pivoting head for outboard turning. Why it's Hot: A mini-lathe with all the features and performance needed for serious turning. Precision electronic speed controller with digital display

allows turners to dial in the exact spindle speed they need for their most demanding projects.

25-200 Retail Price: \$829.99

www.general.ca

General International 12" **Wood Cutting Bandsaw**

C turdy welded steel frame, precision-balanced Jwheels and a large 21 ½" x 15 ¾" cast-iron table for smooth, vibration-free performance. Powerful 2/3 HP 6.5 Amp motor with 2 blade speeds for ideal results in both soft or hard woods. Multi-size dust port fits 2", 3" or 4"

Why it's Hot: The latest offering from a great family of quality bandsaws. With its 12" inboard rip capacity and 6 1/2" maximum resaw, the 90-040 is the ideal saw for many small wood shops.

90-040 Retail Price: \$559.99

www.general.ca



TORMEK NEW T-4 water cooled sharpening system

, n enhancement of the T-3 model taking the precision and stability to a Acompletely new level. Vital functions like the motor and the main shaft are mounted in the zinc cast top that includes the integrated sleeves for the Universal Support which is the foundation of the Tormek jig system.

Why it's Hot: You get a high quality machine which can sharpen all the common edge tools. Delivered with the Stone Grader SP-650, AngleMaster WM-200, Honing compound, DVD and the comprehensive Tormek Handbook on sharpening. Complement the T-4 with your choice of jigs according to the tools that you are to sharpen. (The jigs are sold

Tormek CEO Håkan Persson explains: "We have been able to improve the rigidity by 300%. Also, with a new Tormek design (patent





pending) of the sleeves for the Universal Support we have been able to minimize the play by 50%. Combined, these improvements will affect your control of the sharpening – and increase the precision of your result."

The new cast zinc top section also has an integrated handle, an appreciated feature that makes the machine easy to move and position.

www.tormek.com

JessEm Clear-Cut TS **Stock Guides**

JessEm's new Clear-Cut TS Stock Guides for your table saw will provide you with safety and precision while preventing kickback. These unique guide rollers are mounted on a 5° angle effectively steering your stock towards the fence. The roller arm holds your work under spring pressure to ensure your work is held firmly in place. Setup is fast

Why it's Hot: With Clear-Cut TS Stock Guides you won't have to struggle to hold wide boards or



large panels as you try to feed it through your saw blade. You will achieve safer, smoother, more precise cuts as your work is always held in position.

Price: \$249.99 www.jessem.com

RIKON 12 1/2" x 20" MIDI Lathe

Designed to give wood turners what they have been asking for in a small scale lathe. The #70-220VSR lathe features a powerful 1HP motor, big 12-1/2" diameter x 20" long turning capacity,



24 position index head, and 2-1/2" ram travel! Plus, its Electronic Variable Speed control gives optimum management of turning speeds in forward or

Why it's Hot: The heft of machine will be appreciated, as will the ease of adjusting the speeds (250-3850 RPM), or positions of the tool rest and tailstock. Just like the big boys.

List \$649.99. Available at Authorized RIKON Dealers.

www.rikontools.com

RIKON Benchtop XY Mortiser

Drilling square holes is easy with RIKON's new #34-260 Mortiser. It features a mechanic's-type vise to hold your work, while the table easily moves left & right, plus, forward & back on dovetail ways. Control wheels let you exactly position your work for drilling mortise holes. Powerful 1/2HP motor won't bog down when working the densest hardwood. All metal construction.

Why it's Hot: It offers outstanding table movement and control for boring precise mortises. Includes ¼", $\frac{5}{16}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ " mortising chisels



and bits, 6" extension rods, depth stop and a tool holder. 5 year warranty. List \$349.99. Available at Authorized RIKON Dealers.

www.rikontools.com

BADGER Safety Spur Center

 $oldsymbol{V}$ ood turning is easier and safer with the new Badger Spur Center from Big Tree Tools. Its innovative spring-loaded safety guard automatically protects you from the 4 rotating spurs during turning. No tools or your hands will accidentally come in contact with these sharp objects! Spring-loaded center point allows easy mounting, stopping and removal of the workpiece from the lathe.



Why it's Hot: Patent pending design offers exceptional user safety and convenience for wood turners of every skill level. Use for spindles as small as ½" diameter! #2 Morse Taper fits most lathes.

List \$79.99. Available at Authorized RIKON Dealers.

www.rikontools.com

Flexcut **Deluxe Starter Set**

The Starter Set has everything a new wood carver needs. It includes 16 interchangeable blades, cutting knife, quick connect handle, and a power handle. There's also a SlipStrop, gold polishing compound and an owner's manual showing how to care for the tools. Plus you'll find a free step-by-step, instructional DVD for a great first project.

Why it's Hot: This Starter Set contains profiles not included in any other interchangeable set. So it's a great way to add to your collection

and save money. SK108 SRP: \$203.95

www.flexcut.com

Flexcut Knives

Flexcut knives are precision made for maximum performance. Their high-carbon steel blades have durable points, hold an edge extremely well and are easily maintained by simple stropping. Each knife is expertly hand-sharpened and tested before shipping, so it's ready to use right out of the package. Comfortable, curved ash handles allow for long periods of carving without hand fatigue. In addition to those pictured, a wide range of knives are available to handle every task from roughing in to fine detail carving.

Why they're Hot: Flexcut knives are versatile, well-engineered tools, 100% North American made, assembled and sourced. The top pick of pro carvers, hobbyists and woodworkers around the world.

www.flexcut.com







Flexcut Carvin' Jack

The 6-Blade Carvin' Jack is the world's first folding multi-tool for woodcarving. It's equipped with 2 scorps, straight gouge, a hook knife, chisel, and a detail knife. You also get a slip strop, a bar of Flexcut Gold polishing compound to keep your blades sharp, and a leather belt-mounted sheath that looks good with jeans or even your better pants.

Why it's Hot: The only tool like it in the world – a woodcarving set in your pocket.

JKN91 SRP: \$149.95 www.flexcut.com



Work Sharp Knife & Tool Sharpener **Ken Onion Edition**

sing a fully adjustable precision sharpening guide, variable speed and wide flexible abrasive belts it sharpens pocket & hunting knives, serrated knives, kitchen knives and any other shape or type of blade you own. Professional blade måkers like Ken Onion use flexible belts to put a razor sharp edge on their blades, now you can have the same technology in your home or shop.

Why it's Hot: The combination of Work Sharp engineering and Ken Onion's industrial design has



created a fast, easy and stylish way to sharpen all your knives and tools with precision and repeatability. \$149.95 CAD FREE SHIPPING www.elitetools.ca

Big Gator Tools **Large V-DrillGuide**

Drill guide helps align drill bit with the work surface for precision alignment. It's similar to a drill press, but portable! Can be used on corners, round and flat surfaces. Drill guide sized for drill bit sizes: .. 0. 72 . Made in USA. Drill sizes 3/8, 25/64, 13/32, 27/64, 7/16, 29/64, 15/32, 31/64, 1/2". 3/8" to 1/2". Made in USA. Drill sizes:

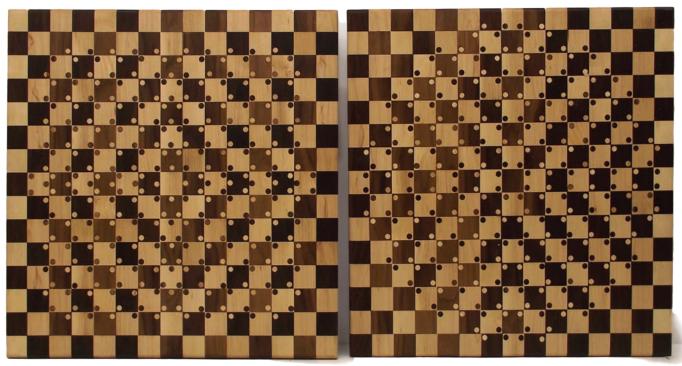
Why it's Hot:

- Drill straight every time!
- Lifetime Warranty on every
- 90° "V-groove" design allows perpendicular alignment on round and cornered material



- · Guides are made from a special nickel alloyed steel that is heat treated for durability
 - Pocket-sized MSRP: \$29.95.

www.biggatortools.com



Optical Illusions Gluing up the first panel side edges and maple as the

The only gift more fascinating than a custom-made cutting board is one that incorporates an optical illusion.

