



RENOVATING:
Common Cents



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DECEMBER/JANUARY 2013
ISSUE #81

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KCG-15LS
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FEATURES

16 Make a Wooden Bow

BY CHRIS WONG

Why not add some wood to your gift-wrapping this holiday season? Create a hand-made wooden bow.

18 8 Great Woodworking Books

BY ROB BROWN

From turning to carving, tools and tips to design inspiration, here are some great books for your shelf.

34 Build Your Own Picture Frames

BY BILL PERRY

Although not a difficult project, making picture frames does require some neat tricks and a solid approach. Learn the basics today, and enjoy your work forever.

39 66 Hot Products

Arriving just in time for Christmas, check out this season's best offerings.

DEPARTMENTS

4 Editor's Letter

6 Readers' Letters and Woodworker's Gallery, Best Build

7 Product News, Coming Events

8 Community: [Alberta](#)

10 Home Improvement: [Renovation Financing](#)

28 Shop Skills: [Working Without Numbers](#)

32 Finer Details: [Meteor Cabinet](#)

56 Wood Chuckle

COVER STORY

Cover photo by: Rob Brown

22 Build a Traditional Sleigh

BY ROB BROWN

Winter is a great time for working wood. It's also a great time for sledding. This winter why not do both?



Special Buy

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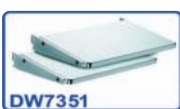
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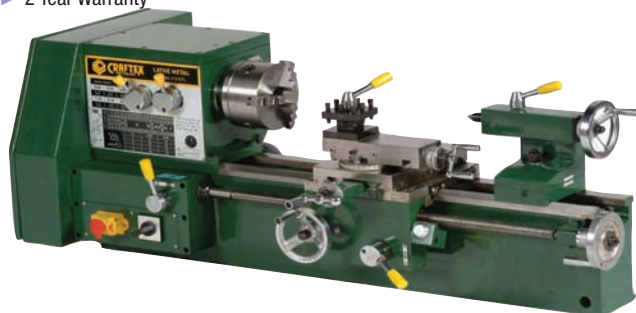


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When I was a kid, every year I struggled with trying to decide what to get my parents for Christmas. They were no help to the 10-year-old me. I dreamt of giving my dad a new motor for the boat; my mom a Great Dane puppy; gifts I thought would work for them, and knew would definitely work for me. But every year, when they refused to give me the allowance raise I needed to purchase their dream gifts, and I'd grouch and grumble about not being able to get them anything good, they'd console me by saying "*as long as you make it, I will love it*". It only took 20 years for me to hear them and understand the truth of that statement. A hand-made gift says as much about the giver as it does the receiver. It's a confirmation of relationship, a declaration of love. And it's way less work than a puppy.

We have a few hand-made gift ideas for you this holiday season. Bill Perry points you in the right direction when it comes to constructing the seemingly simple picture frame. I write about the children's sleigh I made last year. It got my family and me out the door on some chilly days for some great fun. It was also a pleasure to build. Our last gift project goes *on* the gift; Chris Wong shows you how to make a wooden bow.

This issue is also packed with great stuff for you and your workshop. With a list of eight woodworking books, and 66 of the season's hottest products, you're sure to find something here for yourself.

As much as we don't want to, this is also a good time of the year to get our finances in order. I talked with four financial and renovation experts about planning, and paying for, a major renovation. If you're planning to do something big to your home in the near future don't miss this round-table discussion.

Canadian Woodworking & Home Improvement wishes you a safe and merry holiday season with your family and friends.

Rob Brown



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Issue #81

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(519)449-2444

CANADIAN WOODWORKING & HOME IMPROVEMENT

One-year subscription (6 issues) \$27.95
Single-copy price: \$5.95

H.S.T. REG. #878257302 ISSN #1497-0023
PUBLICATIONS MAIL AGREEMENT No. 40035186
RETURN UNDELIVERABLE CANADIAN
ADDRESSES TO CIRCULATION DEPT.
CANADIAN WOODWORKING
PO BOX 286 DARTMOUTH, NS B2Y 3Y3

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COPYRIGHT 2012 BY CANADIAN WOODWORKING
MAGAZINE DIV. OF SAWDUST MEDIA INC.

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We acknowledge the financial support of the Government of Canada through the Canada Periodical Fund (CPF) of the Department of Canadian Heritage toward our periodical.





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- Min. stock length: 8"
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- Sanding belt: 3" x 70" hook & loop
- Dust collection port: 2 1/2"
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- Max. rabbeting depth: 1/2"
- Cutterhead dia.: 3"
- Cutterhead speed: 5000 RPM
- Cuts per minute: 20,000
- Approx. shipping weight: 500 lbs.



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G0656P \$795.00 SALE \$715.00

WITH SPIRAL CUTTERHEAD

G0656PX \$1195.00 SALE \$1075.00

15" PLANERS

- Motor: 3 HP, 220V, single-phase
- Precision-ground cast iron table size: 15" x 20"
- Min. stock thickness: 3/16"
- Min. stock length: 8"
- Max. cutting depth: 1/8"
- Feed rate: 16 FPM & 30 FPM
- Cutterhead speed: 5000 RPM
- Approx. shipping weight: 660 lbs.



BUILT-IN
MOBILE BASE



WITH 3 KNIFE CUTTERHEAD

G0453P \$1050.00 SALE \$945.00

WITH SPIRAL CUTTERHEAD

G0453PX \$1650.00 SALE \$1485.00

20" PLANER

- Motor: 5 HP, 220V, single-phase
- Max. cutting width: 20"
- Max. cutting height: 8"
- Min. stock thickness: 3/16"
- Min. stock length: 7.5"
- Max. cutting depth: 1/8"
- Feed rate: 16 FPM & 20 FPM
- Cutterhead diameter: 3-1/8"
- Cutterhead speed: 5000 RPM
- Feed rolls: solid serrated steel
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G0454 \$1575.00 SALE \$1417.50

14" DELUXE BANDSAW

- Motor: 1 HP, TEFC, 110V/220V, single-phase (prewired 110V)
- Amps: 11 at 110V, 5.5 at 220V
- Blade size: 93 1/2" long (1/8" - 3/4" wide)
- Cutting cap./throat: 13 1/2"
- Max. cutting height: 6"
- Overall size: 67 1/2" H x 27" W x 30" D
- Footprint: 23 1/2" x 16 1/2"
- Table height above floor: 43"
- Table tilt: 45° right, 10° left
- Approx. shipping weight: 247 lbs.



INTRODUCTORY PRICE!

G0555LX \$545.00 SALE \$445.00

14" BANDSAW

- Motor: 1 HP, TEFC, 110V / 220V single-phase, 1725 RPM
- 4" dust port
- Cutting capacity/throat: 13 1/2"
- Max. cutting height: 6"
- Overall size: 66 1/2" H x 26 3/8" W x 30 1/4" D
- Precision ground cast iron table size 14" x 14"
- Table height: 43 5/16"
- Tilt: 45° R, 10° L
- Fence construction: Deluxe extruded aluminum
- Blade speeds: 1500 & 3200 FPM
- Blade size: 92 1/2" - 93 1/2" (1/8" to 3/4" wide)
- Approx. shipping weight: 198 lbs.



G0555P \$495.00 SALE \$475.00

2 HP DUST COLLECTOR With 2.5 Micron Bag

- Motor: 2 HP, 220V, single-phase, 12A, 3450 RPM
- Air suction capacity: 1550 CFM
- Static pressure: 11"
- Bag capacity: 5.7 cu. ft.
- Impeller: 12 1/4" balanced steel, radial fin
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- Approx. shipping weight: 126 lbs.



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readers' letters

Thanks for the inspiration!

I saw your shop project in the Oct/Nov '12 issue of CWM and thought I would make one for my 10-year-old grandson. I took the project a little further and added some tool-holders on both sides so it could hold a few more tools for an older child.

Thank you,
Graham S.
Brantford, ON



Correction

In our October/November table of contents, we did not credit Oren Feigenbaum for his cabinet. Ingeborg Suzanne took the photo.

Subscription Draw Winners

NEW SUBSCRIBER

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St. Catharines, ON
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International.



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Komoka, ON
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woodworkers' gallery



Custom Router Table

by Mohammad Salavatipour

Though Mohammad Salavatipour, of Edmonton, Alberta doesn't get to spend a lot of time in his shop, he does enjoy making it look and run better. The base of his router table is mainly Baltic birch plywood with solid walnut edging, while the top consists of two layers of MDF with a laminate top surface. The router table moves on four casters, and it has four leveling feet that can be lowered when the unit is in use. Mohammad wired it so he could easily turn it off with his leg at the end of a cut. All the storage drawers keep accessories, bits and tools close by, making time in the shop more productive.

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bestbuild



Check out the Woodworking section of our forum for our latest "Best Build" thread – a set of six dining chairs. This month's winner, Dennis Cooper, receives a **dual marking gauge** from Lee Valley.

www.forum.canadianwoodworking.com

Coming Events

Hamilton Woodworking Show

January 25, 26, 27, 2013
Canadian Warplane Heritage Museum
9280 Airport Rd.
Hamilton, ON
www.hamiltonshows.com

33rd Annual Niagara Woodcarvers Show/Competition

April 6, 7, 2013
Optimist Recreational Park
4751 Dorchester Rd.
Niagara Falls (at Morrison), ON
www.niagarawoodcarvers.ca

Atlantic Canada Woodworking Conference

April 15, 16, 17, 2013
Kay Short
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Port aux Basques, NL
2013woodworkingconference@gmail.com

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Laminate flooring is very tough, wreaking havoc on blades. This laminate flooring cutter from **King Canada** makes short work of cutting laminate flooring, engineered wood and even vinyl siding. It will handle product up to 13" wide and $19/32$ " thick, and makes absolutely no dust or noise. The sturdy steel and aluminum cutter has a long handle for increased leverage and will cut angles up to 45°. Weighing in at 14 lbs., this unit is great for taking to jobsites or hauling around your home as you work. \$139.99. For more information, visit www.kingcanada.com.

Prize Winner!

Thomas Neil, right, with Scott O'Dell, owner of Home Hardware in Maple Ridge BC. Thomas won a **TradeMaster 10" Sliding Compound Mitre Saw** from Home Hardware.



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Getting an Education in Construction

Kasandra Bliss has gone through tough times in recent years, but is more determined than ever to see her career in construction come to fruition.

BY CARRIE NICHOLSON

Kasandra Bliss is a rarity in the Carpentry Program at Grande Prairie Regional College (GPRC), not because she is a woman in a physically demanding and predominantly male industry, but because she shouldn't even be walking. "It's a miracle I'm still doing this," she says, referring to the June 2010 car accident that broke her neck. The break was so bad that titanium plates and screws had to be surgically inserted into her neck and she was placed in traction. "The doctor said some people with this type of break end up as a quadriplegic, so they were not sure I would ever do this kind of work again."

After three months in a neck brace and a lot of support from friends and family, Kasandra was anxious to get back into what she loves: building things. "My biggest worry was taking care of my little girl and to be back in carpentry."

Kasandra, who is about to graduate from the four-year Apprenticeship Carpentry Program, didn't let a major injury

get in her way. With approval from her doctor she headed back to school in the spring of 2011. GPRC Carpentry Instructor Gary Thompson has taught Kasandra from day one and admires her perseverance. "There were never any complaints or excuses and I respected that." Dave Long, chair of the Carpentry Program, agrees. "She's a great example of someone who looks ahead for the finish line and is going to meet that challenge."

Enjoying the Outdoors

It's obvious from talking to Kasandra why she chose to go into carpentry. "It's something you never get tired of. You have to use your brain and there's math involved. It's challenging mentally and then you must meet that challenge physically too." She points out why it's better than a desk job. "You're not going home stiff and sore from sitting all day; you get to move and if you're outside, enjoy the sun."

For Kasandra, the carpentry trade is not only a passion but also a family tradition. "I always liked trades in general; and



Assembling a Career – Bliss working with her instructor at GPRC while they put together some casegoods.



Lots to Learn – At college Bliss learned a lot about the machinery, tools and materials that are used in the trade.

along the way there were little things that led me to it.” One of those little things was the guidance she received from her grandfather as a child. “When I was a kid I would try to construct things,” she laughs. “They didn’t always turn out so well. My grandpa, a carpenter and autobodyman, showed me a couple of things and helped me out.”

Kasandra is enjoying working for R & D Enterprises in Grimshaw, Alberta. “I like the work we do. Day to day it changes; sometimes we are doing additions, sometimes we are building in the oil field and sometimes we are doing renovations.”

Her employers encouraged Kasandra to get her certification as a journeyman. Initially it was the close location that brought her to GPRC Fairview Campus for training but the personable instructors and small classes keep her coming back. “Fairview campus has a great community feel; the instructors are invested in the students, they motivate you and try to help you out if you need it. They have a great set-up in the shop and it’s nice to work with a variety of tools without having to wait behind seven or eight other students.”

Her instructors say it’s a two-way street. “She’s a real go-getter, a capable student and she has excellent hand skills,” says Long. “Her ability to work any problem out mathematically is fantastic.” Thompson adds, “You’d expect her to be a bigger girl. She’s just around 5’3” or so, but she does everything the guys do, and it doesn’t faze her at all.”

She has run into some roadblocks in the past getting hired. Some companies hear a girl on the phone and they think, “I’m not calling that one back”. As a certified journeyman now, a resume will have a little more weight.

A Rewarding Occupation

In fact, the industry may be turning its attention to the positive attributes a woman can bring to the jobsite. “I’ve been in this business 30 years,” says Thompson. “And now I am seeing more women do every step of the trade – even concrete, which is hard on the body.” Long says he hopes more women will enroll because there are inherent aspects of carpentry work that are suited to them: “There is this historical stereotype but the women I have taught really enjoy it because it’s a very creative, imaginative trade; you are constantly visualizing projects and seeing them come to fruition. Women tend to be naturally creative.”



Helping Hands – Bliss, center, with (L to R) Gary Thompson (instructor, carpentry, GPRC), Dave Long (chair, carpentry/pipe trades & power engineering, GPRC), Pete Dechant (instructor, carpentry, GPRC) and Chris Laue (dean, trades, agriculture and environment, GPRC).

