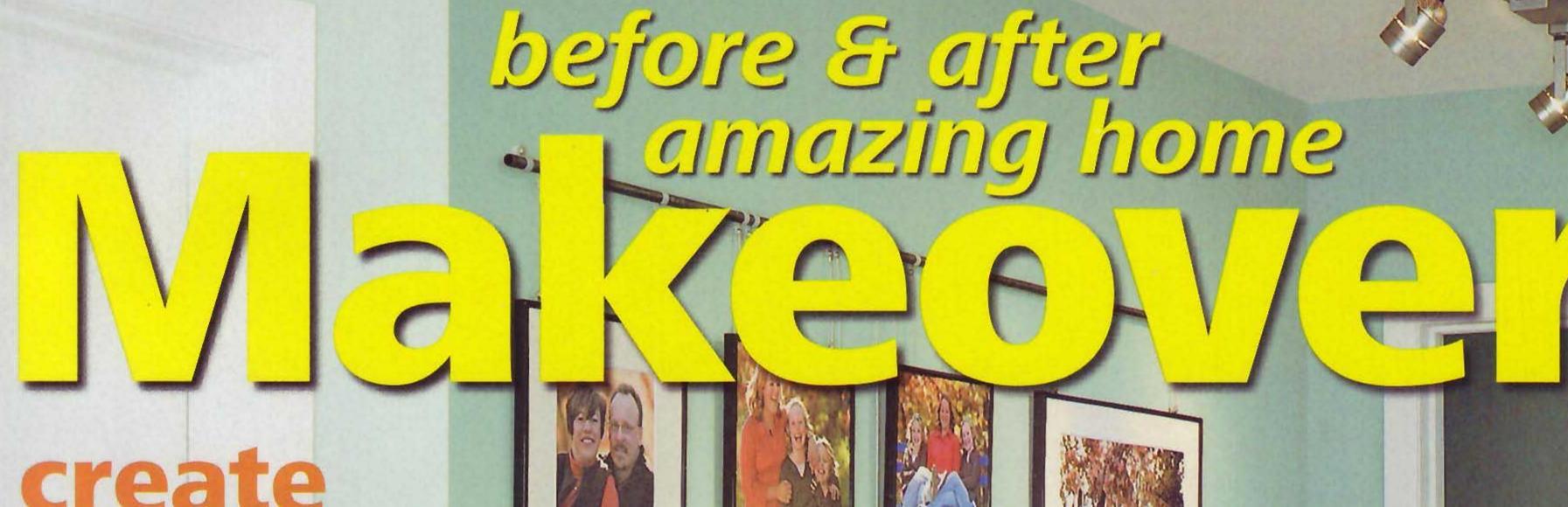
practical ideas for your home



create a family gallery

one weekend! under \$300! 5 easy steps!

- 1 new lighting
- 2 refreshed walls
- **3** painted trim
- 4 photo rail
- **5** sleek hardware



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Paint Colors
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Display until May 13, 2008



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EDITOR'S NOTES

akeover. To some, this word conjures up images of major projects undertaken with big tools. Others view makeovers as simpler weekend projects like a fresh paint color or an updated decor. In fact, this seemingly simple word can be divisive, splitting people into the red states and blue states of the DIY world: Renovators vs. Decorators.

At Workbench, we don't define makeovers by red or blue, by whether you choose a power tool or a paint brush, or by what constitutes a "major project." That definition, after all, is as individual as you and your home.

To us, a makeover is about reworking some part of your home so that it fits your needs, your style, and the way you live. That may mean repainting a room or hanging a new light fixture one weekend and renovating a bathroom or starting to build a deck the next. All of these undertakings, though vastly different in scale, are projects that a DIYer can undertake to remake their home in their own image, to make their home more livable, or to increase its value. To us, they're all makeovers, and they're all meaningful.

Read through this issue, and you'll find a selection of projects that exemplify the wide range of what "makeover" can mean. It may be redefining your entire front facade, which we'll guide you through starting on page 32, turning a tired hallway into a family photo gallery (page 50), or creating a clever custom storage cabinet in your dining room (page 60).

These projects are all different in terms of scale, commitment, and style. But each results in an amazing makeover that turns an ordinary house into an individual home. It's these kinds of results that make us all DIYers, whether we come at it from a camp that's red or blue.



Get On (the) Board!

We're honored that you trust Workbench to help with your home projects. And we'd be equally honored to have your assistance as we work to make Workbench the best magazine out there for folks like you who want to improve their homes.

To do that, we're putting together a "Workbench Advisory Board." This group is made up of a select group of DIYers gathered together to share their ideas and give us input. We want your honest opinions about how Workbench is doing and what you might like to see in the future. Participating in the Advisory Board is easy, quick, and happens online. The same holds true for signing up. Just go to WorkbenchMagazine.com and click on "Join Our Advisory Board."

ON THE COVER



A hallway can be so much more than a passage from point A to point B. See how we transformed this one from dark and dreary to light and lively in one weekend for just \$300!

—page 50

ONLINE

WorkbenchMagazine.com
Get even more information
about the projects and
articles in this issue:

- · Builder's Plan: Doormat
- Online Plan: Bonus Planting Guide for Raised Planter Box
- Slide Shows: Drywall Repair Techniques, Choosing Colors
- Free Online Articles: Pocket-Hole Joinery, Rain Chains

easy weekend projects



Cedar & Stone: Welcome Home!

Wood and stone combine in this simple doormat project that's so unique, you'll feel like taking your boots off before you step on it!

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New track lighting, paint, a oneof-a-kind display rail, and family photos turn a drab hallway into a dramatic display space.

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Weekend projects don't get much simpler. Create these decorative display shelves for candles in a couple hours for just a few dollars.

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Garage Gear

Get to know Wall Control, what pegboard wishes it could be. Plus, between-stud shelving and durable, easy-to-install flooring.

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Start with an ordinary kitchen cabinet. Then accessorize and stylize it to create a stunning storage option in the dining room.

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NuTone offers storage and security in a new line of easy-to-install safes. Plus, a battery-powered string trimmer for heavy-duty use and many other great products.

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stylish home makeovers



Front Entry Facelift

Talk about curb appeal! These three great projects—a raised stone planter, porch makeover, and new front door-will totally transform the look and feel of your home.

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Paint Power: **Choosing Colors**

The secret to painting beautiful, eye-catching rooms is knowing what colors go together. Consider this your crash course in color theory.

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Instant Makeovers: Easy Bath Update

Turn a plain slab bathroom mirror into something special with a simple custom frame. Here are four easy options.

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Protect wood's beauty - even outdoors - by knowing the right finish to choose based on the project at hand.

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For years, Dremel and RotoZip have owned the rotary tool market. We weigh the merits of each to help you pick the right one based on your needs.

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New drills from DeWalt, a jigsaw. from Bosch, a laser level from Ryobi, and other cutting-edge tools hot off the assembly line.

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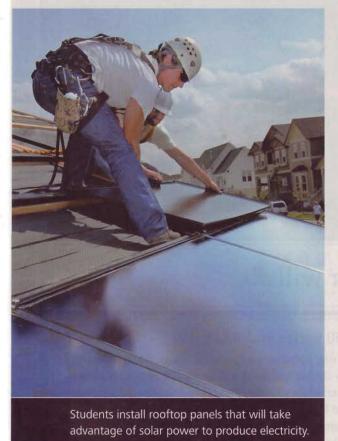


PHOTOS BY KAYE EVANS-LUTTERODT/SQLAR DECATHLON

CONTEST ATTRACTS YOUNG VISIONARIES

Solar Decathlon

University students labor to design homes that are elegant, comfortable, space-saving, and powered entirely by the sun in this unusual annual contest.



ver heard of the Solar Decathlon? No, it is not a new event at the 2008 Olympics Games. The Solar Decathlon is an annual competition in which 20 teams of college students compete to design, build, and operate the most attractive and energy-efficient solar-powered house. The event is sponsored by the Department of Energy's Office of Energy Efficiency and Renewable Energy.

Structures in the competition combine advanced solar collection technology with both high-tech

and natural building materials. The homes have to be durable and well-suited to everyday living, in addition to being powered entirely by the sun.

Students spend months pre-building the homes at their college or university. They then partially dissemble the homes and transport them to the competition site, where the houses are rebuilt. Many solar "decathletes" aspire to be tomorrow's engineers, architects, and researchers. An estimated 200,000 people toured the homes while they were on display on the National Mall in Washington, D.C. For more information about the event, log on to SolarDecathlon.org.



STANLEY SAYS: LET THE FUN BEGIN!

The folks at Stanley are proud to call their FatMax Xtreme Fubar "the ultimate multi-purpose demolition tool." This one-piece, four-in-one tool was designed for prying, splitting, board-bending, and striking. Its ability to rip things up

is limited only by your imagination, and to prove it, Stanley has created a unique interactive website.

At <u>StanleyFubar.com</u>, you'll find construction workers demolishing various items using only a Fubar. The web page titled "Let the Fun Begin" lets you click on an icon to choose what you'd like the guys to destroy before your eyes. Choices include a toilet, armoire, sink, piano, and a rabbit (*really?*). You can also view a Stanley television commercial called "The Piñata" that shows a blindfolded worker whacking a shed to smithereens with a Fubar. The site is a great place to satisfy your appetite for destruction without doing any real damage.



DO YOU DREAM IN GREEN?

HGTV to Give Away Eco-friendly Home

The HGTV Green Home Giveaway will award some lucky entrant its first custom-built "green" house. The home is now under construction in Tradition Hilton Head, a 5,300-acre planned community near Hilton Head Island, South Carolina. This beautiful area is well-known for its popular beaches and golf resorts. At just over 2,000 square feet, the low country-style cottage features both

construction and design elements that contribute to a cleaner environment.

The HGTV Green Home is designed to demonstrate that a house doesn't have to be extreme to be green. It utilizes thoughtful design, the latest building technology, and a broad selection of easily attainable materials, to create a comfortable and beautiful home. The house will be decorated with green products by designer Linda Woodrum. She is well-known by viewers for her work on the past 11 HGTV Dream Homes.

The home is on-course to receive a significant LEED (Leadership in Energy and Environmental Design) certification. LEED for Homes, a voluntary rating system, is a project of the U.S. Green Building Council. The council



There are eco-friendly ideas galore in a home that will be given away by HGTV.

plans to launch a nationwide LEED certification program later this year.

The HGTV Green Home, plus its accompanying prize package, is valued at \$850,000. You can enter the HGTV Green Home Giveaway 2008 from March 21 through May 9. Go to HGTV.com/GreenHome for details. There, you can learn more about the materials and processes that make the home green and share your

thoughts on the HGTV Green Home blog. You can also take a 360-degree online tour of the Green Home starting March 3. Or tune in to HGTV for a televised special about the home on March 23. And finally, if you happen to be in the Hilton Head area, you can tour the home in person starting this spring.



Can a Mansion Be Green?

How does a developer satisfy his well-heeled clients' demand for indulgence and still be kind to the planet? Florida real estate mogul Frank McKinney is trying to build the first mansion to be certified "green" by the U.S. Green Building Council. McKinney is so sure the home will sell he is doing the project "on spec" (with no buyer in mind).

The 15,000 sq. foot mansion in Manalapan, Florida, has eight bedrooms, 11 baths, a movie theater, two wine cellars, and a guest house. It uses eco-friendly light fixtures and a massive solar panel system that will reduce electrical consumption by 90%.

It also features a state-of-the-art air purification system, and its water system uses "gray water" from the showers and sinks to irrigate the lawn and gardens. Even the floors, made of reclaimed teak, are tree-friendly. The green features tacked on additional building costs of 7-10%.

The mansion's asking price is \$29 million. You can follow its construction progress at <u>Frank-McKinney.com</u>.

HARDWARE THAT PULLS IT WEIGHT

We all know that using hardware in imaginative ways can effectively upgrade the look of your kitchen. And the folks at Hickory Hardware remind us that it is also important to choose kitchen hardware that's properly scaled to the cabinet or drawer it will operate. Today's hefty kitchen cabinets require larger drawer pulls and beefed-up functional components.

When selecting new cabinets, you'll also want to pick hinges, slides, and other elements with sufficient capacity to bear the weight of the drawer or door. While you're at it, make sure that the finish on the hinges coordinates with the finish on the decorative knobs and pulls.

Purdy Paint Tips

When painting projects go poorly, it's easy to blame the paint. But there are many factors that contribute to a paint job's success. To help you sort them out, the pros at Purdy have put together a free DVD filled with tips. These cover everything from paint application techniques to tips on room preparation.

But one of the most important topics covered on the DVD is how to choose the right paint applicator. Understanding how to select a high-quality applicator is important because the wrong brush or roller can make even the priciest paint look blotchy. Cheap brushes spread paint unevenly, while cheap rollers often leave fibers in the paint.

To order your free DVD of painting tips, visit <u>PurdyCorp.com</u>. Go to the "Contact Us" section, click on the link for a free DVD, and fill in the form.

MECHANIX WEAR GLOVES FOR SOLDIERS

Mechanix Wear deserves a pat on the back for donating more than 10,000 pairs of high-performance work gloves to Soldiers' Angels. The charity, which supports our military members and their families, will distribute the gloves to U.S. service members on active duty worldwide.

The gloves will be part of care packages that Soldiers' Angels assembles and distributes. Since 2003, the group has sent 250,000 care packages thanks to contributions from more than 100,000 donors across the nation.

To learn more about Soldiers' Angels, visit <u>SoldiersAngels.org</u>. Go to <u>Mechanix.com</u> to check out Mechanix Wear gloves. Jump on your computer to order a DVD that demonstrates proper painting techniques and how to recognize quality paint applicators.







FOUR TIPS FOR A

Garage Makeover

If you've decided to spruce up your garage, you're in good company. The \$1.25 billion U.S. garage and storage shed market is expected to grow 5% through 2009. Jeld-Wen, a major manufacturer of windows and doors, offers these tips:

Coordinate Styles—Architects advise unifying the design of your house and garage to improve curb appeal. Carriage House and Old World looks are especially hot for garage doors because they blend well with popular Craftsman and Mediterranean-style homes.

Go "Green"—When selecting garage doors, consider wood-composite versions. They feature facings and trim boards made of 100% recycled wood fiber. Composite doors are also energy-efficient and perform well even in extreme temperatures, resisting cracking, rotting, shrinking, and expanding.

Let There Be Light—Window inserts in garage doors allow natural light, which is important if you want to use your garage as living space, such as a workshop or



Replacement garage doors are available in many different designs, so you can complement your home's architectural style.

play area. Natural light may also help reduce the need for lighting and electricity use, making windows an energyconscious choice.

Clear the Clutter—Inside the garage, join the trend toward better organization. A garage can't function as living space until all that clutter gets tamed. There are a number of effective garage storage systems available that can help provide you with additional living area.





WEIGHT CONTROL FOR

Treated Wood

Q: I just had a bunch of pressure-treated lumber delivered for a deck project. I noticed that some of the boards are much heavier than others. Could the boards be made from different types of wood? If so, will this cause problems when I build my deck?

> Carl Garrison Burlington, VT

A: Pressure-treated lumber is almost exclusively made from southern yellow pine, so it's unlikely that what you received is made up of mixed species. The difference in weight is more likely due to the moisture content of the wood.

During the pressure-treating process, boards are placed into a container that's flooded with liquid preservative. Pressurizing the container forces liquid into the wood. That means after treatment the lumber will be soaking wet.

More than likely, some of the boards you received were "fresh" and still contain a lot of moisture. The others probably had been sitting for awhile and dried out.

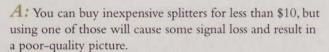
The only potential problem to be aware of is that wet lumber will shrink and may warp as it dries. If possible, let the boards dry out for a week or two before you begin building. Then use the driest lumber where it will be most visible, and the wettest for underlying structures.



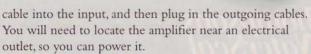
USE AN AMPLIFIER TO DELIVER A Strong Cable Signal

Q: I need to hook up a new TV to my cable line. Is there a right or wrong way to split the line to send cables to more than one set?

> Rick Cornick Chicago, IL



Your best bet is to spend a little more and get a splitter/amplifier. You'll find them at electronics retailers starting at about \$25. With one of these, the output signals are amplified to prevent signal loss. Just plug the incoming



By the way, if you use a cable modern, make sure you get a bi-directional amplifier. This type allows the signal to travel in and out, which is necessary for a modem to receive and send data.



GOT OUESTIONS? WE HAVE ANSWERS!

Include your full name, address, and daytime phone number. You'll receive a free one-year subscription to Workbench (or a one-year extension to your current subscription) if we publish your question.

HOW TO SEND YOUR QUESTIONS:

Email: Ask@workbenchmag.com Forums: forums.woodnet.net

Mail: Ask Workbench, 2200 Grand Ave.,

Des Moines, IA 50312

GET INTO STICKY SITUATIONS WITH Carpet Tape

Q: I've noticed that you use a lot of "double-sided tape" when working on projects. What is this tape, and where can I purchase it?

> Cindy Jensen Wichita, KS

A: Double-sided tape is just another name for carpet tape. You'll find two types. One has a thin plastic backer, while the other has a woven backer (Photo, top right).

As the name implies, this tape is sticky on both faces instead of just one. That makes it perfect for temporarily holding parts together as you make or assemble them (Photos, bottom right). For that use, the plastic type works fine. The woven type is more durable and works well when you need a more permanent bond. It's also good for adhering pieces that have rougher surfaces that the thin tape just won't grab.





Double-sided tape works great for temporarily holding parts, like these false drawer fronts, in place while you drill holes for mounting screws.



Need to make multiple parts the exact same shape? Use a hardboard template and secure it to each workpiece with double-sided tape.

Mold Project #3: Tackling mold while renovating.



Visit a Home Depot Tool Rental Center for a fogger and Concrobium Mold Control*.



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It's common to discover mold during renovations. It surfaces in bathrooms, kitchens, basements, laundry rooms - any area exposed to moisture and humidity.

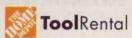
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Refrigerator Door

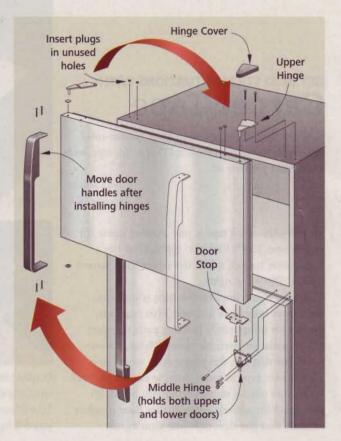
Q: We're planning to remodel our kitchen but want to keep our existing appliances. Unfortunately, in the new layout the refrigerator door would need to open from the left. Currently it opens from the right. Can the door be reversed?

> Mary Higgins Lansing, MI

A: Most refrigerators have the doors hinged on the left side, but it's often possible to reverse that.

To find out, check your owner's manual, or simply look at the top of the fridge. If you find plastic plugs on the non-hinged side, then you can reverse the door. The process is pretty simple.

First, remove the top hinge, and then lift the upper door off its other hinge (*Illustration*). Then remove the middle hinge, the lower door, and the bottom hinge. With the doors off, you can move the handles to the other side of each door. Now just remount the hinges and doors on the other side, starting at the bottom and working up.



Hang Wall Cabinets

Q: I'm planning to install a bank of cabinets on the wall of my laundry room. They'll hold a lot of weight, so I want to be sure they're sturdy. How can I ensure that they're mounted securely?

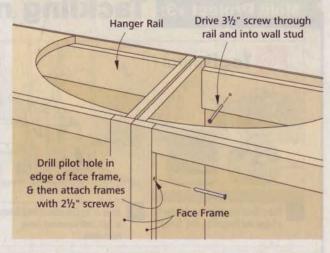
Rick Connors Hastings, NE

A: To properly mount wall cabinets, you need to do two things: Secure the cabinets to the wall studs and attach them to each other, as shown in the *Illustration* at right.

