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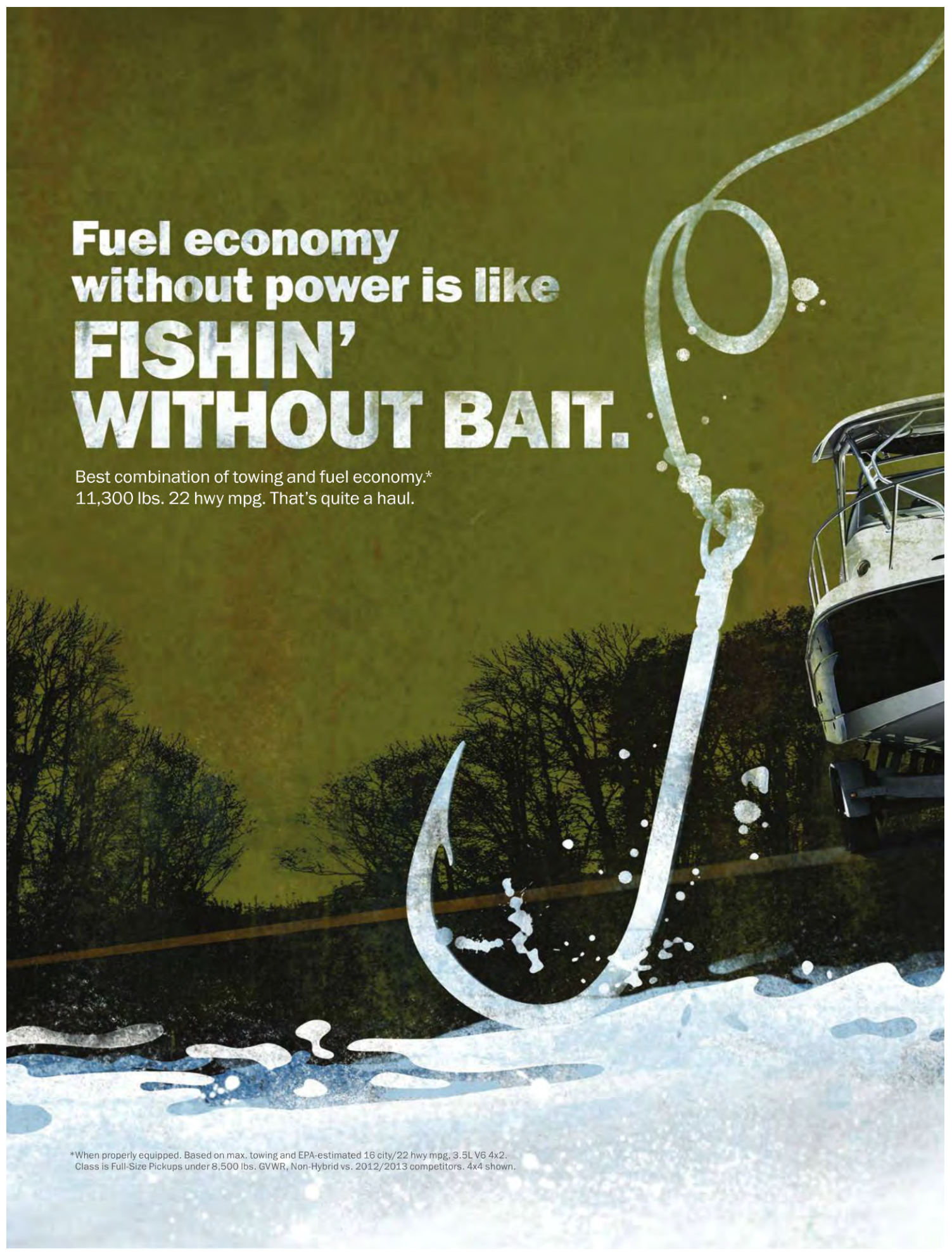
TABLE
WITH A TWIST



HOLIDAY
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TAKE METAL
FOR A SPIN
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GREAT GIVEAWAY
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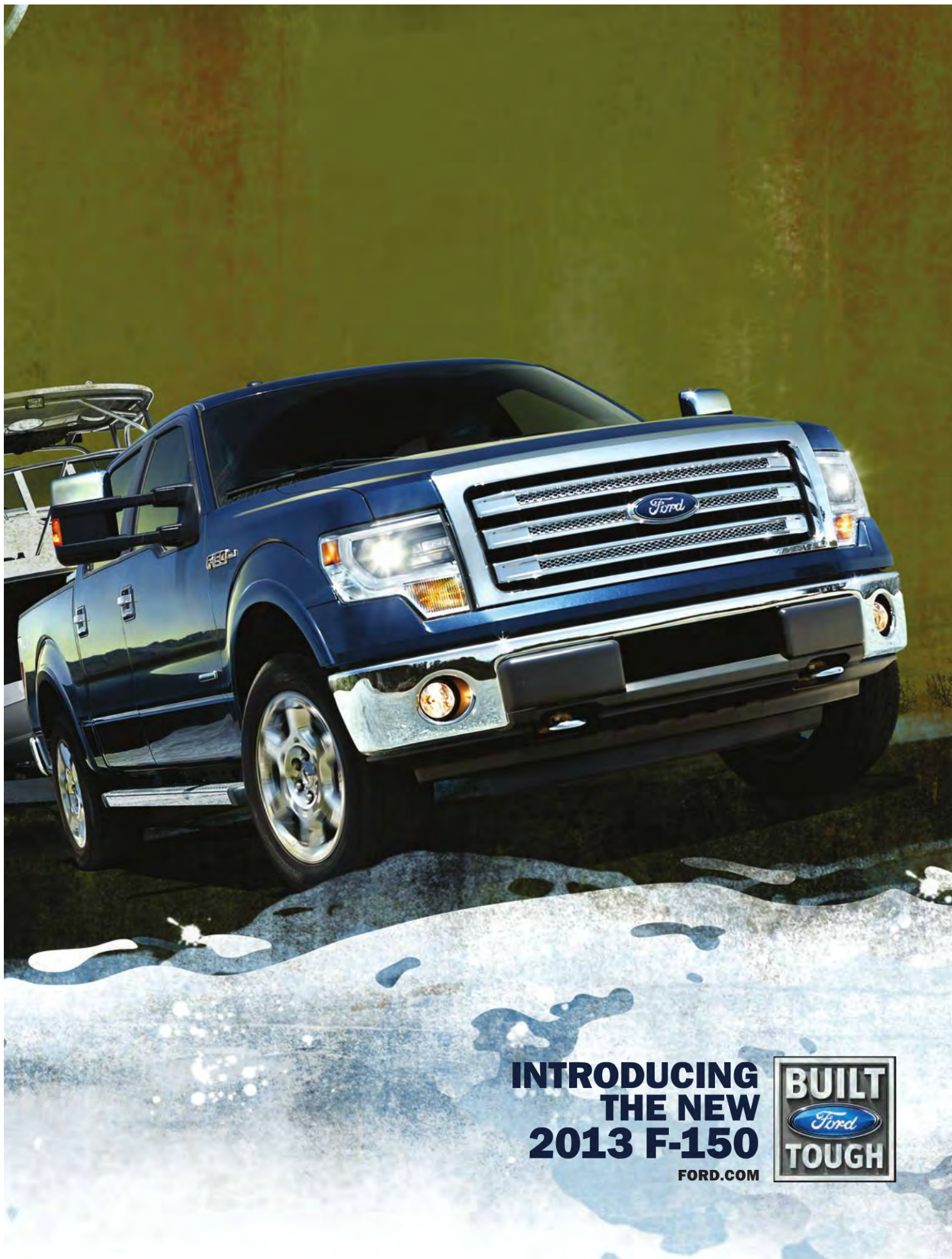
WHAT'S STUFFSTUFF? ▶ P.5



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New systems allow for automation integration and wireless control



COVER PHOTO BY LARRY OKREND

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SO WHAT IS STUFFSTUFF?

MEMBER TESTING REDEFINED

The first time I heard the name StuffStuff, I couldn't help but smile. Whatever it was sounded like fun, and maybe even a little silly. It turns out that it is fun, but there's nothing silly about it. StuffStuff is our reinvented product-testing program that offers much more value than ever before.

It's online, it's social and it allows you to sign up for product tests that interest you. You can attain levels and earn points to enhance your testing experience. (There's far more to the program than I can cover in this brief overview, so it's best to check out StuffStuff.com online and read the FAQs.)

This new program replaces our current testing program. No longer will you wonder what types of products are available and what's currently being tested. Now you can go online to view the products available for testing and apply for the ones you like. To qualify, you'll need to fill out a profile about your experience and expertise. You'll get your own personal dashboard that will keep you up-to-date on your status. Once you're accepted for a test, you'll be notified on your StuffStuff dashboard and via e-mail.

A tiered membership and points system enhances your eligibility to test specific products and to test more often. (Think of it like earning frequent-flier points.) You can purchase a higher membership level to qualify for more valuable products. (Your current Club membership level is automatically applied to the program.) And you can earn more points to attain a higher level by writing product reviews or posting photos and sharing these on Facebook and Twitter.

There's also an e-commerce aspect to the program. Even if you're not eligible to test a particular product or it's no longer available for testing, you may be able to purchase it at a discount directly from the manufacturer.

One of the great features of StuffStuff is that you'll be able to read all of the reviews about a product — not just the few that we're able to publish in *HANDY* — to see what other participants think.

With more product tests, greater transparency, dynamic social media and increased member participation, our new testing program creates a new level of value for your membership dollars. And of course, we hope you have fun with it, too. ■

Larry Okrend
Editor in Chief

LARRY

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REVOLVING END TABLE

A BUILT-IN BOOKCASE AND LAZY SUSAN BEARING MAKE THIS PIECE UNIQUE

Every reading nook needs a comfortable seat and a place to set a book. But when I remodeled my home library, I went one step further: As a special finishing touch, I built this spinning end table that stores a lot of books of varying sizes, making it easy to grab just the right one while sitting in a comfy chair.

I built the table out of rift-sawn white oak, a straight-grain wood with a warm, creamy color, but almost any hardwood or softwood would suffice. Materials for my table cost about \$275; your choice of wood will affect the price of yours.

Although this project may look advanced, there's really nothing complex about the construction. You'll cut biscuit grooves (or use dowels), glue and clamp pieces together, use a router, drive screws and apply finish. The only catch is that the assembly can be confusing. Correctly orienting the pieces during assembly is essential so that they radiate in the same direction. (For example, look at the forward corner joints of the horizontal edging pieces G, H1 and H2 in the exploded-view illustration on p. 9. You'll see that all of the joints overlap in the same direction.) Carefully follow the drawings, photos and step-by-step instructions, and you'll be fine. Depending on your skill level, construction should take about 16 hours, plus a few more hours to apply finish.



MATT SPROUSE

CONSTRUCTION NOTES

Building this project requires a table saw, a jigsaw, a biscuit joiner (or doweling jig), a cordless drill/driver, an orbital sander, a trammel-point set for drawing large circles, four 30-in. bar or pipe clamps and a variety of shorter bar clamps. A thickness planer, belt sander and pneumatic nail gun are helpful, too. You'll also need a router with a circle-cutting guide (an accessory to your router or aftermarket purchase), a straight bit, a bottom-bearing flush-trim bit and 1/2-in. and 1/4-in. roundover bits (see [SOURCES ONLINE](#)).

To make it easier to keep track of parts during construction, the assemblies are named: the tabletop (which is attached separately), the top assembly, the divider section, the bottom assembly, the lazy Susan bearing and the base.

The divider section is the most complex component. It's basically two inter-

locking T's (illustration, p. 9). Four subassemblies are constructed first; then pairs of subassemblies are joined to make two T assemblies. Finally, the T's are joined to make the divider assembly. Refer often to the illustration as you make the divider section, and clearly label the parts to make your work easier.

The divider-section plywood (D) is partially seen from both sides. That means both faces of the plywood must be the same species and look good. Although the best grade of hardwood plywood is A1, typically the best you'll find is graded A2, which means good on one side, fair on the other, and both sides are usually the same species. Carefully select your plywood to find the best piece possible. When you assemble the bookcase, orient the divider (D) so that the less attractive side faces inward, opposite the side with the book supports (J), to help conceal its imperfections.

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The use of the alignment blocks (E) makes aligning the top and bottom assemblies with the divider section a breeze. Laying out the locations for the screws that join those components is just a matter of tracing the shape of the divider section onto the top and bottom assemblies.

TOP AND BOTTOM ASSEMBLIES

Cut the panels (A, B, C) and edging pieces (G, H1, H2) to size (see cutting list). Draw layout lines on the top and bottom panels for positioning the alignment blocks (E) later. Use a thickness planer or belt sander to make the edging pieces equal to, or just slightly thicker than, the panels. Don't assume the plywood is all the same thickness. Cut biscuit grooves or use dowels to join the pieces; then attach the edging pieces to the panels (**photo 1**). **Note:** The tabletop edging (G) and bottom edging (H2) are attached to the panels (A, C) in a counterclockwise sequence, and the top edging (H1) is attached to the top panel (B) in a clockwise sequence.

Use a trammel-point set (beam compass) to draw the circles on the tabletop (29 in. dia.), top assembly (28 and 25 in. dia.) and bottom assembly (28 in. dia.). It's best to draw the circle on the underside of the tabletop so the trammel point doesn't make an indenta-

CUTTING LIST

► KEY	NO.	DESCRIPTION	SIZE
3/4-IN. WHITE-OAK PLYWOOD			
► A	1	Tabletop panel	19 x 19 in.
► B	1	Top panel	19 x 19 in.
► C	1	Bottom panel	19 x 19 in.
► D	4	Dividers	14 x 14 in.
SCRAP 3/4-IN. PLYWOOD			
► E	2	Alignment blocks	6 x 6 in.
► F	1	Lazy Susan panel	16-1/2 x 16-1/2 in.
WHITE OAK			
► G	4	Tabletop edging pieces	3/4 x 5-1/4 x 21 in.
► H1	4	Top edging pieces	3/4 x 4-3/4 x 20 in.
► H2	4	Bottom edging pieces	3/4 x 4-3/4 x 20 in.
► I	4	End supports	3/4 x 3-1/2 x 14 in.
► J	8	Book supports	3/4 x 5 x 14 in.
► K	4	Base pieces	3/4 x 4 x 17-1/4 in.
SCRAP WOOD			
► L	2	Cleats	3/4 x 2 x 16-1/2 in.
► M	2	Cleats	3/4 x 2 x 15 in.

SHOPPING LIST

- 4/4 white oak (20 board ft. — includes 50 percent waste)
- 3/4-in. x 4 x 8-ft. white-oak plywood (1)
- 12-in.-dia. lazy Susan bearing (1)
- No. 20 biscuits (100)
- No. 8 x 1-1/2-in. flathead screws (32)
- No. 8 x 1-1/4-in. flathead screws (8)
- No. 10 x 5/8-in. panhead screws (8)
- Clear finish (1 pint)



▲ Glue and clamp the edging pieces to the plywood panel one at a time. (Here the second piece is being attached.) Make sure the end-to-edge corner joint is tight before you add more clamps along the length.

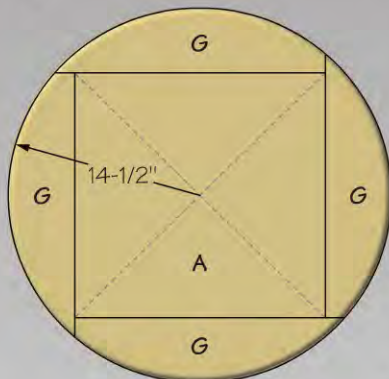
tion in the face of the tabletop. Lay out and drill the countersunk screw holes in the top assembly (on the 25-in.-dia. line) for the screws that attach the top.