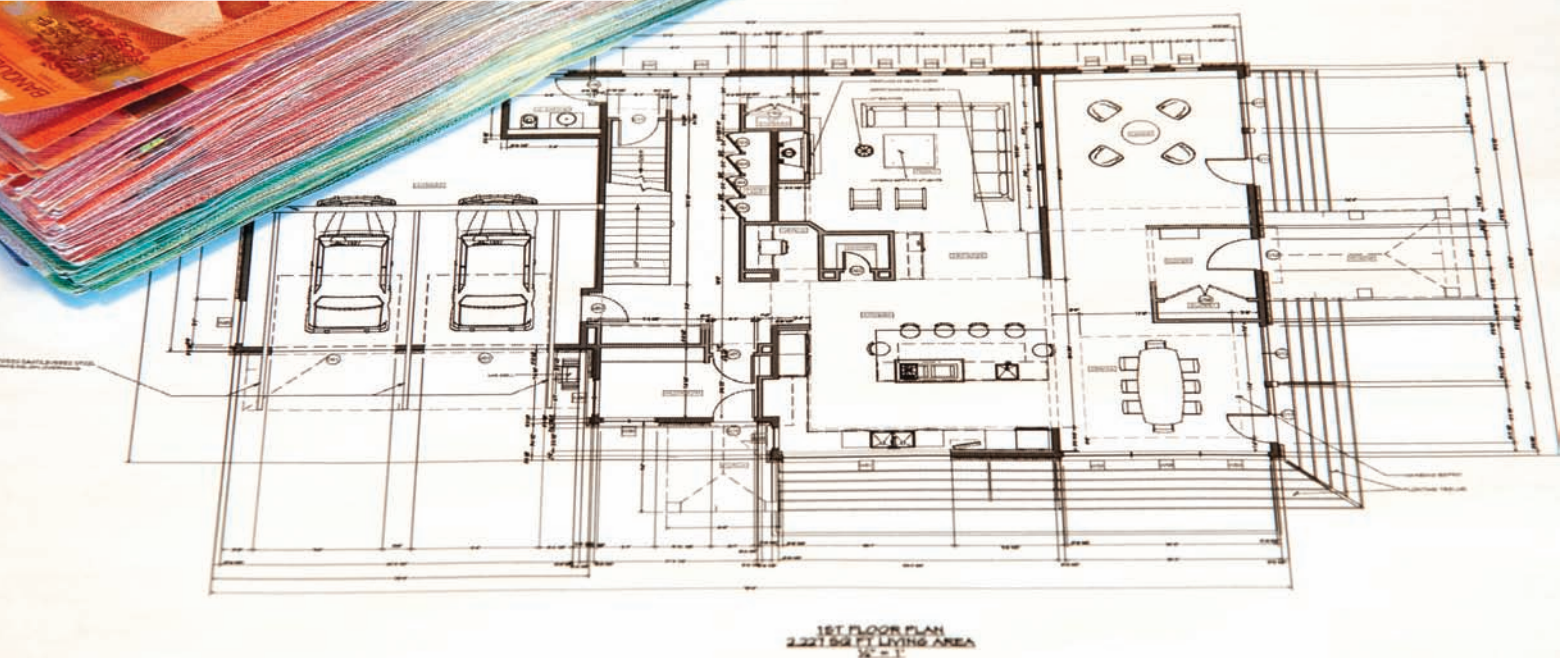
For prospective female students looking to get into the industry, Kasandra recommends they take an introductory course to see if there is a good fit. “If they like to work with their hands, there’s a program at GPRC called Trades Work for Women, a Government of Alberta program.”

She says she not only finds satisfaction in a job well done but also in the transformation of the project itself: “It’s awesome during the building process; it’s almost as if you have x-ray vision. You can see all the steps and layers going into the project.” When asked if she would like to move up and one day run a construction crew, Kasandra is modest for someone who has accomplished a lot. “We’ll see further down the road – that would be alright. Right now I’m focusing on getting as much information and skills as I can.”

CARRIE NICHOLSON
morecj@gmail.com

When not writing, Carrie can be found trying to tell a story with her camera or being sous-chef to her husband the cook. Her favourite activity is spending time dressing up with her two little girls.





Common Cents: RENOVATION FINANCING

BY ROB BROWN

Most of us enjoy making small improvements to our own home, but what about the big stuff? And what about financing a larger renovation? Will it improve your home's resale value? What will give you the most bang for your buck? How should you obtain credit to finance a large renovation? I spoke with four professionals and asked them all about the financial side of renovating a home.



Brendan Charters,
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manager,
Eurodale
Developments
Inc.



Matt Dunkin,
general
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In this economy, what do you hear from people as their main worry about renovating their home?

BC: Typically they are fearful of over-spending and not getting the return on their investment. There is more value in a well-designed renovation.

Is this a good or bad time to renovate your home, and why?

BC: It's a great time to renovate. Interest rates are at historical lows and material rates are still (somewhat) depressed given the stoppage of work in the US. This will be a different story when interest rates rise and the US housing crisis sees a solid recovery. Lumber prices have already increased 18 per cent since January 2012 with only a very minor re-start to new home construction. Once things are back to normal growth rates and interest rates begin to climb, the costs will be much higher than we are seeing today.

FH: In the current real estate environment, many home owners may decide to give their home a facelift instead of moving, seeing renovation as a less expensive option since housing prices are so high. Renovating lets you keep what you like about your current home and change what you don't like, and is usually a more affordable option than moving. Some renovations can save you money on your energy bill, allow

you to generate income or even save you money on insurance premiums.

Assuming people have the skills to complete a part or all of the reno, will renovating your own home save you much money, in the long run?

BC: Of course, assuming they don't mess anything up of course. Sweat equity will save you immensely in the labour costs, but you must ask yourself if it is the best use of your time and energy, or if it makes better sense for you to be doing something else and leaving the project up to the pros.

MD: When deciding what you will hire out and what you will do yourself, you'll need to weigh your skill set, priorities, and quality tolerances for both the process and the end product. You may have always wanted to tile your bathroom, but you may not know how. If you learn how, it may not turn out as professionally as if you had hired the work out, but you will have had the satisfaction of doing it yourself, which may be important to you. If you want to act as your own general contractor because you want to, that may be doable, but if you do it only to save money it may end up costing you more. Bringing together a group of tradespeople who need to dovetail together their services on a project like a bathroom is no small feat. If you have to give up pay to complete the work, in the long run it could cost you as much, or more, as hiring someone else.



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Are there general situations when you advise people not to spend money to renovate?

BC: If the house is not structurally sound, it may make better sense to tear it down and build new. Likewise, if it will create crushing debt issues then obviously it doesn't make sense.

FH: According to Canadian Mortgage and Housing Corporation guidelines, your monthly debt load (the amount that goes towards paying down debt each month) should not be any more than 44 percent of your total pre-tax monthly income. Although renovating your home can be a wise investment, if financing the renovation will bring you over that threshold, you should concentrate on paying down debt before renovating.

DW: Renovations in homes that are already priced at the upper end of the range for the neighbourhood (i.e., your house is the highest price home on the block) will generally provide lower returns than those priced at the lower or mid-range for the neighbourhood. Replacing items for personal taste – modern style cabinets with another type of cabinet – will not provide returns to the degree of updating dated cabinets with modern cabinets. Also renovations in homes that have maintenance problems will have a much lower impact on re-sale price. For example, renovating the bathroom when the roof needs replacing is a bad idea.

Are there certain types of renovations that you would recommend over others?

BC: Not often thought of as renovations, general maintenance and upkeep is key to protecting your investment. I would put that at the top of the list. Second, I would suggest your money is best invested in a kitchen and bath renovation since they yield such high return on both enjoyment value and resale value. If you are seeking additional space, don't discount the basement remodel or the attic conversion. They can be a cost-effective way to obtain great additional living space.

FH: Many times there are green options for your renovation project that I'd

recommend investigating. For example, if you're replacing your windows, look for insulated glass. Sometimes these options cost a bit more initially, but they can make sense financially in the long-run.

DW: Generally, landscaping and painting are cost effective high return renovations. Followed by flooring, kitchen and bathroom renovations. However, always keep in mind the price level of your home and its position in the market. Putting a million dollar kitchen in a \$50,000 house simply does not make sense. In some areas of the country, outdoor living areas (well-constructed decks and patios) are also a good investment.

What are the best ways to obtain credit/cash in order to complete a renovation?

BC: I suggest working with a mortgage broker to find the institution that is providing the most competitive rates, and are familiar with the home renovation lending process. HELOC's (home equity line of credit) has proven to be the easiest, second would be a refinance of a current mortgage. If your lender has a series of stage draws, ensure your project funding works with their proposed draw schedule.

FH: A home equity line of credit or a mortgage refinance both allow you to use the equity you've built in your home to finance a renovation. It can be a lower interest option than other forms of credit (credit cards, unsecured lines of credit, etc.). With either option you can access up to 80 percent of the appraised value or purchase price of your home (whichever is lower) to apply toward the renovation. Crunch the numbers with a financial advisor, who can help you decide if this is the right investment for you. With a home equity line of credit (HELOC) you can access up to 65 percent of the appraised value of your home. A HELOC offers similar access features to a personal line of credit however since your home equity is attached to it as collateral, it carries a lower interest rate than a standard unsecured line of credit. You do not withdraw the money until you need it and you only pay interest on the amount used. You

can withdraw all or part of it at any time, and pay some or all of it back as you wish. You can access even more of the appraised value of your home (sometimes up to 80 percent) through a mortgage refinance. When you refinance, you borrow the full amount and therefore will pay interest on the full amount as you pay back the money (vs. a line of credit where you only pay money on the amount used). There are a variety of terms, interest rates and repayment schedules available, and the benefit is that you will only have one mortgage payment to contend with monthly.

At what point does increasing the scale of your renovation make sense?

MD: My wife and I recently decided to undertake a major renovation on our home. We chose to break it into two stages to make it more manageable. We rented a house and moved out for three months and approached the work required within the existing footprint. Phase one was a big deal, both in scope and cost. When you're already up to your knees in the process, sometimes it makes sense to wade in a little bit further while you're there, as much as you really don't want to. That's what we did. Because we weren't living there, and so much was open, we tore out a chimney and fireplace, added a window, moved half the walls in our house, and we ended up rebuilding the second story floor from beneath. You have to come to grips with the dangerous truth that when you start ripping and tearing, you will be temporarily decimating the value of your investment, and then proceed gleefully in order to make it better.

What are some of the tax credits or other savings often associated with renovating a home?

BC: Though these are always changing, currently there is a substantial renovation GST rebate, and if you move out for the renovation MPAC will adjust the taxes that are payable during the renovation timeframe. Google and the CRA websites are your best resources.

Is there a financial and time “buffer” you would recommend to folks considering a large renovation?

FH: I recommend homeowners build in a 10–15 percent contingency plan for budget overruns. You should also give some extra time for completion. A week-to-10-days grace period to have a project completed should be reasonable for a smaller project, but could be much longer for a big project. Your key will be to revisit your initial plan and your budget throughout the renovation as this will help keep you on track.

MD: Get quotes or estimates on the work you will hire out. Detail out all the costs of the materials as well as anticipated waste (usually 5 percent) and don't forget to factor in tax to the totals. Decide whether you will count your own time and sweat equity you will invest in the project, especially if it pulls you away from being able to make other income. And then when you have a comprehensive total, add 20 percent for a grand total. That 20 percent will encompass the inevitable unpredictability of a renovation project. Whether you encounter mold, asbestos, pest damage, structural or mechanical issues that 20 percent, when you've reconciled yourself to it, will be your peace of mind.

How much money should people expect to receive on their renovation investment when they sell their home?

FH: Before deciding to renovate, you should think about what your priorities are for the project. The renovations that will really increase resale value can be things that you won't even notice day-to-day because they are below the surface and not aesthetic changes – things like updating your electrical systems, ducts, plumbing, heating, etc. On the other hand, some renovations or upgrades can make a big difference to your level of comfort in your home but may not make a big difference when it comes to increasing the resale value.

If your goal is to increase resale value, before deciding on a renovation budget it may be a good idea to consult with a

Things to consider when looking for a contractor

- How long has the contractor been in business? Did they previously operate under a different name? Are there any complaints lodged against them?
- Are they registered with professional associations? What are they licensed for?
- Who are their subcontractors? What is the experience of the subcontractors who will work on the job?
- Are they insured through Worker's Safety Insurance Board, or do they have Business Liability Insurance and worker's compensation for their workers?
- Ask about zoning and bylaws and which permits are needed. Who will obtain these?
- How long is the project going to take? What provisions are there for delays? Work with your contractor to review the process on an on-going basis and discuss any issues as they arise. If there is a problem, try to work it out with the contractor. If that fails, put it in writing and copy your provincial consumer protection branch and better business bureau.
- Ask for references. These are a MUST! Ask for names of customers who have had similar work done. Try to view a recent project (to see current workmanship) as well as an older project (to see how it has stood the test of time). Ask the homeowners what went well, what problems or concerns arose, and how were they handled. Was the work done to their specifications, on time, on budget? Would they hire this contractor again?

local realtor who can show you comparable homes in your neighbourhood, what condition they were in and what they sold for. The Appraisal Institute of Canada provides an online tool that can help you evaluate the potential return on your renovation investment:

http://component.aicanada.ca/e/resourcecenter_renova.cfm.

DW: Returns on money invested will vary from project to project and market to market. A large number of factors will contribute to the return homeowners can expect. A designated appraiser (AACI or CRA) with experience in a specific market can provide the best localized insight on the returns in a given area.

What things are home buyers drawn to when looking through a home they are considering purchasing?

DW: Firstly on the exterior that the landscaping is well kept and the exterior of the home is either freshly painted or nicely kept – it is a cliché but curb appeal goes a very long way. With the availability of listing information on the Internet, buyers have the ability to look

at hundreds of homes before even leaving their couch. If the exterior of the home does not present well, you may not get a first look. On the interior, neutral colours, modern flooring, nicely appointed bathroom(s) and kitchen facilities and lack of clutter will all be positive features, as will the absence of a need for major repairs required and the fact that all prior renovation projects are complete (for example, that last piece of trim, or the light fixture in the laundry room).

In what situation would a renovation be a detriment to a potential buyer down the road?

DW: Extensive personalization of the home with respect to layout or colours. For example, in a neighbourhood where most homes have double-garage facilities and market participants are looking for garage facilities, extensive renovations converting the garage to a 'man cave' or fitness facility may not provide any return. In terms of colours, you may love the hot pink wall colour in the master bedroom or the sea foam green carpets in the bathroom, but potential

Insurance Info

Dave Minor, vice-president, TD Insurance, offers his top tips to homeowners on how to protect their biggest investment during renovation season this year:

Check your insurance policy – While it's exciting to get the wheels in motion for the kitchen or basement of your dreams, the first call you should make is to your insurance provider to ensure you have adequate coverage during the renovations. For example, some homeowners may not be covered if they vacate their home for a certain amount of time. Don't forget to let your insurer know of any upgrades, too.

Consider your renovations – A marble countertop in your kitchen may be high on your list, but consider renovations that will not only increase the value of your home, but also save you money on your home insurance. For example, installing a home security system can reduce your premiums, and upgrading your basement to ensure it is watertight can save you from expensive headaches down the road.

Do your homework on your contractor – Your contractor should have general liability insurance, which will protect your home from damage or negligence from the contractor or anyone they hire to work on your property.

purchasers are looking at the home with dollar signs for costs to renovate floating through their minds.

What are some of the small renovations you find yourself recommending the most, if homeowners want to sell their homes down the road?

DW: Generally, items such as landscaping and painting will have the highest returns, followed by kitchen, bathroom and flooring upgrades.

Do you have any general advice for Canadians who are considering a renovation?

BC: Get it in writing. Do your homework to find a company that you feel comfortable with. Vet them to ensure they are licensed, insured and are experienced doing the type of project you are looking to undertake. Furthermore, ensure the clients they did this type of project for were happy. Don't be afraid to ask questions and document details of the project and responses to ensure you have clear details to refer back to in the event of a dispute. Remember it takes two to tango, and the success of this homeowner-contractor relationship is like a marriage. You are not buying a

cell phone, you are working with a person to improve your home, and it may be a yearlong process. If you are not going to do the work yourself, I recommend starting at your local home builders association to find nationally recognized Renomark Approved contractors that all abide by a strict code of conduct and ethics and are all focused on running their businesses and working for their clients as professionals. Visit www.renomark.ca to find out more.

FH: A renovation can be a smart and affordable way to upgrade your home. It can make your home more livable and comfortable for you, but in order to truly relax you need to keep your renovation on budget. Before starting a project, do your research on costs and build a buffer into your budget for any unexpected expenses. Finally, ensure you are aware of any bylaws of your local city/municipality before you undertake any major home renovation projects.

DW: Carefully consider your motivations for renovating – are you renovating to sell the home at a higher price or in a quick time period? Or are you renovating because you want to remain in the home and are looking to increase your enjoyment of it? With that in mind, consider your proposed renovation carefully and keep in mind both the trends in the

market (are prices going up, down, stable?) and within your neighbourhood (where does your home sit in the neighbourhood in terms of price levels – high end, low end or average?). If your home is already at the upper end of the price range for your neighbourhood, you have to consider whether you will realistically be able to get your money back. Appraisal Institute of Canada members live and work in most areas of the country. They are in literally thousands of homes each day. If you are considering a renovation for your home and are unsure of the potential payback or return on investment, contact an Appraisal Institute of Canada member with a CRA or AACI designation.