Securing the cabinets to the wall studs is easy. Just drive screws through the back and into the studs.

The problem is that sometimes cabinets don't align well with the wall studs, meaning you can't sink a screw into a stud. The solution is to attach the cabinets to one another and distribute the load over the entire bank of cabinets.

If you're installing multiple cabinets, you might want to pick up a set of "Cabinet Claws" (AdjustableClamp.com). These pull the cabinets together and align the face frames. Plus, they're equipped with guides that make it easy to drill pilot holes and drive the screws (Photos, right).





Use the guide to drill into the edge of the face frame.



Move the guide, and then drive a screw into the hole.

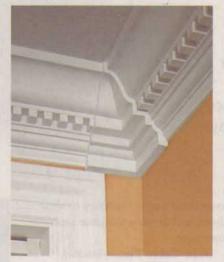
Crown Molding

Q: I want to install crown molding in my dining room, but I'm intimidated by cutting all those mitered and coped joints. Is there a way to install crown molding without the tough cuts?

Mark Johnson Minneapolis, MN

A: You should check out "miterless" crown molding. It uses blocks that fit into the corners. You just install the blocks and then cut the crown molding to fit in between.

You'll find miter-less molding that's made from solid wood. But if you plan to paint, consider synthetic molding, such as the one at right from Fypon (Fypon.com). Synthetics are very easy to cut. Plus they're lightweight, so you can use adhesive to install them instead of nails.





HOW CAN I TAME A SELF-CLOSING DOOR?

A door that slowly swings shut on its own can often be stopped with a simple trick: Start by removing the pin from one of the hinges. Place the hinge on a hard surface, such as a concrete floor, and then strike it with a hammer hard enough to put a *gentle* bend in the pin. When you reinsert the pin into the hinge, the bend will cause the hinge to bind slightly, which is usually enough to stop the door from swinging shut on its own.



THE FIVE-SECOND, TEN-CENT

Shop-Vac Upgrade

Who says great tips have to be complicated? Here's a simple way to improve the performance of your shop vacuum right away.

The wide (14") nozzle is arguably the most-used attachment on many shop vacuums. Its extra width makes it helpful for cleaning up piles of sawdust and other messes on the garage or shop floor.

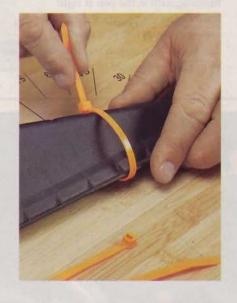
Yet for all the use it gets, it seems the nozzle often spends more time pushing messes around than sucking them up. That's because older models of the nozzle produce tight suction against flat concrete floors, which makes them stick in places and prevents them from removing debris properly.

Newer models have changed the design to work more effectively, but

even these have a tendency to wear down and develop the same problem over time.

Add Cable Ties—Luckily, Stanley Krasovic of Honesdale, Pennsylvania, came up with a 10-cent solution to this dilemma that takes about five seconds to implement. He just puts two plastic cable ties around the nozzle, one on either side, and pulls them tight (Photo, right).

The cable ties create a ½16" gap between the floor and the nozzle. And that ½16" is enough of a difference that the nozzle now sucks up messes effectively (*Photo, above*) instead of pushing them around.





EASY ON THE EYES

Ken Schuman of Knoxville, Iowa, realized a wrench works great for tightening eye screws. Place one arm of the wrench through the eye, and turn the wrench to tighten the screw.







A TRUE HOLE-IN-ONE: Golf Ball Grip

For some reason, whoever designed the wood file decided it didn't need a handle. Randy Roush of Gahanna, Ohio, ended this uncomfortable issue with a golf ball. To do it, he just drilled a hole in the golf ball and glued the end of the file into the hole.



SIMPLE LOOSE TIRE TRICK

If you've ever had a small tubeless tire break loose from the rim, Bob Kelland of St. John's, Newfoundland, found that a ratcheting strap fills the bill. Just center the strap on the tire's width and tighten it. This brings both tire beads out against the rim, so it will seal and accept air. Once the tire begins to reinflate, just remove the strap.

3 5-Minute Workbench. Ed Connelly of Beaufort, South Carolina, got tired of not having a place to work in his garage, so he created a simple workbench by bolting a piece of plywood to the top of a heavy-duty folding table. Now his workbench can be set up and put away easily.

Marking and Measuring Essentials



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- 4. 10' Cabinetmaker's Tape R to L, 16ths · \$3.90 · 06K15.01 5. 10' Cabinetmaker's Tape L to R, 16ths · \$3.90 · 06K15.02
- 6. Blindman's Fractional Electronic Caliper \$39.50 88N62.60 7. Veritas* Graduated Wheel Marking Gauge \$32.50 05N33.22
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GET STUCK ON PRINTABLE Magnetic Labels

Terry Heffley of Keller, Texas, wrote in to let us know that you can now buy printable magnetic sheets at office-supply stores that work with a home ink-jet printer. Terry discovered that they make great labels for toolboxes (Photo, below). We thought they'd also work well for fuse boxes or any other metal surface where a label could come in handy. The best part is, there's no sticky mess left behind when it's time to peel up the label.



- » Fresher Paint. When done painting. Michelle Morgan of Bremerton, Washington, puts plastic wrap under the lid before closing the can. This keeps paint fresh and makes the can easier to open.
- » Helpful Hose. To protect his hands when carrying glass or other sharp items, Josh Shirey of York, Pennsylvania, slips slit sections of hose over the edges.

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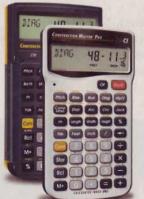


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POCKET-HOLE Bits

Pocket-hole drill bits are expensive, not to mention fragile at the tips. And most DIYers use them a lot, which means they usually end up bouncing around in a toolbox with all your other drill bits.

If your pocket-hole drill bits end up in this situation, Serge Duclos of Delson, Quebec, has an easy solution for protecting the tips. Just drive them into wine bottle corks between uses.



A WHOLE NEW SPIN ON SAW BLADES

Kelly Hintt of Billings, Montana, uses reciprocating saw blades for more than just cutting things. He pairs them up with a nail for drawing circles, as shown at left.

» Quick-Dry Joint Compound. Tired of waiting for joint compound on a wall repair to dry before you can sand and paint it? David Goldman of Phoenix, Maryland, speeds up the process by using a hair dryer.



EXTRA REACH FOR A CAULKING TUBE

Some areas, like behind a sink, are tough to get into for running a bead of caulk. That's why Stephan Bielecki of Barnegat, New Jersey, made a caulk tube extension from a piece of ¹/₄"-dia. flexible plastic tubing.

SOME GREEN!

- Look for the Label. When buying new appliances or home fixtures like windows, always look for the Energy Star label. Energy Star-rated items are usually only slightly more expensive than their counterparts, and you'll make the extra money back on your energy bill in anywhere from five to 15 years.
- Star website says it best: "If every
 American home replaced just one light
 bulb with an Energy Star-qualified
 bulb, we would save enough energy
 to light more than three million homes
 for a year and prevent greenhouse
 gases equivalent to the emissions of
 more than 800,000 cars."
- Water Heater Wisdom. To save money with your water heater, lower the temperature to 120 degrees, and turn it off if you leave for extended periods. Also, drain a few gallons from the bottom of the tank every six months to remove sediment.
- ✓ **Dishwasher Discipline.** When using the dishwasher, select the shortest wash cycle, load it fully, and then let the dishes air-dry rather than using the heated drying option.
- ✓ Easy Air Savings. Every spring, replacing the filters in your air conditioner is a simple way to make it run more efficiently and save money.



CHOOSING THE RIGHT

Outdoor Finish

Keep outdoor wood furniture looking great and safe from the elements by finishing it right. Here's an in-depth look at all the options.

Working with wood presents many interesting challenges, but few are as daunting as protecting it from the great outdoors. Heat, cold, and rain—these are wood's greatest enemies. That makes picking the right finish even more critical outside than it is inside.

Of course, finish manufacturers don't make it any easier—spar varnish, exterior polyurethane, outdoor oil... it's often difficult to know which finish to choose. Luckily, once you cut through the "name game," you'll find that there's really only two considerations: the



"type" of finish you want, and the color you want it to have. We'll walk you through those distinctions here.

Film-Forming — The first type of finish, often called "film-forming," actually sits on top of the wood, and if you're after a rich, lustrous finish with a glossy look, this is the finish for you. These products are labeled as spar varnish, exterior polyurethane, or alkyd resin, among others.

Most people think film-forming finishes are only clear, but you can also get them with added color (below left). They're a popular choice for classic outdoor furniture like wood tables and chairs, since people are used to seeing a glossy, built-up finish on these.

While they look great, even a high-quality film-forming finish is prone to peeling over time. And when it's time to refinish the wood,



Most film-forming finishes are clear, but a handful are available with the stain mixed in. These finishes "sit on top" of the wood, giving it a rich luster and great durability.



Penetrating oils are available in vibrant colors, but they lack the glossy look of film-forming finishes. They soak into the wood to offer good protection from the elements.

the finish can be difficult to remove. (One way to improve the protection offered by a film-forming finish is to first coat the wood with epoxy, right.)

Penetrating Oil—If you want an option that's easier to refinish, then a penetrating oil finish might be the right type for you. This type of finish is also sold as exterior stain or outdoor oil.

Penetrating oils get applied like indoor wood stains, but they contain mildewcides, UV blockers, and other ingredients for outdoor use. Though they come in a variety of colors, the trade-off is that they don't have the rich luster of a film-forming finish.

The Right Color—The other consideration when choosing an outdoor finish is color. And if you're worried that "cedar" and "redwood" are your only choices, you'll be pleasantly surprised (Photo, below right). Beyond the color itself, there are also three distinct color types (Photo, above right).

Clear Finish—The first choice, of course, is no color at all in the



Can't make up your mind? Many stain makers sell smaller samples, so you can try it out before you buy a big can.



Boat-builders know that by applying epoxy first, then a filmforming finish, they will enhance the durability of outdoor wood projects.

form of a clear finish. As you might expect, clear finish retains the truest wood color. But it also offers the least protection, so it should not be used on a refinished piece.

Semi-Transparent — Semitransparent stains give the wood a tint but still allow the grain to show through. The pigment that creates the color also provides more UV protection, so the finish tends to last longer.

Solid Color—The last choice, solid-color stain, hides the wood grain completely. It looks like paint, but it's thinner, which makes it easier to



Clear, semi-transparent, and solid-color stains show progressively less grain—and offer progressively more protection.

apply. Solid-color stain has the most pigment, so it protects wood the best.

Sample Packets — With all these color options, it can be difficult to make a decision. Luckily, a number of companies now offer small sample packets or cans of finish, so you can give them a try before you commit to a whole gallon (or more) of the stuff (Photo, below left).



CEDAR — GROWING OLD GRACEFULLY

Not all wood needs a finish. In fact, if you're going for an aged, rustic look in a piece of outdoor furniture, you might be better off with no finish at all.

Some woods—most notably cedar, but also redwood, ipe, white oak, teak, and even pressure-treated pine—develop a regal gray appearance as they age. This lends a distinctive, antique look to a piece that can't be duplicated with any finishing technique.

It's not a look that suits every project or every personal taste, but some projects, like this cedar planter box, look better aged than they did new.





FAST, AFFORDABLE

Garage Upgrades

With garage makeovers costing thousands of dollars, it's nice to know there are still simple and affordable ways to upgrade your garage. Here are three of our favorites.

Wall Control Galvanized Pegboard

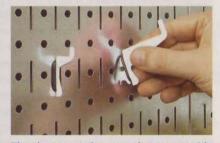
Pegboard meets modern metallurgy in Wall Control garage/shop storage kits. Shown here is the Galvanized Workbench Kit, model 30-WRK-400GV (which, oddly enough, doesn't include a workbench of any kind). What it does include is three galva-

nized pegboard panels that combine for over 10½ sq. feet of wall storage, along with 25 accessories. Those include shelves, bins, hangers, and hooks of various sizes (*Photo, below*). Complete mounting instructions and hardware are also included.

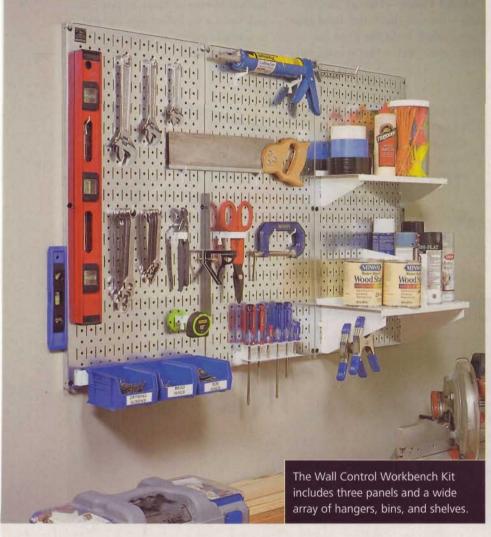
Speaking of mounting, that's one big advantage these galvanized panels have over conventional pegboard. Specifically, these panels come with clearance built in. There's no need to build a frame around them to provide space behind the panels for protruding hooks and hangers.

Another big plus for Wall Control is durability. Galvanized steel will take a lot more abuse than standard pegboard, no surprise there. But what might surprise you is that conventional pegboard is often damaged by inserting or removing the hooks, hangers, and other accessories. Especially if you use the popular locking hooks. They fit nice and snug, but when you try to remove them, they're apt to ream out the hole. That's not an issue with these 20-gauge steel panels.

The Wall Control Galvanized Workbench Kit shown here sells for about \$100 plus shipping. It installs in minutes and can easily withstand being relocated. To order this kit or to see other Wall Control products, visit WallControl.com or call 770-723-1251.



The slot-mount hangers that come with the Wall Control panels use rubber Orings for a rattle-free fit.





Between-Stud Storage Solution

Don't cover those exposed wall studs in your garage. Instead, make the most of all that open space with an assortment of Stud Buddy Instant Shelves. These galvanized, stamped-steel shelves are sized to fit inside standard 16" and 24" on-center stud openings and mount quickly with just four screws.

The shelves come in three sizes to fit 2x4 studs (5", 6½", and 11" deep) and two sizes for 2x6 studs (6½" and 11" deep). Each shelf can support 45 lbs. of whatever you can pile onto it.

In addition to the standard shelves, Stud Buddy also offers a WorkShelf that spans across two stud openings and converts a length of 2x6 into a very practical workbench, complete with a small-parts trough on the front edge. An assortment of hangers and plastic bins is also available to further expand your storage and organization capabilities.

All Stud Buddy products are available individually or in kits that start at \$80.Visit <u>StudBuddy.com</u> or call 888-578-7452 to place an order or request more information.



Locate and level a shelf, and then attach it with two screws at each end.



Use a variety of shelf sizes and various storage bins for maximum organization.







Chemical-resistance, easy cleaning, and a non-skid texture all make roll flooring ideal for the shop or garage.

New Floor on a Roll

Roll-out shop flooring is not the least expensive floor treatment for your garage. You might as well know that from the start. But we like it because it is the simplest, most maintenance-free choice for protecting and covering a bare floor.

There's no need to scrub or acidwash the floor, as some epoxy coatings call for. And there's no waiting time to drive on it or move your gear back into the garage. You cut it to size, roll it out, tape it down (or not), and you've got a new garage floor.

You won't have to reapply it in a couple years; you can spill just about anything on it without fear of damage; and hot tires won't hurt it. In fact, the most you'll have to do is hose it down if it gets really filthy.



Carpet tape at the seams will prevent roll flooring from slipping or curling.

All that convenience and durability for \$2 to \$3 a square foot? Sounds like a deal to me.

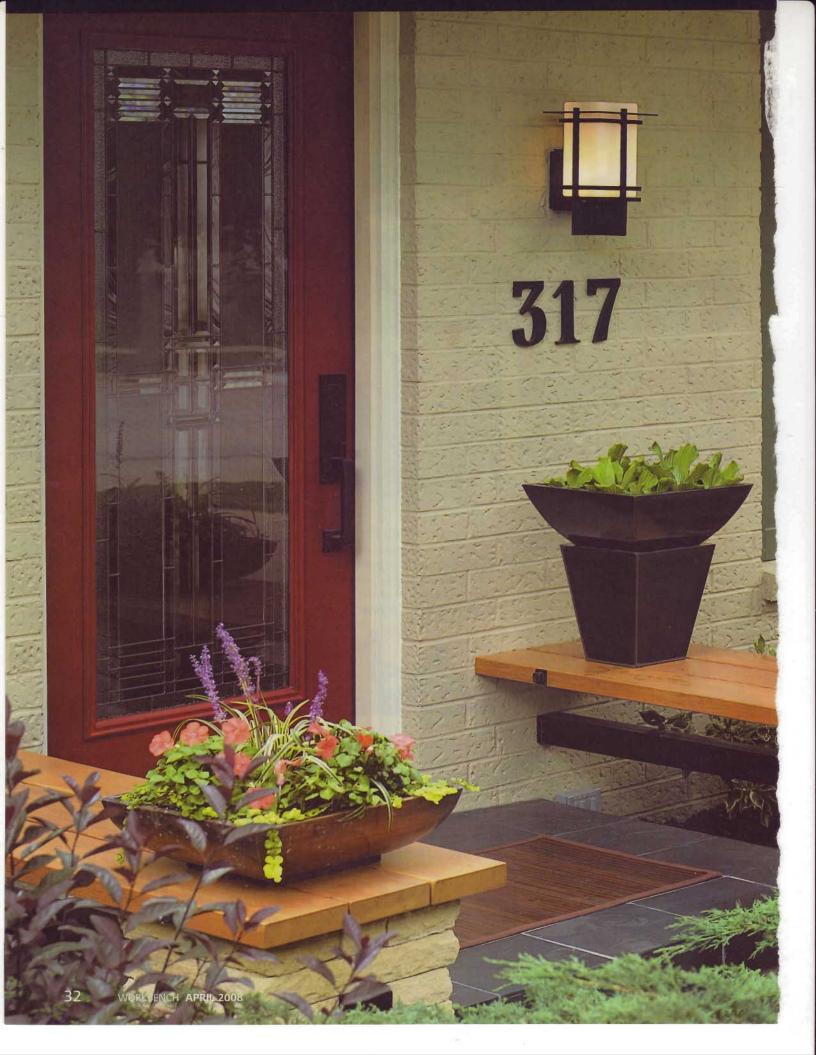
Roll flooring is available from Gladiator Garage Works (866-342-4089, GladiatorGW.com); All Mats (866-411-6287, AllMats.com); or American Garage Floor (800-401-4537, AmericanGarageFloor.com).





Product Information Number 184

Product Information Number 216







IFT

Talk about a dramatic transformation! With some new siding, stone blocks and tiles, paint, and a new front door, our homeowners totally changed their runof-the-mill 1970s split-level home (above) into a custom Craftsman-inspired masterpiece. Over the next few pages, we'll give you all the know-how and inspiration you'll need to use these ideas for your own front entry makeover.



Shop-Made Shutters and Window Trim

Custom Knee Braces

Fiber-Cement Siding and Shakes

Composite Trim Boards

> Painted Brick

A BOLD LOOK FOR ANY ENTRY

rive into any suburb, and you'll find neighborhoods filled with homes similar to the 1970s split-level shown in the *Illustration* above. It's a style that works well today, but it appears a bit dated.

Workbench Senior Project
Designer Jim Downing was all
too aware of his home's humdrum
appearance. Over the years, he had
done all kinds of things to improve
the look of the interior, so he
decided it was high time his home
had an exterior to match. That
started with all-new siding, shingles,
and paint, as well as some custom
touches, like shop-built shutters and
knee braces.