BY LISA CHEMERIKA

his board includes a lot of end grain gluing. It's fairly strong, but won't stand up to a lot of abuse. These boards will serve me more as art than for food prep. If you want, you could easily create this illusion in an end-grain board.

Machine and glue some strips

Though you can use any two species you want, contrasting colours are crucial. I first glued up 15 alternating strips of $1\frac{1}{2}$ " wide by $\frac{7}{8}$ " thick walnut and maple, approximately 40" long for two boards, or 20" long if you're only making one board. I recommend doing two boards, as the first step is to glue up opposing boards, then alternate cross-cut strips from each board when you glue the strips back together.

Gluing up the first panel, I started with walnut on the outside edges and maple as the center strip. I glued up the second panel the opposite way. This size of glue-up yields two boards that are approximately 22 $\frac{1}{2}$ " x 22 $\frac{1}{2}$ " x 27/8" thick.

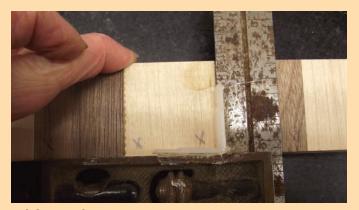
Cross-cut then start drilling

I then cross-cut these glue ups into 1 ½" long slices. The slices are laid out alternating a slice from each glue-up. Following the pattern, I marked where each plug of the



Alternating Strips – Pictured here are enough strips for one board. They were cross-cut from two separate panels, with opposing wood species patterns, and will eventually be glued up, alternating one of each strip.

Photos by Lisa Chemerika





Helping Hand – Chemerika used hot-melt glue to temporarily fix a plastic drawer slider to two of her woodworking squares. One was fixed to drill holes on the left hand side of the wood squares (left), while the other was fixed to drill holes on the right hand side (right).

alternating colour of wood should be placed. Surely there's a science to where to locate the holes, but I found it much easier to simply look at a photo of the illusion while I was planning their locations.

I made two jigs for right and left side drilling of the plugs by adapting two of my woodworking squares. I hot-glued a plastic drawer corner into each of the squares so there was a small amount of wood between the edge of the plugs and the sides of the block being drilled. This made the placement of each plug uniform and easy to drill. I drilled ³/₈" holes about ¹/₄" deep. I set up a Workmate and used a hand drill to bore the plug holes. Another option would be to use a drill press, though determining the exact location of each hole is harder than you would think.

Drill some plugs

I drilled all of the plugs from scrap pieces of maple and walnut. Use whatever two species you started with, or the strength of the illusion will be weakened. They were about 1" long so I took the plug blank, after I drilled it, to the bandsaw and cut slices of plugs a little more than ½" deep. This way I did not have to drill nearly as many plugs, as I could get about three plugs out of each plug blank. Depending on the type of plug cutter you have, this may not be possible. While cutting the plugs on the bandsaw, the offcuts tended

to fly around a little, and there was a bit of a search around the shop for them when I was complete, but overall time was saved with this process.

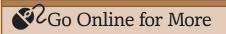
If the plug holes are close to the outer edge of each square, you should install the plugs after assembling the strips, so you don't chip any of the short grain wood. Otherwise, it doesn't really matter when the plugs are installed.

The slices were glued up in the correct order to make the checkerboard pattern. I used cauls to keep the strips aligned as evenly as possible. Once the board was dry, I glued the plugs into the holes and let them dry. I then flushed the plugs, sanded the surface and finished all surfaces

You could use smaller sizes to get a smaller board if desired. Start with 1" square strips and drill $\frac{1}{4}$ " diameter holes to make a board 15" x 15" x $\frac{7}{8}$ " thick.

with mineral oil.

LISA CHEMERIKA Ichemeri@mymts.net



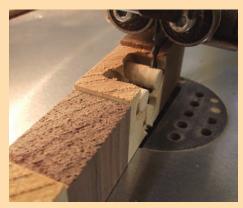
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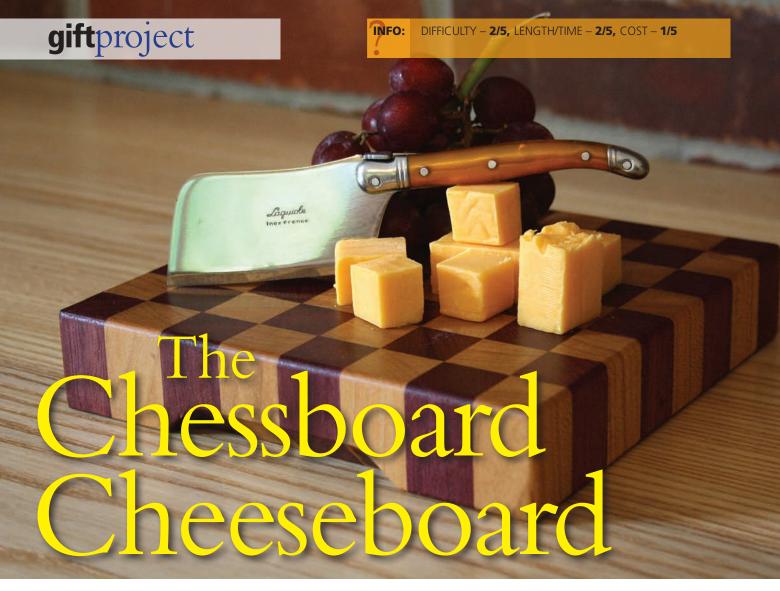
Secure the Strips – Chemerika used a Workmate to hold each strip while she located and drilled the holes with a hand drill.



Careful Planning – To locate all the holes, Chemerika laid all the strips out in their final order, looked at a picture of the illusion and marked an "X" as needed.



Lots of Plugs – Chemerika drilled extra-deep plugs, then cut them to about ¼" long on her bandsaw. This sped up the tedious process of making enough plugs.



Forget about perfecting your hand-cut dovetails, three-way mitre joints, and French polishes. If you want to impress people with your woodworking skills, crank out a few of these beauties. A popular gift, they serve multiple purposes from trivets to cheese trays to cutting boards.

BY GEOFF COLEMAN

he alternating colour butcherblock design is the straw that stirs the drink. It looks great and appears to have required a lot of careful work. In truth, it is an easy trick, but non-woodworkers don't need to know that. You can make them small enough to act as a drink coaster right up to 25 pound turkey-ready carving boards.

Just as water parts to make way for a canoe paddle, but rushes back in at the end of the stroke, tight end-grain absorbs knife slices and closes up with little visible damage. Germaphobes will be pleased to know this quality also helps keep bacteria at bay.

Contrasting woods

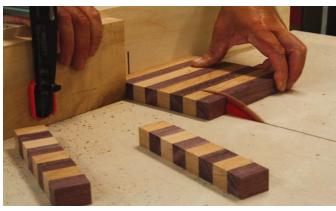
Start by picking a couple of contrasting colour hardwoods. Maple is a traditional choice for cutting boards, but cherry and purpleheart are good options too. Work begins with milling your wood to the desired thickness, then ripping it into strips. For a classic, symmetrical design like you would see on a

chessboard, you need pieces with equal width and thickness. I found it effective to use the table saw to get them close, then let the planer do the fine work of unifying width and height. Cut an equal number of both colours, lay them out in an alternating pattern and glue them flat. Be sure to apply a solid coating of waterproof glue. If not sufficiently covered, the joint may fail under stresses applied later in the build, particularly with thinner pieces.

After letting the glue dry thoroughly, you are going to take what is now



Glue-Up – Although Coleman is working on a maple board here, the first stage of gluing is the same. After milling all the lengths of wood, apply glue to the joints and bring the parts together using clamps. Coleman uses cauls across the panel to keep the surfaces as flush as possible.



Cross-cut Strips – With the panel dressed smooth on both surfaces, Coleman cuts parts to length with a cross-cut sled. The length of these parts determines the finished height of the board.

probably a pretty good-looking kitchen accessory and destroy it. However, with some glue and a twist of the wrist, it will be reincarnated and elevated to another level. Speaking of level, dress each face once more to eliminate any thickness inconsistencies, and return to the table saw. Install a fine-toothed cross-cutting blade. Use a cross-cut sled to slice that long-grain cutting board across the grain to yield a new stack of strips. The length these strips are cut determines the overall height of the finished board. A quality 80-tooth blade will produce a very smooth cut, leaving an exposed end grain that barely needs sanding.