MD: In deciding what to renovate, I think you need to balance the resale value of the work you undertake with a sense that if you make decisions based solely on what you perceive other people will buy you will never fully feel at home – you'll be living in someone else's home. I don't recommend ridiculously quirky renovations, but at the end of the day I won't argue with you about your aesthetic decisions, or what your priorities are. In customizing a home, you run the risk of functionally or aesthetically tailoring it to fit you, and chances may be that it will reduce the number of people who would buy it for themselves. Factor in how long you plan to live there, and how much you will enjoy the renovation for that period, not just in what you would get back out of it. In the end, get good advice, weigh that advice against your own priorities, and proceed in as balanced a manner as you can. Everyone will tell you that statistically you will get the most return on your investment from renovating your kitchen and bathroom. But what if your bedroom drives you crazy and needs to be re-organized first? Or what if you hit your head every time you go up the stairs? In the end, quality of life doesn't get reflected in only a dollars-and-cents view of things.

ROB BROWN

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Difference of Pulling – Both shavings were produced with a plane set for an effective cutting angle of 37°. The shaving on the left was pulled vertically out of the plane's mouth while the shaving on the right was allowed to curl freely.

A Unique Way to Wrap Presents

While you're wrapping presents this year, head to the shop. There's nothing more eye-catching than a handmade wooden ribbon and bow.

BY CHRIS WONG

As Christmas nears, you'll find me in the workshop making presents. I value unique, handmade items and so do my family and friends. A handmade gift cannot be beat. Some of my favourite gifts to make are wooden jigsaw puzzles and small boxes. I like to wrap them in brown kraft paper and finish off with a wooden ribbon and bow.

I got the idea two years ago on Christmas Eve while wrapping gifts

in my private space – the workshop. Experience with hand planes has taught me that I can control the shape of the shavings three different ways: varying effective cutting angles, skewing the plane body to different degrees, and controlling how the shaving clears the plane's mouth.

Not Every Wood is Suitable

Stock selection is very important. Choose a wood that is easy to work and has straight, non-reversing grain. Basswood and poplar are good choices.

The board's thickness is equal to the width of the ribbons produced; $\frac{3}{8}$ " is a good place to start because wider ribbons are more difficult to produce and narrower ribbons are harder to keep from twisting when installing them. The length of the board should be at least a few inches longer than the girth of the box.

Thick Shavings with Minimal Curl for the Ribbon

The criss-cross ribbon shown in the lead photo is made from two long, heavy poplar shavings. They are about 0.003" thick and I use the following techniques to minimize the curl in the shavings, making them easier to manipulate.



Pulling a Shaving – Once Wong gets the plane started, he uses his forward hand to pull the shaving straight up out of the mouth.

Photos by Chris Wong



Bow Close – The bow is comprised of multiple wavy shavings carefully wrapped around each other.



Restricting Shaving – Wong places his forward hand over the mouth of the plane to restrict the shavings and cause them to curl. Varying pressure on the shavings as they are produced results in different effects.

To cut the ribbons, I start by checking that I have a keen edge on a 25° plane blade. Set upon the 12-degree bed of a low-angle jack plane, the tool's effective cutting angle is 37° (a block plane could be used, but the adjustable mouth on mine doesn't open wide enough to allow a 0.003" shaving to pass through). I set the plane blade deeper than I ever would in a normal situation and took repeated passes to find a blade setting that produced a thick, strong ribbon and allowed me to make a smooth pass without too much effort.

The straighter the ribbon is, the easier it is to work with so I make sure not to skew the plane as I advance it and I also gently pull the ribbon straight up out of the plane's mouth as it is produced. This means that I am able to start the pass with two hands on the plane, but have to complete the pass with only one hand on the plane. It takes some coordination.

Delicate, Wavy Shavings for the Bow

The bow is made using different techniques. A single bow is usually comprised of two or three intertwined, wavy shavings. To make these shavings, I like to use a bench plane with a 45° effective cutting angle. The increased angle makes the shavings more wavy but not accordion-like, as a 60° effective cutting angle might.

You're probably familiar with the curly shavings produced by a bench plane, but that's not what I want for a bow. To get more wave in the shavings, I place my

front hand over the mouth of the plane to prevent them from ejecting as they would normally. With nowhere to go, the shavings fold back and forth over themselves. Skewing the plane to different angles also affected the shape of the shavings.

When I have a few of these shavings, I select my favourites and wrap them around each other to form a spherical shape and trim the ends with my shop scissors.

Mounting

To adorn the wrapped present, I first select the two best ribbon shavings. I use transparent tape to stick one end of the shaving at the center of the top of the box and wrap the shaving around, back to the center. I trim it to length with scissors and use another piece of tape to secure it. I repeat the process at 90° for the second ribbon. Then I decide which part of the bow is the most flat and secure it where the two ribbons cross with a blob of hot glue.

I've found that recipients of my gifts like to spend a few minutes admiring the wrapping job before carefully removing and setting aside the bow and ribbon. Then they tear into the paper.



Taped Ribbon – Use transparent tape to secure the ends of the ribbon under where the bow will be placed. Hot-melt glue would also work.



Ready to Give – Finished, the wooden ribbon and bow lends a unique and memorable touch to the carefully crafted contents.

CHRIS WONG
chris@flairwoodworks.com



8 GREAT WOODWORKING BOOKS

BY ROB BROWN

The holidays are a great time for giving and receiving. They are also the perfect time for reading woodworking books. Here's my selection of great reads to put on your wish list.



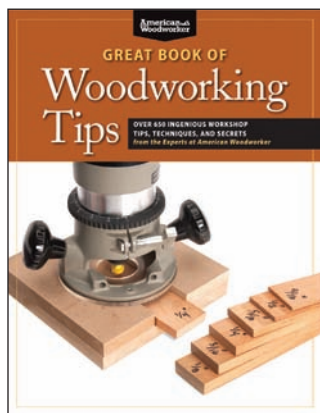
Advanced Veneering

Scott Grove
Schiffer Publishing
www.schifferbooks.com
ISBN 9780764338465

This is, as the title states, a book that details some incredibly advanced veneering techniques. If you have a solid foundation in basic veneering, and want to see what else can be done with this wonderful medium, this book will have you laying out veneer in ways you've never previously dreamt of. It will also have you asking yourself what else is possible. The extremely detailed step-by-step photos keep you visually onside with what Grove is doing, as words (as clear and concise as they are) are not enough.



Advanced Veneering – If you enjoy working with veneer you will be amazed at what Grove does with this misunderstood material.



Great Book of Woodworking Tips

American Woodworker
Fox Chapel Publishing
www.foxchapelpublishing.com
ISBN 9781565235960

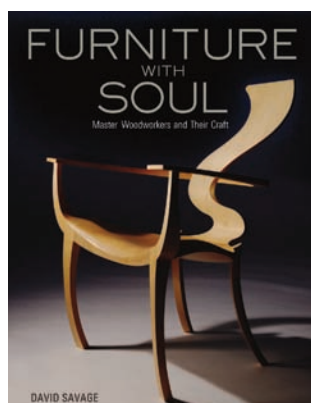
When this book showed up at my studio I was very sceptical. Yet another “book of everything”? But after spending only five minutes skimming through it, I learned about a couple of storage ideas my shop needed, some cool new jigs that would come in handy and a few tricks to make my time in the shop more enjoyable and productive. There will be hundreds of ideas in here you will have no interest in whatsoever, but that's all right ... there are over 650 ideas in total, so some are sure to tickle your fancy.



Tree Craft

Chris Lubkemann
Fox Chapel Publishing
www.foxchapelpublishing.com
ISBN 9781565234550

If you're looking for fresh, simple projects that have a rustic touch to them, this is the book for you. Lubkemann has a way of finding a project in just about every part of a tree; from candleholders, photo frames and salt shakers to coat trees, lamps and a checkers set, there are projects big and small. Whether you're looking for some gift ideas or you want the odd project to keep you busy over the winter, I'm sure you will find something here.



Furniture with Soul

David Savage
Kodansha International
www.kodansha-intl.com
ISBN 9784770031211

Furniture with Soul sheds light on some of the world's most respected and revered makers of fine furniture.

Going into their shops and learning how they got into the craft, what they most enjoy about it, and hearing some funny stories along the way is what this book is all about. It's not a how-to in any way, unless you're talking about how these selected group of makers made a living creating exquisite works of art. Beautiful photos of creative and challenging pieces of furniture are included throughout. My favourite book from the last year.

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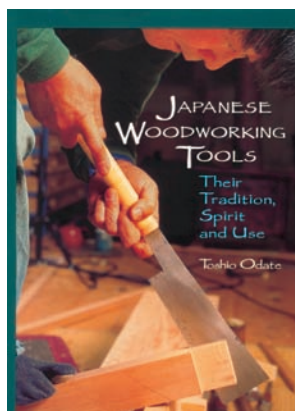
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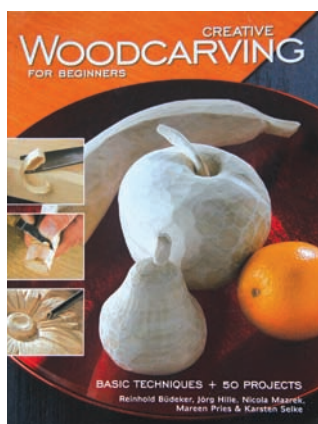


Japanese Woodworking Tools

Toshio Odate
Linden Publishing
www.lindenpub.com
ISBN 9780941936460

Being a lover of Japanese design and tools, I'm embarrassed to say

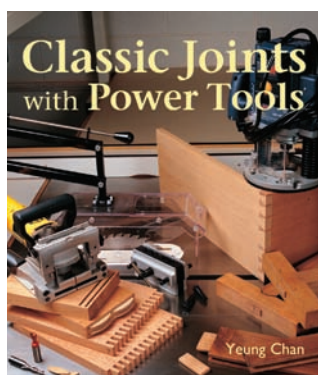
I only picked this book up in the last year. I was anticipating a straightforward, almost encyclopaedic, approach documenting the history and use of most Japanese woodworking tools. I got that, but also so much more. The stories Odate tells of his youth and apprenticeship are truly jaw-dropping, and reveal as much about working wood in Japan as what life in a fascinating and secluded Pacific country was like when he was young. I was five minutes into this book, and I guess I had an astonished look on my face, when my wife politely asked how I was enjoying the book. I looked up in bewilderment, paused for about five seconds, and said "It would take me an hour to explain what I've learned in the last five minutes," and went on reading. Even though this book has been around for decades, it's worth reading today.



Creative Woodcarving for Beginners

Budeker, Hille, Mazrek, Pries & Selke
Lark Publishing
www.larkcrafts.com
ISBN 9781600595868

This book was put together to introduce people to the world of carving, and I think it does a great job. Starting with tool selection, sharpening and other important, but often overlooked aspects of the craft, it moves on to discuss chip, relief and sculptural carving. With a chapter on surface decoration as well as a section of scaled patterns to get you started, this book has a bit of everything. And even if you're not interested in traditional carving projects, the skills learned in this book will introduce you to techniques that can be used to add texture to your next furniture project.



Classic Joints with Power Tools

Yeung Chan
Lark Books
www.larkbooks.com
ISBN 9781579902790

Chan's desire for strong, lasting, easily repeated joints using power tools makes for a fun and educational read. He also has a strong interest in traditional Chinese furniture, and shows how some of those joints can be cut with power tools. This book will not only teach you how to machine about 100 useful joints, but will also open your eyes to using new, fun to make joints in upcoming projects. Chan assumes readers know how to use their machinery and power tools, so he focuses on the procedures required to produce the included joints.



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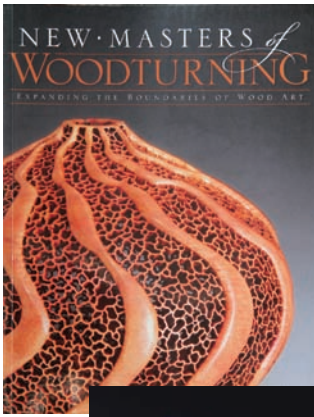
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New Masters of Woodturning

Terry Martin & Kevin Wallace
Fox Chapel Publishing
www.foxchapelpublishing.com
ISBN 9781565233348

This is a beautiful and inspiring book for anyone who wants to broaden their horizons when it comes to turning. Not a how-to book, it talks with over 30 world-renowned turners about their approach to the craft, and what keeps them motivated to push the boundaries and create exquisite pieces of art. You will learn more about the makers' vision than how they produced their stunning works of art. I read every word of this book and studied every single photograph, and was completely enthralled the entire time. And I'm not even a turner! This book is for anyone serious about turning, or woodworking in general.



New Masters of Woodturning –
Martin and Wallace talk to some of the world's best makers and see what keeps them inspired.



ROB BROWN
rbrown
@canadianwoodworking.com

Rob suggests circling a few books and leaving the page open for your family to see. Unless you really do want more socks for Christmas.

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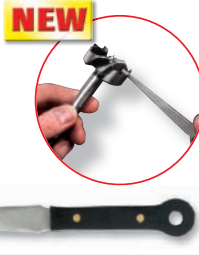
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Make a Children's Sleigh

Rather than spend another Canadian winter waiting for spring, get outside, enjoy the snow and pretend you're a kid again!

BY ROB BROWN



Photos by Rob Brown Illustration by James Provost

To make the two bent-laminated, curved runners, you first need to make a form. Essentially, you must remove material the same thickness as the finished runner to form a cavity that the lamination strips will be glued-up in.

Start with a piece of $\frac{3}{4}$ " plywood at least 48" x 20". Make sure the sides are parallel and the corners are square. With a pencil, straight-edge and trammel heads lay out the curved rail. Make sure you lay out the shape so there's enough material to play with. When in doubt, make the form larger than you will need. Mark the quadrants of the arc, where the curved section joins the straight section. This line will guide you when routing the arc.

Attach a router to a circle-cutting jig at the correct radius, then attach the circle jig to the plywood form at the centre of the arc. So you only have to make one series of progressively deeper passes with the router, install a bit the same diameter as the rail is thick – $1\frac{1}{4}$ ". Make a series of shallow passes, stopping at the quadrants with each pass, to rout almost all the way through the $\frac{1}{4}$ " plywood. Leave at least $\frac{1}{8}$ " of material for now.

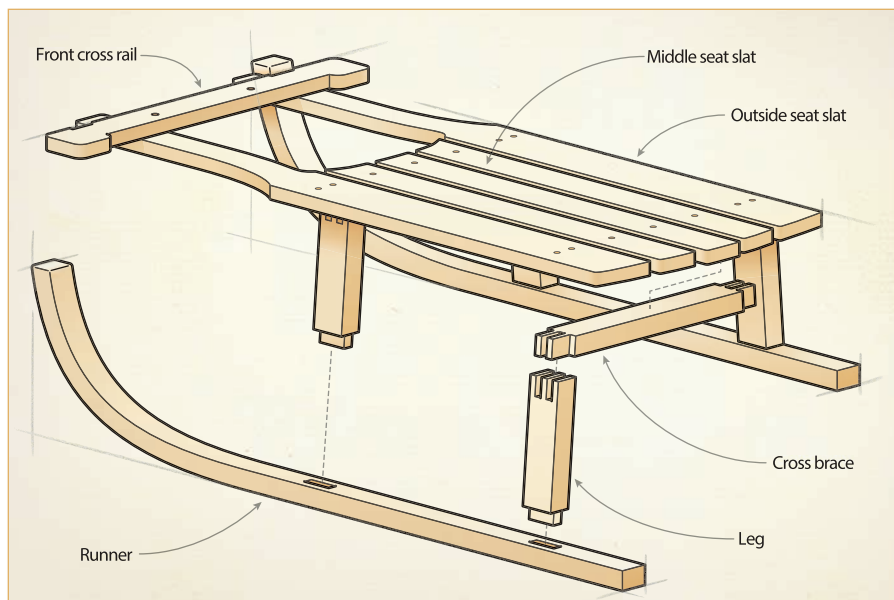
To cut the two straight sections of the form, measure from the edge of the plywood to the furthest edge of the routed groove (right at one of the quadrants), and set the table saw to cut that exact distance to the outside of the blade. Make the first cut, stopping just before the $1\frac{1}{4}$ " wide routed groove. Re-adjust the fence to make the second cut, flush with the other surface of the routed cut. In the second instance especially, don't cut too far, or you will cut into the curved edge. Stop short and use a hand-saw to finish the cut.