Once that was done, though, Jim realized the rest of the home's front entry—the mulch bed, the concrete stoop, and the front door—still left a lot to be desired. The solution was three simple projects—a raised stone planter, new slate tile and stone columns on the stoop, and the installation of a new front

door. Whether your home is a '70s split-level like Jim's or a completely different style, we'll show you ways that you can incorporate these ideas into your own front entry makeover for a bold new look over the next few pages.

Stylish Stone Planters—The first project went in beside the front stoop, where Jim transformed the mulch bed into an elegant raised stone planter. To simplify the process, he used precut limestone blocks. They have the natural rough edges that he wanted, but, more importantly, they have consistent dimensions from one block to the next. He built the planter as a "dry stack," which meant the blocks just get stacked up like Legos. No mortar required!

Stupendous Stoop—Next, the natural look of the limestone is carried onto the stoop, where a pair of stone columns topped with wood benches make the stoop look more like a porch. Those columns and benches create the perfect complement to the other difference on the

stoop—decorative slate tile that provides a welcome change from the drab concrete slab that was there before. As you'll discover on page 40, laying this tile is easier than you might imagine.

Door Details—To really set off this restyled entry, a change to the front door also seemed appropriate. We chose this model from Benchmark by Therma-Tru. The fiberglass door comes in white but can be painted to match any surroundings. We picked red for a bold, eyecatching look. All the installation details can be found on page 44.

For information on the other components of this front entry facelift, including where to find a planting guide for the raised planter, see the *Buyer's Guide* at right.

.. And UPALL MANARAGINA



BUYER'S GUIDE:

Iowa Buff Limestone Purchased locally; contact your local stone company for more information.

Tile

Black Slate Tiles Purchased locally; contact your local tile company for more information.

Entry Door

Benchmark by Therma-Tru (SOS#58605; through Lowe's) 866.584.3668 BenchmarkDoors.com

Door Hardware

Emtek Arts & Crafts Entryset, Oil-Rubbed Bronze Finish 800.356.2741 Emtek.com

House Siding

HardiePlank Lap Siding, Select Cedarmill 888.542.7353 JamesHardie.com

Trim Boards

MiraTec Composite Trim Boards 800.255.0785 MiraTecTrim.com

Rain Chains

Zen Loops Copper Rain Chains (#6886) 888.480.7246 RainChains.com

Light Fixture

Hubbardton Forge Outdoor Sconce (#30-6002) 877.201.8695 HandmadeInVermont.com

Paint

Universal Khaki (Brick) Fired Brick (Door) 800.474.3794 Sherwin-Williams.com

Planting Guide

A planting guide for the raised planter as it appears above is available at WorkbenchMagazine.com

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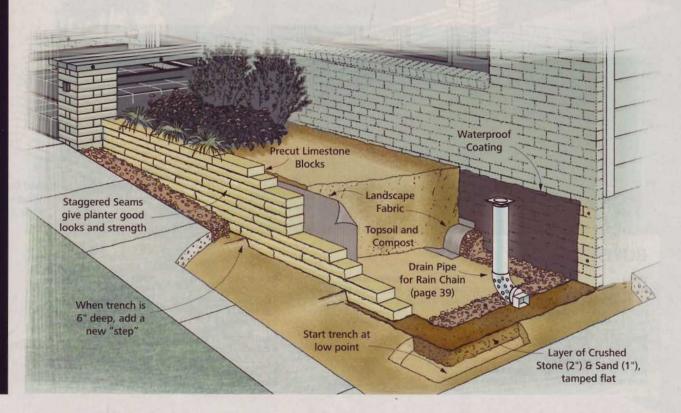


There's more to building a planter than just stacking stones on top of each other. But if you get off to a good start and secure your stones properly, you'll find that few DIY projects are as simple—or satisfying.

A Level Playing Field-As mentioned on page 34, this is a "dry stack" planter, which means no mortar is involved. That's good because it saves you a lot of work, but it also means that the entire wall will only be as straight and level as the lowest course of stones. That makes starting with a level "bed" very important.

Our planter presented another challenge: The location was along an incline. That meant we had to create "steps" in the bed we prepared, as shown in the Illustration below.

You'll notice that our planter is two-sided because it backs up to the





1] Dig a trench roughly 3" to 4" deep, and a few inches wider than the stones. Tamp the soil to make it flat and level.

2] After adding crushed stone and sand, lay down the blocks. A tape measure will keep your course straight.



concrete stoop on one side and a brick wall at the back. If your planter will be against wood or another type of siding, you'll want to make it four-sided instead.

Plan First—Having a good plan up front is critical to the success of your planter. That involves carefully measuring the dimensions of your project, so you'll know exactly how many stones and other supplies you'll need. Always order 10 to 20 percent more stone to account for cutoffs and buried pieces.

Digging the Bed—With your plans complete and materials in hand, it's time to start digging (Fig. 1). If your site is along an incline, start at the low point, and work your way upward. Once you reach a point where the trench is more than 6" deep, that's a good place to create a new "step" for the next course of stones.

As you dig, use a hand tamper to compact the soil and flatten the bottom of the trench. Then use a long level to check your work. It doesn't have to be perfectly level yet, but it should be close.

Add Stone & Sand—Now it's time to add a layer of crushed stone above the soil, and tamp it down as well. Then repeat the process with sand. These steps ensure that you'll have a solid foundation for your stone blocks that won't settle over time (Fig. 2).

Make the Cut—As you begin building the planter, it's inevitable that you will run across the occasional stone that needs to be cut. That process is covered in detail in the *Box* below.

STONE-CUTTING TIPS & TRICKS: A good-looking and structurally sound wall demands well-aligned corners and staggered seams—and that means you'll need to cut some of the stones. To do that, we rented a stone-cutting saw, purchased an inexpensive air chisel, and used the techniques shown below.



First, use a stone-cutting saw to score a ³/₄" deep kerf along the cut line marked on the stone.



Then, break the stone along this kerf by smacking it down hard onto a piece of steel angle.



An air chisel can restore or add rough, textured edges to the stones. Use a 2x4 scrap to guide the chisel.



3] One of the best ways to ensure staggered seams is to measure out from the corner, and then cut a stone to fit the space.



4] Before laying each stone, apply a bead of landscape adhesive, and then press the stone firmly in place to create a strong hold.



5] To make sure the wall stands straight, hold a long level along its outside face. If necessary, tap the stone lightly with a mallet to bring it into position.

If you take the time to prepare your planter bed properly, the rest of the construction is fairly straightforward. Still, a few tips and tricks come in handy to make sure that your planter not only looks great but also stands the test of time.

Overlap the Corners — The best place to start building a row (or course) of stones is at the corner. And as you add each subsequent course, you'll want to orient the corner stone the opposite of the previous corner stone. For example, on our two-sided planter, that meant that one course has the corner stone laid lengthwise down the long leg of the "L," and then the next course has the corner stone laid along the short leg of the "L." This locks the corner stones together, giving the wall its strength.

Stagger the Seams — Another way to enhance the strength of the planter, as well as ensure a nice look, is to stagger the seams between stones on each course. This requires some cutting to make sure the seams are properly staggered from one course to the next.

CREATING OVERLAPPING CORNERS AND STAGGERED SEAMS MAKES THE PLANTER BOTH STYLISH AND STRONG

So after laying a corner block, you'll want to measure and cut the next piece to ensure that the seam is positioned in the desired location (Fig. 3). After that, you shouldn't need to cut another block until you reach the end of the course. (**Note:** This strategy assumes you're using stones with uniform dimensions like ours. If your stones are random lengths, you'll need to plan it out a stone at a time to ensure staggered seams.)

Give It Super-Strength with Adhesive—Overlapping corners and staggered seams will add a lot of strength to your planter walls, but a few additional tips will really ensure that they'll stay up for the long haul. One extra bit of insurance is to use landscape adhesive on the joints between the courses of stones. Landscape adhesive comes in a tube and is available alongside all the other construction adhesives at the home center. Just apply a bead along each course of stones before putting down the next course (Fig. 4).

Check It for Plumb—As you work your way up each course of stones, make sure the walls stand straight and plumb. Doing this is as simple as holding a level alongside the wall and making small adjustments with a mallet (Fig. 5).

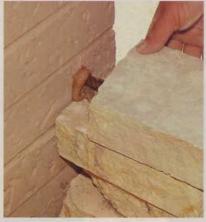
Add an Anchor for Insurance—Using all these techniques makes for a strong wall, but the two-sided design of our planter creates a weak point where the short leg of the wall butts up against the house. We were concerned that pressure from the soil at this point could shift the short leg of the wall over time. So we anchored the wall to the house with a short length of steel rebar. We positioned this anchor roughly halfway up the stone wall.

To make the anchor, first drill corresponding holes for the rebar in the stone and brick on the house using a hammer drill equipped with a masonry drill bit. Then fill both holes with landscape adhesive,





6] To ensure a strong connection between the house and the planter wall, drill mating holes in both the house and one of the stones. Then fill the holes with landscape adhesive, and slide a short length of rebar into the hole in the house.



7] Slide the hole in the stone in place over the rebar to complete the connection between the planter and wall.

and press the rebar into the hole in the house (Fig. 6). Finally, finish up by sliding the stone in place over the rebar (Fig. 7). This simple addition should prevent the wall from shifting.

Put the Final Trimmings in Place—Only a few additional details remain between you and a finished planter. If your planter butts up against a brick wall like ours, you should brush sealer on the bricks to keep moisture from soaking through them. Also, you'll want to add a layer of plastic, plus a layer of landscape fabric, around the interior of the planter walls to hold both soil and moisture in.

If you have some sort of gutter system above or alongside the planter, you'll need to make accommodations for it, as well. We replaced the gutter downspout with a decorative "rain chain" as part of this facelift, so we built drainage for the rain chain into our planter, as shown in the *Sidebar* at right.

Now all that's left is to fill the planter up with soil and compost, and let the planting begin!



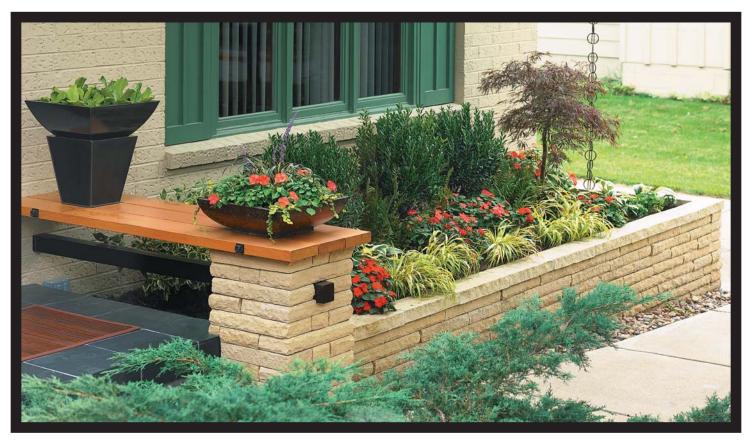


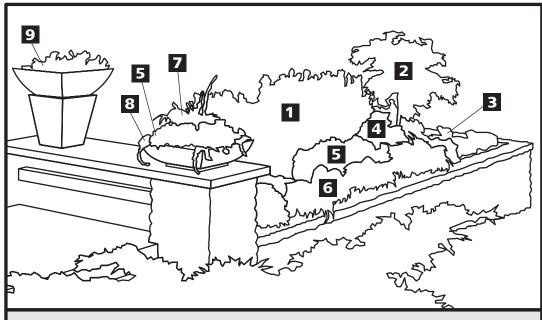
RAIN CHAIN DRAIN

One component of this front entry facelift was a rain chain that replaced a gutter downspout. Since the rain chain hung over the planter, that meant we needed a good way to drain it to prevent the soil beneath from becoming a soggy mess. The drain assembly we came up with is shown in the *Photo* at left. For more on the rain chains, see WorkbenchMagazine.com.

workbench Planting Guide for Raised Planter

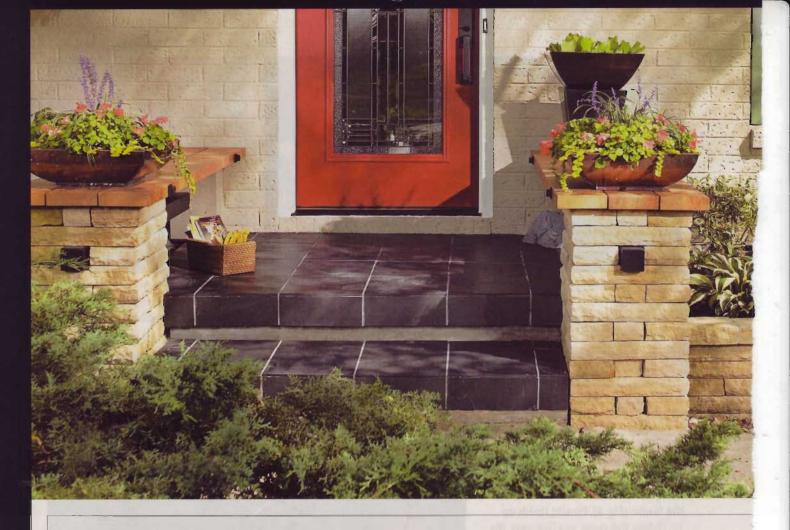
Issue 306 Volume 64 Number 2 April 2008





- 1. Shamrock Inkberry
- 2. Japanese Maple
- 3. Patriot Hosta
- 4. Lady in Red Fern
- 5. Red Impatiens

- 6. Golden Hakonechloa
- 7. Lilyturf
- 8. Creeping Jenny
- 9. Water Lettuce (in water container)



STONE & TILE MAKE FOR A STUPENDOUS STOOP

And though it's practical, it does little to enhance the look of your home's front entry.

Our front entry facelift is living proof, though, that a dull concrete stoop doesn't have to stay that way. With basic tools and techniques, you can "reface" the stoop with tile. We also went the extra step of adding stone columns topped with wood benches. Here, we'll walk you through the basics of tiling the stoop. Then on page 42, we'll show you how to build the columns and benches.

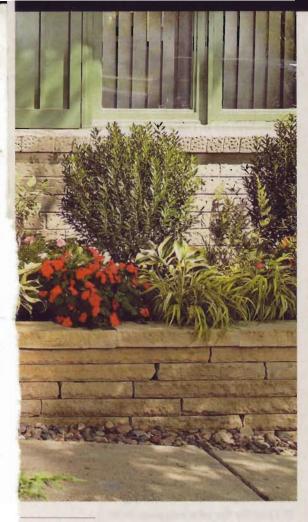
Tile Tips & Tricks—Even if you've never worked with tile before, you'll find that the tools are easy to use, and the techniques are simple. We used black slate tiles, which give

the stoop a sleek, stylish appearance. The planning up front spells the difference between success and failure, so you'll want to do a "dry run" first, laying out all the tiles with spacers between them. This will give you a sense of whether or not you need to adjust the layout and tell you which tiles need to be cut.

You'll want to keep two things in mind during the dry run. First, center the tiles from side to side to ensure an even, consistent appearance. Second, start the layout at the front edge and work backward. This way, full tiles will be at the front, and cut tiles will be at the back (Fig. 1). You'll note that the first row of tiles, as well as the cut tiles along the sides of the stoop, overlang the stoop slightly. That's because these tiles are meant to overlap the "edge tiles" that get installed along the vertical edges of the stoop later on.

Label, Then Cut—Once you have your layout complete, note each tile's position by marking it with masking tape. Then cut the tiles, including the edge tiles, with a tile saw (Fig. 2). (You can rent one inexpensively.) Before you begin laying tiles, you'll also want to seal the porous slate tiles to prevent grout from filling them later on.

Lay the Tiles—When the sealer dries, you can begin laying tiles, starting at the front of the stoop and working your way back. Mix thinset mortar, and then apply an even coat to the stoop where you plan to lay the first row of tiles. Rake it smooth with the notched edge of the trowel. Now work your way across, setting the tiles in the mortar. Use the plastic spacers and a tape measure to





1] Do your "dry run" from front to back. This way, the narrow cut pieces will be barely visible along the back edge.



2] A tile saw uses a diamond-grit wheel and water to cut smoothly through stone tiles without a lot of dust.



ensure that each tile is positioned properly before setting it. As you progress across the stoop, a long level comes in handy for checking the flatness of the tiles (Fig. 3).

Edge Tiles — Next, you can place the tiles along the edge of the stoop. You'll want to "back-butter" these tiles with thinset, which is easier than applying thinset to the edges of the stoop (Fig. 4). Attach them to the top tiles with strips of masking tape until they dry (Fig. 5).

Add Grout—After the thinset dries (about 24 hours), you can grout the tiles. To do this, press grout between the tiles using a grout float. Then clean the tiles with a sponge and water. You may need to rinse the tiles several times to remove the grout residue.



4] To secure the vertical edge tiles to the stoop, start by "back-buttering" them with mortar.



5] Then press the edge tiles firmly into place, and secure them with masking tape until the mortar sets.



The other key features of this stoop are a pair of stone columns topped with wood benches. The columns are built with the same kind of stone used for the planter shown on page 36, but they have several notable differences.

First, because of their height, and because they serve as a base for bench seating, we wanted the columns to have a sturdy structure. That involved digging holes and pouring concrete footings for the columns. (You'll want to check your local building codes to determine how deep to pour the footings.)

Before you begin assembling the columns, drill a hole in each footing (Fig. 1), and insert a long piece of steel rebar. Later on, this rebar will get surrounded by concrete to further reinforce the structure of the column.

Lay the Stones—Building up the stone columns is a lot like building the planter in that you'll want to start with a level base, and attach each course to the next one with landscape adhesive. As you can see above, the columns also

have staggered seams. Except this time, that's accomplished by turning each course 90° in relation to the course directly beneath it. This requires a lot more cutting, as you need two longer stones to comprise the edges of each course, and two shorter stones that get sandwiched between the longer ones. But all the stones can be cut using the same techniques outlined on page 37.

Drop in the Tubes—It's hard to miss the decorative touch near the top of each column—a square steel tube that passes through the column and gets attached to the house. We had these pieces cut to length and capped on one end by a steel fabricator. Then we spray-painted them black.

You'll notice that these tubes are a bit thicker than the stones. That meant we had to score two of the stones on each column with a stone-cutting saw to create a notch to hold the tube (Column Assembly, right).

Before mounting the tube, now is the time to fill the cavity in the middle of each column with concrete (Fig. 2). Then slip the tube into place in its notch (Fig. 3). Where the tube butts against the house, you'll want to mount a bracket to the house with masonry screws, and then run a bolt through this bracket and into the tube to secure it (Angle Detail). (Note: For more tips on working with steel, including how to cut it, drill holes in it, and tap a hole to accept a bolt, see page 80.)

Top It with Benches—With the steel tubes secured, you can add the last



1] After pouring footings for the columns, drill holes to accept steel rebar using a hammer drill and masonry bit.



2] Before adding the steel tube, insert the rebar, and fill the center of the column up with concrete.



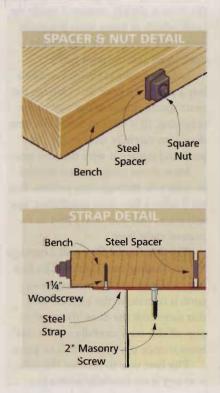
3] Now fit the steel tube in place on the column. A notch cut in the stones accepts the tube easily.