Now for the magic

You should have numerous lengths of alternating light-dark squares ready for final assembly. Line up your pieces as they were before you cut them, then turn every second piece end-for-end to create the checkerboard pattern.

With that done, it's time for the second, and final, glue-up. To apply the glue, keep the long-grain sides up and cover all those faces, except for the last piece in the assembly. Then you just give them all a quarter turn so the end grain is up and get the clamps out.

Gluing can be tricky, particularly on smaller boards, so a dry run is recommended. A lot of sanding can be avoided later by taking some care at this stage to ensure the pieces sit as flat as possible.

The flatter, the better

One method I have used to help ensure a level surface involves making a stand that accepts the pieces to be glued

and keeps them flat. Carefully cover the surface of a 12" x 16" piece of ³/₄" MDF with packing tape and screw a 4" high wood block at the middle on the bottom. You end up with an oversized flat caul that won't end up permanently glued to the projects. Raising the surface makes it easy to get clamps under it.

With the pieces in place on the stand, position more tape-shrouded cauls across the tops of the joints as needed to keep everything flat. You should be able to clamp them down with minimal interference from the central base. Then the clamps needed to pull the components together are applied. They have more than enough power to seat the pieces tightly, despite the downward forces of the leveling clamps.

Once the second glue-up is dry, you have some sanding ahead of you.





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Glue-Up – Here Coleman glues the parts back together, so the end-grain surfaces are facing out. Though he's not using any cauls in this photo, if you're finding it hard to keep the parts aligned during this stage you can use tape-wrapped cauls.

Because the grain is running in different directions, a random orbit sander does the best job of smoothing things. You could also reach for your belt sander to help even the surface. A good starting point is 120 grit, progressing to 220. The tough, tight, hard grain that makes wood like maple stand up to knife abuse isn't any more forgiving to sandpaper, so be patient – sanding might take longer than you expected. The silky smooth, touchable surface will be worth the effort.

Customize it

After that, it is just a matter of adding some purpose-driven custom touches to make the piece easier to use. Smaller ones that are easy to lift with a single hand might need little more than a ¹/₈" radius to soften the top edge. Bigger units benefit from a finger hold on the underside and an easing. A slot for knives is a nice touch, too, as is building two that can be attached to each other with rare earth magnets to create a larger surface when needed.

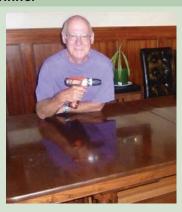
Finally, protect the wood with a wipe-on finish. Commercially made butcher-block oil treatments are popular,

Jun/Jul 14 Sub Draw Winner

Murray Coultes

Here's a photo of me, my new King drill and a table I made for our son and daughter-inlaw. The table is solid walnut and expands to 10'. Thanks for the great prize!

—Murray Coultes





Non-symmetrical boards

As attractive as the symmetrical pattern is, you can produce some interesting designs with a few tweaks in the milling or gluing process. For example, when the wood is ripped to a width that is different from the height, the look of a brick wall or a basket weave results. Things really get intriguing when you cut the strips into varying widths — but remember to keep them in pairs.

Bear in mind that when you have an extra one of a specific species instead of matching pairs, the twist of the wrist trick no longer makes any difference in the pattern. However, it does give a more finished appearance in another respect, since two edges are the same colour.

Rather than glue the panel so its edges are even during the second glue-up, setting all the parts on a slight angle, or offsetting every other strip ¼" or so, produces enough variation and pattern to be aesthetically pleasing.

Even using a single wood species looks fantastic once it's assembled. And mixing a sapwood/heartwood combination is also fun.

As a general rule, the thickness of the wood when it is first milled establishes the length of the visible "blocks" in the pattern. The finished size of the project, and the appearance you desire, will influence the thickness you settle on. Thick wood makes long looking blocks, so you will have fewer in your sequence. More intricate top designs start with thinner wood, down to ½" and less. Bear in mind thin wood doesn't leave much gluing surface later on. The patterns are endless, so experiment and something great might happen.

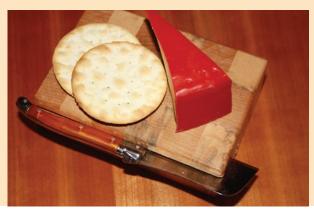


Basket Weave –

This board was created with strips of wood that were the same thickness, but different widths. Coleman glued up an even number of strips, then before the second glue-up he turned every other piece end-for-end to create this pattern.



Slight Differences – With a bit of planning, just about any pattern can be made. Coleman used cherry strips that were all the same size, but with a slight difference in the outermost maple strips, and by flipping every other piece end-forend, he created this offset pattern.



Knife Groove –

Coleman machined a simple groove into the side of this board, in order to hold a knife in place. He took care to make the board thick, otherwise the groove would create too much short grain, and could easily break.

as are finishes combining beeswax and various food-safe oils. I have had nice results with Clapham's Salad Bowl Finish. It is extremely easy to apply, and smells great. With oils, just keep applying it and wiping it off until it pools on the surface. Waxes take two or three coats. And plain old mineral oil has worked just fine for a long time. All of the finishes will need

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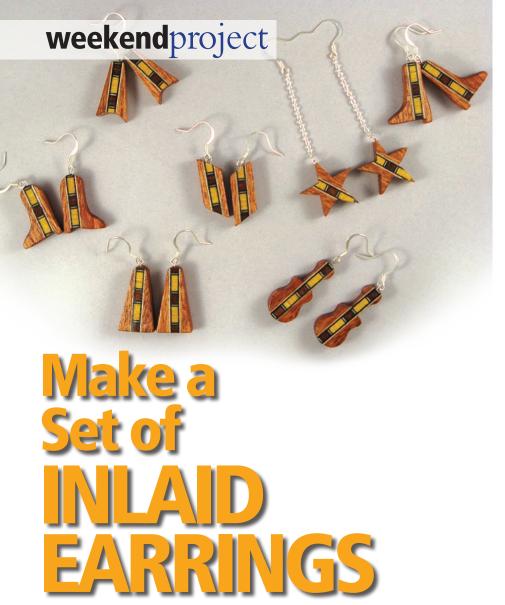
re-application, the frequency depends on the amount of use.

I have made enough jewellery boxes, picture frames, and other wooden gifts to know that nothing guarantees a uni-

versally glowing response from the lucky recipient like these do. People will look at you like you are a magician, and wonder aloud how long it took you to glue 320 little blocks together so evenly. Just don't reveal your secret.



GEOFF COLEMAN geoffco2013@gmail.com



A plow plane is not that hard to use, especially if you know a few tricks. This fun jewelry project is the perfect project to get some practice.

BY CHARLES MAK

and-tool projects can be intimidating for beginners, but these inlaid earrings are suitable for all skill levels. For the beginners who have never used a plow plane before, you'll find practical tips in this article on how to get started. Let's begin some silent woodworking.

Hand Tools & Supplies

You'll need a plow plane with a cutter the same width as the inlay banding $(^{3}/_{16}"$ for the project featured here), assorted rasps and files, a coping saw, a thin-kerf saw, a pin vise or drill, and a pair of pliers. On the supplies sides, gather a piece of hardwood (about %16 x 1 x 12''), two inlay strips ($^{3}/_{16} x 12''$), earring wire and hooks, CA glue, and the finish of your choice. Earring wire can be purchased at most craft stores, and even some dollar stores.

Earring designs

The first step is to develop some designs for the earrings or bracelets. You can put your designs on paper and transfer them to the wood using graphite paper or create your designs as plastic templates for reuse.

Grooving tool – the plow plane

The plow plane is the hand-tool version of a power router used to make grooves. You'll use it to make grooves

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Depth Stop – Place the skate next to the inlay and lower the stop to touch the inlay.



Plow Cuts – Point the index and middle fingers forward and start from the far end.



Inlay on Both Sides – Clamping cauls and wax papers are great helpers when clamping the inlay in the grooves.

that match the dimension of your inlay banding.