Rough cut the outside circle shapes using a jigsaw. Leave about 1/16 in. extra to be removed by the router. Set up your router and circle-cutting guide and rout the shapes (**photo 2, p. 10**). Do the routing in two steps, 1/4 in. deep and then 1/2 in. deep, but no more. You don't want to rout all the way through with the circle-guide setup. Remove the remaining 1/4 in. with a flush-trim bit (**photo 3**).

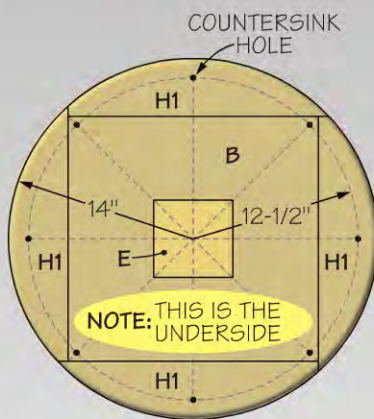
DIVIDER SECTION

Cut the dividers, end supports and book supports (D, I, J) to size. The joints where the book supports meet the dividers are called biscuit T-joints. Your biscuit

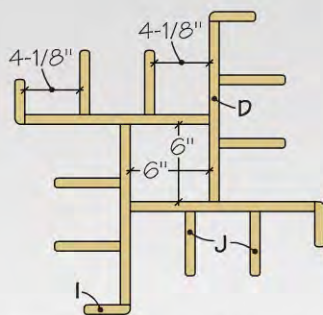
REVOLVING END TABLE



TABLETOP ASSEMBLY



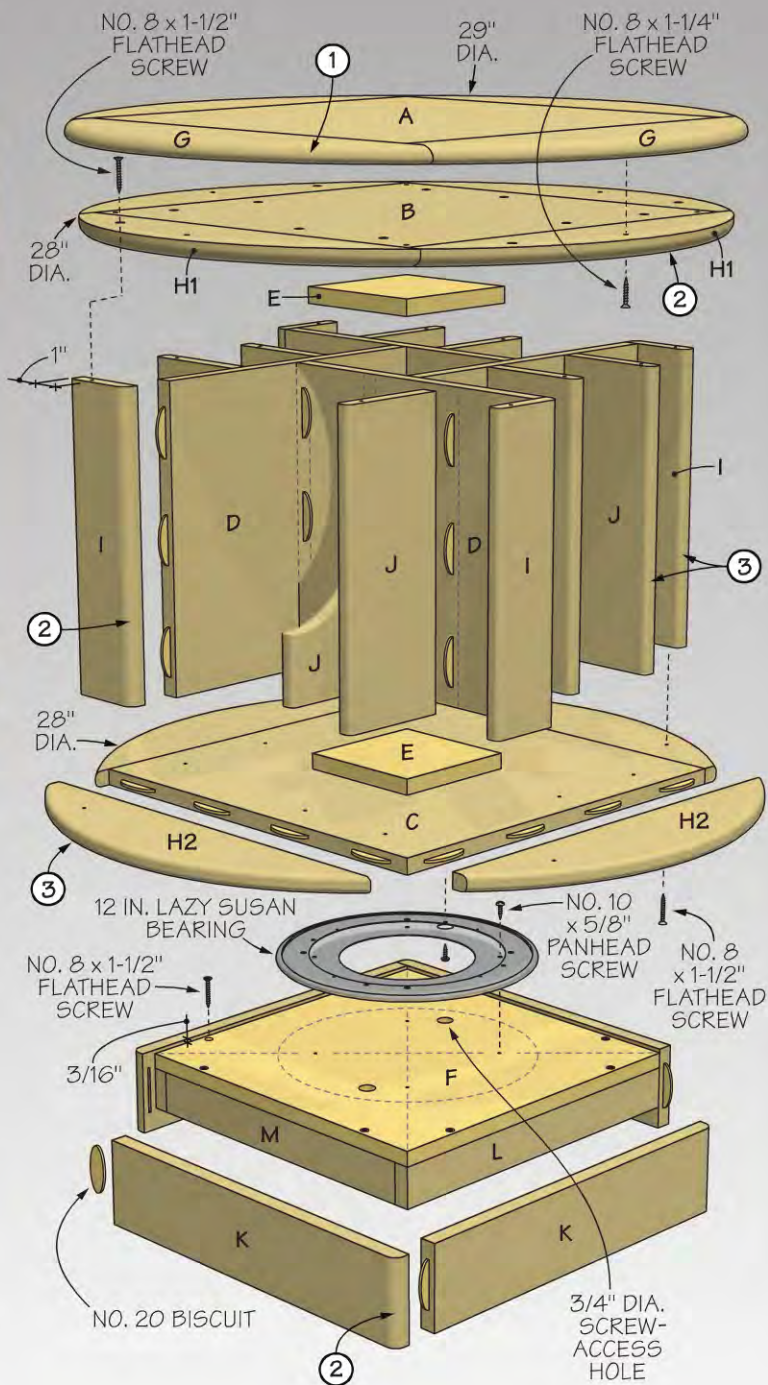
TOP ASSEMBLY



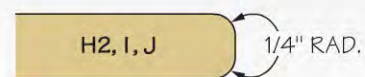
DIVIDER SECTION ASSEMBLY



DETAIL 1



DETAIL 2



DETAIL 3

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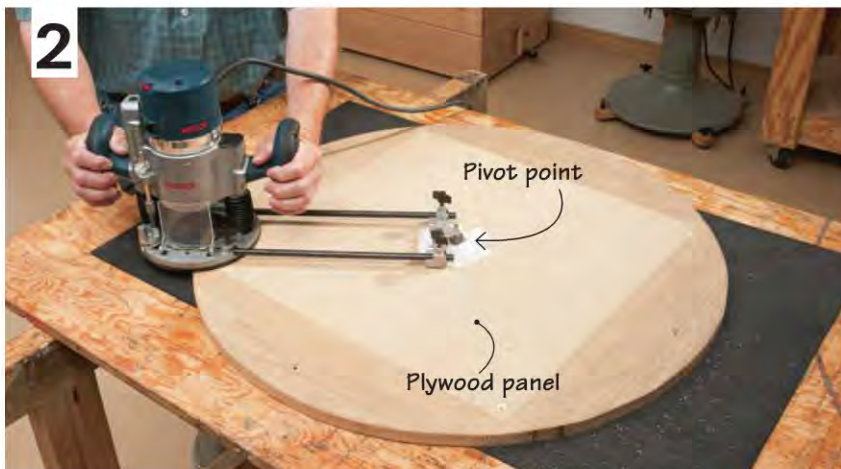
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▲ Rout the shapes of the tabletop, top and bottom using a circle-cutting guide. The pivot point of the guide is taped down directly over the center point of the plywood panel. Rout only partway through.



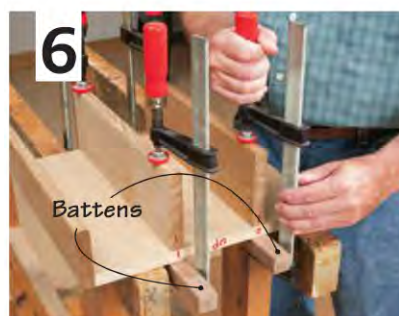
▲ Flip the circle assembly over and use a bottom-bearing flush-trim bit to remove the remaining wood and complete the circle shape.



▲ Do not change the setup. Stand the joiner on end, align it with the centering marks and then cut the grooves in the divider.



▲ Cut the biscuit T-joints where the book support meets the divider. Align the biscuit joiner with the centering marks on the book support and cut the grooves in the edge of the support.



▲ Join the book supports to the dividers with glue and biscuits. Battens clamped under the joints will help distribute the clamp pressure into the middle, where it's hard to reach with clamps.

joiner's manual should have instructions for cutting these joints, or you can search the Internet for more information. On the face of each divider, draw lines following the grain 4-1/8 in. from the edges (see illustration). Use these lines to align the book supports with the dividers for cutting the T-joint biscuit grooves. Cut the biscuit grooves for joining the parts (photos 4 and 5).

Cut the biscuit grooves for joining the end supports (I) and dividers. Rout the 1/4-in.-radius roundover on the front edges of the book supports (J) and end supports. Finish sand the book supports and the insides of the dividers and end supports. Glue the biscuits and clamp the end supports to the dividers. Rout the 1/2-in.-radius roundover edges on the end supports. Finish sand the outsides of the book supports and the insides of the dividers. Attach the book supports to the dividers (photo 6).

Glue the biscuits and clamp pairs of divider subassemblies together to form two T assemblies; then glue the biscuits and clamp the assemblies together to make the divider assembly.

BASE

Cut the base components (F, K, L, M) to size. Join the base pieces (K) together with biscuits and glue (photo 7). Rout the 1/2-in.-radius roundover on the base corners. Glue and clamp the cleats (L, M) to the inside of the base. Position them so that a 3/16-in. space remains above the lazy Susan panel (F). I placed temporary spacers under the cleats to set the alignment. Be sure you have the base oriented with the corner joints radiating counterclockwise.

Lay out the lazy Susan bearing mounting on the panel, and mark and drill the 3/4-in.-dia. screw-access holes. You'll use these holes when you mount the base to the bottom assembly. Screw the lazy Susan panel to the base.

TABLE ASSEMBLY

Attach the alignment blocks (E; photo 8). Lay out and drill the holes for the screws that join the top and bottom assemblies to the divider section (photo 9). The screw holes are centered over the end supports (I) and book supports (J) and 1 in. from

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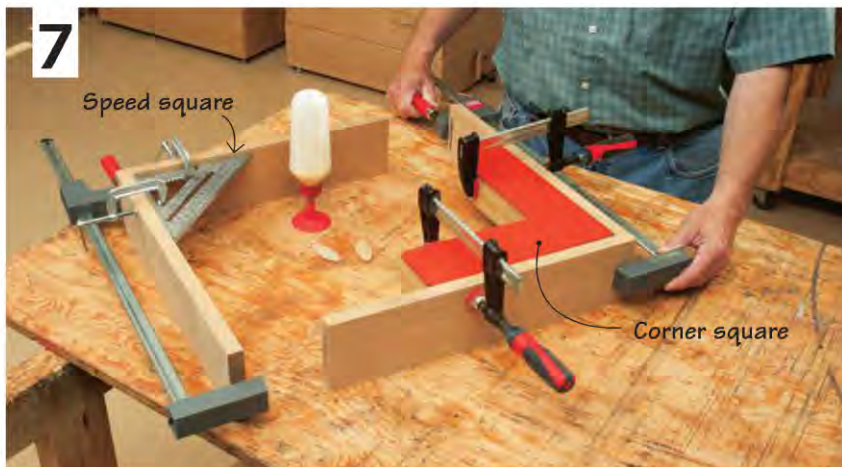
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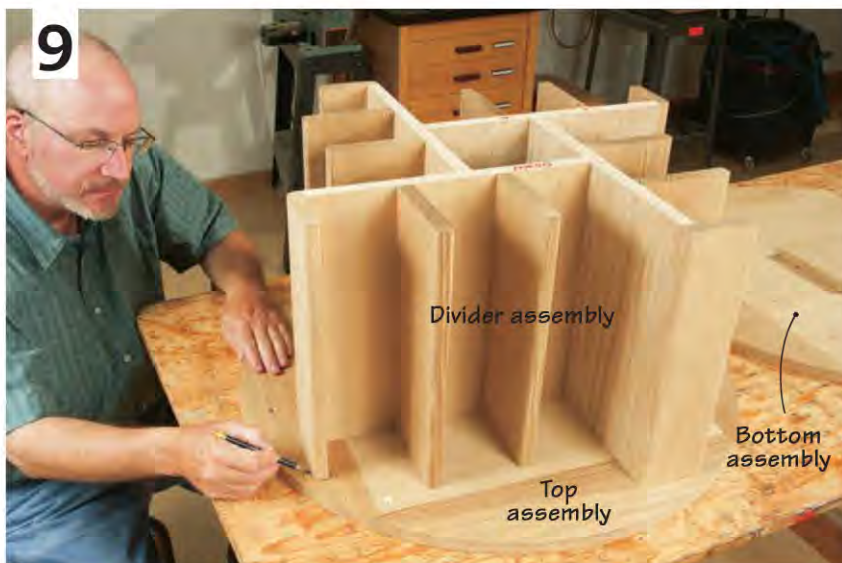
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▲ Assemble the base by joining pairs of base pieces together to form two subassemblies; then join the subassemblies to make the base. Be sure the parts are square.



◀ Glue and nail the alignment blocks to the "good" face of the top and bottom assemblies.



▲ Set the divider assembly over the alignment block on the top assembly and trace around the end supports and book supports; then remove the divider assembly and mark the screw holes.

their ends. Rout the roundover edges on the tabletop, top assembly and bottom assembly. Screw the top and bottom assemblies to the divider section; then screw the tabletop to the top assembly. Screw the lazy Susan bearing to the base; then screw the base and lazy Susan bearing to the bottom assembly. Flip the bookcase over and upright, and test to see that everything works properly.

You'll need to disassemble the table to achieve an even finish. Choose the type of finish based on the amount of protection you want for your table. I applied wipe-on Danish oil — it's fast and easy to apply and looks good, but it offers little protection against water. For more protection, apply a hard finish such as polyurethane, varnish or lacquer. Finally, finish sand what remains to be sanded, sand smooth any exposed sharp edges, complete the finish application, and reassemble the table; then load it with an array of books and take a reading break. ■

Handyman Club life member Bruce Kieffer is a custom furniture builder, freelance woodworking author and technical illustrator. You can see a collection of his work at kcfi.biz.

SOURCES ONLINE

Go to HandymanClub.com and click on WEB EXTRAS.

Amazon (trammel-point set, General Tools No. 523), amazon.com

Infinity Tools (router circle-cutting guide, Milescraft No. 100-155; bottom-bearing flush-trim bit, No. 06-627; 1/2-in. roundover bit, No. 38-880; 1/4-in. roundover bit, No. 38-754), 877-872-2487, infinitytools.com

Woodworker's Hardware (12-in. lazy Susan bearing, No. TR12C), 800-383-0130, wwhardware.com



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Erectile dysfunction means a man cannot get or keep an erection. Health problems, injury, or side effects of drugs may cause ED. The cause may not be known.

ABOUT VIAGRA

VIAGRA is used to treat ED in men. When you want to have sex, VIAGRA can help you get and keep an erection when you are sexually excited. You cannot get an erection just by taking the pill. Only your doctor can prescribe VIAGRA.

VIAGRA does not cure ED.

VIAGRA does not protect you or your partner from STDs (sexually transmitted diseases) or HIV. You will need to use a condom.

VIAGRA is not a hormone or an aphrodisiac.

WHO IS VIAGRA FOR?

Who should take VIAGRA?

Men who have ED and whose heart is healthy enough for sex.

Who should NOT take VIAGRA?