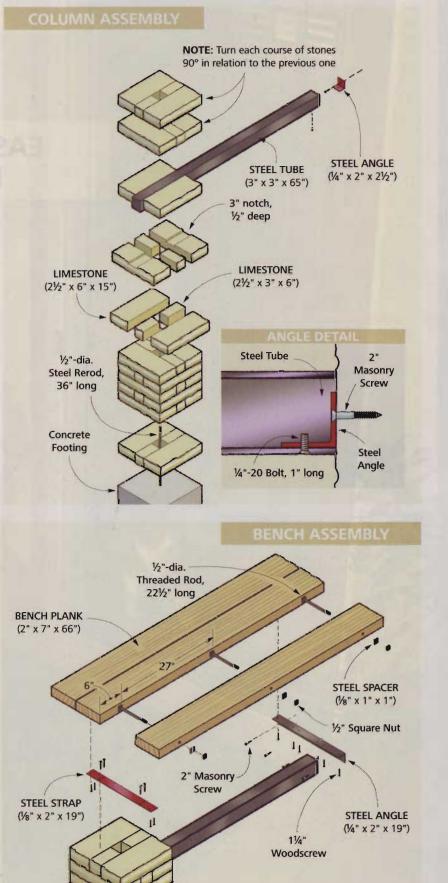
few courses of stone around and above it. Then, a wood bench seat serves as the crowning touch for each column.

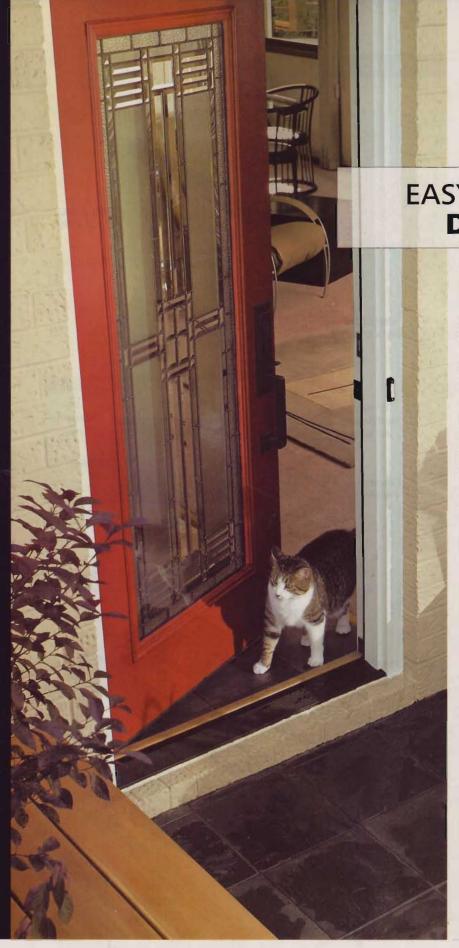
There's nothing complicated about the bench itself. Each one is made up of three thick planks of Douglas fir that just get ripped to width, cut to length, and then sanded and finished. The real trick here is connecting the planks to each other, to the column, and to the house.

The first connection to make is to secure the planks to each other. This is accomplished with threaded rods that pass through mating holes drilled in the planks (Bench Assembly). To create spacing between each plank, the rods also pass through spacers made from strap steel. (To make the spacers, drill the holes first, and then cut out the individual spacers.) An additional pair of spacers go in place on the outside of the planks, followed by square nuts that draw the assembly together (Spacer & Nut Detail, below).

Another piece of steel is used to secure the bench to the top of the column, as shown in the *Strap Detail* below. And steel angle is used to make the final connection between the bench and the house.







DOOR INSTALL

fter all the other dramatic changes we made as part of this front entry facelift, it seemed silly to keep the old, outdated entry door. So we chose a bold new front door from Benchmark by Therma-Tru that reflected the Craftsman style of the rest of the makeover (Buyer's Guide, page 35).

The front door we chose is made from fiberglass, which means it's more weather-resistant than a standard wood door. And it came with a smooth white finish, so we could paint it any color we wanted to match the home's decor. (We chose a bold red.)

But the best part about the door is that it came pre-hung. That means that the door is already mounted inside the jamb, which in many ways is actually easier than trying to fit and mount a door to an existing door jamb.

In fact, as long as you're careful to buy a pre-hung door that matches the exact specifications of the one you're removing, all it takes to install the new door is to carefully remove the old jamb and replace it with the new one.

Most doors come with a manual to walk you through that process. But we'll offer a few door installation tips and tricks that you won't find in the manual right here.

Tip #1: Avoid Drywall Damage When Taking out Trim—The first step in taking out the existing door jamb is to remove the interior trim that surrounds the door. You need to pop off this trim carefully, so you can reuse it once the new door is in place.

The best way to remove this trim is to pry it up carefully with a pry







bar, working your way along the trim. To prevent damaging the drywall, stick a putty knife behind the pry bar as you work (Fig. 1).

Tip #2: Cut It out Quickly with a Recip. Saw—Once the trim is removed, the easiest way to remove the jamb is with a reciprocating saw. Just equip the saw with a blade rated to cut through nail-embedded wood, insert it between the jamb and the wall, and cut carefully down each side of the jamb (Fig. 2). Then repeat the process along the top of the jamb.

Tip #3: Chisel Away the Old Caulk—If your existing door was well-installed, there's probably a bead of old caulk around the exterior of the door jamb to seal it from the elements. Before you pull the door, you need to dig out this caulk using a hammer and an old chisel (Fig. 3).

Tip #4: Take out the Old Door—The old door jamb should now slide out smoothly (*Fig. 4*). If it needs a little extra prompting, you can work your way around the gaps with a pry bar to pull loose any old nails or glue that's still hanging on.

Tip #5: Install the New One—With the old jamb removed, take a few minutes to clean up any debris (nails, glue, etc.) that remains in the opening.

Then run a bead of caulk under the threshold of the new door, and slide the new jamb into place (Fig. 5).

Tip #6: Shim It Square & Plumb—Perhaps the most time-consuming part of the whole installation comes next, and that's shimming the jamb square and plumb. There's really no big trick to this process; you just want to use a long level to check every surface of the jamb, and add shims where necessary to make the level read square or plumb. Once the door is shimmed properly, secure the shims with screws (Fig. 6). Then snap or saw off the shims, so they rest behind the surface of the jamb.

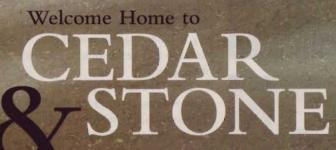
Tip #7: Finish Up in
Style—Now all that's left are the finishing touches, such as applying a fresh bead of caulk around the exterior of the jamb (Fig. 7). You may also need to adjust the sill and install a long screw in each hinge for support and security.

—Written by Wyatt Myers, illustrated by Erich Lage, project designed by James R. Downing

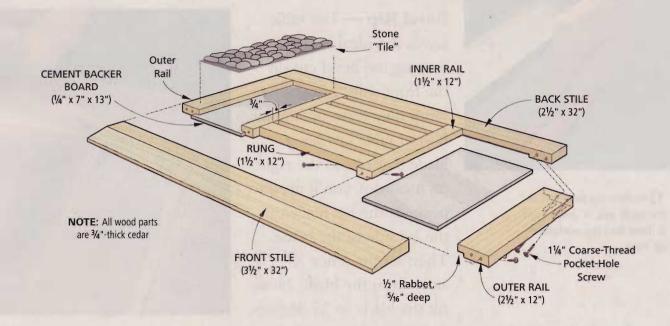








Enduring materials and simple techniques meet at your front door in this unique wood and stone doormat.





ESTIMATED COST: \$75 TIME INVESTED: 8 HOURS COMPLEXITY: LOW/MODERATE

omething about the combination of cedar and stone says "permanence." And permanence, for most, says "home." Here's a great little project that combines cedar and stone that you can complete in a weekend. What better way to welcome yourself home and your guests in?

As unique as this project is, it's built with common materials and simple techniques. The wood is cedar, and the joinery is pocket-hole screws. The stones come attached to a mesh backer, just like sheets of small tile. In fact, you'll find the stone (and the cement backer board) alongside the tile in the home center. And setting the stone is just like setting tile—thinset mortar to attach it; ordinary grout to fill it.

Size the Cedar—Because the doormat is built with butt joints and pocket screws, ripping and cutting the cedar to size is pretty straightforward. But you will want to take the time to lay out the pieces to avoid knots and other imperfections showing up in the doormat. Of course, cedar being what it is, you're not likely to avoid knots

entirely. But you should be able to keep them to a minimum. If you take a look at the doormat in the photo on the facing page, you'll see that there are a couple of small knots that I just couldn't get around. But to my eye, that seems like just enough imperfection to add character without being a distraction.

Once you're happy with the way your pieces will look, cutting them is a matter of some repetition.

You'll need two outer rails that are identical, a matching set of inner rails, and then five rungs that all match in size. The front and back stiles are the same length, but the front stile is 1" wider than the back. That extra width allows you to cut a bevel on this piece. This bevel helps prevent tripping and stubbed toes—neither of which make for a warm welcome.

1] Position the fence left of the blade and ¼" away from it. Then feed the workpiece on edge.

CUT > ASSEMBLE > GROUT

Bevel Rip — The table saw is the ideal tool for making the bevel cut on the front stile, though the setup may seem unfamiliar. If your table saw has a blade that tilts to the right (as most do), you'll need to position the rip fence on the *left* side of the blade. Then set the fence ¼" away from the blade. Now tilt the blade to 15 degrees, and make the cut (Fig. 1).

At this point, you should have all the cedar pieces cut to size and ready for a dry run.



- 2] Use hardboard "placeholders" and cedar spacers to assemble the doormat.
- 3] Mark pocket-hole screw locations outside the intended path of the rabbeting bit.





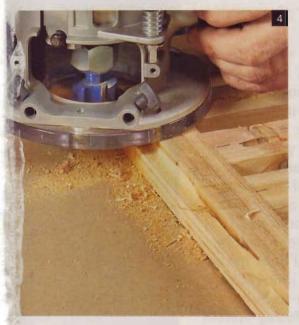
Dry Assembly—Along with the doormat pieces, you'll also need some alignment aids for the doormat assembly. First is a set of temporary panels that you'll use as placeholders for the backer board and stone (Fig. 2). Second is a dozen small spacer blocks for aligning the rungs.

Notice that I assembled the doormat *face down*. That way, I could mark the locations of the pocket holes I planned to drill (*Fig. 3*). Once they're all marked, disassemble the doormat, and drill the holes.

Rabbet & Backer—Now you're ready to rout rabbets to accept the cement backer board. Use a handheld router and a ½" rabbeting bit to do this (Fig. 4). Then square up the corners using a chisel.

Next, measure between the rabbets, and cut pieces of backer board to fit. Mount the backer board in the rabbets with a thick bead of outdoor construction adhesive.

Style the Stone—Now you can cut the stone sheets to fit into the doormat. Use one of the hardboard placeholders as a template, and cut the mesh backer with a utility knife. You won't get a perfect fit of the irregular stones in the opening. Just find the



4] Use a ½" rabbeting bit, set to cut approximately 5/16" deep (or slightly deeper than the thickness of the cement backer board), to rout a rabbet for the backer board to mount in. After routing, use a chisel to square the corners.





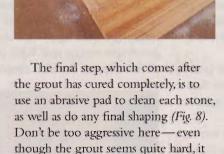
best match possible, and then fill in with individual stones.

Setting the Stone—In preparation for laying a bed of latex-modified thinset mortar, use painter's tape to mask the edges of the doormat. Then use a trowel to spread the thinset (Fig. 5). Press the stone sheet into the mortar, and tap or twist each stone individually to ensure good adhesion. Now fill in any gaps with individual stones. You may need to "butter" the backs of the stones to be certain they have plenty of mortar holding them in.

Grout the Stone—After the thinset has time to cure (refer to the manufacturer recommendations), you can grout between the stones (leave the masking tape on for this step). A sanded, latex-modified grout will provide years of durability.

Use a sponge float to push grout between the stones (Fig. 6). Let the grout dry until it's firm but not fully hardened. Then use a damp sponge to remove the extra grout (Fig. 7).

After a couple of cleaning swipes, you can focus in on each stone to clean it and shape the grout around it. The goal here is to reveal each stone's unique shape without removing too much grout.



Finishing Touch — Finally, you'll need to apply a protective finish to the cedar doormat. I chose a penetrating oil that accentuates the natural color of the cedar and will be easy to reapply next year.

would still be easy to gouge.

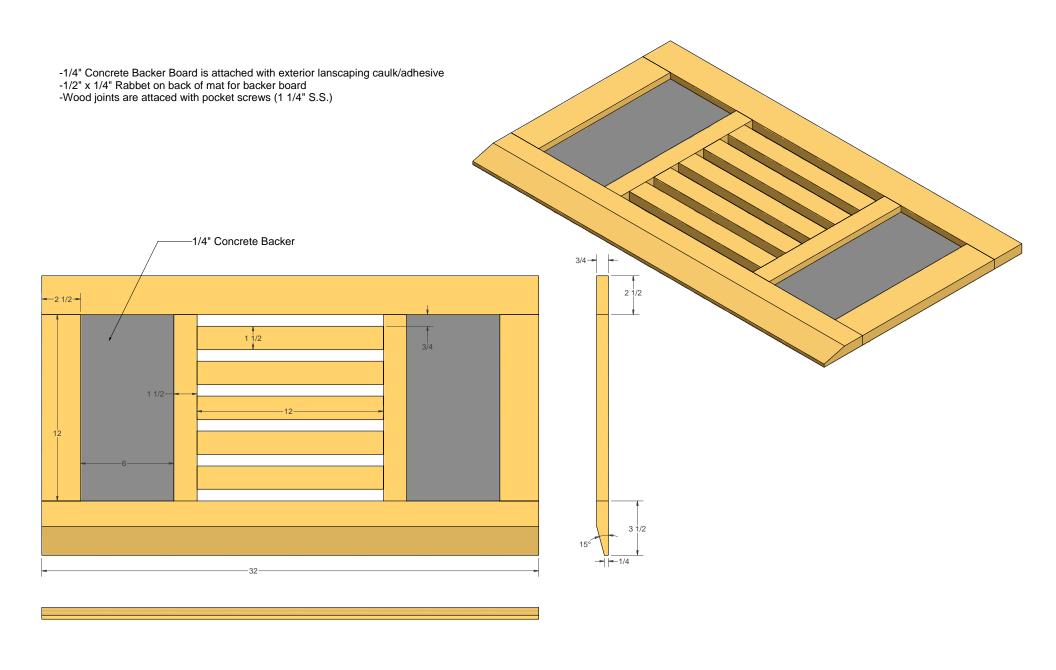
—Written by Bill Link, illustrated by Erich Lage, project designed by John Doyle

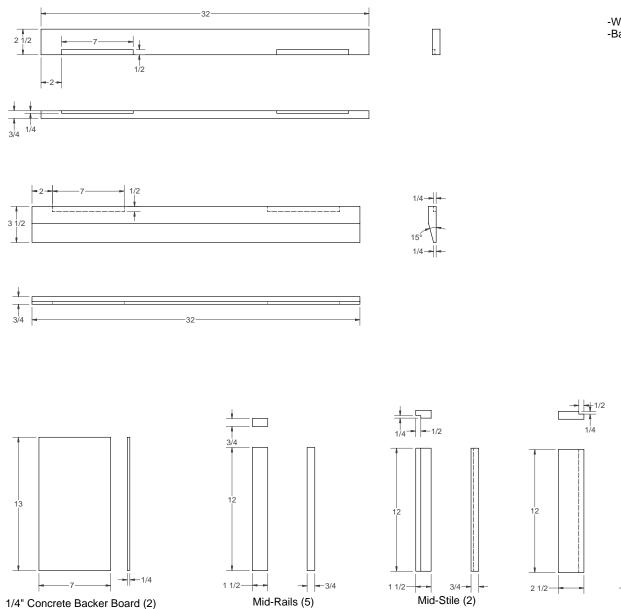
- 5] Use a 1/4" x 1/4" notched trowel to lay a bed of mortar. Then add the stones.
- 6] Firmly press the latexmodified, sanded grout in between the stones using a sponge float.
- 7] After the grout firms up a bit, use a damp sponge to scrub away any excess grout.
- 8] When the grout has fully cured, an abrasive pad is perfect for cleaning the stones individually and "sculpting" the grout around the unique shape of each stone.

workbench Cedar & Stone Welcome Mat

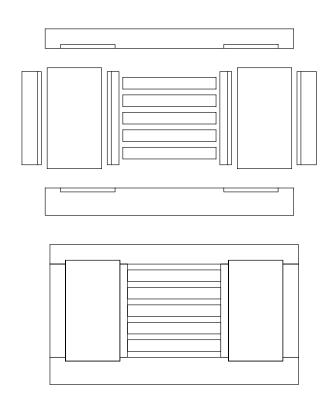
Issue 306 Volume 64 Number 2 April 2008







- -Wood Joints connected with 1 1/4" stainless steel Pocket Screws -Backer Board Fastened with exterior landscape caulk/construction adhesive



easy steps for a HALLWAY MAKEOVER

Turn a ho-hum hallway into a dramatic display area for your family photos or favorite works of art. All it takes is a coat of paint, some new hardware, a simpleto-install light fixture, and our innovative but easy-to-build photo display system. You can complete this total transformation in one weekend for less than \$300.

A route from room to room. A lifeless space between living areas. A means of conveyance. This is the usual utilitarian role that a hallway plays. Because of that, and because hallways offer little space for adding accents, they generally get little attention when it comes to decorating a home. The result is a space that usually looks a lot like the *Before Photo* shown here.

But with a little imagination, you can turn an ordinary hallway into something more. And you can do it without investing a lot of time or money in the project.

As you can see in the *After Photo*, we turned this humdrum hallway into a dramatic gallery for a collection of family photos. You can do it, too, in just one weekend. Now instead of being a raceway from room to room, your hallway can celebrate your family and give everyone something to see as they travel from point A to point B.

A Five-Step Solution—The centerpiece of this high-style hallway is the photo rail system. And every part of it (except for the framed photos, of course) from the rails to the

cables to the clips that hold the frames, came from the home center for less than \$70. But the photo rail system is actually the last step in this hallway makeover.

The first four steps—painting the walls, revitalizing the trim, replacing the door knobs, and installing a track light—are also economical and downright easy, as well. We'll cover the details of all five steps on the next couple of pages.





FIVE PROJECTS—one dramatic hall

Transforming this hallway from dull and dated to light and lively didn't require a major overhaul or special tools or skills. A drill, screwdriver, wire cutters, pliers, and painting supplies are about all you'll need. With those in hand, just follow these five steps:

UPDATE TRIM AND DOORS

Chocolate brown oak was once the rage, but these days, interiors are lighter and brighter. Replacing the trim and doors, though, just didn't make sense. Instead, we picked up a gallon of paint and coated these surfaces with a bright white. The difference is dramatic.

Keep in mind that painting a light color over dark-stained wood can require several coats. You can cut down on coats by first covering the wood with a stain-blocking primer.

To maintain a smooth finish on the doors, apply the primer and paint with a foam roller instead of a brush.

WAKE UP THE WALL COLOR

Like the woodwork, the gold walls sucked up a lot of light and made the hallway feel smaller than it really is. Neutral gray paint helps push the walls away visually, opening up the space. An eggshell finish is easy to clean but doesn't look too shiny under the new lights.

>> BRING IN THE RIGHT LIGHT

Those new lights are part of a brushed steel track system that mounts to the ceiling. The fixtures clip into the track and can be aimed exactly where you want them.

Our setup is sold in a kit that includes the track and three lights for about \$60. (Model number EC3470BA

from <u>HamptonBay.com</u>.) We actually purchased two kits and connected the tracks together, so that we could mount more fixtures to illuminate the photos.

Installing the new lighting couldn't be simpler. Just remove the existing light, and then connect the power wires to the wires on the track. (Of course, make sure to shut off the power first.) Then mount the track to the ceiling, and install the cover plate included with the kit to hide the junction box and wires. Once that's done, just clip the fixtures into the track, and turn the power back on.