To set up the plow install the cutter and, as with a hand-plane, set the depth of cut first; say, to 0.005–0.010" for light cuts. A plow also has two other settings to make before you can use it. The depth stop is used to determine the depth of the groove and the fence setting to determine the position of the groove.

You can use a steel rule to set the stop to the thickness of the inlay. A more direct way is to use the inlay piece to set the stop. For the fence setting, position the fence against the workpiece so the cutter is in the middle and then lock the fence. After setting the plane, secure the workpiece on the workbench and apply wax to the skate and fence to ease the work.

Cutting the grooves

It's common for a new user to make grooves that are either not square or not parallel to the face side. Such errors are easy to avoid if you learn and remember two key points.

First, always keep the plow upright and the fence in good contact with the workpiece throughout the planing. In practice, place one hand low on the fence, pressing it against the workpiece at all times, and use the other hand to push the plane forward. To avoid tilting the plane as you push, hold the handle loosely: extend both your index and middle fingers forward.

Second, start the plow cut at the far end of the work and progressively move backward until you establish the groove. Make, at first, short strokes, gradually taking longer and finally full-length strokes. After cutting a groove in one side, flip the stock and cut a second groove on the other side of the blank.

With the two grooves cut apply a small amount of glue to the grooves and press the inlays in place. Clamp them for the glue to set. Once the glue is dry lay the earring template(s) on the workpiece and trace all the profiles on the work with a pencil.

Shaping with hand tools

Clamp the workpiece in a vise and use a coping saw to cut out the rough shape of the earring, leaving a small part of it attached to the stock for now. Continue shaping with



Transfer the Design – Trace all the designs onto the stock.





Cut out the Shape – Remove the waste with a saw then shape the profile with rasps and files.



Resaw the Piece – Cut the workpiece into two pairs and file away any saw marks.



Drill Hole – Use a pin vise or a drill positioned horizontally for precision drilling.

rasps and files to create the profiles desired. Ease all the sharp edges.

Resawing the Earrings

To make a pair of symmetrical earrings, saw the workpiece in half and then separate the earrings by completing the profile with the coping saw. Repeat the shaping and re-sawing steps until complete.

Finishing the Earrings

The last construction steps are drilling holes, gluing the wires and attaching the hooks. Apply a few coats of the

finish of your choice to bring out the design and grain.

If you're still not sold on this "hand-toolonly" method, feel free to use some electricity to complete a few pairs of earrings. Just don't wait until the evening of Dec. 24 and risk waking everyone up with all that noise.



CHARLES MAK thecanadianwoodworker@gmail.com

Charles is a woodworking author, tipster and teacher in Alberta. He takes advantage of both power- and hand-tools in his projects.

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This is a fun weekend project for woodworkers who are long on enthusiasm and short on time - or short of holiday gifts.

BY CHARLES MAK

typical exploding coin bank works like this: drop in a coin, you hear a bang and the bank breaks apart into pieces. Exploding coin banks may be losing their appeal as a surprise object because you know what to expect the second you drop the coin, don't you? Not with this time delay exploding box that I recently designed. Mine will not explode at the drop of, in this case, a ³/₈" dia. steel ball. It will do so only after a few seconds of delay, thanks to a delay mechanism hidden inside.

The Box

The box consists of the top and

bottom ($\frac{3}{8}$ " x 3" x 4 $\frac{1}{2}$ " each), the left and right sides ($\frac{1}{4}$ x 3 x 2 $\frac{1}{2}$ " each), and the front and back (1/4 x 3 x 4 1/2" each). Every piece, except the top, is very simple. The top has a number of smaller pieces attached to its underside, which make up the time delay device. Begin by cutting all the six main parts to final dimensions. Drill and chamfer a 3/8" dia. hole, on the centerline of the top, but towards one end, then ease all the edges. Center the mousetrap on the bottom and screw it in place.

To hold the four sides together, magnets and nails are used. Mount two round magnets ($\frac{1}{8}$ " dia. x $\frac{1}{8}$ " long) flush on the front and back. To get holes drilled precisely 1/8" deep to house the

magnets flush, first, find a piece of scrap that's 1/8" thick and at least 2" x 3". Place the front or back section of the box on the drill press table and zero out the drill bit by lowering the drill bit until it touches the surface of the workpiece, and setting the drill's depth lock. Now slide the scrap underneath the workpiece, raising it 1/8" to drill the hole at a perfect depth. Glue the magnets in place using CA glue or epoxy.

I pre-drilled holes for the nails to avoid splitting, before driving the nails into the edges with the clamping force of a vise. Partially drive a 3/4" screw into the left side, front and back. When the box is assembled these screws will catch the bow when the mousetrap is triggered, sending the parts flying.



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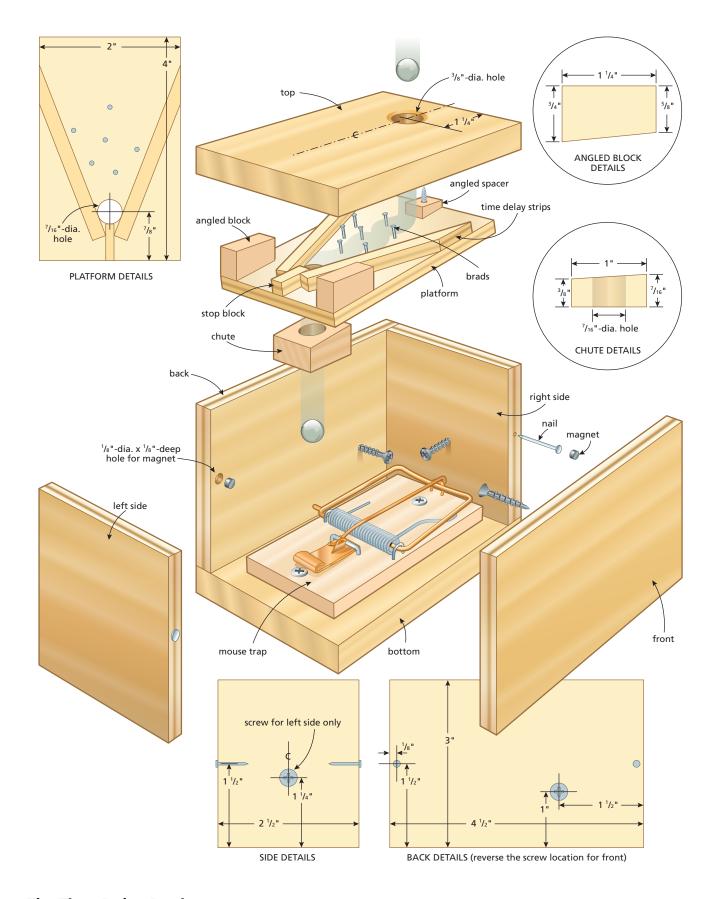
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The Time Delay Device

The time delay device includes a platform ($\frac{1}{4}$ x 2 $\frac{1}{2}$ x 4"), two strips ($\frac{1}{4}$ x $\frac{1}{4}$ x 3" each), a stop block ($\frac{1}{4}$ x $\frac{1}{4}$ x $\frac{1}{4}$ "),

a chute (3/8 x 1 x 1"), one thin angled block (about 1/2" thick) and two thick angled blocks (about 3/4" thick). The exact angles and sizes of the three

angled blocks are not critical, though they do need to align with each other once the time delay device is assembled. After cutting out all the pieces,



Attach the Mouse Trap – When installing the mousetrap, use screws instead of glue, so you can replace the mouse trap, if needed.



Precision Holes - Charles made use of holes at a perfect depth.



Time-Delay Device – Glue the strips and stop block to the depth stop and a $\frac{1}{8}$ " thick spacer to drill the platform then drive some brads into the surface.



Assemble the Time-Delay Device – For this tapered glue-up, Charles placed wedges between the angled surface and the clamp jaws.

drill and chamfer a 7/16" dia, hole on the centerline of the platform, near one end. Glue the two strips, stop block and three angled blocks to the platform and drive some brads randomly on the platform, making sure the ball will be able to roll between all the brads. The brads slow the movement of the ball as it travels down the time delay device.

To make the chute drill a 7/16" dia. hole in the 1" x 1" block, then glue it to the underside of the platform, directly below the ⁷/₁₆" dia. hole. Make a few test runs of the steel ball and make adjustments as needed before screwing and gluing the time delay device centered to the underside of the top.