- If you ever take medicines with nitrates:
 - Medicines that treat chest pain (angina), such as nitroglycerin or isosorbide mononitrate or dinitrate
- If you use some street drugs, such as "poppers" (amyl nitrate or nitrite)
- If you are allergic to anything in the VIAGRA tablet

BEFORE YOU START VIAGRA

Tell your doctor if you have or ever had:

- Heart attack, abnormal heartbeats, or stroke
- Heart problems, such as heart failure, chest pain, or aortic valve narrowing
- Low or high blood pressure
- Severe vision loss
- An eye condition called retinitis pigmentosa
- Kidney or liver problems
- Blood problems, such as sickle cell anemia or leukemia
- A deformed penis, Peyronie's disease, or an erection that lasted more than 4 hours
- Stomach ulcers or any kind of bleeding problems

Tell your doctor about all your medicines. Include over-the-counter medicines, vitamins, and herbal products. Tell your doctor if you take or use:

- Medicines called alpha-blockers to treat high blood pressure or prostate problems. Your blood pressure could suddenly get too low. You could get dizzy or faint. Your doctor may start you on a lower dose of VIAGRA.
- Medicines called protease inhibitors for HIV. Your doctor may prescribe a 25 mg dose. Your doctor may limit VIAGRA to 25 mg in a 48-hour period.
- Other methods to cause erections. These include pills, injections, implants, or pumps.
- A medicine called REVATIO. VIAGRA should not be used with REVATIO as REVATIO contains sildenafil, the same medicine found in VIAGRA.

POSSIBLE SIDE EFFECTS OF VIAGRA

Side effects are mostly mild to moderate. They usually go away after a few hours. Some of these are more likely to happen with higher doses.

The most common side effects are:

- Headache
- Feeling flushed
- Upset stomach

Less common side effects are:

- Trouble telling blue and green apart or seeing a blue tinge on things
- Eyes being more sensitive to light
- Blurred vision

Rarely, a small number of men taking VIAGRA have reported these serious events:

- Having an erection that lasts more than 4 hours. If the erection is not treated right away, long-term loss of potency could occur.
- Sudden decrease or loss of sight in one or both eyes. We do not know if these events are caused by VIAGRA and medicines like it or caused by other factors. They may be caused by conditions like high blood pressure or diabetes. If you have sudden vision changes, stop using VIAGRA and all medicines like it. Call your doctor right away.
- Sudden decrease or loss of hearing. We do not know if these events are caused by VIAGRA and medicines like it or caused by other factors. If you have sudden hearing changes, stop using VIAGRA and all medicines like it. Call your doctor right away.
- Heart attack, stroke, irregular heartbeats, and death. We do not know whether these events are caused by VIAGRA or caused by other factors. Most of these happened in men who already had heart problems.

If you have any of these problems, stop VIAGRA. Call your doctor right away.

HOW TO TAKE VIAGRA

Do:

- Take VIAGRA only the way your doctor tells you. VIAGRA comes in 25 mg, 50 mg, and 100 mg tablets. Your doctor will tell you how much to take.
- If you are over 65 or have serious liver or kidney problems, your doctor may start you at the lowest dose (25 mg).
- Take VIAGRA about 1 hour before you want to have sex. VIAGRA starts to work in about 30 minutes when you are sexually excited. VIAGRA lasts up to 4 hours.

Don't:

- Do not take VIAGRA more than once a day.
- Do not take more VIAGRA than your doctor tells you. If you think you need more VIAGRA, talk with your doctor.
- Do not start or stop any other medicines before checking with your doctor.

NEED MORE INFORMATION?

- This is only a summary of important information. Ask your doctor or pharmacist for complete product information OR
- Go to www.viagra.com or call (888) 4-VIAGRA (484-2472).

Uninsured? Need help paying for Pfizer medicine? Pfizer has programs that can help. Call 1-866-706-2400 or visit www.PfizerHelpfulAnswers.com.



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HANDY GIFT GUIDE

HINTS FOR WHAT TO GET DIYERS THIS HOLIDAY SEASON

It's no secret that handy people are difficult to buy for. Luckily, *HANDY* editors know a thing or two about what our like-minded readers find fabulous. Check out the following guide for gift ideas that will make any DIYer smile.



▲ CRAFTSMAN BOLT-ON

This new 20-volt Li-Ion system features a power base to which you can add nine tool heads for various DIY tasks. The base comes with the drill/driver attachment, a battery and a QuickBoost charger; you can purchase a sander, a jigsaw, an impact driver, an oscillating tool, a two-speed hammer drill, a router, a high-pressure inflator and a trim saw — all attachments for the same power base, saving you money and storage space.

craftsman.com

► LEE VALLEY PIPE VISE

Attach the head of this new pipe vise from Lee Valley to a length of 3/4-in. black gas pipe and then mount the base to the underside of your bench top to create a versatile tool in your workshop. The head features two through-holes for attaching a custom-made jaw, and because the head can rotate in any direction, it can be used for horizontal clamping against the bench stop or vertical clamping against the bench skirt. Its clamping capacity is limited only by the length of pipe that you use.

leevalley.com



▲ THERMACELL HEATED INSOLES

Customizable to fit shoes or boots ranging from women's size 6 to men's size 14, ThermoCell's Heated Insoles provide warmth for both work and play in cold environments. Users can turn the heat on and off and adjust it from medium to high with the push of a button on the handy remote control. The remote has a range of up to 7 ft. and can be attached to a zipper or belt for added convenience. Lightweight, rechargeable Li-Ion-polymer batteries are embedded in the insoles, providing up to 500 hours of heat.

thermacell.com

▼ COAST 2-LED PRO POCKET PLIERS

With bright LED lights directed toward the tip of the knife and the tip of the pliers, this multitool makes intricate jobs around the house easier. Highlights include spring-assisted pliers for one-hand operation and a full-size, partially serrated knife. You can access almost all of the tools without having to open the pliers, and the ergonomically designed handles are comfortable to work with.

coastportland.com



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▲ MOEN TWIST HANDHELD SHOWER

Offering four spray settings (immerse, soothe, drench and shine) that can be switched with the push of a button and the swivel of the showerhead, the Moen Twist gives everyone in the household the shower experience of their choosing. The showerhead stops spraying when you switch between settings so you'll never accidentally soak the bathroom floor or walls.

moen.com



▲ SKIL iXO VIVO POWER CORKSCREW

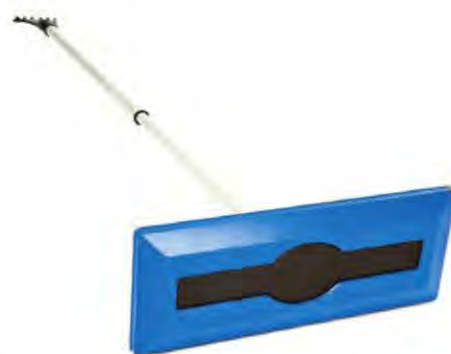
Powered by Skil's trusty 4-volt iXO Cordless Screwdriver, the company's new iXO Vivo Power Corkscrew attachment safely and easily removes the cork from a wine bottle so you can spend more time sipping with friends. The kit comes with the drill, a corkscrew, a foil cutter, a wine stopper, a five-piece bit set, a charger and a storage box.

skilixo.com

▼ SNOW JOE SNOW BROOM

For those mornings when more than a few inches of snow sits atop your car, the Snow Broom from Snow Joe features a 6 x 17 in. freeze-resistant foam head that pushes snow away from you without scratching your vehicle's windows or paint. The telescoping handle makes reaching across the vehicle simple, and a built-in scraper helps you remove ice with ease.

snowjoe.com



▼ RIDGID FUEGO 18V LITHIUM-ION COMPACT DRILL/DRIVER WITH FREE IMPACT

This combo kit presents an exceptional value (just \$179) and makes a great gift for first-time homeowners as well as DIYers and professionals. The set comes with a compact drill that boasts 455 in.-lbs. of torque and a two-speed transmission, a compact impact driver with 1,750 in.-lbs. of torque and a one-hand quick-load bit holder, two 1.5-AH Li-Ion batteries, a charger, two bits, a bag and an auxiliary handle.

ridgid.com





▲ FISKARS CUT-AND-GRAB LOPPER

The Fiskars Cut-and-Grab Lopper cuts and holds branches at the same time, providing added safety and convenience while pruning. The compound action of the levers multiplies the user's cutting force, and the jaws grab onto the cut branch so it won't fall. The tool's bypass-blade design is ideal for cutting green growth, with a cutting capacity of 1-1/2 in.

fiskars.com



Check out some pruning tips from Fiskars; scan this tag with your smartphone.



▲ TIMBERLAND PRO HYPERION WORK BOOTS

Hyperion work boots from Timberland Pro boast an attractive athletic design that's built for the construction site. Timberland's Anti-Fatigue Technology — inverted cones that support, collapse and return to shape in key pressure zones — absorbs shock and offers comfort all day long. The boots are lightweight and water-resistant and feature a Vibram outsole for durability and excellent traction as well as an anti-microbial treatment to control odor. Both alloy-safety-toe and soft-toe styles are available.

timberland.com



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▼ PORTER-CABLE 18-VOLT CLAMPSAW RECIPROCATING SAW

A three-position pivoting handle on this reciprocating saw from Porter-Cable allows users to change its shape to better fit in tight spaces and to better position their hands for each cut. The 4.4-pound cordless tool also features a tool-free clamping shoe that extends around the material being cut, holding it in place for fast, accurate cuts through pipe, threaded rod, etc. And the tool-free blade-change mechanism and an LED light add convenience.

portercable.com



GIVE THE GIFT OF CHARITY

Make your gift-giving dollars go further. A portion of the proceeds of these products go toward finding a cure for breast cancer.

SKIL IOX PALM-SIZED SCREWDRIVER

Skil is turning its No. 1-selling power tool pink and donating 10 percent of the unit price of each one sold between August 1 and December 31 (with a minimum donation of \$100,000) to the Susan G. Komen for the Cure foundation.

skilix.com



LEATHERMAN PINK MICRA

This tiny pink multitool weighs less than 2 ounces, but it's packed with 10 useful tools. And about \$10,000 from the sale of the Leatherman Micra goes to the National Breast Cancer Foundation.

leatherman.com



CRAFTSMAN THREE-DRAWER PINK TOOLBOX

Show your support of breast cancer research with this tough, stackable, vibrant-color toolbox from Craftsman. The company will contribute \$2 for every pink toolbox purchased between September 30 and December 29, with a maximum of \$20,000, to the Breast Cancer Research Foundation. — JS

craftsman.com





▲ **DULUTH TRADING
SCRAPPER CORDURA JACKET**

Featuring a tough shell that resists tears and snags caused by nail heads, pet claws, etc., the Scrapper Cordura Jacket from Duluth Trading will hold up on the job site and while working in the yard. It'll keep you warm, too, with its Thinsulate liner and trim fit that features a dropped tail for added coverage. The jacket is available with or without a hood in dark gray, black and dark cobalt.

duluthtrading.com



▲ **DEWALT 20V MAX
LITHIUM-ION 1/2-IN.
COMPACT IMPACT WRENCHES**

At 5.7 in. long and 3.4 pounds (with the battery), DeWalt's new 20V Max Compact Impact Wrenches provide the size and power that plumbers, mechanical contractors, automotive mechanics and maintenance professionals need to get tough jobs done in tight spaces. The wrench, available in three versions, delivers 150 ft.-lbs. of torque and features an LED light ring around the anvil and a textured antislip grip on the handle.

dewalt.com ■

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◀ A gas insert can transform a drafty old fireplace into an energy-efficient — and beautiful — supplemental heating source.



LARRY OKREND

CONVERTING TO GAS

TRANSFORM A MESSY, ENERGY-WASTING FIREPLACE INTO A CLEAN, EFFICIENT HEATING ASSET

When my wife and I designed our home in 1992, a fireplace was one of the luxuries we wanted most. As a less expensive alternative to a traditional masonry fireplace, we had an all-metal prefabricated wood-burning unit installed within a chase. And for a while we enjoyed the warmth of fires fueled by wood cut from our own lot.

Fast-forward 20 years. Those cozy fires were a rarity — and a production. Besides cutting, splitting and transporting wood, we had to round up fire starters, kindling and tools and then prop open an outside door to prevent billows of smoke from wafting through the family room. The dirt, mud and ash from the wood accumulated in our carpets, and the fireplace was so inefficient that our furnace had to work harder to heat the house. Using the fireplace became more trouble than it was worth. That's when we started considering a gas conversion.



COURTESY HEAT & GLO

▲ New developments in gas-insert design include larger viewing areas, high-definition logs and antiglare glass.



1 ▲ Cutting away parts of the existing fireplace may be necessary to accommodate a new gas insert.



2 ▲ Two flexible pipes run up the existing chimney to provide fresh air and allow exhaust to escape.



3

ADVANTAGES OF GAS

Gas fireplaces have several advantages over wood-burning models. They are clean, efficient and safe. According to the U.S. Department of Energy (DOE), an inefficient wood-burning fireplace can exhaust as much as 24,000 cu. ft. of air per hour to the outside, which in turn draws cold air in through the home's doors and windows. The DOE considers older wood-burning fireplaces one of the most inefficient heat sources a homeowner can use.

Wood fires also produce pollutants, making air quality a valid concern. The American Lung Association recommends that consumers avoid wood fires, referring to research that names woodstoves and fireplaces as major contributors to particulate-matter air pollution in much of the United States.

UNDERSTANDING YOUR OPTIONS

When considering a gas conversion, you have several options. The first (and least expensive) is to buy gas logs for your existing fireplace. Two types of gas logs are available: vented and vent-free. Vented gas logs require that

▼ The insert is set into the fireplace to check its fit and then hooked up to the electrical, gas and venting lines.

the damper be permanently open to allow exhaust to escape up the chimney, causing potential heat loss when the logs are not burning. You can install glass doors to help prevent heat loss, but that will drive up the price. Vent-free (or ventless) gas logs don't require opening the damper, but they should be used only for short periods of time because the traces of exhaust they produce may contain carbon monoxide and moisture. In fact, vent-free logs are not legal in all areas.

Another approach is to install a gas fireplace or insert, available in three main styles: B-vent, vent-free and direct-vent. A B-vent gas fireplace uses air from inside the home for combustion and vents it up a chimney. This type of fireplace works much like a home's furnace. Some models include a blower to help move heated air into the home.

Vent-free gas fireplaces do not vent the exhaust outside; they use a high-temperature "superburn" to eliminate fumes. This type of gas fireplace is not recommended for people who have breathing problems or heart conditions. And like vent-free gas logs, vent-free gas fireplaces and inserts may not be legal in certain areas.

Direct-vent gas fireplaces or inserts are efficient because they feature sealed combustion systems, meaning that they use outside air for combustion and vent the exhaust outside the home. Matt Hareldson, brand manager for Heat & Glo, explains, "One-hundred percent of the air necessary to produce a flame comes from outside



4

▲ A surround is attached to the insert to cover the open areas around it. The surround also supports a door.

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HaulMaster
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90 AMP FLUX WIRE WELDER
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▲ Ember material, glass rock and ceramic logs are carefully placed around the burners.



▲ After the logs are in place, a tempered-glass panel is set into the opening to seal the firebox.

the home through a direct-vent pipe, eliminating the heat loss associated with conventional chimneys. That pipe also expels 100 percent of the fire's combustion exhaust outside the home, protecting indoor air quality."

When shopping for a gas fireplace, choose the most efficient model that fits your space, lifestyle and budget. Most manufacturers produce higher- and lower-end models. Heating ratings can range from less than 8,000 to 150,000 Btu. In most cases, several door styles and interior brick choices are available. LED lighting, remote controls and thermostats are popular amenities. Recent innovations include realistic masonry, high-definition logs detailed to look more like actual wood and anti-reflective glass.

INSTALLING AN INSERT

The installation of a gas fireplace or an insert should be left to professionals. In a matter of a few hours they can turn a heat-wasting wood-burning fireplace into an efficient, beautiful gas model. For a direct-vent insert installation like the one shown here by Heat & Glo, a trip to the roof is usually required to access the top of the chimney flue. Also, a gas line and electricity should be in place before the installation begins.