» HANG NEW DOOR HARDWARE

With the new lighting installed, the old brass doorknobs looked completely out of place. But it only took about 15 minutes to swap them out for new satin-chrome levers (Schlage.com). These set us back \$25 a set.

ADD THE PHOTO RAILS

The final step in this project is to build and install the photo rail system. This system looks similar to ones that are used in galleries and cost hundreds of dollars. But ours only costs about \$70. That's because, as you can see in the *Construction View* on page 53, the entire system is made from ordinary materials picked up at a home center.

The rails are ½"-diameter steel tubes that you can buy in a variety of lengths or easily cut to fit with a hacksaw. They're mounted to the walls on nylon "cable clips" that are meant for installing audio and video cables.

The photos hang on lengths of braided steel cable. It's sold by the foot and can be cut easily with wire cutters. At the top end of each cable, there's a hanger that slips over the rail. At the bottom, you can mount one of several clips, depending on what



frames you want to hang. Here's how it all goes together:

Lay out Your Frames—Before you mount the rails, lay out your photos or draw a diagram to determine where each frame should go. That makes it easy to figure out how high to mount the rails and how long to make the cables.

Mount the Rails—Once you determine where to install the rails, cut them to length, if necessary. Then slip a pair of cable hangers onto each rail.

Position the rail on the wall, level it, and then mark the locations of the mounting screws. If the screws won't hit studs, install hollow wall anchors. Then install the rails, using nylon spacers to hold them away from the wall.

Make the Cables—Now you can make the cables. First cut a pair of cables to length for each photo. Then add the cable ends. At the top, we used wire terminal ends, which we picked up in the electrical department at the home center. Short bolts pass through these to attach the cable to the hanger.

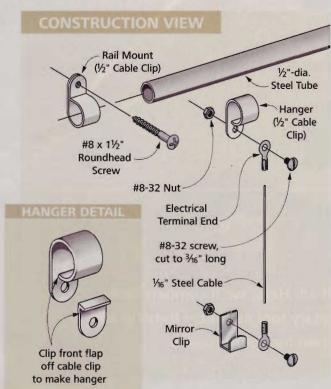


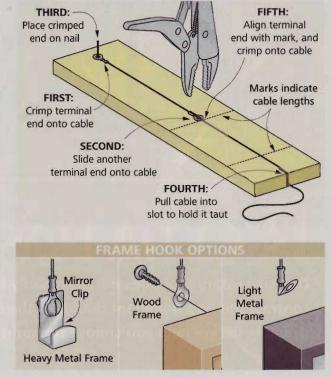
At the bottom, the type of end depends on what type of frame you're hanging (Frame Hook Options, below).

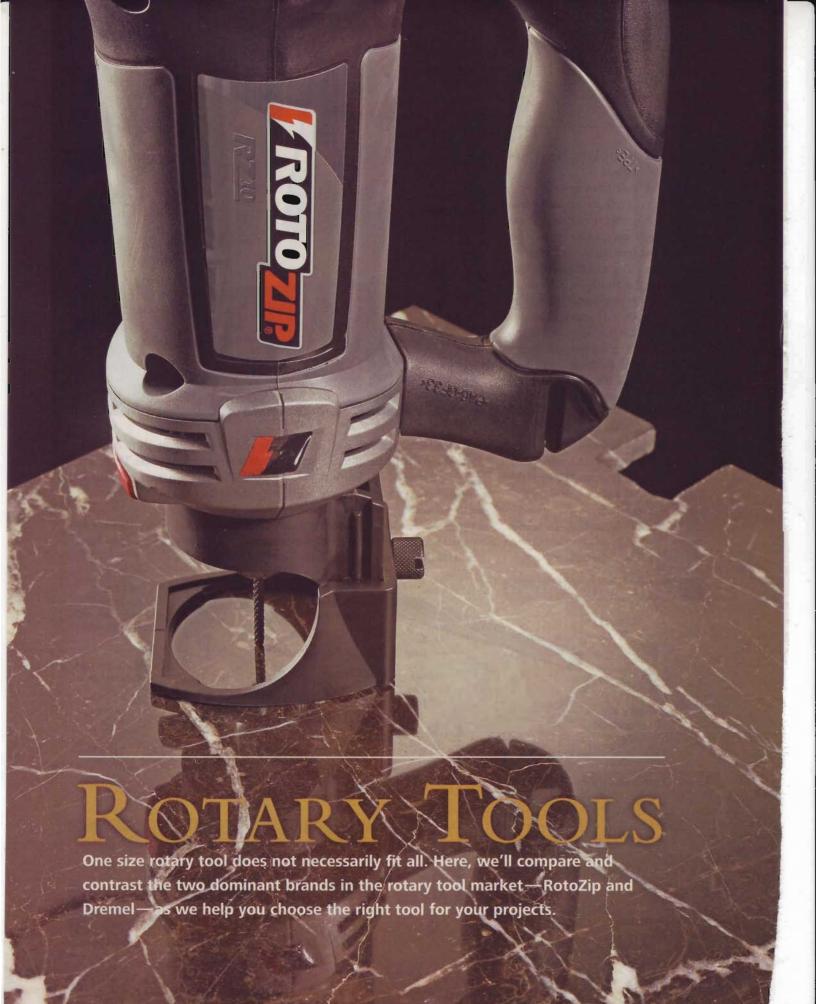
Whichever ends you're using, you need to make sure each pair of cables is the exact same length. To ensure that, we used a simple sizing board (Illustration, below). Once you have the ends

in place, simply crimp them onto the cables using locking pliers. Then bolt on the hangers, slip them onto the rail, and hang the photos.

—Written by Dave Stone, illustrated by Kim Downing, project designed by James R. Downing





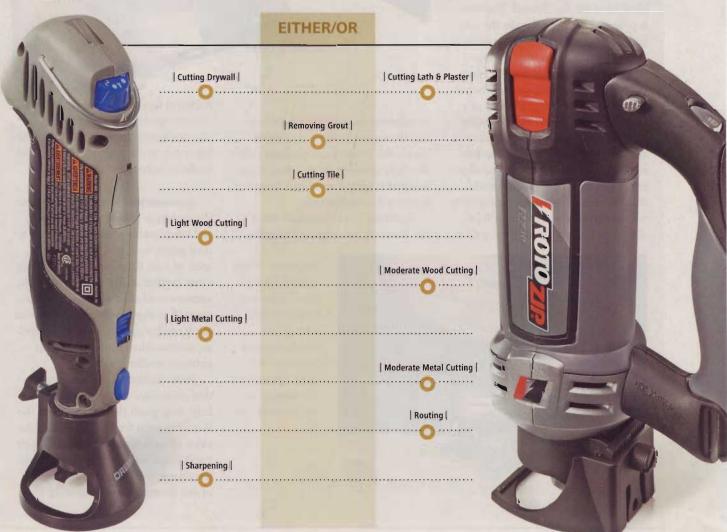


RotoZip and Dremel are siblings in the Robert Bosch Tool family. Although they were born 40 years apart, they are strikingly similar. So much so that they are sometimes considered competitive tools—sort of sibling rivals. But, as often happens in families, each found their place. Now they don't so much compete as complement. And together, they dominate the rotary tool marketplace

But just because they are similar, that doesn't mean the tools are interchangeable. Far from it. There is certainly some overlap in their capabilities, but when you look closer, you'll see how different they really are. The *Chart*, below, illustrates that well. On one side is the Dremel 400 Series XPR Rotary Tool. Opposite that is the RotoZip RZ10 Spiral Saw System. In between the tools is a list of common tasks that these tools are asked to perform. Each task is biased toward the tool that's best suited to completing it.

What it doesn't illustrate, however, is why one tool is better suited to a specific task than the other. To understand that, you need to compare the tools on three defining criteria: power, speed control, and versatility. We'll make those comparisons on the next page. Then, we'll take a closer look at the individual tools and a number of our favorite accessories. In the end, it should become clear which tool will best take on the jobs you have lined up around the house.

DREMEL ROTOZIP



TWO TOOLS, THREE CRITERIA

Power - There's not a lot of room for debate about power when comparing these tools: RotoZip has a lot (5 to 51/2 amps), Dremel has a little (2 amps or less). But that doesn't necessarily give RotoZip an automatic advantage. Sometimes less is more, especially for delicate engraving or detail work. That's when you want a Dremel. But when moderate wood or metal cutting is at hand, RotoZip is the best choice. (We'll leave heavy cutting to circular saws, reciprocating saws, and jigsaws.)

Perhaps the best illustration of the power difference in these tools, and why both have value, is to consider the same cut in two different materials. For example, cutting drywall, whether for repair or installation purposes, is ideal work for the Dremel. The tool is powerful enough to make the cut, yet small enough that you can easily maneuver it through intricate cuts or tight spaces. Faced with the same cut in lath and plaster, you'd be better off to trade the maneuverability of a Dremel for the power of a RotoZip.

Speed—Speed, and speed control, are also important points of comparison between these tools. Provided you select a Dremel or RotoZip model that has variable-speed control (which we strongly recommend), you'll be able to dial in the speed of the tool to

best suit the bit you're using and the work you're performing.

The Dremel tool actually has a wider speed range than the RotoZip, which, consequently, opens it up to a broader selection of bits. With its higher top-end speed, the Dremel can power fine engraving and carving bits that require very high RPMs to

a narrower speed range - more consistent torque throughout the speed range. That makes the RotoZip a powerful cutting tool, capable of slicing through materials that would stop a Dremel dead.

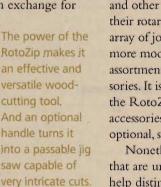
Of course, the success of either of these tools in any role relies heavily on matching it with the right accessory.



be effective and efficient. Additionally, the slower bottom-end speed means the Dremel can perform tasks like light grinding or polishing with reasonable torque and little danger of burning the workpiece.

Speaking of torque, that's what the RotoZip gains in exchange for

> The power of the RotoZip makes it an effective and versatile woodcutting tool. And an optional handle turns it into a passable jig saw capable of



Accessories - Dremel offers literally hundreds of bits, cutting wheels, and other specialty accessories to adapt their rotary tools to a mind-boggling array of jobs. RotoZip offers a slightly more modest, though no less valuable, assortment of attachments and accessories. It is worth noting, however, that the RotoZip can accept most Dremel accessories when outfitted with an optional, smaller chuck.

cut through drywall, so it's perfect for

jobs like installing can lights. This same

cut in lath and plaster, however, would

be better suited to a RotoZip.

Nonetheless, it's the accessories that are unique to each tool that help distinguish the Dremel from the RotoZip even further and define the value of each tool by expanding their capabilities in some very worthwhile directions. We'll take a look at some of our favorite accessories next.





A MultiSaw attachment makes the Dremel perform like a miniature reciprocating saw. The Dremel vise is ideal for controlling workpieces.



Its speed range, selection of accessories, and compact size make the model 400 our choice in Dremel tools.



Equipped with a planer attachment, the Dremel becomes a quick solution to a sticking door.



The Dremel vise can be used to mount the rotary tool while you control the workpiece.

Dremel Diversity

We could fill this magazine with an inventory of Dremel accessories and probably still not touch on all of them. But in the interest of brevity, we'll have to limit it to one page.

That means we'll only be able to hit the high points—the truly unique accessories that take the Dremel beyond the role of grinder, carver, engraver, and sander (though it does all of those things quite well and there's no shortage of accessories for those purposes).

MultiSaw—Reciprocating action from a rotary tool? Why not. That's what the MultiSaw provides.

It accepts standard U- and T-shank jigsaw blades and has a 3/8" blade stroke that works nicely for both straight-line and scroll cutting. This accessory only works with the 400 Series XPR tools, which is one big reason why we recommend that model.

Saw Sharpener— Sharpening a chain saw

blade always seemed to me to be a sort of dark magic, best left to those specially trained for it. Then I got my hands on this Dremel accessory. The included gauge, spacers, and angle guide assure a custom fit for most chain saws. And the three sizes of

sharpening stones will fit common teeth sizes.

Planer—Here's another accessory that's exclusive to the 400 Series XPR tools. And just like the name says, it's a compact, handheld planer. Use it to adjust sticking doors, finetune project pieces, or anywhere else a close shave is called for.

Multi-Vise—Though technically not an attachment to the tool, this vise can come in handy to hold a workpiece (*Photo, above*) or to turn your Dremel rotary tool into a stationary sander, grinder, or polisher (*Photo, below*).



Dremel's chain saw sharpener uses various stone sizes and a simple angle guide to adapt to most chain types.



A right-angle attachment came with our RotoZip. We paired that with the X-Shield to create a capable jamb saw.

Rough and Ready RotoZip

The real strength of the RotoZip is, in fact, its strength. While it has fewer accessories than the Dremel, those accessories allow the tool to perform like much more expensive, specialized tools. Three great examples of that are the jigsaw handle, X-shield attachment, and the plunge router base.

The jigsaw handle (shown on page 56) turns the RotoZip into a clean-cutting jigsaw. And because it uses round bits instead of flat blades, you can actually move the RotoZip in any direction, and it cuts just as effectively. Compare that to a conventional jigsaw that only cuts in one direction, and this might actually be a better option for highly intricate cuts.

Combine a RotoZip with an X-shield and the ZipMate right-angle

attachment, and you've got a very capable flush-cutting saw that serves as an effective jamb saw (*Photo, above*).

Mount your RotoZip in a plunge router base, and you've got a compact router that's perfect for fluting, edging, or other light-duty routing operations (*Photo, below*).

Of course, all of that is in addition to RotoZip's intended role as a serious cutting tool for materials like drywall, lath and plaster, kitchen countertops, and tile, just to name a few. Furthermore, the RotoZip can, more or less, function like a Dremel in some cases. As I mentioned before, though, you'll need to purchase a smaller chuck for your RotoZip to make it accept Dremel accessories.

Choose Wisely-By now, it

should be clear how different the Dremel and RotoZip tools really are. And you can probably see how a homeowner could make a strong case for adding either one or both of these tools to their stable.

But if you had to choose just one, which would it be?



The RZ10 features RotoZip's most powerful motor and variable-speed control—a powerful combination.

Well, to help answer that, take a look back at the *Chart* on page 55, the one with the RotoZip on one side and the Dremel on the other, with various tasks in between.

Focus on the tasks for just a moment. Consider each of them, and circle the ones you think you are likely to undertake in the next few months. That should help you to figure out your place in that scale.

Do most of the tasks you circled require a nimble tool with a huge range of speed adjustment and a virtually endless assortment of accessories? Then your tool is a Dremel.

Or perhaps you identified more jobs that require power, torque, and beefy accessories. In that case, you'd do well to consider a RotoZip.

A third option, and a very likely one, is that you fall somewhere in the middle. In that case, there might be room in your home and shop for both a Dremel and a RotoZip.

-Written by Bill Link



The plunge router base for the RotoZip delivers everything we'd expect from much costlier dedicated routers: good visibility, smooth plunge action, and excellent control.

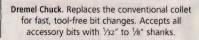






Dremel EZ Lock. An innovative mandrel makes accessory changes fast and tool-free. Works only with EZ Lock accessories.

Dremel Lawn Mower & Garden Tool Sharpener.Sharpens lawn mower blades and other tools such as shovels, shears, hoes, and axes.





Dremel and RotoZip Flex Shafts. Get pen-like precision from your RotoZip or Dremel by pairing it with a flexible shaft.

MUST-HAVE ROTARY ACCESSORIES

We've already listed some of the most unique accessories for both the Dremel and the RotoZip tools. Now here a few more of our favorite, if not necessarily everyday, accessories that add their own measure of versatility to their respective tools.



Dremel Tile-Cutting Kit. Cut and shape ceramic wall tile with this sturdy base and tile-cutting bit. The base has fine depth adjustment.



Dremel Grout Removal Attachment. Unique base holds the bit at the ideal cutting angle and helps keep the bit centered in the grout joint.



RotoZip Grout Removal Attachment. Has a removable base for getting into corners. Ideal for grout lines larger than 1/8".



Dremel Drywall Cutting Bit. A high-speed cutter that makes fast, clean cuts in drywall. Piloted tip to cut around outlet and switch boxes.



RotoZip Drywall XBit. Similar to the Dremel Drywall Bit, but coated and beefed up for heavier cutting.



RotoZip Circle Cutter. A unique trammel that lets you cut circles as small as 1" or as large as 20" using your RotoZip.



STORAGE on the SIDE

Storage isn't always about quantity; sometimes it's about convenience. And what's more convenient than having the items you need in the room where you need them?

ecently, it occurred to me that one of my biggest storage problems wasn't a matter of "how much," but rather, "how far"—as in, how far I have to travel from the dining room to get what I need.

After about a dozen trips between the dining room and the kitchen to gather all the trappings of a typical family dinner, I wondered why we don't just store those things in the dining room, where we use them. That's what traditional sideboards were all about. In fact, I can still picture the grand old sideboard in my grandmother's dining room.

What I couldn't picture, though, was such a traditional-looking piece of furniture crowding my contemporary dining room. I had just as much trouble seeing myself shelling out big bucks for something I could easily create myself.

Which isn't to say I wanted to start from scratch. Far from it. Rather, I started with an ordinary kitchen pantry cabinet, the kind you can get at any home center for under \$200 (*Photo, above*). Then, with a touch of paint, a couple pieces of acrylic, and some off-the-rack cabinet organizers, I turned the bland pantry into a more modern version of a sideboard (*Main Photo*).





The bold color makes this cabinet pretty, but the cabinet organizers give the sideboard its inner beauty. These items have become more readily available and affordable in the past couple of years. And as easy as they are to find and afford, they are just as easy to install. The organizers we used (detailed on page 62) are just a sampling of what's available.



STORAGE AND ORGANIZATION ACCESSORIES

1] SLIDING TRAY

Side- or floor-mount sliding tray on full-extension drawer quides.

ClosetMaid (#3160-31) Lowe's, \$40

2] STEMWARE HOLDER

Under-cabinet mount with three racks for hanging wine glasses and other stemware. Real Organized (#210024) Lowe's, \$10



3] WINE RACK

Cut these to fit with a hack saw or rotary tool, and mount them to the cabinet sides with included hardware Amazon.com, \$23

4) UNDER-SHELF BASKET

Slides directly onto ½"-thick shelf with no mounting hardware required. Open in front for easy access.

Real Organized (#278415) Lowe's, \$12



5] WOOD DRAWER

15"-wide, pull-out drawer on concealed guides.Comes fully assembled, installs easily with four screws. Rev-A-Shelf (#75053) Lowe's, \$55

6] DRAWER ORGANIZERS

Five beechwood boxes of various size to divide and organize the drawer.
Lipper (#228945)
Lowe's, \$22

7] FURNITURE LEGS

Sturdy, 2mm-thick plate steel. Formed and welded. Non-marring pad and 8mm of adjustment. Requires five #10 roundhead screws (not included). Adjustable Steel Leg (#00S81.50) Lee Valley, \$8 each

8] DOOR PULLS

Wavy-shaped 128mm satin nickel pulls. Belwith/Hickory Hardware (#224630) Lowe's, \$6 each



The first thing you need to do to make this cabinet look *more* like a piece of furniture is to make it look *less* like a cabinet. And that means cutting off the toekick. But that affects more than just the aesthetic of the cabinet—it affects the structure, too. Weakens it, in fact.