Finishing and Assembly

Apply a few coats of oil finish of your choice, if desired. Once dried, carefully set the mouse trap, assemble the box, place a steel ball by the box's side ... and wait

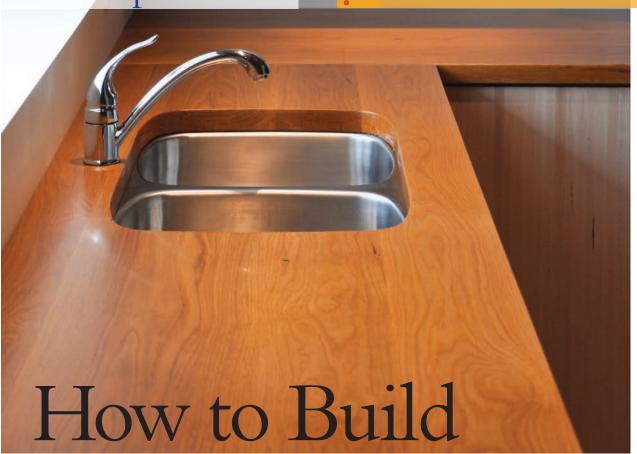
for a curious mind that can't resist the temptation!

CHARLES MAK thecanadianwoodworker@ gmail.com



Charles is one of the few hobby mechanical sculpture-makers in Canada, and likes to design and include mechanical elements in many of his projects.





Solid Wood countertops

Solid wood counters have been around since the beginning of time, and for good reason, as this natural material has proven to be durable, resilient and timeless.

BY JASON KLAGER

ranite, laminate, Corian, quartz and tile are just a few of the many options available for today's countertops. One option that's sometimes overlooked is solid wood. Hiring out such a countertop is a costly venture, but with a little muscle and knowledge of a few basic woodworking techniques, building it yourself can become an affordable and enjoyable option.

Some serious wood

As with any project, the first step is to choose your wood. I decided to use white oak, a hardwood that will stand up to daily activities. The finished counter should be about 1 ½" thick and no less than 1 1/4", which means it's best to start with 8/4 stock. Using 8/4 stock makes squaring, removing any cup,



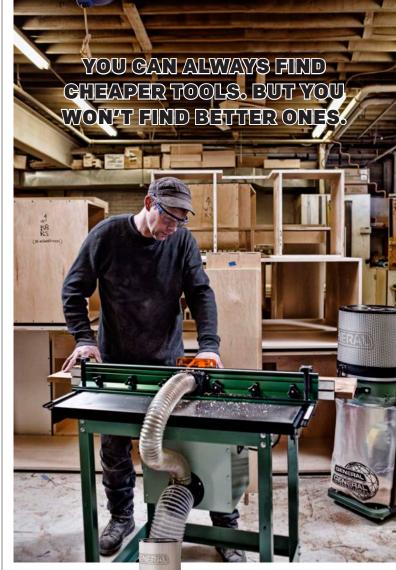
Balanced Construction – By opposing the direction of the growth rings Klager creates a more stable top. It's sometimes a trade-off between grain graphics and stability, and a judgement call needs to be made.

bow or wind, less stressful, especially when working with longer lengths. Take the time to find boards free of large defects, such as knots or cracks which may open up over time and create a haven for water and bacteria. Find boards that have a width around 6", as a standard counter should be made up of at least four boards to remain stable. The greater the number of boards you join, the more stable your finished countertop will be. An end-grain butcher block countertop is made by joining several parallel strips that are an inch and a half to two inches wide. This is a very time-consuming but incredibly stable method. Either way you go, be sure to first determine your finished dimensions and add a few inches to both the width and length to accommodate any adjustments later.

With your lumber home, be sure to allow the wood to acclimatize to your shop environment before turning on the machines. When it comes time to mill your boards, leave an extra ¹/₈" in thickness for levelling. Mill your boards square on all four sides and arrange them on a flat surface, paying attention to colour and grain graphics. Aesthetics always comes first, but when possible, try to alternate the growth rings. With your boards arranged to your liking, mark the position of each board. You can join the boards off of the jointer, but for a seamless joint use a hand-plane to remove the machine marks left on the edges. Lastly, adding a few biscuits along the edge of the board will help to keep the faces remaining flush during glue-up. Unless you have a very poor edge, joint biscuits don't add any strength to the joint, but they do assist with alignment.

Time for adhesive

After a dry run, glue the boards together with a waterproof glue such as Titebond III. For larger glue-ups, I prefer using G2 epoxy by System Three Resins, which is a waterproof glue that has an open time of 60 minutes. The leftover epoxy is perfect for filling in small surface cracks or knots. Placing a piece of wax or parchment paper under the glued joint keeps the glue away from your clamps. Once out of the clamps, the glued countertop can either be passed through a drum sander or just hand-sanded to a finish grit of either 180 or 220.



It doesn't get any better than the Excalibur Deluxe Table Router Kit by General International. *Fine Woodworking* called it the best overall table and lift combination." *Popular Woodworking* agreed, saying, "Four corner-positioned lift screws raise this design above the competition." You control all four

corners simultaneously for smooth and precise above-the-table height adjustments. The kit includes a 24" x 32" cast-iron table. Quick-engage mobility kit makes it easy to relocate. Full-length router fence provides tool-free adjustments. Dust collection? *Fine Woodworking* said we take dust collection to another level. To learn more about our entire line of woodworking tools, visit your nearest dealer or go to www.general.ca.

*Fine Woodworking 2014 "Tools & Shops"













Big Cuts – A track saw, or a circular saw and a straightedge, are great for making long cuts in heavy panels.

Big Glue-Up – After a dry run, Klager applies the adhesive and brings the boards together for good. A flat, large surface is necessary for laminating the parts of a countertop. Notice how Klager alternates the position of the clamps, above and below the workpiece, for even pressure and less cupping.

Fit the countertop

A few things still need to be taken care of before applying a finish. One may be to scribe the counter to a wall and/or fit it into a corner. A corner can be finished with either a butt or mitre joint. Both will move with the seasons, but a butt joint will not open up like a mitre joint will. A mitre will open and close along the joint, whereas the two halves of a butt joint will only slide against each other.

Use a few counter connectors to join sections of counters. When machining the joinery for the connectors, leave a little room for seasonal movement. Installing a few tenons will also help keep the top aligned. If you plan on using dowels, be sure to only use them in one location across the joint, and be sure to allow the rest of the countertop to move. If you're using tenons, glue half of the tenon into one mortise and widen the mortise across from it, allowing the tenon to move freely. When the time comes to connect the two counters, be sure to apply a bead of silicone caulking along the edge of the joining counter. It will move with the joint. After your counter is sized and fitting correctly, make the necessary adjustments to the front overhang before adding an edge profile.

Sink and faucet openings

The last step may be to cut out an opening for a sink and faucet. Using the manufacturer's sink template, outline the position of your sink and cut along the line using a jigsaw. If you are installing an under-mounted sink, this template can be used to make a reverse guide template out of a piece of ½" MDF or plywood.

Carefully position and clamp the guide template to the top of your counter. Using a plunge router fitted with a guide bushing, rout along the guide using an up-cut spiral bit until you have reached the other side. Take your time to slowly remove the material with only $\frac{1}{8}$ " – $\frac{1}{4}$ " increments and clean out the shavings after each pass. The MDF cut-away portion from the center of your sink template can be attached in the middle to support both sides of the router. Remember again to add a bead of silicone caulking when installing both the sink and the faucet.

Finish line

With all my woodwork, I like to use Waterlox Original Tung oil finish. This waterproof, heat-resistant finish is food safe and will easily stand up to daily use on kitchen counters. It is



Sink Opening – Working with the supplied paper template Klager made an MDF pattern to rout the sink opening. Use a router, equipped with a guide bushing, to make several passes, to complete the job.

important to finish both sides. Apply at least four coats to the top and three coats to the underside. For a flawless finish, do a light sanding before applying the final coat.