In a typical insert installation, the old fireplace doors and any exterior surround must be removed. Some cutting may be required for the insert to fit into the existing fireplace (photo 1, p. 22). The flue liner and/or damper are removed, and two flexible metal pipes are fed down the chimney to the firebox, one for fresh air and the other to vent exhaust (photo 2). Next, the firebox is set into the opening to ensure that it fits and then carefully prepared for the gas and electrical connections (photo 3).

Once it has been dry-fitted, the firebox is carefully secured in the existing fireplace. The vents are attached and a surround is installed on the face of the insert (photo 4).

The aesthetic components of the insert are installed last. Ceramic logs are placed precisely according to the manufacturer's instructions, and to achieve the illusion of a glowing bed

of embers, glass rock and special ember material are placed along the bottom and around the burners (photo 5, left). These additions give the fire a more natural appearance. The final step is the installation of a fixed glass assembly and a decorative outer door (photos 6a and 6b), which may include a wire-mesh screen to prevent accidental contact with the glass.

Our technician provided a primer on the remote-control system in our fireplace. It was surprising how many options are available on new models, from flame and fan control to thermostat and timer operations (photo 7, below).

Since we added the gas insert, my wife and I have used the fireplace more, and our furnace runs less. Be-



▲ The Heat & Glo Escape Series gas insert shown includes a remote control with a built-in thermostat, timer and flame control.

sides saving money, the new system is clean, convenient and trouble-free. Gone are the days of messy fires that wasted more heat than they produced — not to mention the drudgery of cutting, splitting and hauling wood. Our dreams of hearthside luxury have finally come true. ■

Michael R. Anderson is a freelance writer, photographer and illustrator from Minneapolis, Minnesota. Technical assistance was provided by Heat & Glo, a member of Hearth & Home Technologies Inc.

SOURCES ONLINE

Go to HandymanClub.com and click on WEB EXTRAS.

Heat & Glo, heatnglo.com

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SMARTER HOME SECURITY

NEW SYSTEMS ALLOW FOR
AUTOMATION INTEGRATION
AND WIRELESS CONTROL



Not long ago, home security systems were disturbingly less than foolproof. If you forgot to arm the system or change the batteries, if the power went out (in the case of a hardwired system) or if an intruder was quick enough to disable the system before it sounded the alarm, your home was left unprotected.

Fortunately for homeowners, advances in wireless technologies, smartphones and mobile apps have changed that. Today's security systems are much more difficult to foil or forget about. For example, a software-supported system can send you a text message every time a door or window is opened, whether you've armed it or not. It can stream live video or send still images of what's happening in your garage, living room or anywhere you've installed a security camera. And some systems can even alert you before a break-in — the moment a burglar pulls into the driveway.

SMART SYSTEM BENEFITS

Home security has teamed up with home automation so the same inter-



active service can make your house look occupied at all times. The system turns lights, TVs and radios on and off at random intervals or according to the schedule you choose. Even the blinds can be raised or lowered upon your command or according to a schedule.

▲ Home security and home automation have been integrated into relatively inexpensive single platforms. Systems that would have cost thousands of dollars five or 10 years ago cost only hundreds today.

Though hardwired components are considered the standard because they are more difficult to disable and don't rely on batteries for power, the reliability gap has narrowed with new technology.



Home security systems can also alert you about other hazards, including fires, elevated carbon monoxide levels and power outages, or if someone is tampering with a safe, a locked tool chest or a medicine or gun cabinet. You can use the systems to check on a child returning home from school (by arranging for a no-activity alert shortly after the child is due home). Or if you lose sleep wondering when the water heater is going to flood your basement, you can use a security system to alert you if there's a leak.

Interactive systems offer other benefits as well. Prefer not to hand out keys to housekeepers or other service providers? You can unlock a door for them from wherever you are, whether

◀ The latest systems allow you to monitor your home's security and safety — you can even watch your kids as they return from school — and control many functions with a smartphone.

you're at work, on a trip or simply taking a walk. You can also program your home's temperature so you don't waste energy on unnecessary heating or cooling. During cool seasons, these systems can automatically lower settings when you're sleeping or away and raise them again when you're awake and at home. Or if you're driving home from a trip and want to cool off the house before you arrive, just pull out your smartphone and send the command.

contact switches, motion sensors and a siren. Like many old-style systems, the new models also connect to central monitoring stations. The big difference is the degree of interactivity. New software platforms allow you to send commands, program home systems, view surveillance video and receive alerts on a smartphone or computer — whether you're at home or away.

When shopping for a system, review software platforms first. The two big-

All smart systems require a subscription to a third-party alarm-monitoring service. Ask about which central station will be handling your account, and be sure that it is UL certified.

BUYING A SYSTEM

Smart systems' hardware hasn't changed much in appearance in 25 years. There are some new specialized sensors and video cameras, and window and door contact switches have shrunk, but the basics are the same: a control panel or console, magnetic

▼ **Wireless plug-in modules allow you to control lights and radios from wherever you are. Interactive thermostats can also be controlled remotely.**

gest are Alarm.com (which has partnered with more than 2,500 dealers) and iControl (icontrol.com; partnered with ADT and Comcast). Read the user reviews before you sign the contract.

You'll have to decide on a cellular-primary or a broadband-primary system. A cellular-primary system connects to the monitoring station wirelessly, so it's not affected by a power outage or if someone cuts a cable. However, it is limited in transmitting large quantities of video, so many cellular-primary systems incorporate



▲ **With a smart security system, you can monitor everything from basement flooding to fire. Many systems feature sensors for motion, smoke, moisture and vibration (not shown).**

broadband for video. Broadband-primary systems, on the other hand, have cables running down the side of a house, and those cables can be cut to disable the system. Some services offer cellular backup in case this occurs.

Choose a reputable dealer that will sell you the equipment and a monitoring plan. Many dealers will also install the system for you, but some dealers sell equipment and services to DIYers. For example, FrontPoint Security (frontpointsecurity.com), a national provider based in Virginia, sells the Simon XT, a GE-brand system that homeowners can easily install; the company also offers Alarm.com features and a third-party monitoring plan. Installing the system yourself can save you several hundred dollars — and make you more knowledgeable about how it works.

Smart systems do not restrict the type of security hardware you can use, although a dealer may limit your choices. The inside-the-house components may be hardwired or connect wirelessly via radio frequency (RF radiation). Though hardwired components are considered the standard because they are more dif-



► **A Wireless Motion Alert from Chamberlain lets you know before an intruder reaches your front door. You can install as many as eight sensors for total perimeter coverage.**

difficult to disable and don't rely on batteries for power, the reliability gap has narrowed (or even disappeared) with new technology. Alarm.com and its partners offer "smash-and-bash" protection for wireless systems: As soon as a point of entry is breached, the central monitoring station is sent a pending alarm signal — it doesn't wait to find out if the person who entered is you or a bad guy. If the system is not disarmed within the programmed amount of time, the alarm is treated as an intrusion. So a smashed controller won't stop the central station from calling the police.

A conventional system, on the other hand, does not send a signal for a period of time (typically 30 seconds while it allows the homeowner to enter a code and then more time for the dialer to call the monitoring station). For a smart burglar, that can be long enough to disable the security system or to grab some valuables and run.

Wireless hardware is much easier to



► **Carbon monoxide detectors are required by code in many communities, and now they can also report dangerous CO levels to your security company's monitoring center.**



LOW-TECH, LOW-COST SECURITY

Burglaries have been dropping steadily for 20 years in the United States, according to the FBI, but that's small consolation to the roughly 2 million victims each year who experience break-ins. To avoid becoming part of this statistic, you can take several steps to make your home less vulnerable:

1. Install window and door shades that make it difficult to see whether someone is home.
2. Upgrade locks on all doors and windows — and use them.
3. Set timers for interior lights, TVs and radios to create the illusion that someone is home when you're out.
4. Install motion- or infrared-controlled outdoor lighting. Keep a porch light on from dusk to dawn. (Use an LED bulb to save electricity.)
5. Prune or replace large shrubs so intruders cannot hide behind them while prying open a window or door. Low thorny bushes are a deterrent (but not so nice when it's time to repaint the house).
6. Form or join a neighborhood watch group. These organizations are effective crime deterrents because they encourage residents to be vigilant and to call the police whenever they see something amiss. They also keep members in-

formed about neighborhood crime, work with police to improve response times and facilitate volunteer neighborhood patrols by foot and car.

7. Always keep garage doors closed, even while you're at home, so thieves don't see items they may want to steal. Secure valuable items, such as expensive bicycles and grills, to a very heavy object with a chain and padlock. Drill holes in garage door tracks and insert a padlock or bolt to prevent the door from being forced open. Install a hasp and padlock on shed doors.
8. Don't record an answering-machine greeting that says you are not home. Never leave a note on the door indicating that you are gone.
9. Keep car doors locked and windows closed. Never leave valuables, especially electronics or money, in the car. (If you must, put them out of sight.) Use a locking device on your steering wheel in high-crime areas.
10. During ongoing home-improvement projects, store ladders out of sight — they are an invitation to burglars. And don't leave tools such as hammers or pry bars out where an intruder can pick them up and put them to use. — JP



◀ Several smart security systems offer add-on touch-screen controllers. This model from Interlogix features two-way communication so you can talk with personnel at the monitoring station in an emergency. It will also tell you current weather conditions and allow you to program your thermostat.

install than wired components, making it more appealing to DIYers. It can also be taken with you if you move. If you're in the market for a wireless system, keep these tips in mind:

- Consider all of the available wireless peripherals, including modules for controlling lights and appliances, thermostats, cameras, motion sensors (some can distinguish between a pet and a person), water sensors and glass-breaking and vibration sensors.
- Seek out long-life battery power. Lithium-sensor batteries can last

three to five years. When they do run low, the system lets you know well before they're totally depleted.

- Look for a controller with a backup battery so your system will stay active if the power or Internet is out. If you plan to install smoke alarms, you'll need a 24-hour battery backup rather than the four-hour backup offered by many manufacturers.

- All smart systems require a subscription to a third-party alarm-monitoring service. Ask about which central station will be handling your account, and be sure that it is UL certified.

EQUIPMENT AND MONITORING COSTS

There are two costs to keep in mind when shopping for a security system.

The first is for the equipment and installation (if you're having it professionally installed). This can run from a few hundred dollars for a basic system (or less than half of that if you install it yourself) to more than \$1,000 for a full-feature system with specialized sensors and wireless smoke and carbon-monoxide detectors. The second cost is the monthly service charge that includes fees for software-driven features and central station monitoring. It typically ranges from \$35 to \$60 a month. Some dealers, much like mobile phone and cable TV companies, will reduce the installation cost in return for a multiyear contract. ■

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Joe Provey is a frequent contributor to HANDY who writes from Bridgeport, Connecticut.



SOURCES ONLINE

Go to HandymanClub.com and click on WEB EXTRAS.

ADT, adt.com

Alarm.com

Chamberlain, chamberlain.com

Comcast (xfinity), comcast.com/homesecurity/security.htm

FrontPoint Security, frontpointsecurity.com

iControl, icontrol.com

Interlogix, interlogix.com

Kwikset, kwikset.com

Schlage, consumer.schlage.com



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WOOD-SCREW OVERVIEW

WHICH ONES WORK WELL
WHEN — AND WHY

With a vast array of fasteners at our disposal, we tend to take basic screws for granted. Most DIYers have a varied selection of screws in their stash and can grab a handful to accomplish nearly any household task or woodworking project. But like using the right tool for the job, being selective about fastening hardware makes your work more efficient and successful.

SIMPLE SCREWS

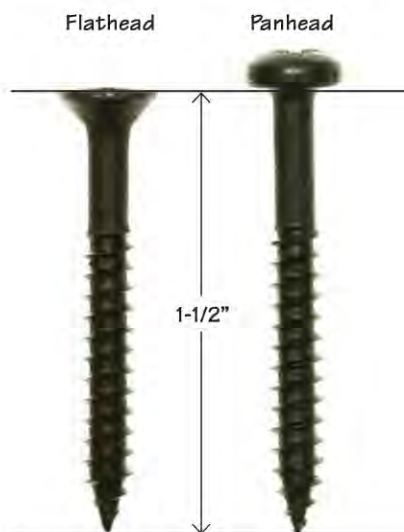
Although screws are simple devices, subtle variations in their design affect how they drive, how they hold, what they hold and where they work best. Each type is engineered for specific applications — even the “all-purpose” ones — and should be chosen for more than just its size. Among wood screws alone, there are hundreds of options, each with features that determine their strengths in fastening.

Who hasn't cursed at a wood screw because it stripped out, cammed out, busted, corroded, failed to hold or just wouldn't drive? Often these failures are due to the wrong choice of thread size and configuration or the head type, the screw's metal type or coating or its tip shape. Problems can also be due to misapplication (the wrong size pilot hole or driver bit, etc.). To be screw-savvy, consider these fastener features.

Anatomy — Despite the plethora of differences in their features, all wood screws have these parts.



Size — Wood screws (for woodworking and cabinet and furniture construction) can be as short as 1/4 in. or as long as 3-1/2 in. Their gauge is identified by the numbers zero through 12 (skipping 11), but 6, 8 and 10 are most common.



▲ Both of these screws are considered 1-1/2 in. long, but panhead screws are measured from the underside because they are intended to sit above the wood surface.



Profiles — Flathead screws are best for counterbore and countersink applications (illustration, p. 34); washer-head, panhead, oval-head and hex-head screws typically remain above the wood surface.

Driver type — The first wood screws had slotted heads to work with flat-tip drivers. To prevent a screwdriver from slipping out of the slot, the Robertson (square-drive) head was invented in 1908. Square-drive heads make it easier to seat the driver, although they do not allow you to fudge on the bit size; Robertson screws specify (and often supply) a certain size bit. Phillips-head screws are somewhat forgiving on the driver size, but they turn much better when the bit fits. Star-drive screws most easily catch and hold a bit, saving time on production work.



WEB EXTRA

Read about the history of screwdrivers (and screwhead designs) at [HandymanClub.com/Web Extras](http://HandymanClub.com/WebExtras).



Custom curves — To again improve screw technology, designers have tweaked the underside of the screwhead. Some, like the decking screw above, are bugle-shape (rather than a straight bevel), which helps prevent blowout or bubbling of the wood. Special nibs (or saw teeth) in the underside of a screw (center) help the head cut into the wood to automatically create a clean countersink. A flat underside (right) helps to distribute the screw's grip over a larger area.



Width — Comparable to a finishing nail, a trim-head screw (right) is an option when you want to create an invisible connection without having to add plugs to hide the fastener. It leaves an easy-to-fill hole in the wood, but it does not offer the holding power of a larger head size (left). You would choose the latter when hanging cabinets, for example.