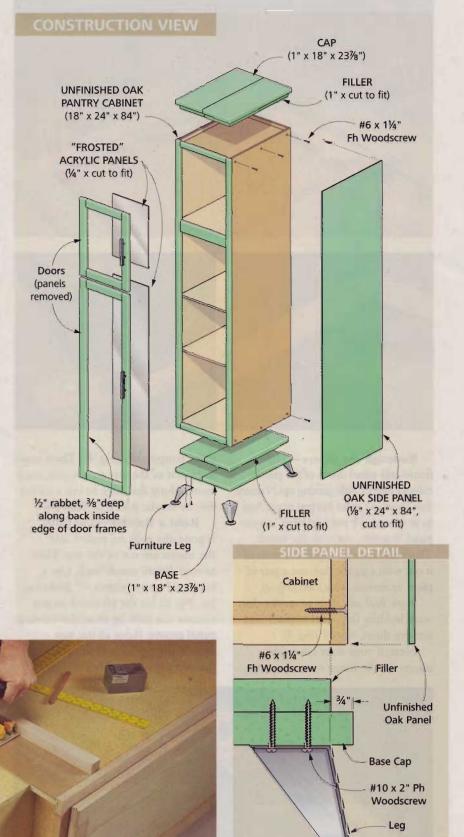
So before you start cutting, you need to drive a few screws through the cabinet sides and into the bottom shelf (Construction View). Lay out the location of the screws carefully. The shelf is only ½" thick, so there's not a lot of room for error here.

While you're at it, add some screws in the top shelf, as well. You're not cutting anything off here, but the cap that gets added later is quite heavy. A bit of bolstering in this area can't hurt.

Cut to the Kick—With the cabinet reinforced, you can cut the toekick free (Fig. 1). One cut across each side, then one more across the back, should do it. A shop-made cutting guide helps align the cuts around the cabinet.

Spray & Stick Panels—Now that the toekick is out of the way, you can cover up the exposed chipboard of the cabinet sides (and the heads of those reinforcing screws).

Pre-cut, unfinished panels for this very purpose are sold right alongside the cabinets. Apply the panels with aerosol contact cement (I used 3M Super 77). Spray the back of the panel and the side of the cabinet, and then use a J-roller to press the panel in place.







Redesign the Doors—The frame-and-panel doors of the pantry cabinet need a little jazzing up. Namely, that plywood panel has got to go. And in its place, we'll put a "frosted" acrylic panel. But first, out with the wood. That's easy enough—just cut most of it out with a jigsaw, then use a pair of pliers to remove what's left (Fig. 2).

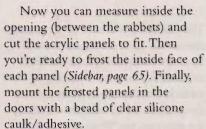
Now find any nails or staples that were holding the panel in place and remove those, as well (Fig. 3).

Next, if your door has nylon inserts for the hinge screws, remove



them temporarily (Fig. 4). These need to be out of the way so you can run a router along this edge to cut a rabbet for the acrylic panels to drop into.

Rout a Rabbet—The panel is gone, the nails are pulled, and the inserts are out of the way. Time to rout. Pretty simple stuff. Use a handheld router with a ½" rabbeting bit (Fig. 5). Set the bit depth to just remove the back lip from the existing panel groove. Rout all the way around the opening, then square up the corners with a chisel (Fig. 6).



Base/Cap Construction—You cut off a piece of the cabinet earlier to make it look less like a cabinet. But it still doesn't look much like furniture. These next pieces will help with that.

These are the cap and base. They're identical assemblies, the only difference being one goes at the top of the cabinet, and the other goes at the bottom. They're made from 1"-thick MDF, which you will not find in the sheet goods aisle. Instead, look for MDF stair treads. You'll need four of them.

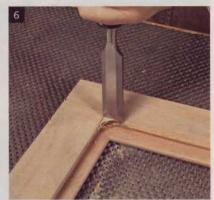
Start by ripping the bullnose edge off each tread (Fig. 7). Then crosscut each tread in half. The treads are 48" long, so that will leave you eight pieces that are just a hair under 24" long.

Now glue those pieces into four panels. Each will be approximately 23%" long by 22" wide (Fig. 8). Designate one panel as the cap, another as the base, and the remaining two as fillers.

After the glue dries, you can cut the panels to size. The fillers will need to fit inside the shallow openings on the top and bottom of the cabinet, so measure those and cut the panels accordingly.

Now cut the cap/base pieces to size. They are barely long enough to match the cabinet depth, so just





MORE THAN ONE WAY TO FROST A FINISH

The "frosted" panels that replaced the original wood panels in the cabinet actually started as clear acrylic. We created the frosted appearance by sanding one side (the inside) of the panels after cutting them to size. A random-orbit sander and some 60-grit sandpaper did the trick.

Likewise, we put more of a frosted, or matte, finish on the furniture

legs for this project, as well. We did that because we wanted the sheen on the legs to match the satin finish on the door pulls as closely as possible. This alteration came right out of a can—Krylon Matte Finish aerosol, available at hardware stores and home centers.





shave the front edge to true it up and leave the back edge alone. No one will see it anyway. Then cut the panels to the same width as the cabinet (measured from the outside edges of the face frame).

Cap/Base Sub-Assembly—The simplest way to attach all these panels to the cabinet is to attach them to each other first. Start by laying the cap panel face down on the bench. Then position the filler so it is set back from the front edge of the cap by ³/₄" and centered along the width. Trace the

perimeter of the filler onto the cap so you can easily reposition it.

Remove the filler just long enough to spread glue between the two pieces. Now replace the filler piece, and attach it with woodscrews.

When you've built your base sub-assembly in the same manner, you can then flip it over and lay out the locations of the furniture legs. These are inset from the edges of the base panel approximately 3/4", so the furthest point out on the legs aligns with the edge of the cabinet face



Lowe's

Cabinet, cabinet organizers, door pulls, acrylic, aerosol contact cement, stair treads 800.445.6937
Löwes.com

Amazon.com

Cabinet organizers 866.216.1072 Amazon.com

Benjamin Moore Paint

Brookdale Gardens (#599) 800.369.4257 BenjaminMoore.com

Lee Valley

Furniture legs 800.871.8158 LeeVallev.com

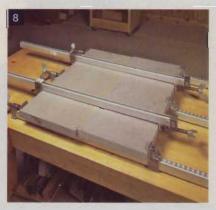
frame. Use a leg as a guide for a selfcentering bit, and drill pilot holes for the mounting screws.

Now you can mount the cap and base assemblies to the cabinet. Apply construction adhesive to the cabinet, and then set the assembly in place (Fig. 9). Run a couple of woodscrews into the assemblies from inside the cabinet, just to hold everything together temporarily. You can remove the woodscrews in about 24 hours when the adhesive has had plenty of time to set up.

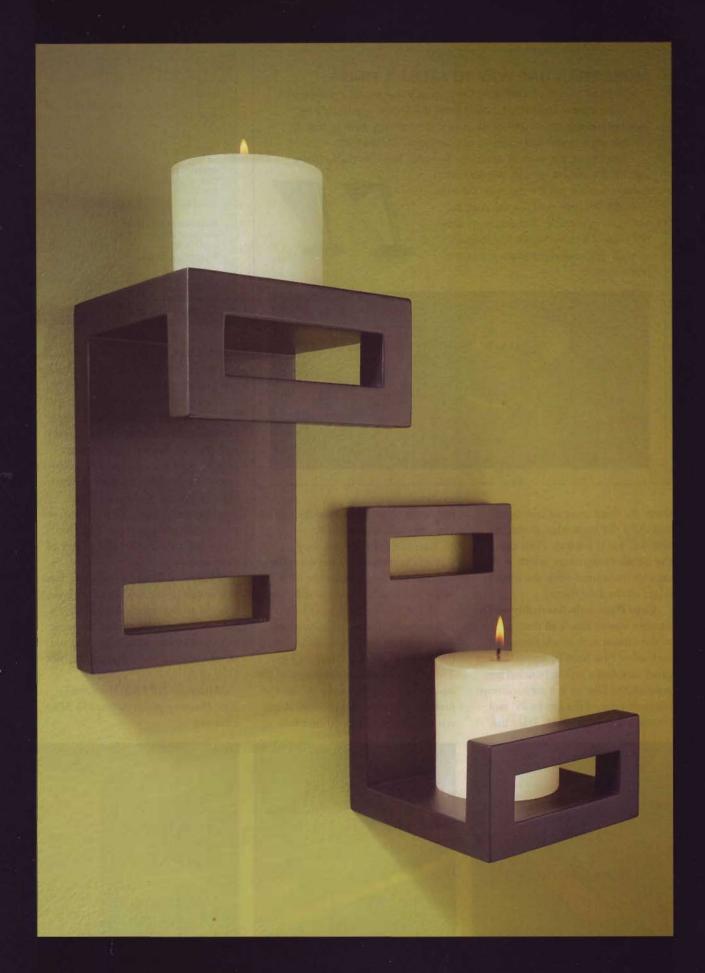
Finishing Touches—These final few details of the sideboard are where you get to flex your personal taste a bit—paint and door pulls. We went with a bold turquoise color and a set of whimsically wavy door pulls.

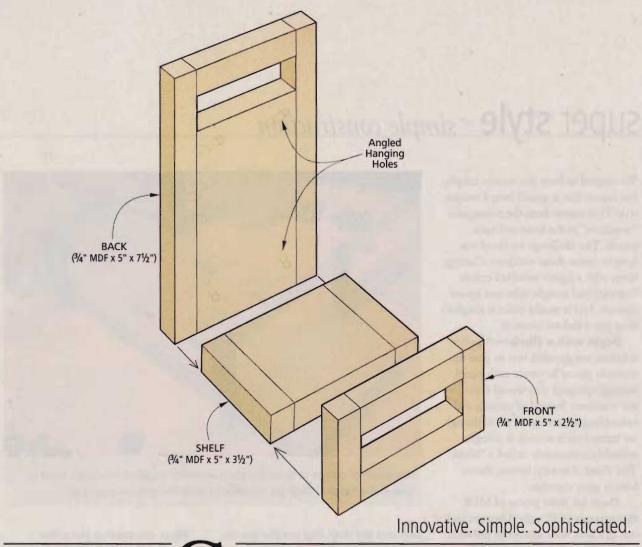
—Written by Bill Link, illustrated by Kim Downing, project designed by Mike Donovan











candle SCONCE

Crowned with a chunky candle, these handsome sconces add ambience and style to any room. And you'll find their unique construction makes them surprisingly simple to assemble. Whether you hang one solo, arrange two as a pair, or group several together, these sconces offer an attractive and economical alternative to their pricey commercial cousins.

Big changes often start with the smallest things. That's certainly the case with these candle sconces. Though small, their simple style can transform the look of an entire wall.

That helps explain why candle sconces have become so popular, but it doesn't justify why they are so expensive in home-decor catalogs. By building your own sconces, though, you can have an entire collection for less than you'd pay to purchase just one.

As you can clearly see in the *Photo* at left, our sconces offer just as much style as commercial versions, plus a feature they don't have. Ours can be mounted to the wall

in two ways—either with the candle sitting on top, or flipped over to surround the candle in a cozy cradle.

Despite that fancy feature, you can easily build several sconces in a weekend. All you need is a quarter-sheet of medium-density fiberboard (MDF), which sells for less than \$15. And that's enough material to build six sconces. Add a bit of glue, some primer, and paint, and you're set.

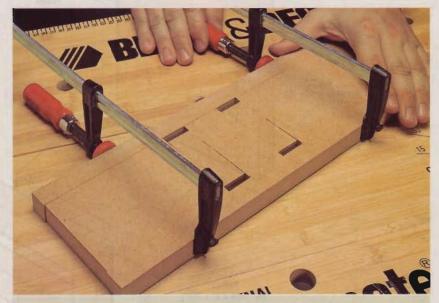
As far as tools go, you'll need a benchtop table saw, a few woodworking clamps, and some sandpaper. If you have a miter saw, it's handy, too, but not essential. And, of course, you'll need the instructions that start on the next page.

Super style - simple construction

We wanted to keep this sconce simple, but ensure that it would have a unique style. That comes from the rectangular "windows" in the front and back panels. The challenge we faced was how to create those windows. Cutting them with a jigsaw wouldn't ensure that they had straight sides and square corners. And it would make it tough to keep the windows identical.

Begin with a Blank—A better solution, we decided, was to glue up multiple pieces to create each panel, leaving openings that would form the windows. Instead of cutting and assembling a lot of small parts, though, we started each sconce as a larger assembly, commonly called a "blank." The Blank Assembly, below, shows how it goes together.

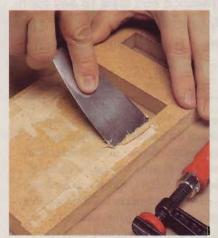
There are three pieces of MDF that measure 3½" wide. They get laid out in a line, with spacers in between to form the window openings. A pair of narrower strips then get glued on flanking those three wide pieces. Cutting the blank apart produces the sconce back and front, complete with windows, as well another section that



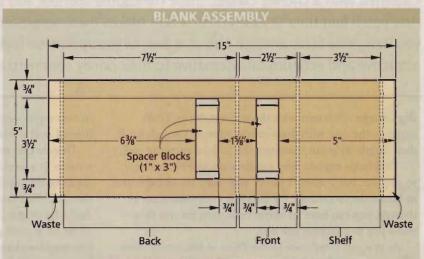
Use a pair of clamps to draw the blank assembly together. You don't want to glue in the spacers. They get removed to leave the window openings.

becomes the shelf. Pop out the spacers, and the sconce parts are complete.

Cut Parts to Size—To make the blank, cut two $\frac{3}{4}$ " × $\frac{3}{4}$ " × 24" strips from one end of your quartersheet of MDF. Then crosscut these strips so they're 15" long. Next, cut another piece that measures $\sqrt[3]{4}$ " × $2\sqrt[4]{2}$ " × 24". Now you'll need to crosscut this into three pieces that measure $1\sqrt[5]{8}$ ", 5", and $6\sqrt[3]{8}$ ". From the leftover waste, cut a pair of spacers. They should be 1" wide and about 3" long.



Press wood filler into any gaps along the glue line. Let the filler dry, and then sand the blank smooth.



NOTE: Dashed lines indicate 1/8" kerf removed by blade

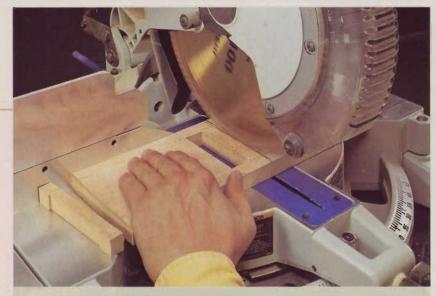
Do a Dry Run—Now lay out the pieces as shown in the *Blank* Assembly. But don't glue them up yet. Slip in the spacers, and make sure all the pieces fit together well.

Now you can glue up the blank. All you have to do is pull off the outer strips, one at a time, and spread glue along the edge that adjoins the three middle pieces. To make cleanup easier, don't get glue in the window areas.

Do the same with the other strip, and then clamp the blank together while the glue sets (*Top Photo, page 68*).

Lay Out the Cut Lines—After the glue sets, pop out the spacers, and then scrape away any glue that has squeezed out along the seams. Fill any gaps that are visible (*Photo, page 68*).

With that done, you can lay out the lines that show where to cut the blank apart. Start this process in between the windows. Just measure ³/₄" from each window and draw lines as shown. There will be a space in between those lines about ½"-wide. Conveniently enough, that's the width of most saw blades, so you'll remove this area when you cut the blank apart.



Cut the blank apart, making sure to align the saw blade in the "waste" area between layout lines. A miter saw easily makes these cuts straight and square.

Now, working toward the shorter end of the blank, measure over ³/₄" from the other side of the window. You'll now have the sconce front laid out.

Then you can lay out the sconce shelf on the short end of the blank, and the sconce back on the long end of the blank. Don't forget the '%" gaps to allow for the saw blade.

Cut, Assemble, & Paint—Now you're ready to cut the blank apart along the lines you laid out. You can do this with the table saw and miter gauge or with a miter saw (*Photo, above*).

Now glue and clamp these three parts together to complete the sconce.

Then give everything a final sanding before painting (*Photo, below left*).

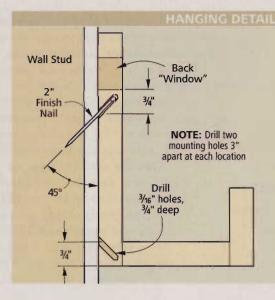
To ensure a smooth paint job, start by spraying on a coat of primer. When the primer dries, sand it lightly with 180-grit sandpaper, wipe away the dust, and then spray on the color of your choice. We used "Semi-Flat Black" from Krylon.

After that, mount your sconce as shown below, add a candle, and then sit and enjoy its warm glow.

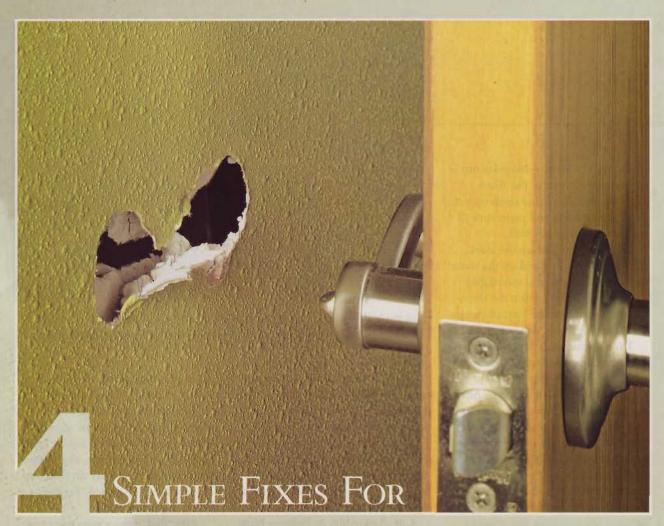
—Written by Louise Ritchhart, illustrated by Kurt Schultz, project designed by James R. Downing



After final assembly, you'll want to repeat the filling and sanding process to create a smooth surface.



Mounting the sconces with hangers would make it tough to keep the candle level. So we drilled pairs of angled holes in the sconce back, as shown at left and in the Construction View on page 66. Drill two sets in case you decide to flip the sconce. Then just mark a level line on the wall, drive nails in at an angle, and slip the sconce on.



FLAWED WALLS

Are your walls
looking a little
worse for wear? No
worries—whether
they're showing off a
hideous hole, a nasty
nailhead, or a crunched
corner, it only takes a few
simple tools and tips to patch
up your walls and restore them
to their previous perfection.

It's happened to almost all of us at one time or another: You get in a hurry, you push the door open a little too quickly and—CRUNCH!—a scene like the one above awaits you on the other side of the door.

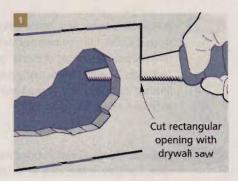
In the past, a call to the local handyman might have been in order to patch up such a nasty hole. But we're here to tell you that this is one job any homeowner can handle. When it comes to small holes, you can pick up a ready-made kit at the home center for taking care of it. Even a large hole like the one shown above can be fixed with just a few simple techniques and an afternoon of free time.

Over the next few pages, we'll show you how to fix these holes, plus even more challenging wall worries such as canyon-like cracks and crunched-up corners. Today's DIY-friendly products—from lightweight spackle to spray-on wall texture—make fixing almost any wall a simple task. In most cases, it takes just a little spackle or joint compound, a tool or two, and a bit of elbow grease. And once you're done, you'll be hard-pressed to even see where the flaw was in the first place.



FLAW

A Humongous Hole: A door opened with too much vigor; a rambunctious child; a frustrated teenager—there are a lot of ways your home's walls can end up with holes in them. But with today's tools and materials, fixing them is easier than ever. In fact, if it's just a small hole (3" in diameter or less), there's an all-in-one kit that can make it disappear easily (Sidebar, below). Here, we'll focus on fixing a larger hole, where you'll want to use drywall itself to create the patch.