With a jigsaw, separate the two halves, then flush trim the curved section with a router. Cut additional pieces of $\frac{3}{4}$ " plywood that can be glued and screwed to both faces of the form halves, increasing the thickness of the form to $2\frac{1}{4}$ ". Bandsaw the waste nearly flush with the main, center piece of $\frac{3}{4}$ " ply, then trim everything flush with a router and flush trim bit.

Rather than leave the two form halves large and cumbersome, mark a line about 5" away from the edge of the male form, and about $2\frac{1}{2}$ " away on

Materials List

Part	Qty	T	W	L	Material
Runners	2	$1\frac{1}{4}$	$1\frac{5}{8}$	48	Ash – to be laminated from strips
Legs	4	$1\frac{1}{4}$	2	9	Ash
Cross Braces	2	$1\frac{1}{4}$	2	$14\frac{1}{2}$	Ash
Outside Seat Slats	2	$\frac{7}{8}$	$3\frac{1}{2}$	$39\frac{1}{2}$	Cherry
Middle Seat Slats	3	$\frac{7}{8}$	$2\frac{3}{8}$	24	Ash
Front Cross Rail	1	1	$2\frac{1}{2}$	$18\frac{1}{2}$	Cherry



the female form. The wider section will retain its shape during glue-up, while the thinner section will flex ever so slightly, accounting for any slight variations. To finish the forms, attach a 2" x 2" x 5" long solid block to the end of the female form. This block will help keep the two form halves aligned during glue-up.

To determine how thin to make the strips, I made a few test strips and bent them around the form, checking how hard they were to bend. You want strips that will bend fairly easily, and have no chance of snapping. For the white ash I was using, I settled on $\frac{1}{8}$ " thick. Even though the finished strips will be about 48", make them at least 6" longer, then cut them to length after they have been laminated. I also cut the strips from the same piece of wide lumber so the grain and colour would match nicely. Once you have broke out enough strips from $8\frac{1}{4}$ material to make the runners do a dry run of the glue-up. It can be a tricky procedure to align all the strips, and have the form come together nicely.



Careful Layout – In order to make a good form, you must lay out everything first and work to those lines. Here, Brown measures the distance from the outside of the form to the furthest edge of the routed groove to make the first tablesaw cut.



Apply Adhesive – Unibond 800 allows a long open time, which is great for this tricky glue-up. A dry run will also go a long way to a proper glue-up.



Trim Flush – A great way to ensure you have a square, true edge on the runner is to rout one face before removing it from the form (left). Set the bit just below the surface of the plywood base (right) and move the bit over the entire area of the runner.

The glue-up

I choose Unibond 800 (vacupress.com) as an adhesive because it's waterproof, produces a very rigid glue line and has a long open time. The resin and hardener must be mixed together before starting. It takes 24 hours to dry, but with only two runners to make that didn't pose any problems. Apply the adhesive (I used a cheap 2" paint brush) to both surfaces of the strips, get them into the form and add clamps.

After 24 hours, the adhesive was rock hard. Rather than removing the lamination from the forms, then truing and planing it, I flattened one surface while it was still clamped in the form. This made it easier to obtain a 90° edge that was straight and true. I took some of the clamps off to make accessing the workpiece possible. After setting up a router with a straight bit I added a partial base to the bottom of the router that would run on the wider, male portion of the form. I adjusted the height of the base so the bit protruded below the base by about $\frac{1}{8}$ ", then made multiple passes, truing up one side of the work piece.

Add a pencil line where the curved section starts so you can accurately orient the runners down the road. Once out of the form you can trim any ragged ends off, if necessary. Just be

sure to not remove too much length. The runner can now be planed to a final width of $1\frac{5}{8}$ ". Repeat the glue-up for the other runner.

Four mortises and tenons

I used a shop-made mortising jig to cut two mortises in each runner, but whatever method you want to use is fine. My jig is clamped in my bench vise, and the runner is in turn clamped to the jig. A template guide attached to my router base runs in a groove in the jig, which in turn guides my router. I machined a $\frac{1}{2}$ " mortise that was $1\frac{7}{8}$ " long and $\frac{1}{4}$ " less than the thickness of the runner. Although not critical, the front mortises were cut about 7" behind the quadrant pencil line, and the two mortises were 17" apart, on center. The final step was to cut the tail end of the runners to length, at a 10° angle.

Set the runners aside for now, and break out the four legs and two cross braces. An extra leg and cross brace isn't a bad idea, as angles have a way of confusing the situation. I then used a tablesaw and tenoning jig to cut the tenons on the end of each leg, fitted each tenon to a specific mortise and numbered each joint so they could all mate-up back together. Next, cut the legs to final length with a 10° angle on each end.

A special finger joint jig

To ensure a strong joint between the legs and cross braces, I decided on a joint with lots of face grain glue area; a finger joint. This would normally be an easy joint to machine, but the 10° angle made things more complex. The solution to this problem was a jig that would hold the parts 10° off perpendicular while they were being machined on the table saw. I assembled the particle board jig and made two particle board stops that could be clamped to the jigs' face to increase productivity and accuracy. I attached this jig to the surface of my cross-cut sled, perpendicular to the blade. I figured three 'fingers' on each leg, that would mate with two 'fingers' on the end of the cross members, would be enough surface area to hold solid. After laying out the joint, and marking the waste for clarity, I proceeded to cut the joints in the legs using the



Route the Mortises – A plunge router and a mortise jig makes quick work of making a set of mortises, although there are many ways to machine this joint.



Repeated Cuts – After laying out the finger joints and marking the waste portion of the joint, Brown set up a stop block to ease the process. A flat-top blade is great for this job, as it leaves a flat, even upper surface.



Cheap & Simple – In order to hold the workpieces on an angle, make a single-use jig. It's made with a bottom, face, four angled brackets and two stop blocks that are clamped to the face. It can be screwed to a crosscut sled, and then the workpieces can be clamped to the face and the fingers can be machined in their ends.



Feels Flush – With the finger joints on the leg (left) complete, you can use it to measure the finger joints on the cross brace (right). Brown made one pass on the outermost surface of the cross brace, used a handsaw to remove most of the waste, then used his index finger to check the joints against each other.

stops. I also made sure I used a flat top blade to produce a nice, even joint.

Once the leg portion of the finger joints were cut, I cut the cross members to length, with the same 10° angle on both of their ends. I numbered the four joints then transferred the location of the joint from the leg 'fingers', and reset the stop block. I started with the outside two surfaces, and made sure they were the correct width apart, or just a hair too wide. Checking against the appropriate leg joint gave me accurate measurements. These two surfaces would be easy to trim later with a shoulder plane to get a perfect fit.

When I was satisfied with the outer faces of the cross-brace I set the stops to remove the material between the two fingers. I set it up a little conservatively, not wanting to remove too much material. After a few test passes, I made the final cuts on

the cross-braces. I then fine-tuned each joint to make sure each was as strong as could be.

Glue things up

With the legs and cross braces ready, I sanded all the exposed surfaces and prepared for the glue-up. Again, I used Unibond 800 for this assembly. Covering all the fingers with adhesive and bringing the joints together, I clamped across the fingers and left it to dry. I found an interesting quality in this adhesive while using it. PVA glues cause the wood fibres to swell slightly, increasing friction during assembly, but Unibond 800 acted more like a lubricant, allowing the joint to come together a little bit easier.

When the adhesive was dry I flushed up the joint. Because comfort was important I opted for ¼" roundover bit in my



Interlocking Fingers – With both halves of the finger joint cut, you can fine-tune the fit with a shoulder plane and chisel.



Small But Strong – The thing that makes this joint strong is the large amount of face grain surface area for gluing. Apply the glue, bring the joint together by hand and clamp across the joint.



Transfer the Angle

– With the runners and leg assemblies together, sit the outside slat on the sleigh, overlapping the edge by ½". Slide it up the runner and mark where the slat needs to be cut. A screw will be installed through the slat, into the runner, for extra strength.



Add Two Arcs – Strictly for aesthetic purposes, arcs should be cut on both ends of the slats. With the slats temporarily attached use a beam and trammel points to draw two arcs, then trim the parts with a bandsaw.

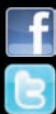
router to ease all the edges of the legs and cross-braces. At this point, I was ready to join the leg assemblies to the runners, so I mixed up more adhesive, applied it to the joints and brought everything together at the same time.

Start the seat

Break out the two outside seat slats to a rough size of 41" long and 3 ½" wide. Place them on the assembly, overhanging

the legs by about ½", and butting up to the front of the runners. Because the runners are on a 10° angle the outside slats will have to be angled on their outside edge to mate properly. Mark the angle and location on the front of the slats and use a handsaw, or a bandsaw with its table angled, to trim the slat. This angled surface will have to be faired with the rest of the edge with a spokeshave. Bandsawing the rest of the slat to shape is more about aesthetics than anything. Just be sure not to narrow the front of the outside slats as to overly





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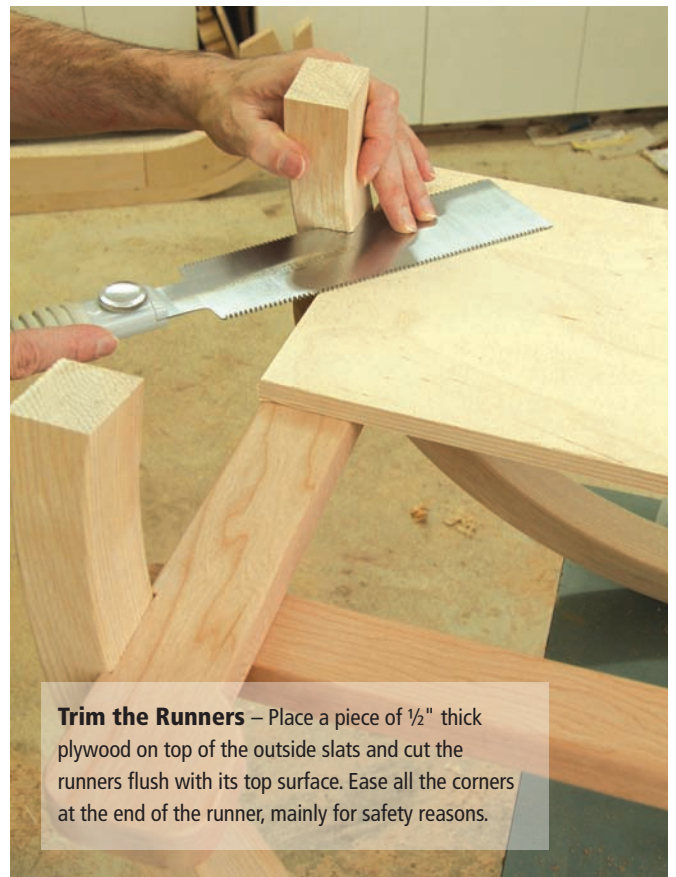
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Trim the Runners – Place a piece of ½" thick plywood on top of the outside slats and cut the runners flush with its top surface. Ease all the corners at the end of the runner, mainly for safety reasons.

weaken them. Though the backs of the slats are not cut to final shape, temporarily screw them in place while fitting the three middle slats.

The middle seat slats can now be machined, and temporarily screwed in place with even gaps between each slat. The finished length of each slat is about 24", but keeping them longer for now will allow for more flexibility when laying out their final shape.

Add some curves

With a piece of scrap clamped between the outer slats to give you a center point to use your trammel heads, draw an arc on the tail ends of all the slats and the front end of the middle seat slats. As long as there is some overhang from the two cross-braces, your main concern when drawing the arcs is how the sleigh will look. Remove the slats and bandsaw them to final shape. After rounding over the edges and sanding all the surfaces, reinstall the slats with glue and screws. Don't forget to add glue and a screw to the front of the outside slats, to fix them to the front of the runner. Plug the screw holes in the slats.

Next, cut the front cross rail to size, bandsaw a pleasing shape on it and fit it to join with the outside slats and runners. It might take some shaping to get it to fit nicely. Don't worry about a perfect fit though. Once ready, install it with glue and screws. This rail helps add rigidity to the sleigh and gives the user a great place to rest their boots while using the sleigh.

It's finally time to cut the front of the runners to length. With a piece of 1/2" material on top of the outside slats, flush cut the runners with a handsaw. Shape the area with a file and sandpaper, leaving no sharp corners. Drill two holes in the front cross-rail to accept the rope, and counter sink its edges so it doesn't wear the rope. Insert each end of an 8' length of 1/4" rope into a hole and tie simple knots underneath the rail.

Finish the sleigh

I applied three coats of exterior polyurethane to the sleigh, sanding between coats. Don't worry about the underside of the runners, as the finish will wear off very quickly. I think the best finish for that area is a light coat of paste wax, so the sleigh will be easier to pull across the snow and will go faster down the hills.

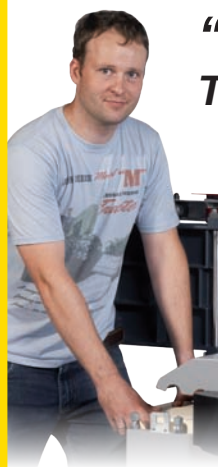
Now that you've had your fun making this sleigh, grab your kids or grandchildren and head to the hills. This might be the most fun you've ever had while using one of your projects.



ROB BROWN

rbrown@canadianwoodworking.com

Although Rob hasn't been on a sleigh in decades, he has spent a lot of time on the hills over the past year with his one-year-old son and three-year-old daughter.



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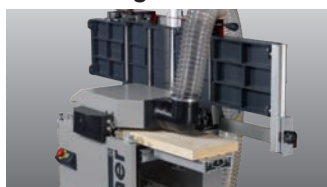
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Working Without NUMBERS

Working without numbers is all about minimizing the risk of mistakes. Rather than using graduated scales to transfer measurements, use a few simple tools and tricks to take the frustration out of woodworking.

BY CHRIS WONG

Any woodworker will tell you that one of the hallmarks of fine woodworking is tight joinery. The key to gap-free joints is the ability to make precise cuts, and accurate layout is where it all begins. Many of the tools in my shop have either metric or imperial scales, but

for the greatest accuracy I don't rely on graduations at all. Whenever a distance is converted into numbers, an opportunity for error is introduced – numbers may be misread or transposed and scales on tools may be calibrated differently.

What Tools Do I Use?

Although there are a few specific tools for direct measurement, it is not

imperative that you have them. Most woodworkers probably already have most of the necessary tools in their shop.

When transferring relatively short depths, such as a mortise's depth or offset from a leg to apron, I prefer to use a small combination square. A pair of calipers will also do the same thing. When possible, I prefer to use the end of the two jaws to get the measurement, but if the jaws are too large, I use the depth rod at the butt end of the caliper.