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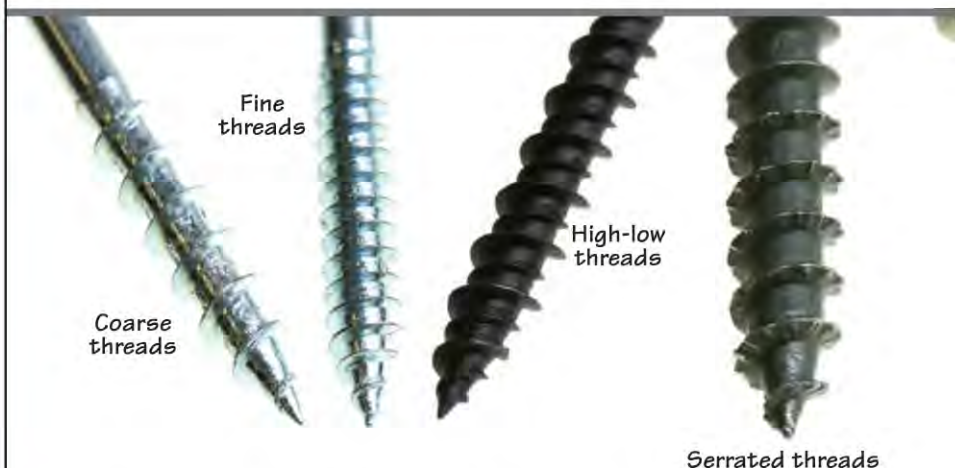
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Threads — Wood screws vary greatly in thread design, especially in depth and spacing. The differences are significant to each application: Coarse (larger) threads are made for use in softwood; fine (smaller and more closely spaced) threads work best in hardwood. Screws with extra-coarse threads are designed for use with particleboard. Two other variations are high-low threads (found on general-purpose screws for most types of wood) and serrated threads, such as those on Spax and Quick-Screws. These screws' teeth help to cut into the wood, so they are easier to drive.

Shank — The root of the shank (and the wood type) determine the size of the drill bit you use for boring a pilot hole. If you're working with softwood, choose a bit slightly smaller than the root; for hardwood, match the pilot bit to the size of the root.

On some wood screws, the thread starts at the neck, but most often, the top one-third of the shank is smooth. This design prevents the screw from biting into the first layer of wood as it pulls two pieces together (cross threading).



BORING, BORING, BORING

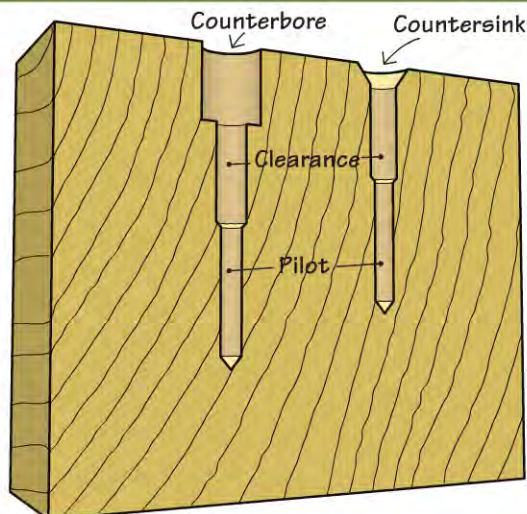
The terms *pilot hole*, *clearance hole*, *countersink* and *counterbore* are often used interchangeably, even though they refer to four boring steps, each with a very different purpose.

Pilot: A hole (no larger than the root diameter) made to guide the screw

Clearance: A wider hole bored only in the top piece of wood to prevent the threads from biting into the first layer as it's being drawn tight to the adjoining wood

Countersink: A beveled hole large enough to receive the head of a flathead screw so it is flush with the wood or slightly below the surface

Counterbore: A straight-side hole deep enough to allow for insertion of a wood plug to cover the head of the screw — CB





Auger point

Tips — The shape of the pointed end is also engineered for each fastener type. Some are rounded; others have a longer, narrower shape. Auger points (called self-tapping) save you from having to drill a pilot hole, a convenience for DIYers and a major boon to production crews. These drilling tips actually clean out the hole as they drive in, rather than wedging their way into the material.

▼ **Manufacturers offer new designs and specialty screws to improve performance and application. Pocket-hole screws were created with self-tapping points, unthreaded necks and wide, flat heads for greater holding power in pocket joinery. QuickScrews' Spiral Point Funnel Head Screw — a recent innovation — can be driven into medium-density fiberboard or melamine without requiring a pilot or clearance hole.**



Pocket-hole screw



Spiral Point Funnel Head Screw



Metals — When shopping for screws, keep in mind that the metal they're made of affects application and performance. For example, if you want the look of a brass screw but need a strong bond, choose steel with a brass coating. (And when real brass is used for a decorative connector, remember that it is soft and requires a pilot hole.) **TIP:** When using brass screws, first "prime" the hole with a steel screw.

For exterior projects, stainless steel is recommended because it stays strong and doesn't stain. Zinc-aluminum can also be used outdoors, but zinc screws are only for interior applications. For the hardest metal, look for heat-treated screws.

Use coated screws (such as powder-coated) if you're making something with treated wood, which is corrosive to steel. Besides providing color, coatings on screws can prevent corrosion or (in the case of lubricated finishes) make installation easier. Lacquer is used on brass to prevent tarnishing. ■

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GRK Fasteners (R4), grkfasteners.com

Lee Valley Tools, 800-871-8158, leevalley.com

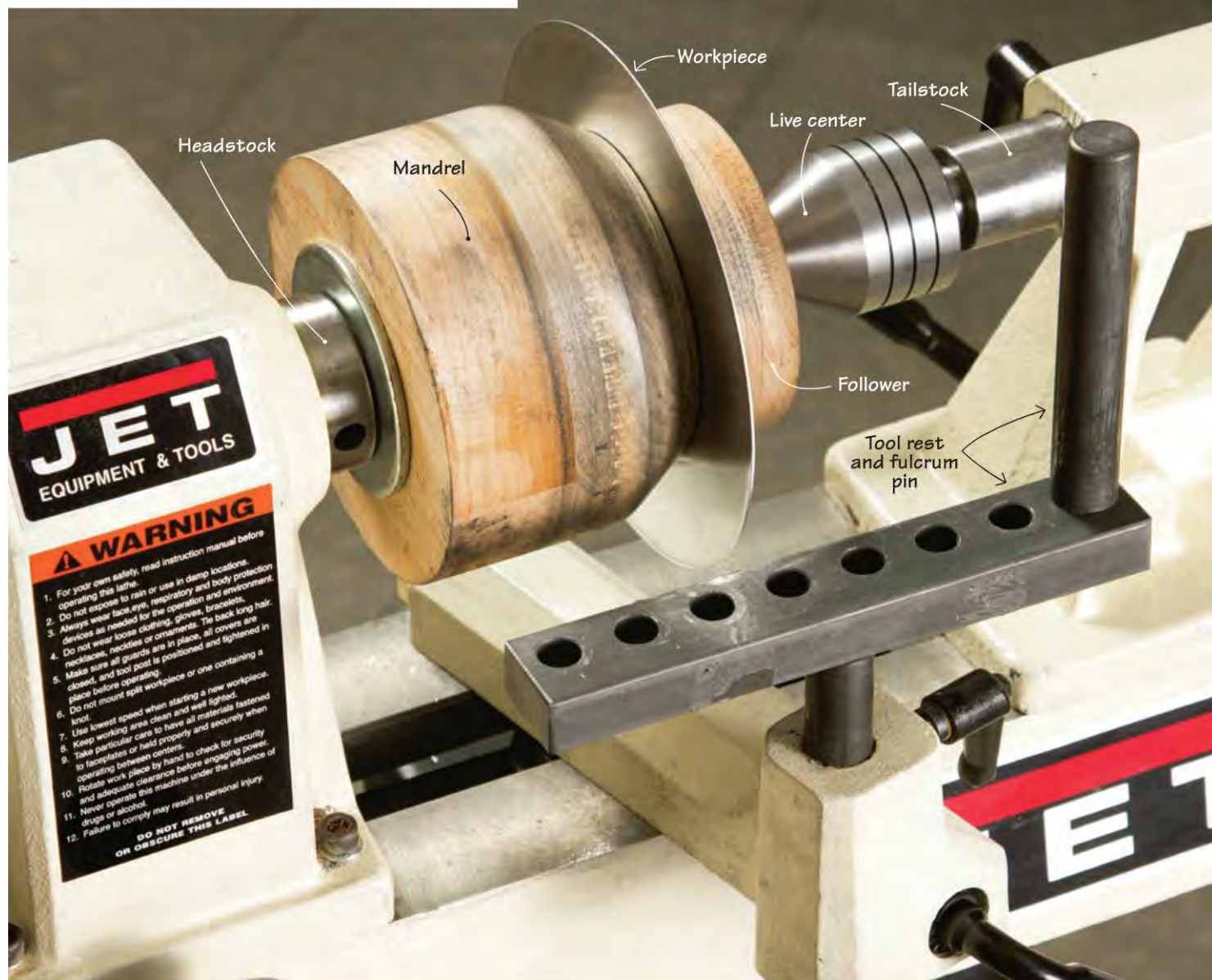
McFeely's, 800-443-7937, mcfeelys.com

QuickScrews, quickscrews.com

Rockler Woodworking and Hardware, 800-279-4441, rockler.com

METAL SPINNING

NEW USES FOR A WOOD LATHE



Discovering a new use for a tool I already own always gives me a special sense of satisfaction. So I was excited when I realized I could form metal workpieces on a wood lathe. With the addition of just a few parts, I could fabricate one-off velocity stacks for my hot rod or build my own retro-style oil lamp — the possibilities seemed endless.

Metal spinning is nothing new; in fact, it's one of the oldest forms of metal shaping, dating back thousands of years

to early Chinese, Indian and Egyptian craftsmen. The process remains largely unchanged from its beginnings, although modern lathes, tools and materials have enabled parts to be spun with far greater quality and predictability.

SUITABLE MATERIALS

Virtually any type of sheet metal can be formed by spinning, though metals with greater elasticity are the best choice for complex shapes and deep

▲ With a set of metal-spinning tools and a tool rest and fulcrum pin, you can shape metal on a variable-speed wood lathe. Refer to the callouts in this photo as you read the article and view the step-by-step photos.

draws. Aluminum, brass, bronze, copper and stainless steel are typically the most elastic nonprecious metals and are most commonly used by metal spinners. Purer annealed aluminum alloys (i.e. 1100-0) are best for forming; avoid using heat-treated or strain-hardened metals. During the forming process the part may become work-hardened and resist additional forming, so it will then need to be annealed to relieve internal stresses and improve its cold working properties. Sheet metals as thick as .100 in. can be formed with hand tools, though thicker and stiffer materials will require significantly more pressure to form properly.

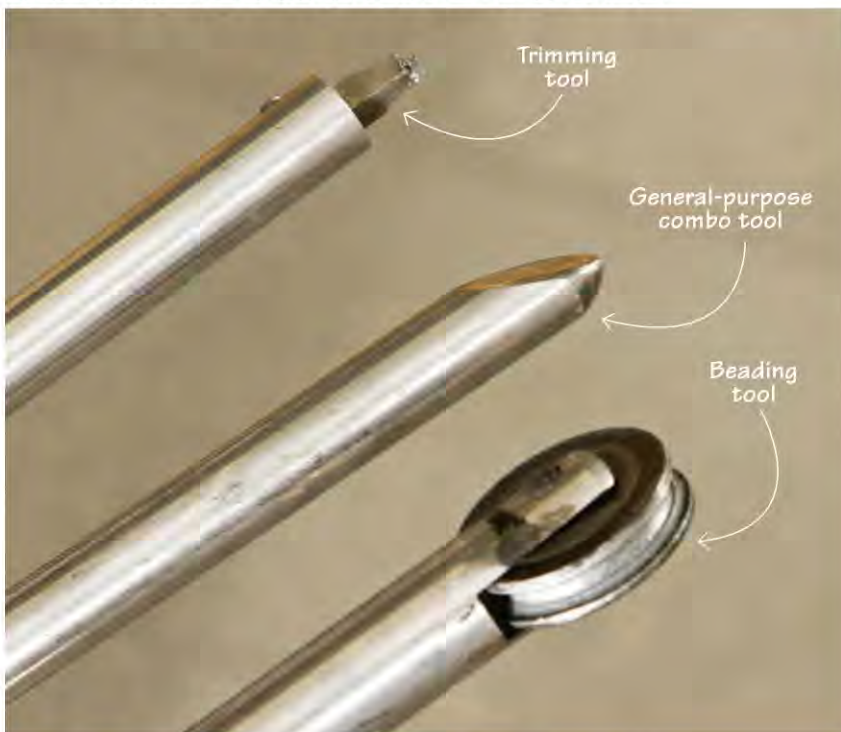
TOOLS TO USE

Professional metal spinners have a vast array of tools to use during the forming process, and they commonly build their own tools to meet specific needs. For the project shown in the photos (right), I used only three tools: a general-purpose combo tool, a beading tool and a trimming tool (see Sources Online). The tools are used to form the metal over a mandrel or buck while the lathe spins at 900 to 1,200 rpm (1,800 rpm for finishing). The mandrel is commonly made from hardwood such as maple, but in industrial applications steel is used for large production runs.

Mandrels should be designed without undercuts to allow the newly formed part to be removed when complete. Mandrels with an undercut or waist must be made up of multiple parts so they can be removed without damaging the completed workpiece.

Experience pays off in the forming or spinning process. Tool speed, pressure and control all come into play as metal is drawn over the mandrel. As with developing any new skill, you can't expect stellar results on your first attempt. Work in smooth, steady rowing strokes, and the material will form gentle hyperbolic curves at first. Once the material has moved about an inch, it should be seated over at least the first 1/2 in. of the mandrel. With the part seated, the remaining forming proceeds quite predictably.

METAL-SPINNING TOOLS



SPINNING STEP-BY-STEP



▲ Long handles on the forming tools provide the leverage to move material across the mandrel. The butt of the tool is placed in the right armpit, and body weight provides the force to move the material. The left hand, also known as the clamping hand, grasps the pin on the tool rest and ensures the forming tool remains in contact with the pin, which is used as a fulcrum when applying pressure. The right hand is then placed midway on the tool and used to guide the tool over the part.



▲ The mandrel should be securely mounted to the headstock or headstock mounting plate. Avoid using jaw-type chucks on the headstock to hold the mandrel — they pose inherent risks, and their 1,000-rpm limit will adversely affect finishing.



▲ After bringing the lathe up to speed (900 to 1,200 rpm), use the combo tool to apply pressure to the sheet-metal disc, working in slow rowing strokes and moving from the inside of the disc to the outside to form, then back to move metal back into the newly formed shape.

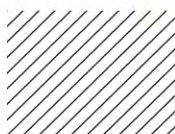
► Sheet metal should be mounted close to center between the mandrel and the follower. The metal disc is then trued by starting the lathe, loosening the tailstock slightly while touching a piece of scrap wood lightly to the disc, and then retightening the tailstock when the disc runs true. The size of the metal disc should equal 80 percent of the part's final length plus its radius: $D = .8 (\text{length} + \text{radius})$



▲ Once the sheet metal has been formed approximately 1 in. at the outside edge, it should be seated to the mandrel. Working from the inside out, push the metal over the mandrel for at least the first 1/2 in. As the metal contacts the mandrel, the tone will change to a low groan.



▲ Good lubrication is essential in metal spinning. Specially designed spinning waxes and beeswax are commonly used, although they can be a little messy as lubricant spins off of the workpiece. (Use tarps to protect nearby items from lubricant spatters.) Reapply lubricant as needed during the forming process.



▲ Using the same simple rowing strokes with the combo tool, move material over the remaining mandrel. The tool should always be moving to prevent galling the surface or spot-hardening. Remember to reapply lubricant as needed.

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8

◀ Before completing the top edge of the piece, use the carbide trimming tool to clean up the edge and correct any off-center issues from the forming process. Bring the trimming tool very slowly into contact with the edge of the part.



10

▲ Once the forming is complete, it's time for final finishing. Remove the tool rest before you begin finishing. For best results, increase the lathe's speed to 1,800 rpm and use sandpaper or a Scotch-Brite pad to smooth the surface. Metal polish or buffing compounds may also be applied.