FIX

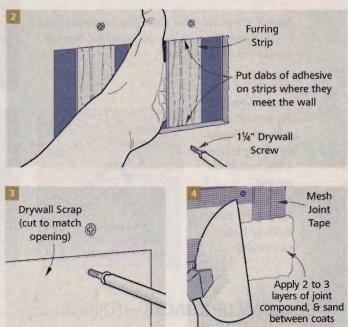
Patch It Up: This technique involves cutting out the damaged part of the wall, making a patch, and then blending it in.

Step 1: Enlarge the opening to make it rectangular with a drywall saw or rotary tool (see page 54). Measure the opening, and cut a scrap of drywall to fit in it.

Step 2: Now you need to create a surface for mounting the drywall in the opening. To do this, glue and screw "furring strips" near either side of the opening.

Step 3: When the adhesive dries, position the drywall in the opening, and screw it in place.

Step 4: Apply joint tape and then joint compound over the patch to finish it.



FOR SMALLER REPAIRS, TRY AN ALL-IN-ONE KIT



For holes in drywall that are smaller than 3" in diameter, you can probably get by with a peel-and-stick repair patch. It's nothing more than an aluminum screen covered by fiberglass mesh that sticks to the wall and gets covered with joint compound or spackle (Photo, right). Elmer's has made repairs even easier by packaging the patch with spackle, a sanding block, cleaning wipes, and a plastic putty knife in a kit (left).



To fix a small hole, just peel and stick the repair patch over it. Then apply several layers of spackle or joint compound, sanding it smooth after each coat.



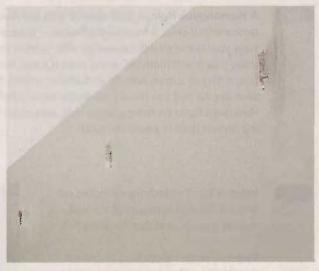
- FLAW A Nail Nuisance: As a home settles, the wood studs it's built from sometimes shift around. One unfortunate result of this is "popped nailheads"—nails that actually push through the finished surface of the drywall and form bulges, as shown in the *Photo* at right.
- Smooth Things Over: Popped nailheads are common, but they're also easy to fix. Here's how:

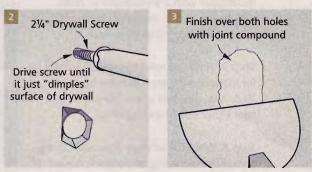
Step 1: Carve away the dried joint compound over the nailhead. Then set the nail, so it rests beneath the surface of the drywall.



Step 3: Fill both holes with joint compound.



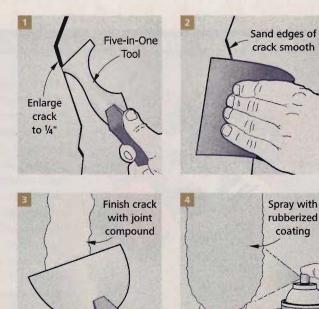




3)-

CLEAN UP CRACKS—FOREVER!

- Recurring Cracks: Many homeowners have fixed a wall crack, only to have it return again a few months or years later. Often, this is because the crack wasn't prepared properly to be patched in the first place. But don't worry—a few extra steps in the patching process will ensure that a patched crack stays patched.
- Make It Bigger: It may sound counterintuitive, but the secret is to first make the crack bigger before you fix it. Here's how:
 - **Step 1:** Make the crack ½" wide using the point of a five-in-one tool.
 - Step 2: Sand the surface smooth.
 - Step 3: Fill it with spackle or joint compound.
 - **Step 4:** Spray it with a rubberized coating, such as Good-bye Cracks, that will keep it from coming back.





CONQUER CRUNCHED CORNERS



Major Corner Damage: On outside corners, drywall is finished with a "corner bead," a piece of metal angle that gets screwed or nailed in place. A corner bead not only gives the corner a clean, finished look, but it also protects it from damage. Though it's made from heavy-duty metal, a corner bead can still get damaged if you slam into it hard enough, and the results are not pretty (right).



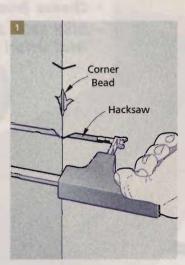
Replace the Bead: The key to this fix is to replace the damaged corner bead:

Step 1: Cut carefully around the damaged part of the corner bead with a hacksaw.

Step 2: Score the outside edge of the corner bead with a utility knife.

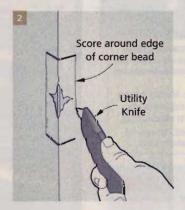
Step 3: Remove the damaged piece. Then cut a new piece to fit, and screw it in place.

Step 4: Finish the repair with several coats of drywall joint compound, sanding each coat after it dries and feathering it out as you go.

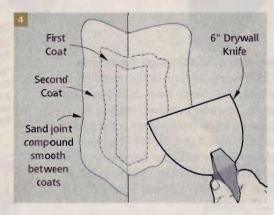




Severe corner damage like this requires a new piece of corner bead. That means you'll need to cut out the existing piece with a hacksaw (left).







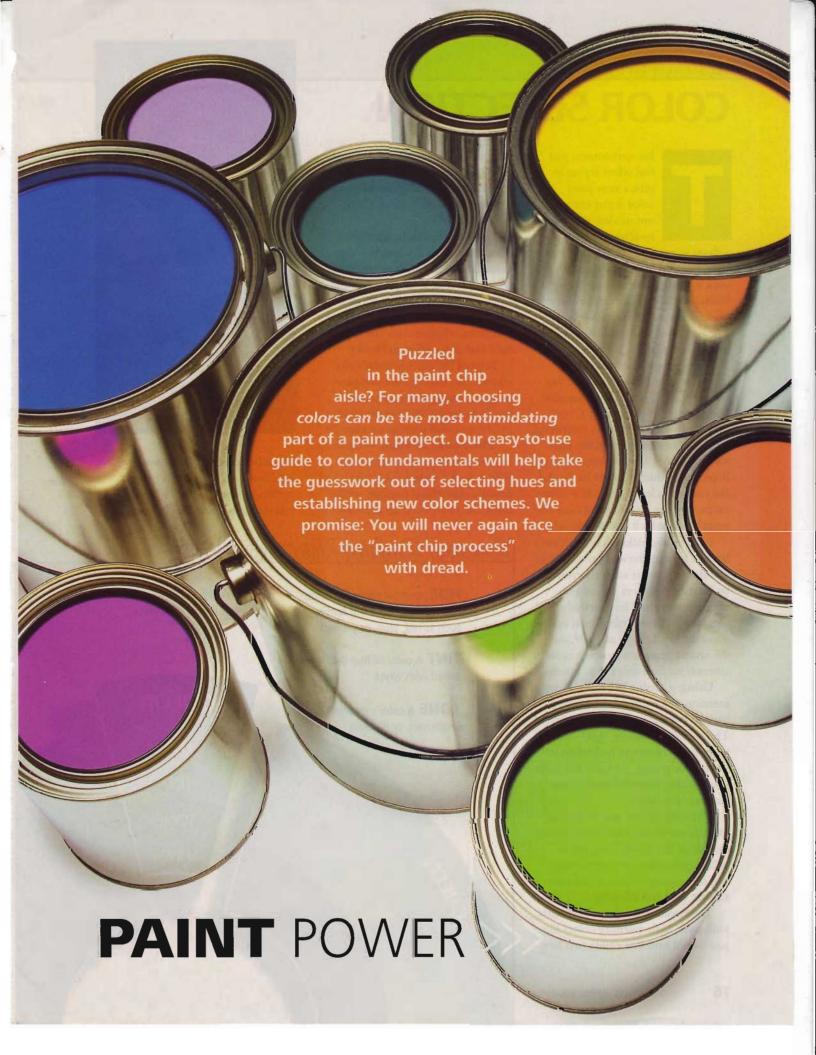
SIMPLE TEXTURE FIX FROM A CAN

Most homes have textured walls, which means you'll still be able to see a smooth patch even after you repair the wall.

thankfully, filling in that smooth spot to match the texture of the wall is easy. You can find cans of spray texture a most home centers and hardware stores. The newest cans even have an adjustable nozzle for creating different texture effects (Photos.

right). Before you spray your wall, though, you may want to practice on a scrap of drywall or cardboard first. This will help you get the hang of using the can, as well as come up with a spray pattern that matches your wall well.





COLOR SELECTION

hat nervousness you feel when trying to pick a new paint color is not entirely unfounded. You want to achieve a look that reflects your personal style, sets the right mood, and looks great with your existing furniture and decor. Because, while painting is a relatively cheap and easy home improvement, you sure don't want to have to do the job all over again.

Many people start their quest by pulling paint chips from the vast selection on display at their favorite home center or paint store. Once they find a chip that looks promising, they have to choose from the lightto-dark shades. It's a process based on hope. Sometimes they get lucky, and the end result looks great. But sometimes, they are disappointed once the paint dries and left wondering why.

Fortunately, picking colors doesn't have to be a mysterious process. Ever wonder why color schemes created by interior designers always grab your attention and feel perfectly "put together"? These professionals understand the psychology of color, and the artistic reasons why some color schemes succeed more than others.

Using a Color Wheel—If the mention of a color wheel takes you back to boring art class lectures, relax. This useful tool (above, right) illustrates how colors can be broken into three basic groups (far right) and helps you visualize how different "color families" interact.

The color wheel also helps you identify warm and cool hues. Colors on half of the wheel, from red to yellow-green, are considered warm and stimulating; colors on the other half are cool and relaxing.

The traditional color wheel starts with pure, high-intensity colors like you would find in a child's first box of crayons. But its lessons also apply to the lighter tints and darker shades you might be more likely to choose for your home (see "Know Color Vocabulary" below).

Once you know how different hues relate to each other, you can make informed decisions regarding your color makeover. A well-balanced color scheme can make a room more livable and establish the atmosphere you want, whether dark and moody, light and airy, or fun and funky.

Four of the most popular color schemes for interiors are complementary, analogous, triadic, and monochromatic. We'll cover all four in greater detail starting on page 78.

The Power of Paint—Color has the power to evoke emotions. Red is such a strong color that it can actually raise blood pressure, while black can evoke feelings of dread

Color Wheel 101
What is it?

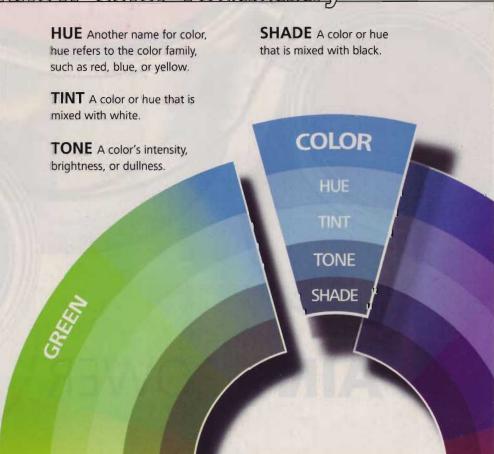
cooler
warmer

warmer

The color wheel is a useful tool for visualizing how different hues will work together before you paint them on your walls. You can pick up a color wheel at any art store for a few dollars.

and submissiveness. Sometimes we intuitively choose certain colors for certain rooms. Blue has a "clean" connotation that makes it a natural

Know Color Vocabulary



choice for baths and laundry rooms. Orange shades feel cheerful and welcoming, making them favorites in kitchens and breakfast nooks. Earthy browns are popular in family rooms because they impart a sense of security and comfort.

People tend to either love bold colors, like primary red and yellow, or strongly dislike them. It's something to consider when choosing colors for common spaces like living rooms. If you're a fan of intense hues, you may decide to use them in more private areas like home offices.

Dark or Light?—Paint is available in a wide range of tints and shades, so which end of the paint chip you land on makes a big difference in the finished job's impact. Consider how deep purple feels opulent, while its lighter cousin lavender is a favorite of young girls. Yellow can be too vivid, but its pale tint can be soft and creamy.

Everyone has heard, "If you paint a room white, it will look bigger."

And there's some truth to that adage because light colors tend to make walls recede, while dark colors seem to draw walls toward you. That's why bold or dark colors often work best on woodwork or smaller accent walls.

Also, lighter tints generally tend to be easier to live with over the long term. That said, a deep tone might be exactly right for the specific effect you are trying to achieve.

Warm or Cool?—One of your first decisions involves the "temperature" of the room you want to paint. Red, yellow, and orange, the colors of the sun, might not make sense for sunrooms that can get 100 toasty Warm colors also feel intimate and seem to advance toward you, so they can make large rooms seem coziel and small rooms appear smaller.

Blue, green, and purple are known as cool colors thanks to their fresh feel and association with nature's oceans, fields, and mountains. These serene hues appear to recede so they

can make a small room seem larger. Keep in mind that cool colors also tend to make a space feel colder.

Remember, too, that colors can link spaces or separate them. If you can see one room from another, the color relationship between the two spaces should be pleasing, not jarring. This is especially true in homes with open floor plans.

Assess Your Environment—It's also important to take into account all the fixed colors in your home, like a brick hearth, natural woodwork, or cabinets. Your color choices need to fit into the big picture, much of which is predetermined.

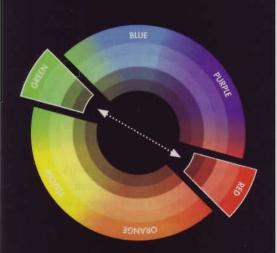
Lastly, consider if you're going to stay in your house for several years, or plan to sell in the near future. For most of us, however, there's no need to play it safe and just reach for "builders' beige" at the paint store. Start exploring the possibilities. It's easier than you think to pick perfect color combinations for your home.







COLOR THEORY – BEYOND THE BASICS

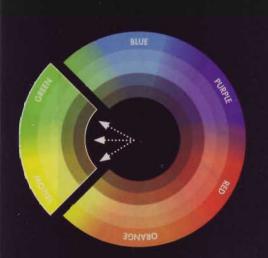


COMPLEMENTARY

Two colors lying directly opposite each other on the color wheel make up this scheme. These hues, like red and green, blue and orange, and purple and yellow, are said to complement each other.



When it comes to complementary color schemes, opposites really do attract. These seemingly contradictory colors, shown in a brick red and avocado green dining room, often bring out the best in each other.

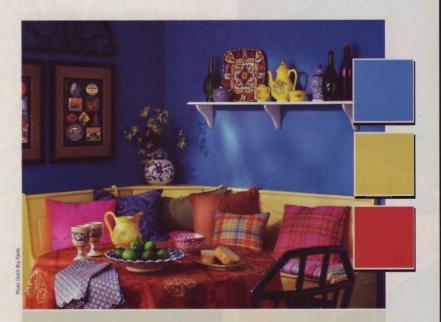


ANALOGOUS

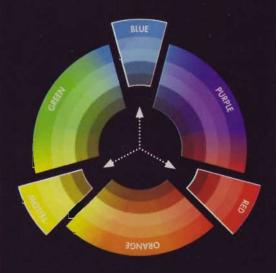
Three colors located next to each other on the color wheel make up this scheme. An analogous plan might be done in green, yellow-green, and yellow, or bluegreen, blue, and blue-purple.



Analogous schemes are easy on the eyes because colors that are adjacent on the color wheel share a common hue. These schemes can be warm or cool, and colors may have similar or different intensities.



A triadic scheme can provide a lively twist to a rudimentary redyellow-blue combination. Use colors in varied proportions for best results. Note how yellow is used sparingly against the blue walls.

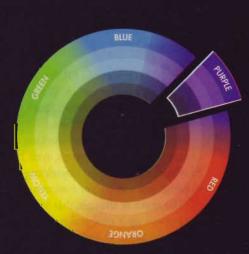


TRIADIC

Three colors spaced equally in distance from each other on the color wheel comprise the triadic scheme. Red, blue, and yellow form a triad; orange, green, and purple do, as well.

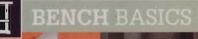


A monochromatic scheme can be sophisticated and interesting but needs to include rich textures to be successful. Note how the textures of the settee, area rug, and pillows help pull off this scheme.



MONOGHROMATIC

One color is used in many different values and intensities in this scheme. Think of a contemporary room done in various shades of black, gray, and white.





A jigsaw and metal-cutting blade make fast work of steel (*left*). A hacksaw is slower but cuts cleanly, as well (*below*).



MAKING LIGHT WORK OF

Heavy Metal

Expand your project potential by learning how to work with steel stock. Basic tools and skills are all you need.

xperienced DIYers seldom flinch at the prospect of working with most materials. Wood products: No problem. Tile or stone: Piece of cake. Concrete: That's easy. Even copper, aluminum, and sheet metal are often seen as slam dunks.

But when it comes to working with the thicker steel stock sold in home centers and hardware stores, even hardcore DIYers often get intimidated. Maybe steel seems too unyielding, or the thought of flying sparks and sharp shavings gives cause for concern.

The truth is, though, that working with steel is surprisingly easy. And using steel opens up a new realm of possibilities for your projects. In the front entry facelift on page 40, for example, we mounted wood benches to stone pedestals and a brick house. That sounds challenging, but using flat steel stock and steel angle made it easy. We also made steel spacers that fit between the bench planks. And we even threaded holes in a couple of the plates, so we could bolt on the square tubes that sit below the bench.

You probably think work like this requires heavy, specialized equipment. After all, the steel we used measures about 1/8" thick. But we cut and shaped all these pieces using nothing more than a jigsaw, a hacksaw, and a file. A cordless drill handled the hole-making duties. The one specialized tool—the tap that cuts threads in the drilled holes—is inexpensive and available in any hardware store.

MAKE THE CUT

In order to make parts from steel, the first thing you'll probably need to do is cut your workpieces to size.

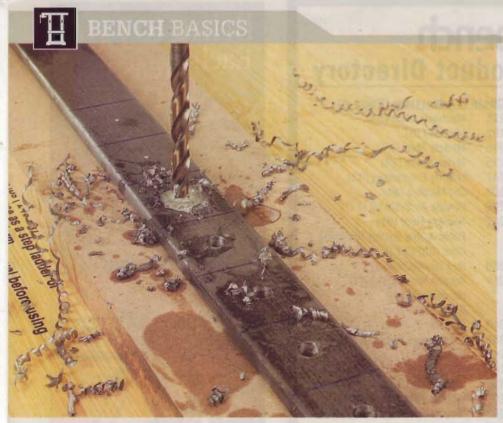
Jigsaw Strategies—Even a modest jigsaw can make quick work of steel (*Photo, top left*). To get the best results, you just need to do a few things.

For starters, use a blade designed for cutting steel. With a less-powerful saw, choose a "fine-cut" blade. The small teeth don't require as much power. If the saw has an orbital-cutting mode, turn it off. And set the motor speed (if it's adjustable) at 50 to 75 percent.

Most importantly, don't force the saw. Pushing too hard bogs down the saw and builds blade-dulling heat fast.

Help from Hacksaws—If you have just a few pieces to cut, a hacksaw works fine. To keep the saw on track with your layout line, secure the workpiece using a vise or clamps, and use a piece of scrap wood to help guide the saw (Photo, above).

Play It Smooth—Whichever type of saw you use, the cut edges may have a few burrs. Several strokes with a file is all it takes to smooth things out.



A BIT ABOUT DRILLING

When the time comes to drill holes in steel, people encounter two main problems: The bit tends to "wander" off the intended mark, and it dulls quickly. Luckily, there are easy cures for both of these problems.

Make Your Point—To prevent the drill bit from wandering, use a center punch to create a dimple where you want the hole. Rest the tip of the bit in this dimple, and it will stay in place as you start drilling the hole.

Beat the Heat—When drilling, speed, pressure, and heat are the enemies. They combine to heat up and dull a bit quickly. You'll find lots of expensive bits with coatings that claim to combat heat. If you'll be working with steel often, go ahead and make the investment. But for occasional steel work, decent quality twist bits work just fine.

Start by setting your drill in the "low" speed range—the one normally used for driving screws. Do this, and you'll find long spirals rising from the hole, as shown in the top *Photo*, instead of little shavings.