Allow for movement during installation

Take the necessary steps to allow for seasonal movement when the time comes to install the countertop. A standard



Come Together – Counter connectors, available from many different suppliers, are perfect for securing sections of counter to each other. Be sure to account for wood movement when machining the holes and grooves the hardware fits into.

countertop could move 3/8" seasonally. To accommodate for this, epoxy an oversized washer with a 1/2" center to the underside of the cabinet supports and drill out the center. Attach the counter through this ½" hole. This opening will provide enough room for the screw to travel seasonally. A second washer is fitted nicely around the fastening screw's head to prevent it going through the opening. For a 1 ½" thick countertop, the wood screws should be long enough to go through the cabinet supports and into the counter at least $\frac{3}{4}$ ". Be sure to fasten the counter in several spots. The only screw that doesn't need to travel is the one placed closest to the wall. This will allow all seasonal movement to happen away from the wall.

Wood is timeless, inspiring and comforting to have around us daily. With a little bit of work, it can also become the perfect surface to make your morning cup of joe.

> JASON KLAGER jason@jasonklager.com



RELATED ARTICLES: Easy Kitchen Countertops (Oct/Nov 2007), Search "Building Kitchen Cabinets" on our website for a series on building cabinets.





DIFFICULTY - 4/5, LENGTH/TIME - 4/5, COST - 3/5, SPECIAL TOOLS - SHAPING, ANGLE BORING

raft a

A rocker is on just about every woodworker's 'bucket list'. If you can appreciate smooth, subtle curves and are up for a challenge, this design might be for you.

Photos by Jonathan Otter (Lead Photo by Johanna Matthews) Illustration by Len Churchill



BY JONATHAN OTTER

uilding a chair is, in many ways, the most difficult task a woodworker undertakes. A chair must be light enough to move easily, must stand up to the strains put upon it decade after decade, should look beautiful and graceful, and should accommodate the human body with comfort. This means a good chair likely has many curves, few straight lines and no right angles. Building a rocking chair adds to this litany of demands that it be balanced just right and rock smoothly without travelling obliquely across the room.

Design, on the fly

With the birth of my daughter, Sophia, it was time to make a rocking chair. The basic Windsor form, with its flexible spindles and deeply sculpted seat, makes a wonderful platform, and I wanted to explore the possibilities of this design. While my sketches provide the basic silhouette, much of my design work is done intuitively. The shape of one part informing the next. As is my habit, I started with the seat.

The seat

The shape of the seat is very much a matter of taste, save a few necessary design principles. The back curve of the seat should fit the lumbar region

well: this chair uses a 10 3/8" radius. The width of the seat must be wide enough for the average human to fit comfortably between the arms; the seat of this chair is 20 ³/₄" wide at the front. The length of the saddle also needs to be considered. Too long, and the edges will dig into the backs of our legs. Too short and you'll feel as though you want to fall out of the rocker on its forward swing. I chose a 20" overall depth, leaving a carved seating area of 18".

I begin with careful selection of the pieces from a single black cherry plank for perfect grain and colour matching. After jointing and planing each piece, I arrange them in order and temporarily clamp them. It is advisable, especially if this is your first chair, to mark the X and Y axes. This will help when laying out and drilling the leg and spindle holes but it also assists in keeping the seat symmetrical. Then I mark out the areas and depth of material that will be removed. For this chair, I leave what is called the spindle rail most of the way around the outside of the seat; an area about 2" wide. This is where the spindle holes will be drilled. I also lay out the pommel, the raised peak in the middle and front of the seat.

Instead of gouging or grinding all that wood into sawdust and shavings after the seat blank is glued, I remove most of it from each section of the seat blank using the bandsaw before the pieces are glued,



Excess Wood – To remove the bulk of the waste in the seat Otter uses the bandsaw. Notice the pencil lines on the workpiece, in order to ensure he doesn't remove too much wood.

setting the table to the desired angle and carefully sawing on the waste side of the lines. After cutting as much as possible of the 'to-be-carved' area, I lightly joint the edge of each piece to clean up any 'fuzzies' left behind from the bandsaw. Then I apply glue to the edges. I arrange them in order, making sure all of the earlier tracings line up, then clamp them.

Legs and spindles

While the seat is curing, I make the legs and spindles. For this chair I used white ash. The leg blanks are 2" square.





Spindle Tenons – Working on the lathe Otter sizes the ends of the spindles to fit the 5/8" diameter holes in the seat (left). Then he removes the spindles and does the remainder of the shaping by hand (right).

The front legs are 16" long and the back legs 14" long. Because I prefer to expose the joinery of my work wherever possible, I turn the legs with tenons 2 ½" long. The tenons come through the seat and are wedged for permanent strength. The legs are turned in a simple taper, 1 ¾" in diameter at their thickest point just below the tenon shoulder, tapering to 1 ¼". While still on the lathe, these legs look beefy, but resist the temptation to pare them down; the rocker is set into slots in the legs and there needs to be enough wood on either side of the rocker for support.

White ash is an excellent wood for spindles. Its long straight grain allows graceful curves from seat to back crest and lends comfort as they flex to the sitter's back. I cut the spindle blanks from straight-grained stock about 30" long. It isn't possible to completely turn the long thin spindles on my lathe, as they would whip and shatter, but checking the thickness frequently with calipers, I can turn the 5/8" diameter tenons on the seat end of the spindles without any risk. I use the bandsaw to rough out the taper by eye. Working to a top diameter of 3/8", the spindles are brought as close to their finished size as possible with block plane and spoke-shave. Final smoothing is done by sanding.

Drill the seat

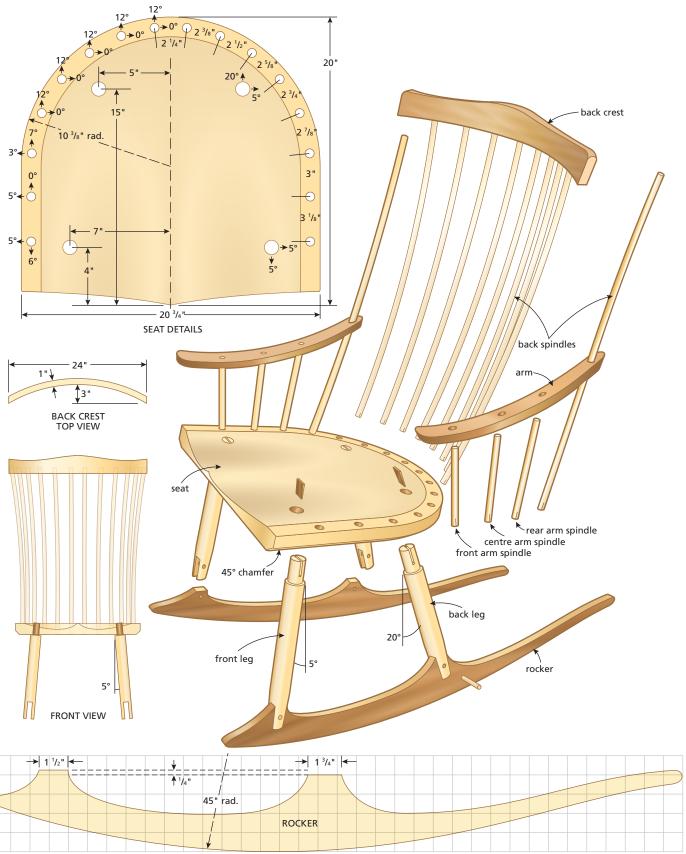
I lay out the spindle holes around the back of the seat, spacing them about 2 1/4" center to center. To my eye this looks right, providing enough back support without looking busy. Use an even number of spindles. Chairs with an odd number of spindles always have one dead center at the back. which will cause the sitter to shift repeatedly in the chair trying to figure out which side of the spine dislikes it least. The spindle holes should also be drilled close to the carved seat area, leaving enough stock behind the spindles to support their outward strain, and at the same time hugging the sitter's lumbar region.

The back spindle holes are all drilled at 12° from vertical to the plane of the seat but without side angles; the wide back crest will impose outward bends to the spindles. The arm spindle holes are drilled at compound angles, however, to allow a little extra room between the arms and to give a pleasing transition from the back to the front. The legs also use compound angles; the front legs are splayed 5° from vertical forward and 5° to each side; the back, 20° rearward and 5° to each side. It is important to keep the side angles on both front and back legs similar to accommodate the rockers.



Angle Boring – With a hinged angle jig attached to his drill press table, Otter drills holes in the seat to accept the legs.