9



▲ Finishing the edge is the last step of the forming process. There are several ways to complete the edge; we created a rolled edge using the beading tool. With approximately 3/8 in. of material remaining to be formed, apply the back stick to the edge to start it in the right direction; then use the beading tool to roll the edge over.



11

▲ With a little practice, you'll be able to complete parts in minutes and achieve high-quality results.

WEB EXTRA

To see a video of this technique, scan this tag with your smartphone or go to HandymanClub.com and click on Web Extras.



SPIN SAFELY

Spinning metal at high speeds while applying force against it poses inherent risks. Follow these safety precautions to ensure your project doesn't take a wrong turn.

Wearing protective safety glasses and/or a face shield is a must. Wear heavy leather gloves (especially on your clamping hand) to protect your skin from the sharp edges of the moving part and to absorb vibrations from the spinning tools. While spinning parts, the fingers of your clamping hand should remain curled around the tool post, away from the workpiece.

It's much better to directly mount the mandrel to the headstock or headstock plate instead of using three-jaw chucks. The direct-mount method ensures that the mandrel is centered on the headstock and eliminates the risks associated with tools coming into contact with chucks.

Tightly clamp all components (headstock bolts, tailstock, tool rest, etc.) when you spin parts, although you'll need to remove the tool rest during finishing operations such as sanding, filing or polishing. During the spinning process it's important to be aware of the material's condition: Localized hardening, thin areas, possible shearing and wrinkling can be avoided if the signs are detected early. — MS ■

SOURCES ONLINE

Go to HandymanClub.com and click on WEB EXTRAS.

Metal Spinning Workshop
metalspinningworkshop.com

Penn State Industries, 800-377-7297
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WHAT'S BEHIND THE UL MARK?

UNDERSTAND SAFETY-CERTIFICATION RATINGS AND RECOGNIZE THE IMPOSTERS



PHOTO COURTESY UL

When it comes to safety and health, we take a lot for granted. Few of us worry that the overload switch on a forgotten charging device will fail and allow the battery to catch fire. We assume an extension ladder will support us while we carry a pack of shingles to the roof. And who imagines that his grill will become an inferno while cooking a cheeseburger?

Yet product-related injuries continue to occur at alarming rates. Each year the Consumer Product Safety Commission (CPSC) tracks thousands of injuries and deaths involving everything from TV tip-overs to faulty pool drains. The organization initi-

ates the voluntary recall of about 400 products every year. It recently recalled a child's cabinet safety lock that kids could open, a crash-prone hydrostatic lawn tractor and a ceiling fan that posed fire and shock hazards.

As responsible consumers, we can improve our odds of avoiding accidents by checking products we consider purchasing for a safety-certification mark — the most well-known being that of Underwriters Laboratories (UL). "The UL mark means that product has been tested for safety and meets the applicable requirements for that product," says John Drengenberg, UL's director of consumer safety (and an

◀ The mission of Underwriters Laboratories is to rigorously test products, ensuring that they're safe for consumers and industry. In its state-of-the-art facilities, the company tests thousands of products — of all types — every year.

electrical engineer). He points out that the mark is being used on more than just electrical and fire-resistant products, the traditional domains of UL. "For example, we have expanded into verification of environmental claims. We have learned that 95 percent of environmental claims have some irregularities associated with them — they are basically not true," Drengenberg says.

"We have also gotten into life and health, including food and water," he continues. "UL evaluates drinking water for 7,000 municipalities in the U.S. Our lab can test for 500 different contaminants."

Drengenberg says that there are other reputable labs that write standards and certify product safety, including the Canadian Standards Association (CSA), but that UL is the biggest and best-known worldwide.

THE CERTIFICATION PROCESS

Safety testing is generally voluntary, not federally mandated, although insurance companies and building codes

HISTORICAL FINDINGS

UL, initially known as the Underwriters' Electrical Bureau, conducted its first test in 1894 on a noncombustible insulation material called "Mr. Shields." Five years later, the organization had published 1,000 laboratory test reports. — JP

may require the UL mark on certain products. However, retailers drive certification. "If a manufacturer brings a new power drill to the tool buyer for a home center," says Drengenberg, "the first question will likely be whether it has been evaluated for safety by a third party. If not, the retailer will say, 'Come back when it has.'"

In most cases, testing begins early in the process of tool development. "Under strict confidentiality, we look at specifications and samples that were pilot-built by the manufacturer," says Drengenberg. "There is never an assurance the manufacturer will get the mark."

The product is measured against established standards, or requirements, that were typically developed by UL engineers in collaboration with many people, including manufacturers, government agencies, safety experts, medical personnel and consumer advocates. Standards are constantly being revised and updated because of newly reported accidents or changes in technology. For example, the requirements for a toaster, an appliance that has been manufactured for generations, recently changed. Large food items were causing toasters to jam and catch fire. Now a timer is required on all new models.

Although it's often not necessary to test every component of a new tool because many (switches, electrical cords, wiring and circuit boards, etc.)

have already been UL-certified, the organization still tests the complete tool. After testers gather information, they examine the product to be sure it meets established requirements and then perform tests as necessary. "Some requirements are not tests per se; they might be something very simple, such as measuring the thickness of the tool's plastic enclosure or ... whether a finger could manage to reach through

can go into the factory at any time and pull a product off the line for testing.

FALSE AND MISLEADING USE

The UL mark is applied 22 billion times a year, with only a few counterfeits. As long as you shop at reputable retailers, you're unlikely to be duped. UL anti-counterfeiting personnel work with the Department of Homeland Security to stop products with counterfeit labels

If you're wondering whether a product is really as environmentally friendly as its advertising claims it is, look for the UL Environment claims validation mark.

a vent opening and touch a live part," Drengenberg explains.

Other requirements — those for electrical, mechanical, fire and radiation safety — do involve testing. "For example, testing for operating temperatures is important because heat affects how long nearby components, such as insulation, last," Drengenberg says. "This sort of testing is done for just about every component." Input tests measure how much wattage an appliance draws because UL requires that a marking on the product show voltage, wattage or amperage. For a power drill, the requirements typically cover electrical, mechanical and fire safety. For a microwave oven, requirements also cover radiation.

With today's battery-operated tools, there's little worry about electrical shock because of the relatively low voltage, but there is concern about batteries, which can be prone to fires or explosions. "Because tools are very robust, we have not seen many [battery] problems. They are a little more common, however, in electronic devices such as laptop computers," Drengenberg says.

When requirements are met, the manufacturer is authorized to put the UL mark on the product as it comes down the production line. But UL's role doesn't end there. Local inspectors

from reaching the shelves.

The types of products most likely to bear counterfeit marks are typically high-volume, low-price items, such as extension cords, night-lights, Christmas lights, power strips and surge protectors. For products in the 35 or 40 categories where counterfeiting activity has been detected, UL has switched to a holographic mark that is very difficult to replicate.

If you ever see a product labeled "Tested for UL standard," choose another model. "It is an out-and-out attempt to sell something that has not been certified by UL," says Drengenberg. "They usually put UL in big letters. That's advertising fakery."

Although proper safety certification can guard against the dangers posed by shoddy manufacturing, it can only go so far to protect consumers. No matter what type of tool or appliance you're using, it's your responsibility to read instructions, be aware of potential hazards and take all necessary precautions to avoid accidents. ■

Club Member Joe Provey writes from Bridgeport, Connecticut.

SOURCES ONLINE

Go to HandymanClub.com and click on WEB EXTRAS.

Underwriters Laboratories, ul.com



▲ UL marks that include a "C" or an "EU" indicate that the product is certified in Canada or the European Union. The UL Environmental mark validates claims of eco-friendliness.

GARAGE COMFORT

KEEP YOUR WORKSPACE WARM ALL WINTER



As winter approaches, that beloved garage you spend so much time in can morph into a cold, damp, unpleasant workspace. So why not take steps now to warm it up later? A natural-gas or propane heater is safer, cleaner and more convenient than burning wood — just flip a switch and the heat is on — and if you install a thermostat and insulation, you can keep your garage a consistent temperature no matter how cold it is outside. (Note: Before you begin, check with your local building authority for applicable codes and permits.)

DETERMINE THE RIGHT SIZE AND LOCATION OF YOUR HEATER

Before you purchase a natural-gas or propane heater, be sure to check the unit's specifications for Btu output and square footage. We installed a Mr. Heater Big Maxx, which is available in two sizes: 45,000 and 75,000 Btu. The smaller unit works for spaces up to 700 sq. ft. and the larger unit works for areas up to 1,000 sq. ft.

The heater we used is equipped with

a blower, so we installed it near the garage ceiling for optimal air circulation — an upper corner opposite the main door is best.

Venting is another factor in choosing a location. Be sure to read the manufacturer's specifications before installation. (You can vent the Big Maxx Heater through the roof or through the wall. If you vent through the wall, the horizontal vent must be between 3 and 5 ft. long.)

RUN THE GAS LINE AND INSTALL THE DISCONNECT SWITCH

Unless you are experienced in gas and electrical installations, leave this step to the professionals. The gas and electrical connections will need to be installed according to the manufacturer's instructions and code. For the Big Maxx Heater, the manufacturer recommends installing a disconnect switch (similar to a light switch) in a wall near the heater. The typical cost of a gas-line installation is \$400, and wiring an additional electrical switch costs approximately \$300.



▲ Hire a plumber or an HVAC professional to run the gas line.

PROVIDE ADEQUATE SUPPORT FOR THE HEATER

We attached the unit to a piece of 3/4-in. plywood (see photo, below). This allowed for continuous support when installing the heater across ceiling joists.



▲ Fasten the heater to 3/4-in. plywood; then attach the plywood to the ceiling joists.

CUT A HOLE FOR THE VENT

First, determine the size and height of hole you will need to terminate the heater venting. Horizontal venting must slope upward 1/4 in. per 1 ft. of run. Measure the distance between the top of the heater and the center of the vent output; then measure the distance between the vent output and the wall. Subtract 1/4 in. per foot of run between the vent output and the wall. Use this result to mark the center of the vent

INSULATING YOUR GARAGE

Adding insulation to your heated garage will help you conserve energy and save money. To make the best decisions about your garage's insulation, it's essential to understand two concepts: heat transfer and R-value.

Heat transfer explains how heat moves from the warm side of the insulation to the cold side in three ways: radiation, conduction and convection. Radiation, such as the warmth that is created by sunlight, is the transfer of heat from one object to another through airspace. Conduction, on the other hand, is the transfer of heat between two objects that are actually touching. For example, if it weren't for the air that's trapped within their structure, insulation materials such as mineral wool or fiberglass would transfer heat from the outside wall to the inside wall simply because the material touches both surfaces. But while trapped stationary air within insulation helps its performance, moving air — convection — hinders it. Convection can occur when cold air displaces hot air, causing it to rise and create what's known as a convective loop, which can transfer heat out of the home in winter and into it during the summer.

To combat heat transfer, it's necessary to increase a wall surface's R-value — the higher the R-value, the greater the insulating power. Manufacturers of insulation products print the R-values of their products either on the packaging materials or on labels. In most cases, R-values are also printed on the facings of fiberglass batts and rolls.

Although some manufacturers promote the "per inch" R-value of their products, the overall R-value when the product is installed is what counts. Common R-values for home- and garage-insulation products range from R-8 to R-38, depending on the materials.



▲ Cut a vent hole and install the vent-pipe thimble.

hole. If the wall is covered with drywall, locate the studs with a stud finder so you can cut the opening in a stud cavity.

Once you determine the hole's location, use a compass to mark it on the inside of the exterior wall. Make sure the circle is about 1/4 in. larger than the diameter of the vent-pipe thimble. Drill a pilot hole through to the exterior side of the wall; then use the compass to make a circle on that side. Cut the interior and exterior wall with a hole saw or reciprocating saw and install the vent-pipe thimble (photo, above).

Attach the heater's plywood support to the ceiling joists and install the vent pipe. Then enlist the help of a plumber or HVAC professional once again to connect the gas line to the heater.

WIRE THE THERMOSTAT TO THE HEATER

Attach the thermostat wires to the heater according to the manufacturer's instructions. Place the thermostat in an area that is not directly in the path of the heater fan. A side-wall location about 4 to 5 ft. from the floor is the best choice.

Once the thermostat is wired and the gas and electrical connections are tested and secure, your heater is ready to be switched on so it can warm up your workspace. ■

Handyman Club of America life member Mike Conner is a professional contractor and builder who lives and works in the Twin Cities.

SOURCES ONLINE

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Mr. Heater, mrheater.com

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When it came time to transform our backyard from open ground to playground, we wanted to build a play set that would grow with our kids and remain solid for many years. Theresa designed the structure, and I worked in some construction techniques to make it safe and easy to assemble. Our children, ages 11 and 3 years old, use the play set for everything from a pretend store to a hideout to whatever their imagination cooks up.

This is an advanced project, but it's fun to put together. If you don't want to build an exact replica of our play set,

you can take some of the ideas shown and apply them to your own design. Before you break ground, check your local building codes in case a permit is required for your structure.

FOUNDATION

Because it has two levels, this play set is heavy. A stable, water-diverting foun-

dation is critical. First, we marked the location of the structure using strings to measure an equal distance between our fence and driveway. (Make sure to maintain safe clearances to hard surfaces.) Next, we leveled the area. In a yard with even a shallow pitch, a play set as long as this (30 ft.) will require you to move some dirt.

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who leads a renowned hearing institute, there is Perfect Choice HD. It's designed to accurately amplify sounds and deliver them to your ear. Because we've developed an efficient production process, we can make a great product at an affordable price. The unit has been designed to have an easily accessible battery, but it is small and lightweight enough to hide behind your ear... only you'll know you have it on.

Perfect Choice HD feature comparison		
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The next step is to create a pad of pea gravel, stone and stone dust on which the structure can rest. We removed the grass and leveled the dirt. We then created channels filled with 2-in. stones and pea gravel. This method creates a surface that resists compression and allows water to drain instead of turning the ground into mud. We filled in between the channels with dirt to lock the stone in place. The stone dust on top creates a dependably flat surface on which we placed the base.

BASE

We framed the base using pressure-treated 4x4s. Only 4x and 6x pressure-treated lumber is rated for ground contact (unless you special order ground-contact 2x boards). This approach spread out the towers' load over a wider surface area.

Once the foundation was level, we started building the base. It is framed



square to the exterior dimensions of the tower above. It's fastened using 6-in. exterior-grade structural screws, and its members rest directly on the foundation.

FLOOR JOISTS

When it came to adding floor joists, we framed the perimeter first. The box is 3 in. smaller than the 4x4 base on all sides so it has a 1-1/2-in. reveal all the way around. We squared it by measuring diagonals with tape measures and making slight adjustments. (A framing square isn't accurate enough.) We fastened diagonal braces across the corners (photo 1) and secured joists inside the frame at 16 in. OC.

When placing the joist assemblies on the base, we used a 2x block to ensure a uniform 1-1/2-in. reveal (photo 2). Then we toescrewed the joists to the base.



CORNER POSTS

We could have used 6x6 posts on this project, but they didn't quite fit the design. For both aesthetics and utility, we fabricated our own corner posts by fastening a 2x8 at a right angle to a 2x6 using an L bracket that is 7-1/2 in. long on one flange and 7 in. long on the other. We fastened, plumbed and braced the corner posts to the floor-joist assembly (photo 3). Next, we drilled holes for and then finger-tightened galvanized bolts through the posts and band joists.