As you drill, don't push too hard, either, You'll have to apply some



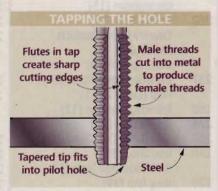
pressure to keep the bit biting into the steel, but you shouldn't bear down with all your weight on the drill.

The above techniques will help reduce heat buildup. To dissipate what remains, be sure to lubricate the bit. "Cutting oil" is designed for this purpose. If you can't find that, even motor oil will work in a pinch.

TAP STEEL'S POTENTIAL

Once you've learned to accurately drill steel, you can go one step further and cut threads into those holes. That allows you to make mounting plates A few simple techiques make it easy

A few simple techiques make it easy to drill multiple holes through steel accurately and without dulling the bit.





(see page 43) or even custom-sized nuts that will accept bolts.

This process is known as "tapping." Taps are sized to match the threads on corresponding bolts. So if you're using a 1/4"-20 bolt (1/4" diameter, 20 threads per inch), you also need a 1/4"-20 tap.

To create threaded holes, start by drilling a hole that's 1/32" to 1/16" smaller than the diameter of the bolt you'll use. Then clean up any burrs.

Next, mount the appropriate tap in a handle, lubricate the hole, and slowly turn the tap by hand into the hole (*Photo, left, and Tapping the Hole*).

About every half-turn, rotate the tap backward a quarter-turn to clean out the shavings the tap makes (Cleaning the Threads). Once you've tapped all the way through, turn the tap several more revolutions to clean up the new threads.



Tool Report

Handheld home improvement math, the ultimate paint spatula, and a couple of professional tools at consumer prices.

MEASURE TWICE, CALCULATE ONCE—How much material do we need? And how much will it cost? Answering those questions accurately is an important first step in planning most home improvement projects.

Fortunately, there's now an affordable, easy-to-use calculator that takes the guess-work and long math out of your project planning. The **Home ProjectCalc** (1) from Calculated Industries lets you enter dimensions just like you say them. There's no need to convert fractions to decimals. Then, after you've calculated the size of a project, you simply tell the ProjectCalc which common material you're working with (paint, wallpaper, tile, carpet, or concrete), and it tells you how much material to buy. Multiply that quantity by the material cost, and you'll know if it fits in the budget. The Home ProjectCalc sells for under \$20.

EXTREME PAINT SPATULA—Peanut butter and paint—try getting the last little bit of either one out of the container. It still can't be done with peanut butter, but for paint there's the **PaintMiser 10-in-1 (2)** from Hyde Tools. This high-tech spatula scrapes the inside of the can, scoops paint from inside the rim, and even cleans drips from the outside of the can. All told, it can capture up to 7% more paint than the standard dump-and-drip method.

The PaintMiser also functions as a can opener, paint mixer, and roller cleaner. And don't let the modest appearance fool you. It's a surprisingly hefty tool with a metal core covered by a flexible rubber shell. Expect to pay about \$5 for a PaintMiser.

DEWALT DOWNSIZED DRILL—I'll admit, when I see "big yellow," I tend to think "big green." In other words, DeWalt tools are sometimes more than my budget will support or my project calls for. But a new line of 3/8" corded drills from DeWalt (including the **DWD110K** (3) shown here) puts DeWalt performance and durability in a size and price range that's ideal for most DIYers.

For between \$60 and \$70, you can choose from features like pistol-grip or mid-handle design, a 7- or 8-amp motor, and two different chuck styles.

This size of drill offers all the power most homeowners will need for even their largest projects at a significant savings over cordless or even larger corded drills.

GUIDING LIGHT—Next time you need to light up the dark side of the moon, or a garage that doesn't have electricity, reach for the Million Candle Power Spotlight (4) from GreatNeck Tools. Really—one million candle power. That's roughly enough to signal deep space, stop deer dead in their tracks, or effectively illuminate a good-sized backyard, basement, or pet cemetery.

This potent flashlight features a high-intensity halogen light bulb, an integral battery that provides 30 minutes of continuous run time (after 12 hours of continuous charging), a carrying strap, and a 120-volt adapter. Expect to pay about \$36 to light up your world.





THE LATEST LASER—The accuracy of a laser and the convenience of vacuum-mounting—that's what Ryobi offers in their new ProCross Self-Leveling Laser with AIRgrip (5).

The ProCross sells for about \$70 and provides a simple solution for hanging pictures, applying decorative molding, installing tile, or just about any other home improvement project that requires a straight line.

The patented AIR grip feature lets you attach the laser to most walls without using tape or pins. A rough-surface adapter (much improved over earlier versions) increases the vacuum mount's ability to grab onto textured walls. For exceedingly rough surfaces, the ProCross also comes with an auxiliary base and mounting pins. You can even mount it on a tripod or strap it to a 2x4. Once mounted, the laser head can rotate 360 degrees and adjust 1" vertically. Then select between a horizontal, vertical, or crosshair laser for best alignment.

LESS IS MORE—Bosch has never been in the business of making "bargain-priced" tools. But their latest offering, the JS5 Orbital Jigsaw (6), looks like one heck of a good deal. Priced about \$30 less than their most affordable model to date, this saw has all the features of pricier saws, plus a larger motor.

The 5.7-amp motor drives the saw as fast as 3,100 strokes per minute (SPM), or as slow as 500 SPM, thanks to the wide-ranging variable-speed control. The JS5 also has tool-free blade-changing, an adjustable dust blower for keeping the cut line clear and visible, and four orbital cutting settings.

Weighing in at exactly five pounds, the saw even weighs less than its predecessors. Expect to pay about \$100 for this model. The saw comes with one blade, an anti-splintering insert, and a carrying bag.

ONE PURPOSE, MANY POSITIONS—Black & Decker's new Rota-Driver (7) solves one problem: driving screws. But it's hardly a one-trick pony. The four-position rotating drive lets you use this little driver to sink or remove screws other power tools couldn't possibly reach. The drive section of the tool is actually split into two parts:

FOR MORE INFO:

Calculated Industries

Calculated.com 800.854.8075

Hyde Tools

Hyde Tools.com 800.872,4933

DeWalt

Devvalt.com 800.433.9258

Great/Neck Tools

GreatNeckSaw.com .800.457.0600

Ryobi

RyobiTools.com 800.525.2579

Bosch Power Tools BoschTools.com 877.267.2499

Black & Decker BlackAndDecker.com

\$300.544.6986 Stanley Tools 'StanleyTools.com 860.225.5111 The large silver gearhouse rotates and locks into three positions, and the smaller black chuck section rotates and locks into two positions. So there's quite a bit of flexibility in this palm-sized driver. There's also a built-in LED light for illuminating those tight spaces.

A built-in 4.8-volt NiCad battery provides power, and the motor turns out 38 in.-lbs. of torque. The Rota-Driver sells for about \$30 and comes with two driver bits and a charger.

LIGHT-TOUCH, LIGHT-DUTY—Somewhere between thumbtacks and woodscrews, there are countless home repairs and craft projects. Things like upholstering furniture, hanging holiday lights, and tacking up decorations. That's when the Stanley Light-Duty Tacker (8) will come in handy.

It requires 30% less force to operate than comparable models, so even small hands can easily operate it. And it makes taking staples out just as easy as putting them in with its onboard staple remover. Loading is a breeze, too, thanks to a large reload window.

The Light Duty Tacker sells at hardware stores and home centers for about \$9.







A telescoping shaft and an adjustable auxiliary handle allow you to customize the fit of this edger/trimmer.

GAS-LESS, CORDLESS

Edging & Trimming

Give up the expense of gas and oil or the inconvenience of an extension cord. Black & Decker's new 36-volt cordless trimmer is a cut above.

Serious yard work usually calls for gas-powered tools. Electric tools offer a slightly "greener" option at the expense of power and convenience. But now there's a third viable option for edging and trimming your lawn: The Black & Decker 36-volt String Trimmer.

It has power and portability that rivals gas-powered models, but without the mess, expense, or emissions. And it's as eco-friendly as electric models without the cumbersome extension cord. The trimmer teams a 36-volt NiCad battery with a newly designed motor. Together, they deliver a 51-square-feet-per-minute cut rate in 14-inch swaths, which exceeds many popular gas-powered models. A telescoping shaft, bump-feed string head, variable-speed trigger, and adjustable auxiliary handle add comfort and usability to the tool.

Expect to pay about \$250 for this cordless trimmer. Call 800-544-6986 or log onto <u>BlackAndDecker.com</u> to learn more.



Greener than gas, more convenient than a cord, this string trimmer is powered by a single 36-volt NiCad battery pack.



THE WHITE STUFF!

Gorilla Glue



Don't judge a book by its cover or a glue by its color. Turns out the long-held belief that yellow wood glue is somehow superior to white glue is a myth. And glue companies have perpetuated that myth by adding yellow dye to white glues.

Gorilla Glue evidently has no stake in glue mythology and are thus touting their new, white wood glue for its woodworking qualities. Among those are a 30-minute clamp time, 24-hour cure time, water-resistance, as well as easy sanding and paintability.

The glue is available in 8- and 18-ounce bottles for approximately \$4 and \$6, respectively. Visit <u>GorillaGlue.com</u> or call 800-966-3458 for more information.



VIGORO OFFERS AFFORDABLE

Automatic Watering

Watering your lawn with a garden hose and sprinkler used to be a "manual on/manual off" proposition. But with Vigoro's new complete line of automated watering products, you can now have automatic, programmable control that rivals in-ground irrigation systems.

Choose from an Electronic Aqua Timer (\$27), right, that allows you to program six different watering cycles using an easy-to-read digital display, or a Two-Zone Timer (\$40), below, that lets you program different cycles for different areas of your property. There's even a Rain Monitor (\$15), below right, that works with electronic timers to prevent unneces-



sary watering following a rain. Additional controls, as well as hoses and decorative sprinklers, are also part of the line.

Vigoro products are available nationwide at Home Depot and online at <u>HomeDepot.com</u>. For more information about the full line of Vigoro lawn care products, visit <u>Vigoro.com</u>.





Vigoro's line of automated watering products turns an ordinary garden hose and sprinkler into a sophisticated irrigation system.

Broan Range Hood

The newest addition to the Best by Broan line of kitchen ventilators is the stainless-steel UP27, below. This unit delivers professional ventilation performance in a compact size that's perfect for most home kitchens.

Choose from blower sizes that range between 700 to 1,500 CFM and hood sizes between 30" and 48" wide. All models are 20" deep. Internal and external exhaust models are also available. Expect to pay between \$1,700 and \$2,700 depending on the size and model. Call 800-558-1711 or log onto BestByBroan.com for more information.





GRAB BAG (AND TARP)

Big plastic bags and vinyl tarps have something in common—they're hard to handle. But Grabbit Tool Company has a solution for both problems.

For bags, they offer the Bag Grabbit, which is a plastic handle with an interlocking clip that pinches the bag for a secure connection.

The EZ Grabbit Tarp Holder employs the same principle, but with a length of cord rather than a handle. This lets you attach tiedowns to a tarp wherever you need them.

One Bag Grabbit sells for under \$6, and a four-pack of EZ Grabbits goes for about \$7. Visit GrabbitTool.com or call 303-960-8140 for more information.



MORE THAN A JEWELRY BOX, LESS THAN A WALL SAFE: **NuTone** Security Cabinets

Most of us probably don't feel the need to have a full-fledged wall safe in our homes. And yet it would still be nice to keep valuable jewelry, documents, and other sensitive items out of plain sight. Which is precisely what NuTone's new line of recessed security cabinets are meant to provide.

The cabinets are easy to install inside standard stud openings and can easily be mounted in closets or other out-of-the-way areas. They can also be painted or wallpapered over to conceal them even further.

Two sizes and styles of cabinets are available. All models feature steel, rustresistant bodies, a reversible left- or right-hand door, adjustable shelves, and a keyed security lock. Deluxe



models also include a jewelry rack, padded jewelry compartment, and document holder.

Models range from \$115 to \$180. Visit NuTone.com or call 888-336-3948 for additional information.



SEAL, SHOWER, 2 HOURS

New Speed Seal Kitchen and Bath Sealant from Polyseamseal can 24 hours, as with other tub and tile sealants. The 100-percent silicone caulk creates a watertight, flexible seal. It comes in white or clear and is available at Lowe's for about \$8 for a 10-ounce tube. Call 800-999-8920 or visit Polyseamseal.com for more.



GIVE YOUR CONCRETE COATING SOME TEETH WITH Lock-Down from Seal Krete

Paint and other decorative coatings are popular for dressing up drab concrete. But they can also become big maintenance headaches if the concrete underneath isn't properly prepped to accept the coating. One easy insurance step you can take is to prime the concrete with Seal Krete's new Lock-Down Epoxy-Binding Primer.

The primer uses ultra-fine particles to penetrate the concrete surface and create a solid bond. That, in turn, provides a sound substrate for water-based paints, stains, or other coatings. Expect to pay about \$22 per gallon of Lock-Down. Learn more at Seal-Krete.com or by calling 800-323-7357.



WOOD MOISTURE METER

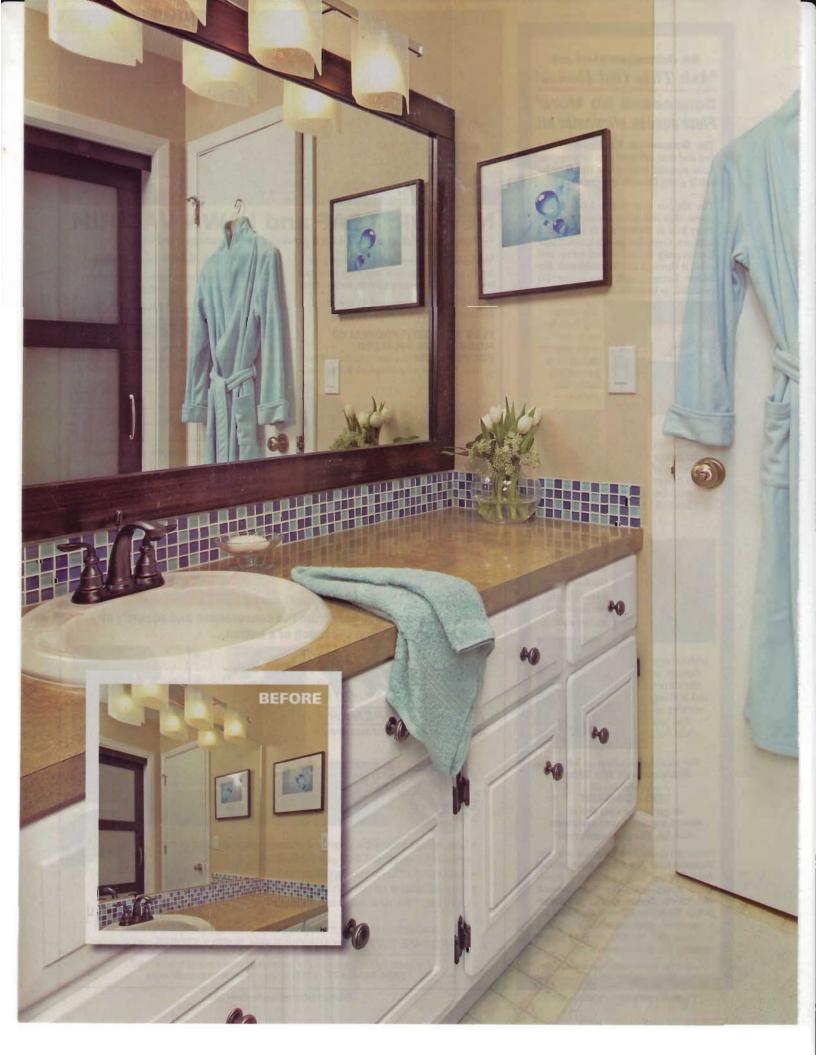
Find out the easy way when a kiln charge is ready to unload. Linomats probe and cable system is proven to be accurate. reliable and inexpensive



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UPDATING THE LOOKING GLASS

Applied Mirror Frame

A "Plain-Jane" mirror dominates the decor in so many baths that it's easy to overlook, but you can transform it from afterthought to eye-catching accent in just a few steps.

hen it comes to instant makeovers, it's hard to get a quicker or more dramatic result than with this project. We created a simple but striking mirror frame out of ½" x ½" poplar that was applied to a slab bathroom mirror with two-sided automotive tape. A miter-less construction method also helped the frame make a significant design impact with a very small investment of time and money.

Our homeowner had already made a number of stylish updates to this bath, and many would have said his work was done. But after so many improvements, that large, boring slab of mirror just seemed out of place (see Before photo on page 94). There was no need to replace the entire mirror since it was in perfect condition. It just needed a cosmetic facelift.

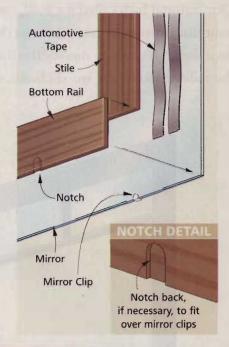
To make this a project that you could finish in a few hours, we used simple butt joints and a no-assembly method to create the frame. After measuring the mirror carefully, we cut the top and bottom rails to match the length of the mirror. The stiles equaled the height of the mirror minus 7" (our poplar was $3\frac{1}{2}$ " wide).

To ease the sharp edges we routed ½6" chamfers on the pieces, but you could also soften them by sanding. We then finished the pieces with a Java stain to mimic this bath's dark framed slider doors. If your mirror is attached to the wall with clips, you will also need to rout notches for these (see Illustration, above right).

Once the stain is dry, you can simply attach the rails and stiles to the mirror with the two-sided automotive tape. (Be sure to clean the mirror first.) You can find this tape at any auto-parts store. It provides a very strong, waterproof seal.

When you apply the strips of tape to the rails and stiles, align them very carefully (*Photo below*). Use caution when applying the tape to the frame pieces, and again when applying them to the mirror, because there are no "do-overs" with this adhesive. Then, just align the pieces on the mirror one at a time (bottom rail first), and apply them using firm hand pressure.

This same "auto-tape" technique works with other mirror styles, as well. For some options, see page 96.





The secret to this simple frame is using strips of automotive tape to hold it in place. Make sure one strip goes against each inside edge to hide the gap.

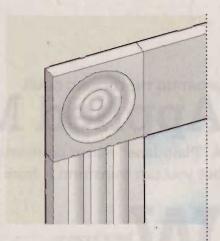
More Mirror Makeovers

With just a few modifications, our "no-assembly" technique can be used to create mirror frames that match the style of any home. Our featured bath called for bold, contemporary lines, but use your imagination to create a frame design that works with your own decor. It's easy to modify the frame by varying the shape of the rails and stiles, the wood choice, or the finish.



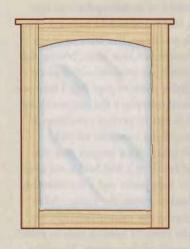
Classic Craftsman

Wide, flat boards and muntin strips harken back to the Craftsman-style homes of the early 20th century. A small eyebrow shelf at the bottom can be used for decorative purposes. This approach does require a bit more work. You may have to rip narrow strips to make the muntins, but they are easily attached to the mirror with two-sided automotive tape. Attach the eyebrow shelf to the bottom rail before installing it.



Victorian Flair

Corner blocks with rosettes and fluted stiles lend a hint of Victorian influence that can add elegance to mirrors large or small. You can find a variety of decorative moldings, including these carved rosettes and fluted trim pieces, at the home center. It's easy to make the top and bottom rails from ordinary stock.



Shaker Inspired

The arched top rail and flat cap on this adaptation give the mirror a clean Shaker style that can feel at home in a variety of environments. You will need a jigsaw to cut the curved top rail, but construction and assembly are still very straightforward. Glue the flat cap on after installing the rails and stiles.