Materials List

Part	Ltr	Qty	T	W	L	Notes	Material
Seat	Α	1	1 7/8	21	20		Cherry
Front Legs	В	2	1 3/4	1 3/4	16		Ash
Back Legs	C	2	1 3/4	1 3/4	13		Ash
Back Spindles	D	10	5/8	5/8	29		Ash
Arm Spindles - Front	Е	2	5/8	5/8	9		Ash
Arm Spindles - Center	F	2	⁵ / ₈	5/8	10		Ash
Arm Spindles - Rear	G	2	5/8	5/8	12		Ash
Back Crest	Н	1	1 ¹ / ₈	3	23	3" Sweep	Cherry
Arms	1	2	1	3	20	3" Sweep	Cherry
Rockers	J	2	5/8	4	36		Cherry

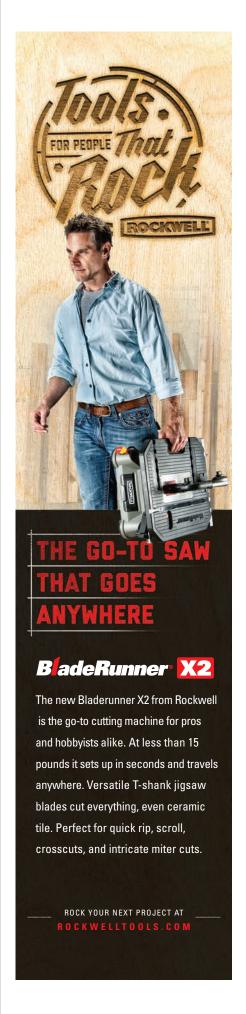


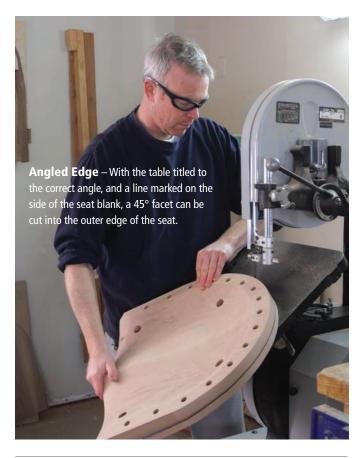
Double Check – Repeatedly checking the dimensions keeps Otter from removing too much wood, and ruining the seat blank, while shaping.

My drill press has a table that tilts in only one plane so I added an auxiliary table of plywood that allows me to drill the compound angles that these chairs demand. It can be hinged from either the front or back of the table, depending on which side of the seat blank I'm working. I use a protractor to measure the angle of the drill bit to the table and clamp it in place using C-clamps. All of the $\frac{5}{8}$ " spindle holes and the 1" legs holes are drilled completely through the seat from the top using brad point bits. I make sure to hold the seat blank square to the drill press itself (here is where the X and Y axis lines come in handy) and drill slowly through the bottom to prevent splintering.

Shape the seat

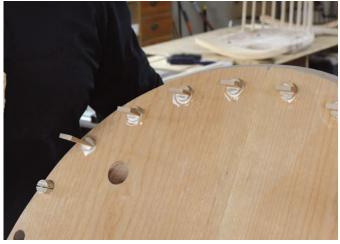
I now cut out the shape of the seat on my bandsaw and fair the curves with a spokeshave, then use a 5" angle grinder with a Lancelot grinding wheel for hogging out the seat. The possibility for injury or ruining the seat blank is high with the wheel spinning at 10,000 rpms. All guards and safety precautions are essential, as is a firm grip and a light hand. I sculpt by eye to start with, then stop and measure the depth in various places to ensure balance. On a seat blank that is 1 ⁷/₈" thick, I routinely carve $1^{1}/8$ " at the deepest point near the rear legs. I sculpt the pommel, or peak at the front of the seat, to rise gradually to its highest point. This provides







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Against the Grain – When Otter aligns the spindles, he ensures they are all rotated so the wedge slots are all perpendicular to the grain of the seat. Doing otherwise might cause the seat blank to split when the wedges were tapped in place.

some support to the inside of the sitter's legs, and best of all, reveals stunning grain patterns. I also round the front edge of the seat well over. Sharp edges on a saddle might look good, but they are uncomfortable to the sitter's legs.

Next, I use my bandsaw to cut a 45° facet between the bottom and rear edge of the seat, which gives the seat a more delicate look without significantly reducing its strength.

After roughing it out I switch to a 24 grit sanding disc on the grinder, then progressively use finer grits, finishing with 220 on the orbital sander and finally switching to hand-sanding with 320 grit. Sanding by hand allows you to feel the slightest undulations that your eyes will miss, but will be oh-so-obvious when the oil finish is applied.

Install the spindles

The back spindles can now be glued and wedged into their holes in the seat. After dry-fitting the spindles so their grain patterns look harmonious, I mark the slots perpendicular to the direction of grain in the seat and number each one. I bandsaw the slot into the end of the spindle about 1 $\frac{1}{2}$ " and cut 4° wedges from scrap on the table saw using the mitre gauge set at a 2° angle. For a pleasing contrast with the light-coloured ash spindles, I use waste from the cherry seat blank for the wedges. Spread the glue all around the inside of the hole as opposed to applying it to the spindle. Slide the spindle in from the top and situate it with the wedge slot perpendicular to the direction of grain. The force exerted by the wedge can split the seat like firewood if it's driven parallel to the grain. Force a little glue into the slot and drive the wedge home with a few firm whacks with a mallet. After the 10 spindles are glued and wedged, leave them to cure while turning attention to the rest of the chair parts.

Back crest

I cut the back crest from 12/4 cherry, 24" long with a 3" sweep and just over 1" thick. I use the same pattern for the curved arms and cut them at the same time and from the same plank. After fairing the back crest with a spokeshave, I clamp it temporarily to the top of the spindles and arrange them in pleasing arcs upward from the seat. The spindles bend outward slightly reaching up to the greater radius and length of the crest; this transition matches very nicely the way our backs are shaped from the rounder lumbar radius to the flatter profile of the shoulder area. These bends can be achieved by both the placement and angle of the spindle hole in the crest. I mark the angles by tracing on either side of the clamped spindle. This is also the best time to determine the height of the back. I measure up 25" from the seat on each outer spindle and make a mark. This marks the bottom of the back crest. The spindles should penetrate at least 1", so mark this distance on each spindle above the bottom of the crest. Cut the spindles to length afterward.

After all the necessary marks are made I drill the holes by eye with a cordless drill and a ³/₈" brad point bit, holding the crest in the vise. After the holes are drilled to 1 ¹/₄" depth, I sculpt the top of the back crest to suit using the bandsaw then switching to the spokeshave. The back crest should be in keeping with the rest of the chair, with softened and rounded edges for comfort when resting the head.

The arms of this chair are a challenge for even an experienced woodworker. My design calls for the outer back spindle



Spindle Length – With the spindles seated in the seat, Otter brings the crest rail into position so he can mark the length of each spindle, as well as mark their location and angle on the crest rail.

to pass through the arm. Am I trying to stabilize the arm with this arrangement, or am I just showing off? I'm not sure. Perhaps both. At any rate, the result is pleasing and never fails to draw a response from visitors to my showroom. But with the spindle curving up and outward, and the arm curving downward, drilling this hole requires sober forethought and careful placement. I clamp the arm temporarily in place and mark the center and angles for the ⁵/₈" hole. The one angle can be determined



Crest Holes – With keen attention to the marks he just made, Otter drills the spindle holes in the back crest free-hand.





by tracing the back spindle to which it is clamped. The other angle is about 5° from vertical. After marking one arm I clamp the two arms together and transfer the marks to the other. This ensures a symmetrical set of arms. The holes are drilled by eye, after which I slide the arms over their spindles and position it to mark the holes for the arm spindles with the back crest dry-fitted above to hold the spindles in their respective arcs. On this chair, the front of the arm is about 5" above the seat, while the rear of the arm intersects the back spindle at the 11" mark. This downward slope matches the natural fall of the sitter's arms. making it exceedingly comfortable for holding a baby or just plain relaxing.