INTERIOR CLEATS AND TOWER A

Inside each corner post we installed two cleats that run from the top of the deck surface (not the joists, but 1-1/2 in. above the joists) to the bottom of the second-level joist assembly (photo 4). The cleats provide structural support for the second



level, and because they extend about 1 in. beyond the corner posts, they serve as a fastening surface for the 2x6 siding. Before screwing the cleats directly to the corner posts, make sure you install a deck board underneath them so you'll still have access to the corner-post bolts.

With the cleats in place, installing the 2x6 band joists for the second level is easy. Cut them to the same dimensions as the first-level floor joists and rest them on the cleats. Fasten them to the corner posts. Infill with joists spaced 16 in. OC, drilling holes for and finger-tightening the through-bolts.

Double-check that everything has

remained plumb (you may need to rack the structure a little), and cinch all bolts tight. We used an impact driver on one side and a ratchet on the other when tightening the bolts.

PORCHES AND DECKING

We framed the porches in the same manner that we framed the floor joists, making square boxes and infilling with



joists. Before installing them, we filled in the gap between the corner posts with a filler joist screwed to the band joist. We then fastened the porch framing to the tower with structural screws and topped it with 2x6 decking (photo 5).

PERGOLA DETAIL

To give the play set grown-up panache and to tie the tops of the corner posts together on Tower A, we crafted a per-



gola detail. We fastened a girder to each side of the corner posts and installed 24-in.-long rafters (photo 6). **Note:** Because we were fastening to an L shape, we used through-bolts where the longest side of the L met the girder. On the other side, we drilled holes for and fastened with two 4-in. structural screws. Then we cut and installed caps to protect the end-grain of the corner posts.

TOWER B

Tower B is assembled in the same way as Tower A, except for a few minor differences. First, it's smaller. Second, it's



centered off of Tower A by 11 ft. 6 in. To find its location, run strings from the far sides of Tower A along the edges past where Tower B is located. This will project the width of Tower A accurately to the second tower location. Next, build a 4x4 base centered between the strings. Finally, build a foundation and base and build up (photo 7).

Tower B has no pergola detail; the corner posts are held stable by the guardrails, a bridge and a slide. The slide and swings were purchased at a local home center and assembled on site.

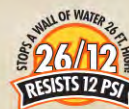
DOOR AND WINDOW OPENINGS

The 24-in. openings are framed by running a 2x4 on-the-flat from the top of the deck to the bottom of the second level's band joist. Drill pilot

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SAFE PLAY SURFACES

Safe ground cover resists packing, drains well and stays in place. Consider adding the following materials under your play structure (minimum depth: 6 in. under a 5-ft.-high platform and 12 in. under an 8-ft.-high platform).



Synthetic mulch



Wood chips



Double-shredded mulch



Fine (pea) gravel



Sand

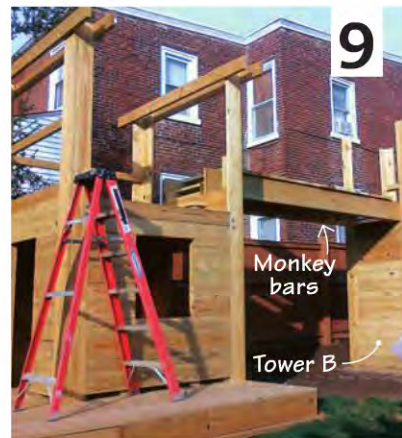
holes and countersinks for the fasteners, toescrewing for a solid connection (photo 8). We laid out the 2x4 studs' positions in the wall by centering them in the space. Find the center of the wall, mark 12 in. on each



side of the centerline and then run each stud plumb up from the mark. Reserve some siding to create the top and bottom of the window. We also used some leftover material to create door headers and sills.

SIDING

The siding is 2x6. Unlike regular siding, we started installing it at the top and worked down to prevent notches and hide the rip cuts. Setting up a stop on a miter saw will increase accuracy and save time when cutting the siding. Drill pilot holes and countersinks to prevent splits if necessary.



HOME AND SHOP SOLUTIONS

MAGNETIC DUSTPAN

This thoughtful tip from Club member **Steve Munro** of Eaton Rapids, Michigan, makes shop cleanup a breeze, and it may even save you some cash. Steve added a piece of adhesive-back magnet to the edge of his dustpan to catch nails, screws, washers, etc., when he dumps sawdust and debris into the garbage can. After he empties the dustpan, Steve pulls off the metal items and saves them for other projects.



JOHN HEGGE



SECURE PEGBOARD HOOKS

Frustrated by falling tools every time he took one off of his pegboard, Club member **Raymond Hill** of Mather, California, found an inexpensive solution for securing loose storage hooks in place: 7mm aluminum U-cable clamps. Raymond slipped part of each metal hook through the loop of a clamp and then attached it to the pegboard with screws.



PHOTO COURTESY MEMBER



HEAT-SHRINK TUBING FOR TOOLS

Club member **Richie Tannenbaum** of Needham, Massachusetts, discovered a new application for the heat-shrink tubing commonly used to encase wires: He covered the worn handles of his hand tools with it. Richie even applied the tubing to the jaws of his pliers so they wouldn't scratch chrome fittings around sinks and other kitchen and bath fixtures — a solution that worked much better than cushioning the fittings with a rag, which would often slip off or make it hard to see what he was working on. When Richie applied heat to the tubing, it shrank down to the size of the jaws and retained the shape of the teeth. The tubing can be found at most home-improvement stores and is available in various colors. ■

SUBMIT YOUR TIP

The member who submits the best tip wins \$200. Other published tips are awarded \$50. Submit your tips by e-mail to:

tiptrader@HandymanClub.com

or mail them to:

Tip Trader c/o Jenny Stanley
HANDY, 12301 Whitewater Drive
Minnetonka, MN 55343

Include your name, member number, address and daytime phone number. Sketches and photos are welcome. We regret that we cannot acknowledge or return submissions.

Limited
to the first
2500 respondents

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It was one of nature's most impressive displays of power. Mount St. Helens erupted, sending a column of ash and smoke 80,000 feet into the atmosphere. From that chaos, something beautiful emerged... our spectacular *Helenite Necklace*. Produced from the heated volcanic rock dust of Mount St. Helens, this brilliant green creation has captured the attention of jewelry designers worldwide. Today you can wear this 6½-carat stunner for the exclusive price of only \$129!

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Your satisfaction is guaranteed. Bring home the *Helenite Necklace* and see for yourself. If you are not completely blown away by the rare beauty of this exceptional stone, simply return the necklace within 30 days for a full refund of your purchase price.



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COURTESY CARMEN DE LA PAZ

FOOD-SAFE FINISH

Q: I am making wood bowls out of cedar. What kind of coating should I apply to the inside of the bowls so that food can be served in them? I plan to coat the outside with polyurethane.

Paul Renfro
Houston, TX

A: We asked Carmen De La Paz, an award-winning wood turner and host of HGTV's Hammer Heads, to respond. Here are some key points; for the full answer, see Carmen's blog at HandymanClub.com.

The goal is to preserve and enhance the wood in a way that does not affect food safety or flavor. Many well-known wood turners use only mineral oil be-

cause they know it is safe. You may also use natural beeswax, which is food-safe and seals and enhances the wood. Keep in mind that both finishes will soak into the wood and wear off over time, requiring reapplication every few months. It's also important to never let the bowls sit in water. Use them, clean them and let them dry completely.

Another option is to apply products such as General Finishes' Salad Bowl Finish, an oil-base sealer that is technically food-safe once it has cured. Apply a few coats, allowing each to dry completely and lightly sanding between coats. You can find this and other suitable products by searching for "food-safe finish" at the Rockler Woodworking & Hardware Web site (rockler.com).

SOUNDPROOFING A BEDROOM

Q: How can I soundproof my bedroom? It has two exterior walls and shares one wall with the living room. The fourth wall is a closet.

Lee Bubbs
North Charleston, SC

A: Depending on your budget and preferred degree of complexity, you can take many approaches to reducing sound transmission and increasing sound absorption. Soft materials (bedding, mattresses, upholstery, carpet, curtains) help to dampen noise within the room. A thicker carpet and pad, more pillows and sound-blocking drapes are effective additions. Products such as resilient channels or dampening compounds installed between the wall surfaces and a second layer of 5/8-in. drywall will help to deaden sound transmission. (To take this step even further, you can first add soundproof batting or spray-in foam insulation to the interior walls.) If your door has a hollow core, replacing it with a solid-wood model would enhance soundproofing, but adding seals to the jamb and bottom of the door (see illustration) is an easier, less expensive option. ■



STEPHEN HUTCHINGS

SUBMIT QUESTIONS TO:

expertanswers@HandymanClub.com

Include your name, member number, address, daytime phone and e-mail address. Sketches and photos are welcome. We regret that we cannot respond personally to all questions. For the fastest answers, post questions on our Club's online forum at: **HandymanClub.com** or at: **Handyman Club of America on Facebook**

Or mail them to:

Expert Answers c/o Connie Bastyr
HANDY, 12301 Whitewater Drive, Minnetonka, MN 55343

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Choose Life Grow Young with HGH

From the landmark book *Grow Young* with HGH comes the most powerful, over-the-counter health supplement in the history of man. Human growth hormone was first discovered in 1920 and has long been thought by the medical community to be necessary only to stimulate the body to full adult size and therefore unnecessary past the age of 20. Recent studies, however, have overturned this notion completely, discovering instead that the natural decline of Human Growth Hormone (HGH), from ages 21 to 61 (the average age at which there is only a trace left in the body) and is the main reason why the the body ages and fails to regenerate itself to its 25 year-old biological age.

Like a picked flower cut from the source, we gradually wilt physically and mentally and become vulnerable to a host of degenerative diseases, that we simply weren't susceptible to in our early adult years.

Modern medical science now regards aging as a disease that is treatable and preventable and that "aging", the disease, is actually a compilation of various diseases and pathologies, from everything, like a rise in blood glucose and pressure to diabetes, skin wrinkling and so on. All of these aging symptoms can be stopped and rolled back by maintaining Growth Hormone levels in

the blood at the same levels HGH existed in the blood when we were 25 years old.

There is a receptor site in almost every cell in the human body for HGH, so its regenerative and healing effects are very comprehensive.

Growth Hormone first synthesized in 1985 under the Reagan Orphan drug act, to treat dwarfism, was quickly recognized to stop aging in its tracks and reverse it to a remarkable degree. Since then, only the lucky and the rich have had access to it at the cost of \$10,000 US per year.

The next big breakthrough was to come in 1997 when a group of doctors and scientists, developed an all-natural source product which would cause your own natural HGH to be released again and do all the remarkable things it did for you in your 20's. Now available to every adult for about the price of a coffee and donut a day.



GHR now available in America, just in time for the aging Baby Boomers and everyone else from age 30 to 90 who doesn't want to age rapidly but would rather stay young, beautiful and healthy all of the time.

The new HGH releasers are winning converts from the synthetic HGH users as well, since GHR is just as effective, is oral instead of self-injectable and is very affordable.

GHR is a natural releaser, has no known side effects, unlike the synthetic version and has no known drug interactions. Progressive doctors admit that this is the direction medicine is seeking to go, to get the body to heal itself instead of employing drugs. GHR is truly a revolutionary paradigm shift in medicine and, like any modern leap frog advance, many others will be left in the dust holding their limited, or useless drugs and remedies.

It is now thought that HGH is so comprehensive in its healing and regenerative powers that it is today, where the computer industry was twenty years ago, that it will displace so many prescription and non-prescription drugs and health remedies that it is staggering to think of.

The president of BIE Health Products stated in a recent interview, I've been waiting for these products since the 70's. We knew they would come, if only we could stay healthy and live long enough to see them! If you want to stay on top of your game, physically and mentally as you age, this product is a boon, especially for the highly skilled professionals who have made large investments in their education, and experience. Also with the failure of Congress to honor our seniors with pharmaceutical coverage policy, it's more important than ever to take pro-active steps to safeguard your health. Continued use of GHR will make a radical difference in your health, HGH is particularly helpful to the elderly who, given a choice, would rather stay independent in their own home, strong, healthy and alert enough to manage their own affairs, exercise and stay involved in their communities. Frank, age 85, walks two miles a day, plays golf, belongs to a dance club for seniors, had a girl friend again and doesn't need Viagra, passed his drivers test and is hardly ever home when we call - GHR delivers.

HGH is known to relieve symptoms of Asthma, Angina, Chronic Fatigue, Constipation, Lower back pain and Sciatica, Cataracts and Macular Degeneration, Menopause, Fibromyalgia, Regular and Diabetic Neuropathy, Hepatitis, helps Kidney Dialysis and Heart and Stroke recovery.

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and enter a project of your own }



1



2



3



4

PHOTOS COURTESY MEMBERS

1 WOODED RETREAT

This beautiful backyard hideout is definitely more than a typical tree house: The interior features an electric fireplace and a loft that holds a queen-size bed. Club member **Chris Willis** of Mount Vernon, Washington, designed and built the structure with

his son in their backyard. The project took them about a year to complete. "We are lucky to have three big trees in the backyard," Chris says. The elevated walkway connects to the upper-level deck of their home, situated just off of the dining room, and spans about 40 ft. to the tree house.

2 OPTIMUM HOME OFFICE

While shopping for a computer desk for his wife's home office, Club member **Ron Mikulka** of San Marcos, California, realized that the high prices and low quality of the options available were not going to work for him. So he set out to design and

VOTE NOW

build a custom computer desk. For sturdiness, Ron used 3/4-in. medium-density fiberboard to build the base cabinets and made the bookcases out of birch plywood with bead-board panels on the inside. He used pine for the face frames and added crown molding along the top. The desk includes drawers for hanging files, compartments for a computer tower and printer and a pullout keyboard tray.

3 ULTIMATE PRIVACY FENCE
Club member **Paul Veldhuis** of Lynnwood, Washington, built this grand privacy screen using beautiful Western red cedar. The structure stands 9 ft. tall and stretches 42 ft. across his backyard. To make it a little more interesting than a traditional privacy fence, he built the five panels 3-1/2 ft. above the ground, allowing for shrubs to fill in and add different textures along the bottom. "The detail is the same on both sides," Paul says, "with copper caps and a small alcove for seating." Paul made the bench out of scraps left over from the fence and finished the entire structure with exterior-rated wood sealant.

DELIGHTFUL DAYBED
4 To accommodate an especially tall houseguest, life member **Edward Dawe** of Northampton, Pennsylvania, designed and built this decorative daybed. But the project wasn't as straightforward as it looks: Because he lives in an old farmhouse, Edward had to figure out a way to transport the bed up a narrow winding staircase and into an upper-level bedroom. "I accomplished this by making it in seven pieces," Edward says. He built all of the parts out of red oak, finished them with three coats of tung oil and added decorative spindles that complement the warm color of the wood. ■

VOTE ONLINE FOR YOUR FAVORITE PROJECT

Vote online for one of these projects to receive the Critics' Choice Award. Go to HandymanClub.com and click on WEB EXTRAS.

1. WOODED RETREAT
2. OPTIMUM HOME OFFICE
3. ULTIMATE PRIVACY FENCE
4. DELIGHTFUL DAYBED

Voting will end October 31, 2012.

The winner will be announced in the February/March 2013 issue.

SHOW OFF YOUR PROJECT

To have your project considered, send:

1. A photo of your project
2. A detailed description of your project

Address to:

HandyWorks (or GoodWorks)
c/o Jenny Stanley
HANDY
12301 Whitewater Drive
Minnetonka, MN 55343

Or e-mail to:

HandyWorks@HandymanClub.com or
GoodWorks@HandymanClub.com
We regret that we cannot acknowledge or return submissions.