If I need to precisely scribe another piece with that measurement, I use a wheel marking gauge instead. The marking gauge's built-in cutter eliminates the need for a separate tool as with a combination square. With a marking gauge, it is easier to scribe an accurate mark because the cutter is integral.

A super-accurate way to divide a board into equal segments is to use a pair of dividers. Adjust the span of the dividers until you can walk the dividers across the board and the points fall on each edge. The same technique can be used to divide a circle or arc into equal segments. A slight modification to this



Some Basic Tools – Measuring tools that can be used include combination squares, marking gauges, calipers, dividers, story sticks and bar gauges (also known as pinch sticks).



Reinvent the Wheel – Though many tools work well when dealing with small distances, a marking gauge is perfect if you want to scribe a line on the workpiece. A marking gauge with a cutting wheel works best.

technique will help you lay out evenly-spaced dovetails too. (More on that later.) M Power Tools Ltd. makes a tool called Point-2-Point that makes dividing a length into equal parts easier.

When working with multiple identical parts, you can easily transfer your layout from one to the others – simply align their edges and carry the line(s) across with a square. Often, it is helpful to clamp the parts together to prevent them from shifting.

When transferring a length from one part to another, the surest way is to hold them together and mark right off the part's end. If that's impractical or too awkward, use a story stick or bar gauge (pinch sticks). A story stick is simply a straight length of wood longer than the distance you need to measure. Line up one end of the story stick with one reference surface and use a sharp pencil or knife to mark the opposite reference surface. A story stick may contain a single dimension or every dimension needed to recreate a project.

Bar gauges are a little different. A bar gauge consists of two parts, each shorter than the distance you wish to measure (or longer if you are taking an outside measurement), and some sort of clamp (such as your fingers or a spring clamp) to hold them together. In use, the bars are extended until they meet the registration surfaces and are then secured together. The advantage of bar gauges is positive registration.

No Numbers – In Practice



1 For demonstration, I built an inset drawer using the tools and techniques outlined in this article. With the materials surfaced, I needed to cut the sides and drawer front to width. I aligned one edge of the drawer stock with the top of the drawer opening and made a mark at the bottom of the opening.



2 At the tablesaw, I positioned the fence so that the blade aligned with the mark and ripped the drawer sides, front and back to width.



3 To determine the lengths of the front and back, I used a bar gauge and transferred that measurement to the workpiece.

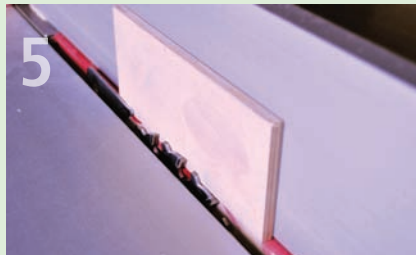
No Numbers – In Practice

4 To mark the sides, I slid them into the drawer opening until they contacted the back and marked accordingly at the front, remembering to factor in the joinery.

To mill the grooves for the $\frac{1}{4}$ " plywood drawer bottoms, I first set the blade height. Since the drawer sides are about $\frac{3}{4}$ " thick, I set the blade height to about $\frac{1}{4}$ ", using a scrap of $\frac{1}{4}$ " plywood as a guide.

5 Then I set the fence $\frac{1}{4}$ " away using the scrap as a spacer.

6 With the Kerfmaker calibrated to the saw blade, I then used it to gauge the thickness of the plywood.



(Almost) Automatic Joinery

Careful layout and cutting have always been keys to quality joinery but two new tools from Bridge City Tool Works help to simplify the process. Used in conjunction with any tool able to cut a clean, repeatable kerf such as a table saw, the Kerfmaker and Tenonmaker are used to cut cross-lap joints and tenons, respectively, with a high level of repeatable accuracy. Their use is simple and intuitive. Before the first use, they need to be calibrated to the blade they will be used with and the simple procedure is described in the manual.

To use the Kerfmaker, first gauge the thickness of stock that will fit into the housed joint and lock the setting. Note that when gauging stock you can control the tightness of the joint by squeezing tightly or applying only light pressure. With the gauge set, line up the first cut and position a stop block with the Kerfmaker between it and the workpiece, taking note of which way the offset is positioned and which way the stock will move for the second cut. Make the first cut, then flip the Kerfmaker and slide over your workpiece to make the

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7 To use the Kerfmaker, I positioned it against the body of the fence and clamped a stop block on the other side. I made the first cut, then unlocked the fence and flipped the Kerfmaker to locate the fence for the second cut.



8 To lay out the dovetails, I started by scribing the shoulders. To set my wheel-marking gauge to the stock thickness, I placed my drawer stock on a flat surface and bottomed out the gauge head.



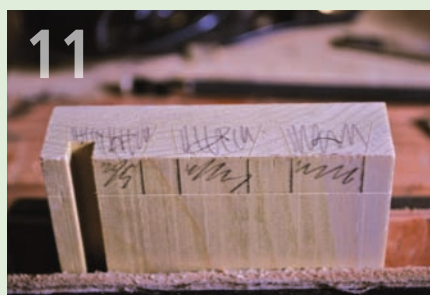
9 Then, to evenly lay out the spacing of the tails, I first reset my marking gauge to the width I wanted between the tails and made a mark referenced off each edge. Then I adjusted my dividers so that they would span from the edge of the board to the opposite marking gauge line in three increments (three because I wanted three tails)

10 Then I marked from the other edge, leaving me with even spacing for tails across the board.

11 Finally, I used a square to extend the marks across the end grain and cut the tails.

12 Then I positioned the tail board over the pin board and used a marking knife to lay out the pin cuts. I cut the pins and checked the fit.

Once the drawer was dry-fit, I used my bar gauge to determine the length and width of the drawer bottom. I cut the bottom to size and did a final dry-run before applying glue. After clamping up, I ensured that the drawer was square by comparing diagonals, once again using a bar gauge.



second cut. Finally, waste away the material between the two cuts.

Used with a tenoning jig and a table-saw, the Tenonmaker is set to the length and width of mortise (one at a time) and used as a flip stop like the Kerfmaker. Start with your mortise already cut and ends squared, then use the Tenonmaker to gauge the width of the mortise. Clamp your tenon stock in a tenoning jig and align it for the first cut. Set the Tenonmaker between the tenoning jig and a stop block and cut the first tenon cheek. Flip the Tenonmaker and slide the tenoning jig over, then cut the second cheek. Then set the Tenonmaker to the length of the mortise and make the top and bottom cuts. Finally, make the shoulder cuts to complete the tenon. The Tenonmaker can also be used with a bandsaw though the cheeks won't be as smooth. Of course, if the tenons are blind, this isn't so much of an issue. Also a tenoning jig is not needed and this has become my preferred method for blind mortise and tenon joints.



CHRIS WONG
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From his shop in Port Moody, BC, Chris Wong builds sculptural furniture, always working around the natural beauty of the materials. He is one of the most prolific Canadian woodworking bloggers.



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Meteor Cabinet

The contrasting colour of the stones and the carved texture around them add a lot to this otherwise unadorned cabinet. This is a playful way to explore the shapes and materials in the world around us.

BY ROB BROWN

A customer requested two similar cabinets to house and display jewellery. The overall dimensions and functionality had to be the exact same, but the ornamentation was left open for me to play around with. This article covers what I did with the first cabinet, and in next issue I'll detail the second cabinet.

Essentially, my only area for 'playing around' was on the exterior surface of the cabinet's four sides. Though I love wood, I've always been drawn to other materials as well. I picked up a lot of small stones over the years as I hiked our country's great trails, and had these worn, smooth stones just waiting for the perfect job. After bouncing around a bunch of ideas, I settled on a random pattern of stones that vaguely resembled meteors hitting the earth's surface.



Trace the Profile – Trace the shape of the stone on the hardboard so the pencil line is offset $\frac{1}{16}$ " to the outside of the stone's edge. When in doubt, leave a bit more material on the hardboard because more material can be removed later in order to enlarge the cavity.



Adjust the Fit – Once you've tested the initial hole on a piece of scrap, fine-tune the hardboard template to perfect the hole.

Photos by Rob Brown



Create the Cavity – With an accurate template you can start on the real cavity. Notice the piece of 1/2" ply between the hardboard template and the cabinet. This is to allow enough clearance room between the template guide and the workpiece.



Steady as She Goes – I used a power grinder with a cutting attachment to create the texture around each stone. I was extremely careful to have a light, gentle touch. A sharp carving gouge would also work well.



Install the Stones – Once the cavities were complete and a finish was applied, I used slow-setting epoxy to fix the stones in place. I first roughed up the underside of the stones to ensure they had enough tooth for a long-lasting joint.



A Strong Focal Point – The installed stones, with accompanying textured perimeter. Contrasting colours and textures add a strong, and unique, visual to this otherwise simple cabinet.

Stone Inlay

After playing around with the infinite possibilities for positioning the group of stones, I found one I liked and penciled in its location on the cabinet's surface. The stones are inlaid into the surface about 3/8", while the stones themselves were about 5/8" thick. The first step was to trace the first stone onto a sheet of 1/8" hardboard precisely 1/16" outside the edge of the stone. I had to offset the line because I was going to use a 5/8" dia. template guide and a 1/2" dia. router bit to create the cavity for the stone. Offsetting the initial stone pattern 1/16" to the outside would, in theory, create a cavity the perfect size for the stone. In practice, it wasn't so easy. I used double-sided tape to help hold the stone in place for tracing. I then viewed the stone from directly above while I ran a mechanical pencil along the edge of the stone and drew a line 1/16" away from its edge. I removed the waste with a coping saw and smooth the edge with some sandpaper. When in doubt, remove less material than you think, as you will perfect the fit later. I then set up my plunge router with a 5/8" dia. x 1/2" template guide and a 1/2" dia. x 1 1/2" long straight bit.

Before cutting into the cabinet I checked the template on some scrap wood. To rout the cavity I placed a

piece of 1/2" thick Baltic birch plywood, with an oversized clearance hole in its center, under the pattern in the hardboard and clamped the pair to a scrap piece of flat 2x6. The 1/2" plywood ensured the template guide on the router had enough clearance from the workpiece. After a test fit, the hole in the hardboard template had to be adjusted to fine-tune the routed cavity. Once the fit in the scrap wood was perfect it was onto the cabinet to nervously rout the first cavity. This process was repeated until all the stones had a final resting place.

The stone on the corner of the cabinet took a bit more work to get right. First working on a piece of scrap, I laid out the shape then started removing wood with a saw, chisel and some carving gouges. Once I was confident about the final look, I transferred some of those dimensions to the cabinet and set to work fitting the corner stone. Patience paid off as I eventually snuck up on a good fit.

Add some texture

To add a visual similar to what a real meteor would leave in the ground, I thought some carved texture would be appropriate around the perimeter of the stones. I used a power grinder equipped

with an Arbortech blade, but a steady hand was imperative. If you don't have power carving equipment, or the confidence and experience to make these fine marks, you could use a sharp carving gouge and work from the inside of the cavity towards the outside. A slightly random approach keeps the look more natural.

Epoxy is the answer

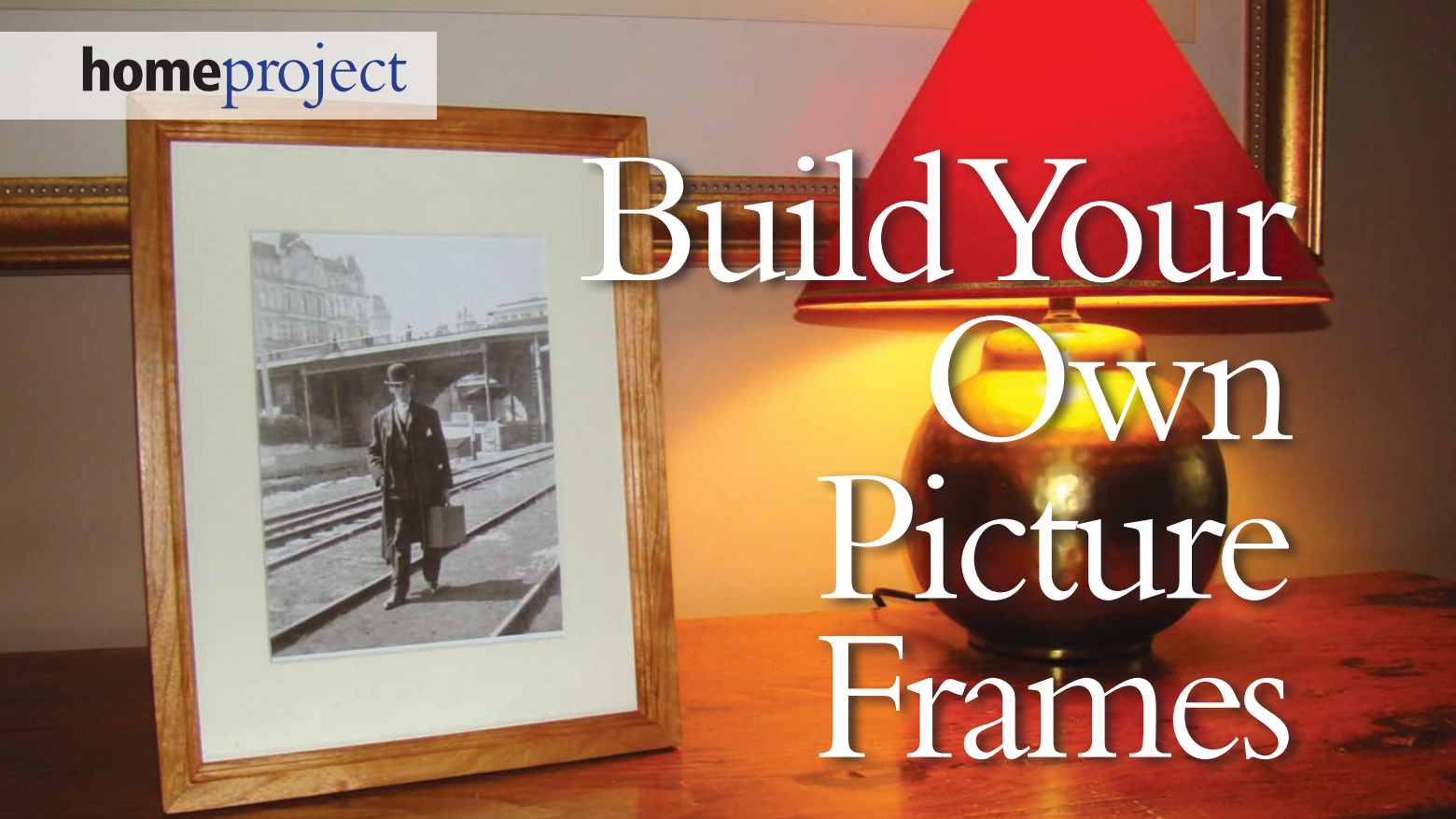
After applying a finish to the cabinet (I didn't want a finish on the stones as it would yellow them), I roughed up the bottom of each stone with sandpaper and a file to ensure it had enough tooth for a strong bond. To secure the stones in their cavities I used epoxy. Its great gap filling properties, long open time and ability to stick to almost anything makes it the easy choice. I mixed up the epoxy and placed just enough of it into the cavity so when the stone was inserted the cavity would fill of epoxy, yet not squeeze out, becoming visible. It's an exact science. Though I didn't get it perfect, I went by feel and was pleased with the results.

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Build Your Own Picture Frames

Rather than buy the same, standard picture frames that everyone has on their wall, learn how to make your own and a world of possibilities will present itself to you.

BY BILL PERRY

A few years ago, an aunt lent me an album filled photos of our family dating back several generations. Charmed by the quaint poses and changes in dress, I scanned the photos, intending to make digital prints to frame and display. All went well until I looked into the cost of framing.