Install the arms and crest

After drilling the ³/₈" spindle holes through the rough arm, again by eye, I set to shaping it, working intuitively with the bandsaw, Maloof-style. Smoothing and final shaping is done with spokeshave, scraper and sanding. With the arms slid down over the outer spindles, the back crest can now be glued in place. I use two-part epoxy for this operation. Its long open time is needed to fit all 10 spindles and drive the back crest down, seating them in their holes. Measure down to the top of the seat to make sure

Arm Rest Holes - To mark the hole for the outer spindle to pass through the arms Otter seats them in the arm spindle and uses a clamp to hold them in place.

it is the same height on both ends. The antagonism of the spindles should hold the crest in place, but epoxy can be slippery and since it takes a while to set, the crest can slide slowly out of position. I clamp it lightly to the outer spindles until I can drill 1/8" holes through four of the spindles in the back crest and drive dowels to lock them in place. After this is done, the arms can be positioned in place by sliding the front arm spindles up through the seat and into their arm holes; both top and bottom tenons

wedged and glued in place. The other spindles can follow. This is a major advantage of using through tenons; the spindles can be slid into place one at a time, instead of trying to fit all the spindles into their matching holes at once – a feat that requires limitless patience and six hands. I drill 1/8" holes through the seat and into the arm spindles and insert dowels. This prevents any possible future loosening that I have frequently encountered in antique chairs brought to me for repair.

Add the legs

When the glue has cured (for epoxy, allow 24 hours) I turn to the lower half of the chair, cutting off the protruding



Even Rockers – In order to create two even rockers, Otter clamps them in his vise and planes their bottoms at the same time.



Wedged In – Now that the arms are in place, and the arm spindles are located in the seat, Otter can tap the wedges into place.



Extra Insurance – To ensure a lasting joint between the legs and rockers, Otter drills a hole and inserts a wood dowel.

wedged spindle ends with a flush-cut saw, sanding the underside of the seat to 220 grit (this is where I sign my name and date each chair) then glue and wedge the legs in place using the same method as the spindles, being careful to line up the wedge slots perpendicular to the direction of grain in the seat. Position the leg you are working on right above the leg of your workbench. The force used is considerable when driving the wedge home, and this force is thus transferred directly to the floor. The legs on a rocking chair are shorter than a standard chair, but before the rocker joinery can be undertaken, I level the chair on the table saw top, the flattest surface in my shop. The back of the seat should sit 12" from the surface, and the front at 17". The backward tilt of the



Difficult Arms – The arms are probably the most difficult step of this build, but when they're complete they add a graceful, comfortable aspect to this elegant rocker.

chair at this stage will seem extreme, but this will change once the rockers are fitted, the chair resting on its rockers just ahead of the rear legs. You can play around with this balance to suit your own preference, but be careful, a 1/4" change fore or aft can make a surprising difference.

Rocker slots in legs

Then I set the table saw to cut the slots in the bottom of the legs. The rockers are 5/8" thick, so the slot must be as well. First I add a 4" high solid wood guide fence to the face of my rip fence. This fence should be long enough to guide both front and back leg during the cuts. I elevate one side of the chair about 5° by clamping a long board on my table saw's surface, so the legs that are not being cut are elevated and can be supported on the board. This causes the legs that are being cut to rest against the solid guide fence vertically. The fence is set a small distance from the blade, and machines both inner and outer surfaces of the slot to accept the rocker. I make the first pass with the blade set 2 ½" high, then adjust the fence and take more passes until the slot is just a whisker under 5/8" wide. During each pass I'm removing material from the front and back leg, on one side of the chair.

With the first two slots complete move the fence and support board to the opposite side of the blade. With the rip fence set to cut the first face of the other two slots move the chair to the other side of the blade, and repeat. Although this method takes a careful hand, requires a bit of planning and isn't for beginner woodworkers, it ensures the slots are perfectly lined up from front to rear. If you didn't feel safe making these cuts, you could use a handsaw and a long straightedge to keep the slot edges aligned. The slot bottoms are cleaned up with a chisel. Before setting the rockers in place, I round the bottoms of the legs with a coping saw, file and sandpaper to impart a finished look against the rockers.

Rockers

The rocker pattern I use has a 45" radius, which yields a slower, less choppy rocking motion. This pattern

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also incorporates a slight opposing curve 'tail' at the end of the rocker, acting as a stop for 'manic' rocking. The length of the rocker is 36" and the overall depth is $4\frac{1}{4}$ ". The top of the rocker is left straight and fitted first to the legs by sanding to fit the slot tightly. After both have been situated evenly front to back, they can be marked, bandsawn to shape then smoothed to their final profile. The bottoms are smoothed together in the vise with a block plane pushed evenly along the curve to remove all flat spots that result in bumping and creeping when the chair is rocked. I glue and clamp the rockers into their slots, drilling a 1/4" hole through the leg and rocker and inserting a dowel.

A final hand sanding and several coats of my signature beeswax, linseed and tung oil finish lend a beautiful lustre to

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a chair that will provide many years of gracious use and one that perhaps my daughter will use to rock her children.



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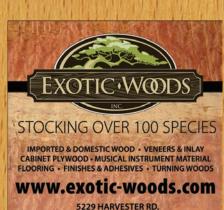
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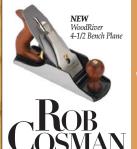
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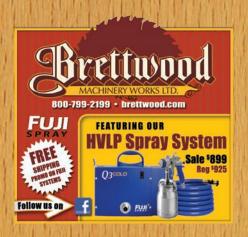






















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Christmas

BY DON WILKINSON

h, Christmas! Christmas is supposed to be a time of laughter, and a time of family. A time when children look forward with breathless anticipation to what Santa will bring them, whether the little meatloafs deserve anything or not.

Christmas! A time when husbands and fathers jolt from their beds in sheer, unadulterated panic as they suddenly realize they somehow forgot to get anything for their beloved spouse or random child. It's about the same moment they remember they had been making a grandiose present for their loved one and it was languishing in the shop half completed and somehow "I'll get to it later" had turned into the day before Christmas.

As you scurry out to the workshop in your pajamas and fuzzy slippers to get the woodstove to warm the place enough that your fingers no longer freeze to your tools, you remember that you had also promised a valued client you would carve a stingray (not life-sized, thank goodness) for him to give to his favourite brother. And you realize that you have no idea what a stingray looks like and you're still waiting for Google, Wikipedia and even the Internet to be invented so you could look it up and maybe download a picture. Whatever "download" meant.

Rushing back to the house through the minus-40° temperatures, all you can feel is gratitude that the cold snap has finally broken, otherwise it might be a tad too cool to work long in your uninsulated shop. After a few cups of coffee you make the dash back to the shop to begin your work. From under the mound of shavings where you had hidden/

forgotten it, you drag out the carving you had been working on of an old-style Father Christmas your wife had mentioned wanting the last time you paid attention to her. Which happened to be two years ago in a toy store somewhere in Germany. Maybe Spain.

Your carving looks pretty good as you cast a critical eye on it but you realize that no matter how many hours you spend on it that day, it was never going to be finished before your three little wombats woke up everyone in the house at 4:30 on Christmas morning, now less than 24 hours away. So you put it aside thinking that you can explain to your long-suffering wife that you would finish it right after Christmas, not knowing, but not really surprised to find that it would still be sitting on a shelf in your shop 13 years and several cross-country moves later. Still unfinished. In fact, in exactly the same state it was that long ago Christmas when you promised to finish it. Shortly.

So you put that carving aside, and because this one is worth money, you begin work on the ray instead, all the while thinking what a weird present to give someone for Christmas. Was there some type of analogy or metaphor here that you didn't know about? Or was the guy just nuts? Most important, were you ever going to get paid for the carving if

you actually manage to finish it?

You sketch out what you think a stingray looks like. Or at least what you think one should look like. You figure he'd never know the difference anyway because you certainly don't, so after locating a treasured piece of tupelo you fortuitously had lying around, you draw the outline of the stingray on it and proceed to cut out the blank on the bandsaw. Hours are then spent at the workbench with carving gouges, rasps and chisels, before spending many hours more with varying grits of sandpaper until you are finally able to mount the stupid little carving on a gorgeous piece of poplar burl you had been saving for years for some other special gift for your wife. As the hour rapidly sweeps towards too late, you jump in the van and rush through the dark of Christmas Eve and into town to present it to your client who, upon tearing open the box and peering in at the carving you had spent so many hours on, looks up at you in puzzlement and asks, "What the heck is this? I wanted a carving of a Stingray. A Corvette Stingray!"

But you may remember Christmases differently.

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