CRITICS' CHOICE AWARD

WINNER: Tom Ferry of Dewey, Arizona

PROJECT: "Deck Revival," June/July 2012

PRIZE: Tom will receive an official certificate and a 12-in. compound miter saw (model No. 3820) from Skil. Congratulations, Tom!



GOODWORKS

HANDY APPLAUDS THOSE WHO EXTEND A HELPING HAND

WOODWORKING STUDENTS REBUILD THEIR COMMUNITY

After an EF5 tornado devastated their town — not to mention their school's industrial-technology classroom — five years ago, woodworking students from Kiowa County High School in Greensburg, Kansas, put their skills to use rebuilding the community. Working out of a couple of temporary workshops with the help of new equipment donated by Jet and Powermatic, the students crafted shelves and bookcases for classrooms and libraries. And a handful of years later, the students won the Best Multipupil Project award at the 2012 Annual Western Kansas Technology Fair for a five-piece living-room set they designed and built for the community's new senior center. ■



▲ These photos show the progress made by Kiowa County High School woodworking students after a tornado destroyed their school.

**3,468 Club
members tested
\$61,368 in products**

MEMBER-TESTED SEAL

This seal is awarded to products that at least two out of three testers recommend to fellow Club members. The test scores are compiled from all test reports. Ratings are based on a scale of 1 to 10, with 10 being the highest.



**MEMBER
TESTED AND
RECOMMENDED**

Hybrid water heater

MEMBER RATING: 9.7

BEST FEATURE: ENERGY EFFICIENCY

GE Appliances, 800-626-2005,
geappliances.com/geospring



The GE GeoSpring Hybrid Water Heater (\$1,200 to \$1,300) is a 50-gallon electric appliance that uses up to 62 percent less energy and can save up to \$325 a year on utility bills compared with a standard electric 50-gallon unit. It is installed like a standard electric water heater, but its heat-pump technology absorbs the heat in ambient air and transfers it into the water to save energy. Other features

include an integrated electronic display that offers five operating modes and a temperature setting range of 100 to 140 degrees Fahrenheit.

Matt Chappell, Mesa, AZ: "The heater was fairly easy to install, looks fantastic and is incredibly efficient. Living in Arizona, I've been running it in heat-pump-only mode, and it outperforms my previous water heater with hardly any impact on my electric meter."

Rick Post, Mount Horeb, WI: "I used all five operating modes including the vacation mode, which turned the heater back on as programmed for my return. I keep the temperature at 125 degrees and have yet to notice any water cool down."

Oscillating tool

MEMBER RATING: 9.2

BEST FEATURE: QUALITY

Fein Power Tools Inc., 800-441-9878,
feinus.com

Designed for cutting, sanding, scraping, grinding and grout removal, the Fein MultiMaster Start Q Kit (\$199) offers great quality and stability due to its metal gear case, ball or needle bearings and high-performance 250-watt motor made for continuous use. The QuickIN rapid-change system offers tool-free accessory changes and includes an eight-point tool-mounting function for outstanding torque transfer. Other features include electronic speed control and a soft-grip zone for comfortable handling. The kit includes a universal E-Cut saw blade, a scraper blade and a triangular sanding pad with 20 sanding sheets of various grits.

James Hoag, Klamath Falls, OR: "The MultiMaster had the power and durability to withstand commercial-grade use while providing professional-looking results."

Stephen Rauchle, Merrill, WI: "The versatility of the jobs it can perform is great. I especially love how quickly you can switch from one attachment to another in seconds, with no tools required."



**CONTRACTOR
TESTED AND
RECOMMENDED**

**Spiral saw**

MEMBER RATING: 8.6

BEST FEATURE: PERFORMANCE

RotoZip, 877-768-6947, rotozip.com

RotoZip's new RotoSaw (\$69) is powered by a 5.5-amp MagnaCore motor that is designed to tackle plunge and freehand cuts in tile, wood, plastic, laminate, underlayment and drywall. Advanced electronics sense if the motor is overloaded and will instantly slow down to prevent it from burning out. Other features include a dust-collection system, a dual-grip housing for comfortable handling and better control, a universal depth guide and compatibility with more than 20 cutting bits designed specifically for use during projects dealing with different materials such as those listed above.

Robert Nehlig, Slidell, LA: "The RotoSaw is able to accurately cut complex shapes that would be difficult to cut any other way. It is small and lightweight but delivers a ton of cutting power."

John Bragg, Inglewood, CA: "I use the RotoSaw like a miniature router for my small woodworking projects."

HCOA RECOMMENDED

Products earn additional seals when they receive favorable ratings from Club members who are trades contractors, automotive mechanics or avid woodworkers. These products are identified with Contractor Tested, Mechanic Tested and Woodworker Tested icons.

DEALS & DISCOUNTS

The Deals & Discounts icon appears next to select tested and recommended products to signify a special members-only offer. For details, go to HandymanClub.com, roll over the Member Benefits tab and click on Deals & Discounts.

YOU CAN BE A TESTER

To be a product tester, you must fill out a Product Test Profile form. To request a form, call Member Services at 800-243-7679 or go to HandymanClub.com and click on the Member Benefits tab. There, you can fill out the form online.

Paint roller

MEMBER RATING: 8.8

BEST FEATURE: QUALITY

HomeRight Inc., 800-264-5442,
homeright.com

The HomeRight PaintStick EZ-Twist Paint Applicator (\$49.99) lets you coat interior walls in less time and with less mess. Employing a high-quality, shed-resistant roller for even coverage, the applicator draws and holds 18 ounces of paint and moves it to the roller with a simple twist to eliminate spills. It easily reaches ceilings and high walls without a ladder and can be cleaned quickly. The tool includes a handle, a roller cover with 3/8-in. nap, a fill tube, a paint-can cover and a spatter shield, and it comes with a two-year warranty.

Oscar Inzunza, San Jose, CA: "The applicator is perfect for painting the ceiling, as it gives you the right amount of paint so it doesn't run. The smooth handle makes it easy to extend for hard-to-reach areas."

George Petersen, Denville, NJ: "Holding the paint inside the handle greatly reduces the number of times you have to load the roller with paint, which eliminates the mess and paint waste."



Clamp tape

MEMBER RATING: 8.3

BEST FEATURE: PERFORMANCE

Elmer's Products Inc., (614) 985-2600,
elmers.com/diy

Able to stretch to 300 percent its size, Elmer's Carpenter's Clamp Tape (\$5.99) is a self-bonding plastic that can be used to clamp irregular or delicate items. It can be used instead of or in conjunction with clamps to ensure that pieces are held tight until adhesive has cured. The tape only sticks to itself, so it will not damage finishes. It can also be used as a multipurpose tape.

Diane Kane, Mio, MI: "The tape is very flexible. It held my woodworking projects together very well, and I'll be using it on many projects."

Joel Taylor, Austin, NV: "It made reattaching a leg of a step stool much easier than normal clamps would have."

Project grabbers

MEMBER RATING: 8.5

BEST FEATURE: EASE OF USE

K&M of Virginia Inc., (804) 426-4366,
getgrabbers.com

Grabbers (\$4.99 for a pack of four) are double-sided, rubberized project supports that provide nonslip gripping power to keep projects in place. They allow you to rout, sand, cut and carve wood without using clamps, and they elevate workpieces for easy edge finishing without leaving marks. They are also engineered to fit with Painter's Pyramids for painting or staining projects.

Robert Bossardet, Ormond Beach, FL: "After I cut all of the parts for a table, I used the Grabbers for sanding and routing the pieces. They held the boards with no slipping. I also used the Painter's Pyramids during finishing."

Milo Jablonski, Pensacola, FL: "The Grabbers are great nonslip supports that both raise and hold items to be sanded. They reduced movement during sanding."





Stripping brush/scrapper

MEMBER RATING: 9.0

BEST FEATURE: PERFORMANCE

Hyde Tools Inc., 800-872-4933, hydetools.com

The Hyde Stainless Steel Stripping Brush With Scraper (\$4.99) has a long handle with stiff 1-in. stainless steel bristles for removing rust and paint. Its thin profile helps it get into tight areas, and the carbon-steel scraper at the tip removes tougher materials that the bristles can't. The soft-grip handle with rubber over-mold provides comfort during use.

Willie Warren, Medina, TN: "The slim design lets you get into places a regular brush cannot. The scraper is a nice touch and can be sharpened if needed."

Bud Neer, Burnsville, MN: "It's very comfortable to hold and use. The combination of the handle and the top grip on the wire brush allows for full control and gives you the ability to add pressure on the brush and bristles."

Spa showerhead

MEMBER RATING: 8.0

BEST FEATURE: EASE OF INSTALLATION

Niagara Conservation, 800-831-8383, niagaraconservation.com

Niagara's Sava Spa Showerhead (\$29.95) offers the look of luxury and performance with the benefits of water savings. Its oversize 4.4-in.-dia. spray head with rubber spray nozzles provides wide coverage, and the patented pressure compensator ensures a consistent flow regardless of water pressure. Other features include a 1.75-gpm flow rate, a white or chrome finish, an easy-to-use 360-degree swivel head, a corrosion-resistant, high-impact thermoplastic body and a 10-year warranty.

Janine Hardin, New Smyrna, FL: "Our water pressure is always low, and I'm impressed by the ability of this showerhead to direct a really powerful spray."

Joanne Britton, Roanoke, VA: "I just love this showerhead. It really did feel like a spa experience, and I wanted to stay in the shower to relax."



Depth gauge

MEMBER RATING: 8.0

BEST FEATURE: EASE OF USE

Milescraft Inc., (847) 683-9200, milescraft.com



The DepthGauge (\$6.99) from Milescraft is a durable metal scale with inch and millimeter measurements to be used with table saws and router tables as well as in other applications where you need to measure depth or height. Its wide base with stable feet allows it to stand on its own, and the large-scale markers and viewfinder provide easy reading and accurate adjustments. It also includes a thumb lever for easily locking and releasing the scale.

Bill Nall, Defuniak Spring, FL: "The DepthGauge worked very well with my band saw, table saw and router. It's now easy and quick to adjust my rip-fence depth on my band saw."

Tom Gordon, Lebanon, TN: "It gave me the ability to quickly adjust my table saw blade for the varying cuts I was making. It fits nicely over the fence, and I didn't have to stop and get out the tape measure and try to make sure everything was aligned."

Compound tile nipper

MEMBER RATING: 9.1 BEST FEATURE: QUALITY

Q.E.P. Co. Inc, 800-777-8665, qep.com

Made from durable drop-forged steel, the QEP Compound Tile Nipper (\$19.97) delivers up to three times the power of conventional tile nippers and is perfect for making irregular cuts in ceramic and porcelain tile. The carbide tips provide easy and fast cutting to fit tile around pipes, columns or odd-shape objects. The tool's ergonomic comfort-grip handles won't slip when cutting tile.

Robin Kulig, Auburn Hills, MI: "The compound action makes nipping tiles easier on the hands. I was able to cut inset notches, curves, irregular curves and custom curves in tiles."

Tom Everton, Virginia Beach, VA: "I've used many different types of tile nippers at my home and the homes of many customers. These are the best I have ever used, as they don't take as much force to cut and are more comfortable to hold." ■



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Value!**RIDGID X4 FIVE-PIECE COMBO KIT****\$499 VALUE**

Enter for your chance to win one of two X4 five-piece 18-volt Lithium-Ion Combo Kits from Ridgid valued at \$499. Each power-tool package includes a hammer drill/driver that boasts 615 in.-lbs. of torque and a mode selector for switching to driving, drilling and hammering operations without changing the clutch setting; a circular saw featuring a 6-1/2-in. blade and a sight-line blower that directs debris away from the cut line; a reciprocating saw with tool-free blade changing and a pivoting shoe; an impact driver that offers 1,750 in.-lbs. of torque and a quick-load bit holder; and an LED work light that features both spotlight and area-light functions and a retractable hook. Backed by the Ridgid Lifetime Service Agreement.

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NO PURCHASE NECESSARY TO ENTER OR WIN. Making a purchase will not improve your chances of winning. See the official contest rules at HandymanClub.com. Submit your entry at HandymanClub.com or send your name, member number (if available), address and phone number on a postcard to: Great Giveaway, CRID #3932, P.O. Box 3428, Hopkins, MN 55343.

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GREAT LENGTHS

A look at rope's ties to history

One can only imagine what inspired prehistoric people to combine vines to form the first rope. Little did they know the myriad ways that simple invention would be adapted over thousands of years, employing materials ranging from plants and hair to plastic and steel and forming everything from fishing nets to rigging for ships to vast suspension bridges (not to mention those indispensable straps we use to secure building materials for transportation from the home center).

The first fossil evidence of rope dates back to 17,000 B.C. By about 4,000 B.C. Egyptians had developed methods for making ropes out of animal hides and hair, water reeds, grass and date palm fiber. In addition to fastening items together (bundling reeds to make rafts, harnessing animals to pull plows, etc.), lassoing and netting animals (and spirits) and erecting tents, the Egyptians used ropes to make ladders, lift heavy items and — with thousands of workers pulling — move massive stones to build monuments.

In about 2,800 B.C. the Chinese made rope from hemp, a material that would remain in use for centuries. (In 1586 the 327-ton obelisk on St. Peter's Square in Rome was erected with the aid of much hemp rope, and during the American Civil War, Thaddeus Lowe, chief aeronaut of the Union Army Balloon Corps, spied on Confederate troops' movements from a hot-air balloon that employed hemp rope.) The craft of rope making spread throughout the world, though much of its history went unrecorded: Medieval rope makers shrouded their methods in secrecy; master craftsmen passed on their knowledge to apprentices and hid innovations from their competitors.

During this time rope was made in long buildings called ropewalks, where strands were stretched out and twisted together. The span of the building determined the maximum length of the rope. When the ropewalk at Chatham Dockyard in Kent, England, was built in



1790, it was the longest brick building in Europe. The 1,135-ft. ropewalk is still in use today; operators ride bicycles to trek from end to end.

Until the early 1800s, ropes were made of natural fibers such as hemp, manila and sisal. But in the 1830s German mining official Wilhelm Albert sought to create a new product that would combine the advantages of hemp ropes and iron chains. In 1834 he made the first wire rope, which was stronger than hemp and took up one-third the drum space that a chain would require. Albert chronicled his production methods in a mining periodical, which made it easy for manufacturers around the world to produce wire ropes.

In 1841 John Roebling, a German engineer who had emigrated to the United States, began producing wire rope in a ropewalk that he built on his farm. He later opened a large factory in Trenton, N.J., and eventually put his products and expertise to use engineering suspension bridges, most notably the Brooklyn Bridge.

During the mid-1800s, San Francisco's use of cable cars made it the world's largest wire-rope market, spurring competition among rope makers.

▲ Rope making was so essential to the maritime industry that a 19th-century ropewalk is one of the attractions at Mystic Seaport: The Museum of America and the Sea in Mystic, Connecticut. The museum features a 250-ft. section of the Plymouth Cordage Company's ropewalk, which was built in 1824 and operated until 1947.

Other cities began using cable cars in the 1870s and 1880s, increasing the demand and drawing more manufacturers into the business, which resulted in wire-rope innovations that outlasted the cable-car industry.

The creation of nylon, polyester and polypropylene revolutionized 20th-century rope making. Ropes made of synthetic materials tend to be more durable, lightweight and elastic than their natural-fiber counterparts, and modern production methods have allowed for the manufacture of specialized ropes for specific purposes. Our vine-braiding ancestors couldn't have dreamed of the lengths to which their idea would be developed, and rope has become so entwined with human history that it's impossible for us to imagine a world without it. ■

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