I'm not down on framing shops – everybody has to make a living – but I was shocked to discover I couldn't afford more than a fraction of the number of frames I wanted. That prompted me to learn how to do it myself. It turned out to be not that tough, so to help you get started I'll pass along a few tips that I picked up along the way.

Your first step is wood selection. Take your time here and be a bit picky. You can use almost any straight-grained hardwood or softwood, but be sure it's

well dried and stable. You don't want your frame twisting and warping.

Practice restraint with wildly figured woods: they can compete with the artwork for visual attention. They're also much harder to mill and finish. Also, be wary of resinous woods like pine, which can ooze pitch seemingly forever.

Picture frame moulding is a little different from standard trim moulding. It has a rabbet at the back, which holds the glass, matt board, artwork and backing board. This gives it an L-shaped profile. The front of the moulding usually has a decorative profile. This can range from a simple cove or roundover to gilded rococo carving – it's entirely up to you.

The router table can do it all

You also have some options when it comes to how you make your moulding. I'll start here with the most

straightforward method, which is to do the whole job on the router table. You will have two profiles to rout: the rabbet on the back of the moulding and the decorative profile on the front.

To make the rabbet, use either a straight bit or a bearing-guided rabbeting bit. Your router table's fence controls the width of the rabbet and should be used even if you are using the bearing-guided bit. The fence allows you to make two or three safe, shallow cuts instead of one heavy one that risks splintering the wood, or worse, injuring yourself. Make your last pass over the bit a nice, light clean-up cut.

Once the rabbet is done, select the router bit with the profile you want, set up the router table with the fence, and run the moulding profile just as you did the rabbet, remembering again to keep the cuts light.

You can also cut the rabbet on the table saw. This is a good choice if you



Safety First – When cutting the rabbet with two cuts on the table saw, be careful that the second cut releases the waste piece on the outside of the blade. If it is trapped between the blade and the fence, you risk a dangerous kickback.



Start Straight – A chop saw makes short work of rough-cutting your frame pieces to size. Perry likes to make the first cut at 90° to break the stock out.

Normand Picture Framing Kit

This picture framing kit from **Normand** comes equipped with a saw, a mitre and fastening tool as well as all the joining and hanging hardware required to help ease you into the picture framing world for just \$39.99. For more information visit www.normand.ca.



have a lot of moulding to make; it's much quicker. You can use either a standard blade or a dado set. With the standard blade, two intersecting cuts remove the waste, while a dado set can plow out the rabbet in a single pass if it's not too deep.

When making two cuts with your standard blade, be careful as you make the second cut that the waste piece of wood releases to the outside of the blade. If it becomes trapped between the blade and the fence, you risk a dangerous kickback. Whether using a regular

blade or a dado set, a featherboard will help give safe and consistent results by holding the workpiece firmly against the fence.

Make up enough moulding for your frame plus a bit more, keeping the extra in reserve for machine setup and in case you make a mistake. You can cut the moulding with a power mitre saw, on the table-saw using a mitre gauge or mitre sled, or you can cut it by hand using a mitre box or saw guide.

The chopsaw or tablesaw are the fastest and most accurate; cuts made by hand are trimmed afterwards with a plane and mitre shooting board.

Layout is critical

Before cutting, however, you have layout, measuring and marking to do, and this is where the fun begins.



Think Twice, Mark Once – The pencil marks the spot you measure from: at the point where the mitre cuts across the rabbet.

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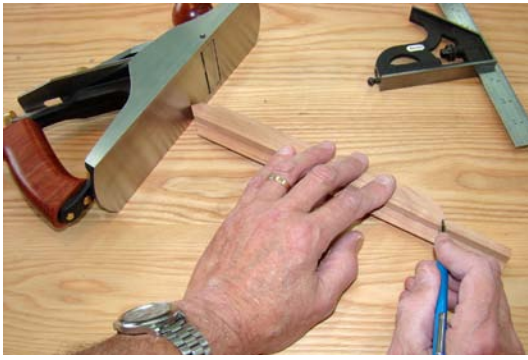
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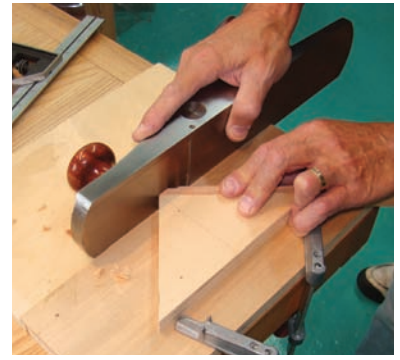
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No Numbers – Instead of measuring where to cut the second side, use the first as a template. Place the two pieces with their mitred ends against a flat object, in this case a plane, and just mark the length from one piece to the other.



Simple and Accurate – A mitre sled on the table saw is a good alternative to the chop saw for cutting mitres.



Hand-powered – A bevel-up plane like this low-angle jack is ideal for shooting the mitres.

Some people – me at the head of the line – have what I have dubbed “three-dimensional dyslexia.” This is the inability to pre-visualize how to orient your moulding before you cut it. You know you have the disorder when you go to assemble your frame only to discover it looks like something designed by M.C. Escher.

Amazed at the number of mistakes I’ve made over the years when cutting moulding, I’ve come up with a simple way to minimize the disasters and I’m happy to pass these tips along to you.

Tip #1: Work with small, manageable pieces

Since you have to make a 45° mitre cut at each corner of the frame, it seems logical to start by cutting a mitre at one end of your moulding and then continue by making mitre cuts all the way down. Resist that urge. You will end up with mitres that are cut every which way but right.

Instead, cut your moulding to approximate lengths – the finished length plus another inch or so, depending on the frame’s size. Make 90° cuts. This will give you two pieces of moulding, about the size you need, that are easy to manage.

Tip #2: Mark and cut one single mitre at the end of each piece

Place one of the pieces of moulding on your bench so that the rabbet faces down against the bench, and the profile you routed faces up. Mark a 45° line from the outside corner of the moulding across to the inside (profiled) edge. It doesn’t have to be accurate; it’s only a visual aid to show you the direction in which to cut. Cut that mitre on each of the pieces, giving you four pieces of moulding, each with a mitre at one end and a straight cut at the other.

Tip #3: Fit the frame to the artwork, not the other way around

It’s easier to cut pieces of moulding to fit the glass and matt than vice versa, so whenever possible cut the glass and matt first. Use the glass as a template to mark the size of the frame, thus avoiding measuring – one of your greatest sources of error.

But when you do have to measure your moulding, here’s the trick to ensure you do it right. Don’t measure from the longest point, where your 45° cut crosses the outside edge of the moulding, and don’t measure from the shortest point, where the cut crosses the inside edge. Instead, measure from where

your cut crosses the rabbet (see photo). Think of Goldilocks and the three bears: the outside is too long, the inside is too short, but the middle of the rabbet is ju-u-u-st right.

One more small but important detail: cut each side of the frame approximately $\frac{1}{8}$ " longer than the size of the glass you order. Glaziers will cut glass to a tolerance of about $\pm \frac{1}{16}$ ", so that extra eighth of an inch ensures that the glass still fits into the frame if it’s cut a bit too big, but won’t fall out if it’s a bit too small.

Tip #4: Use your visual aids

Remember the rough 45° line you drew in Tip #2 as a visual aid to be sure to cut the mitre the right way? It’s time to do it again. Measure the length of the side and mark that length in the middle of the rabbet. Double-check that your moulding is oriented properly; this is the point where you’re most likely to make an error because the moulding has been rotated 90° or 180°. If it’s correct, mark the direction of the cut with your pencil.

Tip #5: Once one side is cut to size, use it to mark the length of the opposite side

Instead of measuring the second side of the frame, inviting error, use the finished piece to mark the length of the other side. Hold the two pieces together with the tips of the cut mitres point-to-point, mark the length, make your visual aid mark showing which direction to cut, and then cut down from that point.

Perfecting the joint

If you used a chopsaw with a good blade or an accurate mitre sled on the tablesaw, you should have four perfect 45° mitres ready for gluing. Mitres cut by hand usually need some trimming to make them accurate and neat enough to glue. Do this with a finely tuned low-angle hand plane and a mitre shooting board.

The shooting board is a simple jig that holds the moulding at an accurate 45° angle while the plane trims it. Make one using some scraps of plywood: one for a base, a thin piece for a raised platform, and a third piece for a fence. The thin platform guides the plane and raises the workpiece above the plane’s side so the blade can make a full cut. Two sides of the fence must form a perfect 90° angle. Check this with an accurate square, then attach it to the platform so these sides meet

the platform's edge at a perfect 45°. Stick pieces of 120 grit sandpaper to the faces of the fence to prevent your workpiece from slipping and you're all set.

When using the jig, make sure you plane "downhill" as shown in the photos so that you're planing with, rather than against, the grain. This is a very fine cut, so I like to set up my plane using an extra piece of moulding with a mitre cut on one end. This is the Braille method: it relies on touch rather than sight. Retract the plane's blade so that when you make a pass it doesn't cut any wood at all. Very gradually advance the blade while making more test strokes. The blade might scrape a bit of sawdust off the end of the workpiece and then – if it's truly sharp – will take a fine, almost transparent shaving.

That's what you want. If you glide the plane forward and it goes "Thunk!" when it meets the workpiece, the blade is advanced much too far. To repeat: This is a very fine cut. Once setup is done, a few strokes of the plane should give you a perfectly smooth and accurate mitre, ready for gluing.

How do I clamp this?

You have a choice of clamps to use. Right-angle clamps secure each corner separately. They work fine but if your angles are off, cumulative error can add up quickly. Regular bar clamps also work fine, but again watch your angles. Check that your frame is square by measuring from corner to corner, then making a second measurement between the opposite corners. If the measurements are identical, it's square. If not, squeeze in the longer dimension until it matches the shorter one, then tighten up the clamps.

Spring clamps used with pliers designed to spread them are yet another means to clamp a mitre while the glue sets. These leave a small mark in the wood, so they're best used when the frame will be painted and the mark can be filled.

My favourite clamping method is to use the Veritas® 4-Way Speed Clamp sold by Lee Valley. This clever combination of right-angle corners, threaded rods, and speed-clamping nuts not only clamps a frame evenly, it also pulls it square. Once you have cut and mitred the sides of your frame, place them face down on your bench-top inside the clamp. Then slide the cross-drilled brass nuts along the rods until they meet resistance. This forces them straight so their threads engage and they can be tightened up around the frame.

Thread the nuts until the clamp barely snugs up around the frame, then push all four sides of the frame down flat onto the desktop so everything is in the same plane, and tighten up the nuts. Now turn the clamped frame over and check the mitres to make sure there are no gaps. If there are, it's back to the shooting board for a bit more plane work. If all the mitres are nice and tight, you can open up the clamp, spread a bit of glue onto the joints, clamp the frame and set it aside to cure.

Reinforce the joints

It would be nice if the mitred corners of the frame were strong enough once glued, but they're not. In a mitre, you're essentially joining end grain to end grain. This is always a weak joint – weak enough to break with your hands alone – so it needs some kind of reinforcement. This is your next step:



Clamp and Reinforce – The Veritas 4-Way Speed Clamp holds the frame tight and square while V-nails are driven into the backs of the mitres.

those mitres need to be toughened up.

Again, you have a few options. The quickest is to drive a brad or small nail through the mitre from the side of the frame. It can then be countersunk and filled, and painted over. Have a look in the picture frame section of any dollar store and this is likely what you'll find.

A much better option is to use V-nails. These are metal fasteners shaped like the letter "V" (duh!), which are far stronger and more stable than brads. They are pressed or driven into the back of the mitre, drawing it together and holding it fast.

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Keys with a Router – This simple jig for the router table holds the frame secure while a three-wing slot-cutter bit cuts the slot in the frame's corner.



Keys with a Table Saw – A shop-made cradle holds the frame while cutting slots in the corners on the tablesaw. The tablesaw's fence is used to adjust the cradle's position.



Neat and Tidy – Brush glue into the slot instead of onto the mitre key to minimize squeeze out.

Lee Valley's V-Nail & Brad Driver (86K87.10) for \$39.50 gives you a V-nail driving tool and enough V-nails to make dozens of frames, or their V-Nail Press (86K33.01) for \$132.00 provides a tool adequate for light production work.

Using V-nails is simplicity itself. The driving tool has a magnetized plunger that holds the nail. All you do is place the nail on the driving tool, position it so its "wings" are aligned with the sides of the frame, and drive it home with a mallet. In a wide frame, three or four V-nails can be used along the joint for greater strength.

Another alternative is to use a keyed mitre joint. This reinforces the joint by providing long-grain gluing strength. It can also add a decorative element if you use keys cut from contrasting woods or use more than one key per corner.

You can cut the slots using a router mounted in a router table, or on the table saw using a simple jig; cutting it neatly by hand is a challenge. Once again, glue up the frame first. Then, set up your router in the router table with a slot-cutting bit used for biscuit joinery. It will cut a slot up to about 3/4" deep, so it works for smaller frames.

Make a simple jig to hold your frame consisting of a flat plywood platform with two pieces of wood attached at 90° to each other and at 45° to the platform's edge. They form a cradle that holds the frame secure while the jig is run along the router table's fence and through the cutter.

Deeper slots can be cut using the table saw with a cradle attached to a box that

fits over the saw's fence. The fence is then used to position the work. Use a rip blade so its flat teeth cut a flat-bottomed groove. Be gentle while cutting the slots; those end-grain mitre joints are fragile.

Glue hardwood keys into the slots. Take care to brush glue into the slots instead of onto the keys to minimize squeeze-out. Once the glue cures, carefully cut off the waste ends of the keys using a flush-cutting saw so as not to mar the frame's surface. Be especially gentle right at the corners where the wood is prone to chipping out. Once cut, trim the keys flush using a low-angle block plane. Plane in from the corners to avoid chip-out.

Finishing details

To complete your frame, sand any rough areas and break any sharp edges or corners – it's nice if the frame feels as good as it looks. Brush or blow all the dust out of the wood's pores before applying a finish. I prefer a coat of super blond shellac wiped on as a finish for light-coloured woods; it's also a good sealer for pitchy woods. For darker woods such as cherry or mahogany I use a wiping varnish – either Tried & True Varnish Oil or, if I want it to dry a little faster, a shop-mixed blend of one-third boiled linseed oil, one-third spar varnish and one-third turpentine.

Your frame is now ready for its glass, image, matt and backer board. If you're concerned about the image's longevity, use only acid-free matt board and other

materials intended for archival preservation of images. One nice last touch is to seal the opening at the back of the frame with a sheet of acid-free paper to keep out dust and pollutants. Wipe a thin coat of water-based paste around the back of the frame, cover it with the paper and let it dry. Trim the paper with a sharp blade for a neat, professional finish and you're done.

The last step is to install hardware. This is basic, consisting either of hooks on the sides of the frame with picture wire strung between them, or of solid metal hangers attached to the center of the top of the frame at the back.

Another simple method is to rout a small groove along the back of the frame's top section. Once the groove is routed the frame can be hung from a single nail or, if the framed artwork is especially heavy, two grooves can be routed to spread the load over two nails instead of one. A third option is to scroll a small bracket and hinge it to the back of the frame.

However you do it, framing your own pictures is fun, economical, and yet another outlet for your artistic impulses.

BILL PERRY
wmperry.ca



After decades of being a kindly old Geppetto, quietly making shavings, Bill is being dragged kicking and screaming into the digital age by *Canadian Woodworking Magazine*. Watch for his new eNewsletter, available online soon.

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www.dimarcanada.com



Dia-Flat Lapping Plate

Using the new revolutionary DMT Diamond Hardcoat Technology- this lapping plate outlasts any other diamond coating in the market. With a consistent, aggressive diamond surface and precision ground, hand certified flat to ± 0.0005 ", the Dia-Flat assures rigid execution when flattening stones. Greater surface area for ease of use. Durable construction will provide years of consistent performance and reliable service. For proper tool maintenance, woodworkers, chefs and other professionals rely on the superior quality and versatility of DMT products. Made in USA.

Why it's Hot: Dia-Flat Lapping Plate designed to easily flatten all conventional and waterstones in less time than other methods.



Dura-Grit DuraDisc 5" Carbide Sanding Discs

with Heavy Duty Hook & Loop Kit

Your random orbital sander or bench sander has never seen anything like the carbide DuraDisc from DuraGrit. With DuraGrit's Carbide Fusion Technology, it will sand through your entire project. DuraGrit's testers sanded more than 10,000 feet of wood with a single disc, which looked barely used afterwards and still performed like new!

Why it's Hot: Sand hard and soft wood with your ROS. Shape and grind wood, plywood, fiberglass, laminates, wall tile, rubber, leather and



many more materials on your bench sander. You'll have trouble running out of ways to use them!

Available in 46,60,80,120 & 150 grit – all five- and eight-hole compatible.

\$24.98 ea. USD
www.duragrit.com/cw

Drill Doctor (MB)

Sharpen your 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 drill-doctor.com to learn about special offers.

Why it's Hot: Free \$40 knife with 750x or 500 models at select retailers!

- Fast, easy to use, 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



Dura-Grit Hi-Speed Carbide Burr Set

A high-speed drill should be in everyone's DIY toolbox, and its indispensable companion is the YEL-004 carbide tool set.

DuraGrit's carbide burrs and wheels are long lasting, high performance accessories that come in a variety of useful shapes and grit grades.

Why it's Hot: Whether you're looking to bore and enlarge a clearance hole in a ceramic wall tile to accept a water pipe, re-shape the edge of a wall tile to fit a contour in the corner of the backsplash, cut and fit laminate flooring or carve a duck



decoy, there's a Dura-Grit carbide tool in the YEL-004 tool set to suit the job.

\$40.75 USD
www.duragrit.com/cw

Dura-Grit 90° Carbide TruSander

Not only is it a long-life sanding block that is the same grit grade each time you use it, it's a sander that can true a rough edge 90° to the work surface, easily round corners, or bevel edges.

The TruSander will not wear down or tear, so you won't have to change worn sandpaper in the middle of a job.

Why it's Hot: It sands hard and soft woods, MDF, PVC, laminates, composites, rubber and fiberglass. Its ergonomic handle and perforated sanding plate incorporate a dust collection system that clears the debris



while you work. Every home and workshop should have one.

Available in 60, 80, 120 and 150 grit.

\$19.98 ea. USD
www.duragrit.com/cw

Kreg Toolboxx KTC22

The Kreg Toolboxx is a durable organizer for your entire Kreg Jig collection.

The 15 bins, plus three storage compartments in the top section work great to hold all the small accessories such as extra drill bits, driver bits, spacer blocks and depth collars.

The lower compartment is large enough to hold your Kreg Jig, several clamps, additional drill guides, and more.

Why it's Hot:

- Keep your entire Kreg Jig collection secure and organized with the Kreg Toolboxx.
- 15 Bins Organizer with Full Access Top and Bottom.
- The Toolboxx comes with over 1,000 Kreg Screws so you always have the screw you need at hand.

\$79.99

www.EliteTools.ca



Exchange-A-Blade Oscillating Tool Accessories

Exchange-A-Blade introduces a full line of heavy duty, Industrial Grade, Oscillating tool accessories to cut, grind, scrape and sand. These Swiss made accessories last three times longer and include bi-metal blades for cutting through nails and light metal.

The new universal fit arbor is designed to fit directly on to Bosch, Skil, Fein 636, Ridgid, Milwaukee, King & Hausmann tools. A universal adapter is available to fit most other manufacturers including Rockwell, Dremel, Porter Cable and Craftsman.

Why it's Hot: The Exchange feature allows you to keep worn accessories out of the landfill by returning them to your dealer for a credit towards your next purchase. Exchange-A-Blade power tool accessories save money as well as the environment.

www.ExhchangeAblade.com



Fuji Spray Semi-PRO 2 HVLP Spray System

The Fuji Spray Semi-PRO 2 HVLP Spray System offers features like no other in its price range. The Fuji M-Model Spraygun has professional features such as non-bleed, a fan control knob (to adjust size). A super-powerful 1400 watt two-stage bypass motor in metal turbine case with handy gun holder. A 25ft Hose with air control valve and quick-connect coupler. \$449.00

Why it's Hot:

DIY HVLP Systems typically feature low wattage motors that are underpowered for most spraying. Our 1400 watt two-stage version can handle any type of coating. The Semi-PRO 2 is for the serious user. 20 page user manual included.

www.fujispray.com



Exchange-A-Blade Screwdriver Bits

Exchange-A-Blade has introduced a full line of Industrial Grade screwdriver bits and nut setters designed for use with modern impact drivers.

Made with specially tempered S2 spring steel which has been heat treated for maximum strength and durability. The hardened tips have been milled for optimal fit and extended life.

Why it's Hot: Extensive testing has shown these bits to be among the longest lasting, highest torque bits available on the market today.

www.ExchangeAblade.com



Big Bear SandDevil

Multi-surface design provides five sanding surfaces

- Use on flat, curved and hard to reach surfaces
- Ideal for large sanding projects and difficult detail work
- Uses standard 3" x 21" sanding belts
- Eliminates the aggravation of constantly changing worn sandpaper
- Includes 80# grit cloth-backed sanding belt...up to 5 times the life of regular sandpaper
- Designed by a long-time professional woodworker
- Made of tough injection-molded thermoplastic
- Patented load and lock mechanism

Why it's Hot: This high-tech, quick-reload manual sanding tool delivers power tool results with hand-sanding precision. Dealer inquiries welcome.

www.BigBearTools.com



Stanley FatMax Magnetic Tape Measure

Stanley introduces a magnetic tape measure that is accurate and provides both long reach and a power magnet, making it the perfect choice for pros in a host of different trades. A powerful rare Earth magnet securely holds the tape in place to metal and a patent-pending Tru-Zero magnetic hook ensures accurate measurements within $\pm 1/32$ inches. The magnet features a holding force up to 4 pounds and the blade can stand out 11 feet. Retail for \$27.99

Why it's Hot: Designed for professional users including HVAC, electricians, plumbers, machine shop workers, steel framers and general contractors.

www.stanleyhandtools.ca



Grizzly T10687 Track Saw

Brand new on the market, Grizzly offers a track saw that allows for great portability and accurate cutting of sheet goods without a table saw or panel saw. An integrated dust shroud connects to a shop vacuum to help keep the work area clean and it features a retractable riving knife behind the blade for improved safety.

The saw features a powerful 1.1 kw, 120V, 5500 RPM, 9A motor and includes one 55" track and one pair of clamps (optional extension tracks also available)

This saw is ideal for making plunge cuts in the middle of a panel!

Why it's Hot: You can have panel-saw accuracy at home and the job site with Grizzly's new T10687 Track Saw. And only Grizzly can bring you a track saw with German engineering at such an incredible price. With the plunge cutting capabilities and the riving knife both add up to increased safety.

Cost: \$229.95

www.grizzly.com



King Cyclone Dust Collector

- Powerful 220V TEFC motor
- Superior dust collection and air filtration
- Cyclone action separates heavy particles from fine particles and drops them into steel drum
- Fine dust particles collected in 1micron canister
- Steel drum with quick release levers and castor wheels for easy disposal
- Magnetic line interruption switch - needs a restart after a power failure
- Manual crank handle for easy cleaning of inside of canister filter
- Remote control with timer setting - automatically shuts dust collector off after 2, 3, 6, or 8 hours
- Complete with four-wheel casters for portability



Why it's Hot: Exceptional two stage dust collection efficiency AND easily emptied.

www.KingCanada.com

King Inspection Camera With LCD Monitor

Ideal for plumbing, automotive repair and construction – for inspection of hard-to-reach or hard-to-see areas

- 9mm diameter x 39" flexible camera probe – waterproof, and extendable up to 15ft
- 2.4" LCD colour monitor - detachable with range of 20-30ft
- LED lights inside the camera probe tip illuminate dark spaces
- Connects to PC
- Records with micro SD card
- Kit comes with three accessory tools (45° mirror, magnetic pick-up, pick-up hook) and 4 AA batteries

Why it's Hot: Very affordable, incredibly versatile.

www.KingCanada.com



Veritas Bench Chisels

These chisels are precision made by Veritas Tools. Turned and milled from solid bar stock, the blades are O1 tool steel (Rc58-60), chosen for its ease of sharpening and its excellent edge-retention properties at low bevel angles. The set of five chisels includes 1/4", 3/8", 1/2", 3/4" and 1" widths, with blades ranging from 4-5/8" to 5-1/8" long. Made in Canada.

05S20.50 Set of 5 Chisels with O1 Blades

www.leevalley.com



Veritas Bevel-Up Jack Rabbit Plane with PM-V11 Blade

This plane takes large-scale rabbeting work in stride. Weighing 6 lb, with a 15-1/8" long body, it is suitable anywhere you need to make a long, wide cut that would require major effort with a smaller rabbit or shoulder plane. Includes a lapped blade made of PM-V11, our proprietary high-performance powdered metal alloy, which offers superior edge retention while still being sharpenable with conventional abrasives. Patented. Made in Canada.

05P53.71 Veritas Jack Rabbit Plane with PM-V11 Blade

www.leevalley.com



Euro Shaper Head & Knives

Offers a simple solution for planing and moulding on your shaper. Manufactured in Switzerland to exacting standards, these economical two-knife shaper heads assure that both profile and planing knives are self aligning. Heads are available for various shaft sizes.

All knives are manufactured right here in Canada. Next day delivery on stock knives

Why it's Hot: Versatility – design your own profile.

Custom knives are made within two business days. Over 100 standard profiles in stock.

Knives also fit some Dimar, Amana, and CMT shaper heads.

www.moldingknives.com



Flexcut Carvin' Jack

The 6-Blade Carvin' Jack is the world's first folding multi-tool for woodcarving. It's equipped with two scorp, straight gouge, a hook knife, chisel, and a detail knife. You also get a slip stop, 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.

www.flexcut.com



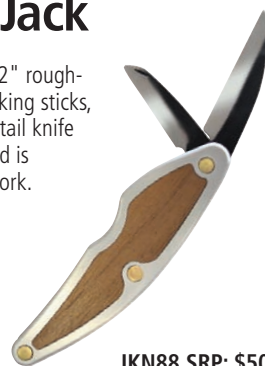
JKN91 SRP: \$142.95

Flexcut Whittlin' Jack

The 2-Blade Whittlin' Jack features a 2" roughing knife that's great for carving walking sticks, caricatures, and much more. Its 1½" detail knife quickly removes wood from surfaces and is perfect for fine detailing and delicate work. Blades do not lock.

Why it's Hot: It weighs in at just 3 ounces and is just over 4 inches long when closed, so it neatly fits in your pocket. It has two of the sharpest blades in the world.

www.flexcut.com



JKN88 SRP: \$50.95

Flexcut Deluxe Starter Set

Our 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 SlipStop, 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.

www.flexcut.com



SK108 SRP: \$197.95

Flexcut Beginner 2-Blade Craft Carver Set

Includes everything you'll need to get started in the rewarding world of woodcarving.

Why it's Hot: Includes an interchangeable palm handle, three carving blades, bass wood boot blank, 16-page manual and project guide, and instructional DVD.



SK110 - SRP: \$39.95

Flexcut Beginner 11-Piece Craft Carver Set

Our most popular blades into one set. The set includes 10 carving tools, instruction manual, carving blank, and 11-pocket tool roll.

Why it's Hot: Each blade is made with the same edge-holding steel as our gouges and chisels. Plus the interchangeable handle.

SK107 - SRP: \$97.95



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.

Visit www.flexcut.com for your nearest Canadian retailer.



Cutting Knife, KN12 SRP: \$18.95



Detail Knife, KN13 SRP: \$19.95



Roughing Knife, KN14 SRP: 21.95

Festool CXS Compact Drill/Driver

The CXS Compact drill is by far the smallest extension of Festool's Li-Ion drill platform. Featuring the FastFix chuck system, the CXS can be used with the Centrotec chuck, keyless chuck, or a right-angle attachment that allows you to access even the tightest spaces. Tough inside and out, the CXS features sophisticated electronics that protect the tool and batteries from the worst you can throw at it.

Why it's Hot: As you would expect, the CXS features exceptional ergonomics, with a battery design that removes the bulk from the handle, ensuring maximum comfort over extended use. But the real beauty of the CXS lies in its quick-change ability, with versatility that leaves other drills in the dust.

Visit www.festooldrills.com to learn more.



Festool CMS Routing System

The new CMS Routing System from Festool is available as an ultra-portable, standalone unit as well as a two-legged version that attaches to their innovative MFT/3 Multifunction Table. A smooth-as-glass sliding table, exacting mitre gauge, solid extension table, plus featherboard and hold-down options come together to deliver a precise, yet portable routing solution that is at home in the workshop or on the jobsite.

Why it's Hot: Built for precision above all else, the CMS features tremendous adjustability plus a host of features that help you control the workpiece, so you get uncompromised results. Above- and below-table dust extraction captures dust and chips for a cleaner running operation with cleaner air and less mess.

Visit www.festoolcms.com to learn more.



Festool Domino XL DF 700 Loose Tenon Joiner



With the new Domino XL from Festool, you can build solid and durable, solid wood mortise and tenon joints in a fraction of the time it takes with traditional methods or stationary equipment. Create mortises up to 9/16" thick x 5" long, perfect for constructing doors and full-sized furniture like tables, benches, beds, and much, much more.

Why it's Hot: Be prepared to watch your stationary machinery collect dust. Whether on the jobsite or in the workshop, you'll have the freedom and versatility to take the machine to your heaviest, least mobile workpieces. Cut down on wasted time and transport-related damage to materials, all while giving your back a much needed break.

Bigger and Stronger

No job is too big for the Domino XL. With an expanded range of thicker, longer tenons, you will quickly and precisely join massive slabs, doors and gates, or construct the most durable of tables and beds.

Immensely Portable

Light enough and nimble enough for use anywhere in the shop or the jobsite. When the workpiece is too large to come to the machine, this makes all the difference.

True Mortise and Tenon

Precision placement of solid hardwood tenons guarantees not only a perfect fit, but a finished product that will last for generations.

Visit www.festooldomino.com to learn more.

Festool RO 90 DX Multi-Mode Sander

The RO 90 Multi-Mode Sander, the newest member of the highly-regarded Rotex family, is one sander that can truly do it all. The RO 90 features a tool-less base design, enabling it to easily transform from a round pad sander to a delta-shaped, random-orbit detail sander in seconds, so you can cover broad spaces and tight corners with a single solution.

Why it's Hot: The RO 90 DX features three modes, but quadruple functionality for aggressive rotary sanding, random orbit finish sanding, detail corner sanding and even polishing. And like every other Festool sander, the RO 90 DX captures virtually every speck of dust, resulting in cleaner air, a better finish and longer abrasive and pad life.

Visit www.festoolsanders.com to learn more.



Festool SysLite KAL 100 Worklamp

See what you've been missing thanks to 170° of even light dispersion that goes where your work takes you. Six high-efficiency LED bulbs will provide even, consistent light for up to four hours on a single charge, longer when paired with a Festool battery, and without interruption when plugged directly to a power source.

Why it's Hot: Whether your work takes you under a cabinet or crawlspace, or to an attic or the outdoors, the SysLite's robust build and shock-resistant body is easy to carry and designed to perform when you need it most. Ready for your toughest abuse, this rugged worklight is backed by a full three-year warranty.

Visit www.festoolsyslite.com to learn more.



Stanley Flexi Felt Floor Protection

Stanley introduces a complete line of floor protection products that not only reduces noise and dust but also saves money associated with floor maintenance in homes, schools and offices buildings. The Stanley line of floor protection products features high-density plastic furniture glides, sliders, leg tips, bumpers, casters and a wide array of new Flexi-Felt 100% wool felt protectors, all constructed for performance and durability.

Why it's Hot: Stanley Flexi-Felt heavy-duty adhesive pads are made of 100% pure wool industrial felt so they last longer and won't compress like polyester felt products. The full line of Stanley Floor Protection Products can be found at independent home improvement general retailers across Canada at retail prices ranging from \$2.00 to \$25.00. www.stanleyhardware.com



General International 5/8" hollow chisel bench top mortiser



Equipped with a heavy-duty cast-iron head, column and base for steady, vibration-free performance and a powerful 1/2 HP 110V motor with start capacitor for smooth start-up, the 75-040 5/8" hollow chisel mortiser from General International is built to help you quickly and accurately fill your mortise cutting needs and comes with 1/4", 3/16", 3/8" & 1/2" chisel and bit sets.

Why it's Hot: Practicality and ease of use! The ergonomic adjustable feed handle has an extra-long, multi-position arm for better leverage and feed control, and can be installed on either side of the machine to suit right or left handed users.

Price \$389.99 (valid until Feb 28th, 2013) at participating General International retailers. www.General.ca

Excalibur Deluxe Bench Top Router Table and Lift with Cast-Iron Table

This all-in-one deluxe router table package from Excalibur by General International includes the 40-125 universal router lift with 9 1/4" x 11 3/4" Aluminum insert plate, a 16" x 27" full cast-iron table top, a deluxe guide fence system, a sturdy steel stand with built-in on/off switch and a steel dust containment box with dust port and large access door.

Why it's Hot: Heavy-duty design! The lift is designed to fit all fixed-base routers, features a unique four-post lift screw and massive chain driven lifting system, to allow for smooth above-the-table adjustments, fast tool changes and precision bit height setting.

Price \$889.99 (valid until Feb 28th, 2013) at participating General International retailers. www.General.ca



Gorilla Glue

From the ordinary to extraordinary, Gorilla Glue is the go-to adhesive for any job. Gorilla Glue's incredible foaming power penetrates into the material, making the bond strong and reliable. It is the ideal solution for indoor and outdoor projects because it is 100% waterproof. Gorilla Glue easily bonds wood, stone, metal, ceramic, foam, glass and more.

Why it's Hot: Gorilla Glue is now available in a single-use tube, meeting Gorilla's No. 1 consumer request. It's the same incredibly tough Gorilla Glue formula, in four single-use 3g tubes. These tubes are perfect for your small projects and repairs.

www.GorillaTough.com



Grizzly Hybrid Table Saw with Riving Knife

The best of both contractor and cabinet style table saws – easy-to-transport weight and size of a high-end contractor saw, with dust control and full features of a cabinet saw. Includes quick-change blade guard, anti kickback pawls, and interchangeable true riving knife. Serpentine belt and pulley system give optimum power transfer and reduced noise. CSA certified.

Why it's Hot: Offers many features of a cabinet saw at much less cost. Portable enough to take to jobsite, or moved easily in small workshop. Powerful 2hp motor makes for easier cutting in hardwood or thick material, and built-in dust port.

Cost: \$795 USD
www.grizzly.com



Forrest Manufacturing Ultra Thin 080 Woodworker II

Advanced woodworkers wanting to minimize materials waste while achieving highly precise cuts in expensive exotic hard and soft woods will find Forrest's Ultra Thin 080 Woodworker II blade ideal. With a kerf of .080", it cuts 1/64" thinner than most thin kerf (3/32") saw blades. The combination of its super thin body with an alternate top bevel grind reduces resistance, tearout and waste.

Why it's Hot: Exotic woods are extremely expensive, so using the Ultra Thin 080 Woodworker II that's specifically designed to minimize waste is a cost-effective choice. This blade also makes those really thin, polished cuts essential for creating projects that go beyond the usual.

List Price: \$153.00 U.S.



IRWIN Marples Woodworking Series Saw Blades

The new IRWIN Marples Woodworking Series saw blades deliver the precision and accuracy needed for fine finish work in a wide range of materials. Made in Italy, these blades are crafted to the highest design standards for precision and accuracy.

Why it's Hot: These laser-cut, thin kerf saw blades feature extra-sharp, oversized carbide teeth for long life and multiple re-sharpenings. Engineered with a heat-resistant, non-stick coating, these blades reduce gumming for cleaner, truer cuts and provide extended life and a flawless finish. Featuring 10" and 12" blades and a Stacked Dado Set, the line ranges in price from \$30-\$149.



IRWIN Marples Woodworking Chisels

The new IRWIN Marples Woodworking Chisels features a high carbon steel

blade, hardened to 58-61 HRC for improved sharpness and edge retention. Designed for use with a wooden mallet or the palm of the hand, this bevel edge chisel is structured with a slim, ergonomic handle for added control, precision and comfort. Sizes include 1/8", 1/4", 3/8", 1/2", 5/8", 3/4", 1", 1-1/4", 1-1/2" and 2" and they are available in 3-piece, 4-piece and 6-piece wooden box sets.

Why it's Hot: Since 1828, Marples woodworking tools have consistently stood for superior performance and ultimate precision in fine woodworking. The line ranges in price from \$15-\$80.



TuffTooth Bearing Guide Blocks



Ever wanted to run a narrow blade (like 3/32" wide) only to find your guide bearing system can't accommodate running small blades. Problem solved, R&D Bandsaws now offer "Bearing" Guide Blocks. These phenolic "blocks" are available in most bearing sizes, replacing the bearing on your guide system. They lock in place against the blade increasing stability and extending blade life.

Why it's Hot: These "Bearing" phenolic blocks give the advantage of capturing/controlling even the narrowest blade. All while lubricating and cleaning the blade, reducing friction and extending the blade life by running directly against it – something you could never do with a bearing system.

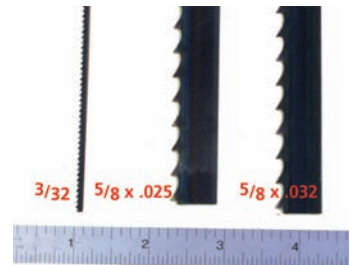
www.TuffTooth.com

TuffTooth The Ripper

Big brother of the Little Ripper, The Ripper .032 is a high tungsten silicon Resaw blade that offers the same smooth thin kerf straight cut of the Little Ripper .025, but built to work on larger wheeled machines. The .032 thick hard-edge, hard-back material provides greater beam strength.

Why it's Hot: The smallest production silicon blade made, the 3/32 x .025 x 14TPI. This blade provides the tightest radius of any blade available on the market, of special interest to those who enjoy making Bandsaw boxes or intricate puzzles using your bandsaw (please note use of Phenolic blocks a must.)

www.TuffTooth.com



Rob Cosman Dove Tail Marking Knife

Rob and IBC have re-created his famous dovetail marking knife. It's cast metal handle and special blade make transferring tails to pins easier

and more precise than traditional style knives. Thin to accommodate skinny dovetails, two bevels per side for tight registration against the tail and a legible mark in the pin board, curved tip for better tracking in end grain and replaceable if necessary.

Why it's Hot: Considered the missing link in dovetail work, Rob has said "it doesn't matter how good the first half is – if the second isn't right, it doesn't work!" This tool has 30 years of dovetail experience behind it, make it yours!

\$46.95



Earlex HV5500 Spray System



The Earlex HV5500 is the #1 selling hvlp spray system for the woodworker. It is ideal for the DIY enthusiast and the light contractor. It is a complete unit with the spray gun (2 psi) and turbine (air supply) 42 cfm and eliminates the need for a compressor and the overspray that accompanies those high pressure systems. Ideal for virtually all spray materials.

Why it's Hot: Priced right at \$389, the unit has a two-year warranty, is British-made, and gives a fabulous fast finish with virtually no overspray. Very easy to clean. It sprays lacquer, varathane, stains and varnish right from the can without thinning. Sprays a great even coat of thinned water-based paints.

Mirka CEROS Compact Electric Random Orbital Sander

Only half the size and weight of traditional electric finishing sanders, CEROS features digitally controlled variable speeds from 4,000 to 10,000 rpm to provide the ideal finish for a variety of applications. Sanders incorporate a powerful brushless DC motor for smooth, quiet, maintenance free operation and are vacuum-ready using multi-hole backing pads with hook and loop attachment.

Why it's Hot: Styled after pneumatic sanders, the lightweight maneuverability and performance of CEROS is suited for DIY, production shops and trades people, particularly for onsite work or small shops where high capacity compressed air is not available or practical. Available in 5" or 6" models for \$499 with three-year limited warranty. Free shipping at www.woodessence.com



Evapo-Rust Super Safe Rust Remover

Evapo-Rust is a water-based, environmentally friendly rust remover that eliminates flash rust in 10 minutes and deep rust in hours. Just dip your rusted items into this reusable solution. One gallon removes rust from up to 300 lb, or approximately 20 sq ft of rusted steel. It will not harm un-rusted steel, brass, copper, aluminum, galvanization, rubber, plastic, PVC, Viton, vinyl or clothing. No special equipment or protective clothing is required and solution is reusable.

Why it's Hot: Simply Soak Out Rust, No Acids, Non-Toxic, Safe to Use and Environmentally Friendly!
www.EvapoRust.ca



Tormek Rotating Base RB-180

This product can be fitted beneath any Tormek model including the T-7 or T-3 and the earlier 2000 and 1200 Series.

It enables the machine to be easily rotated by 180° and then locked into position. The design is as thin as possible in order not to affect the working height and the rubber feet make sure that it sits firmly on the bench. The base is designed with a frame to keep the machine firmly in place. It is constructed from three optimal high performance materials to ensure a low friction and maximum stability.

Why it's Hot: The Rotating Base enables the user to easily rotate the machine in order to select the ideal sharpening direction with the stone running towards or away from the edge. It also makes it simple to switch from sharpening to honing. There is no more heavy lifting or water spillage.

Click on the link to see the video:

www.tormek.com/en/accessories/rb180/index.php

Sells for about \$55.00

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



BlackJack A-Line-It Wood Machine Alignment System

The A-Line-It systems are specifically designed for aligning woodworking machines. Setting up woodworking machines for the perfect cut has never been easy, until now.

The A-Line-It Deluxe tests: saw blade and saw arbour run-out, rip fence straightness and alignment, drill press chuck run-out and drill table squareness, router collet run-out, planer head parallelism, jointer cut depth.

Why it's Hot: A-Line-It Deluxe is the only alignment system available to setup all your woodworking machines.

Basic Models start at \$49.95.

Visit www.blackjackcompany.com for dealer listing.



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1st Gift is \$27 Each additional gift \$18 (including tax)
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FOR A CHANCE TO WIN A
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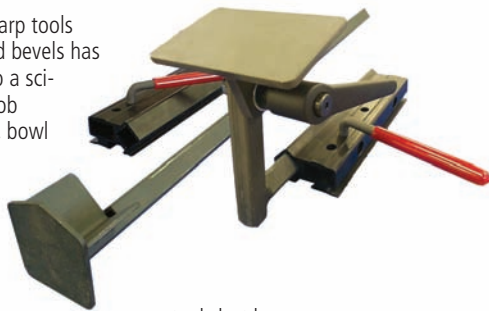
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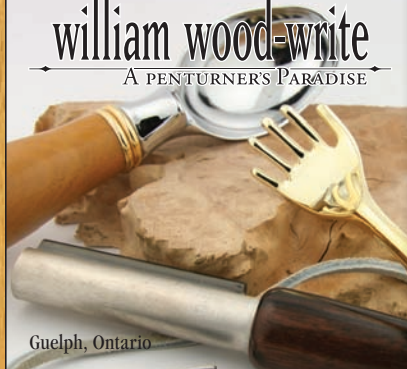



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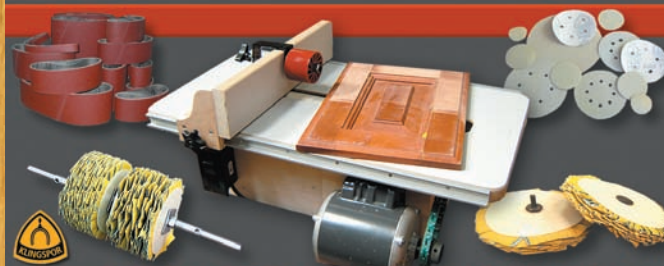
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So Many Projects

BY DON WILKINSON

Within the next two weeks, my dear wife will be heading off to the wilds of deepest, darkest Manitoba to help our Number One Daughter deliver our Number Four Grand-kidlet. As anyone who knows me or has been reading this column well knows, I will quite likely take this heaven-sent opportunity to either complete some old neglected household projects or to start some entirely new ones. Often these projects work out well and my wife is delighted with the results ... or at least claims she is. She has always returned home so I must assume she's fine with whatever I have done to "surprise" her. Since I have always worked this way, I suppose she probably isn't all that surprised. Maybe I should surprise her by sitting on the couch for two weeks and just reading.

This time I don't have all that much planned in the way of renovations, or even new projects. At least not yet. But I still have time to come up with something special. But until I do I hope to make some headway on the completion of a few of her other projects we started several months ago. Just for fun, and to keep her on her toes, several months ago I carried all 64 cases of ceramic tile from storage in the garage and stacked them all neat and tidy in the new ensuite. She got all excited and actually thought I was going to begin work on it. Silly woman! After a while the stacks of tile mocking her every time she used the toilet got too much and she no longer uses that bathroom. Maybe I'll surprise her and get that job finished for her return.



The problem is, the walk-through closet leading to the ensuite still doesn't have the doors hung. That might be a good project to finish off, although there is that one crooked floor tile that really should be replaced before the doors go up. But the in-floor heating runs directly under that tile and I'd really hate to damage the wiring. I suppose I could shut the power off to that circuit if I could remember which breaker I used. Maybe I should finish rewiring the panel box too while I hunt down the correct breaker. I should also consider labelling the new electrical panel as I go.

I suppose I had better remove the old acoustic tile in the new bathroom and put up some drywall before I finish tiling the floor though. While I'm at it, I had better install an exhaust fan too. I can do that at the same time as I wire in the new light fixture we haven't decided on yet. The naked bulb dangling from the bare wiring in the ceiling simply doesn't lend that certain *je-ne-sais-quoi* we were searching for.

All this sounds like a lot of work. Maybe I'll just finish painting the room and be done with it all. She already picked out a lovely colour that I would

describe as orange. The woman who helped us choose it described it as something called *Tangerine Sunset Over the Moroccan Desert in Late Spring but Before the Solstice*. Who comes up with these insipid names for paint colours, anyway? It was orange. That's all it was. Just Orange!

Darn! I just remembered that the doors hiding the washer and dryer also need a bit of tweaking for them to close properly. I call it tweaking, she calls it purchasing. The problem there is that I had earlier installed a lovely little nook on the other side of the wall. The rear of the alcove now intrudes into the space that rightfully belongs to the dryer, which is exactly one and a half inches too high to fit under the alcove, causing the dryer to protrude into the doorway by a few inches, which means that any doors we might purchase won't close all the way. I personally feel that a curtain would look nice. I have been overruled.

Sitting on the couch and reading for two weeks is looking better all the time.

DON WILKINSON
YukonWilk@gmail.com



Illustration by: Mike Del Rizzo



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