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EDITOR'S NOTES

Faced with a tightening economy, rising prices, and the "housing crisis," you may be wondering whether this is the right time to invest in home improvement projects. For the do-it-yourselfer, I think the answer is easy: There's no time better than now, as long as you take on the right projects for the right reasons.

Let's say, for example, that you're thinking of selling your home. If that's the case, you know that in many parts of the country it's a "buyer's market." That's a nice way of saying that there are more houses available than buyers looking for them. So if you want your house to sell, you need to stand out from the crowd without having to invest big bucks. This is literally the definition of sweat equity.

But what if you have no intention of selling? The reasons for making improvements are just as good. You'll help sustain or increase the value of your home, even as the market continues to sag. But maybe more important, you'll make your home better-suited to your style, your personality, and the way you live.

That's all well and good, but it still doesn't answer the question of which projects are the right ones. My answer again is easy: Choose projects that enhance your life while remaining affordable. There are several examples of projects just like that throughout this issue of *Workbench*. Here are three of note.

First is a bathroom remodel on page 54. There are few projects that pay off better, both in terms of livability and payback on investment. But it's easy to wrap up a lot of money in a bath redo. In this article, though, we'll show you how you can totally transform the look of a bathroom for just \$300.

Or maybe you'd like to dress up your dining room with fancy moldings. On page 77 we'll show you a technique that allows you to recreate that look using just paints and simple stencils.

And if you've wanted to create an outdoor space for entertaining, which is one of the hottest trends in new homes, you've got to check out our backyard makeover that starts on page 32. Instead of tearing out a functional but plain-Jane patio, we picked up a \$200 concrete staining kit and turned that slab into something special.

The moral here is easy: Being willing to do it yourself has always paid big dividends. And now, maybe more than ever, improving your home can really save dollars and make sense.

DAVE

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ON THE COVER



Entertaining outdoors doesn't require a big budget. See how we transformed this patio into the perfect outdoor gathering place with a \$200 staining kit and a few well-planned accessories.

—page 32

easy weekend projects



One-of-a-Kind Water Feature

Create a whimsical water feature to add intrigue to your yard. You can do it in a day—without a massive excavation.

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Build a Perfect Paver Pathway

Think building your own path is out of reach? Think again. We'll walk you step-by-step through the process with illustrations and insight.

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Handy Pot Hangers

These simple hangers that you make with a jigsaw turn ordinary flower pots into a unique outdoor display.

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home storage solutions



Garage Gear

Basketballs, boards, bins, and more—Rubbermaid and Gladiator expand their garage organizer options.

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It's the time of year to get out those rakes, shovels, and other lawn tools. Here are the best ways to store them when not in use.

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Transform Your Bath for Just \$300!

See how a new cabinet, paint, a mirror, and lighting breathe new life into an outdated bathroom.

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

- Builder's Plans & Design Options: Bathroom Cabinet
- Video: Patio Staining
- Slide Shows: Finishing Hardware, Stencil Painting Technique
- Online Plans: Patio Planting Guide
- Bonus Instant Makeovers

stylish home **makeovers**



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Eye-Popping Patio Makeover

Unlock the potential of that drab slab in your backyard. All it takes is a staining kit, plus some great outdoor furnishing options.

32

Paint Power: Architectural Stencils

Stenciling often brings to mind flowers or cuddly animal caricatures.

But the newest stencils make an impact by mimicking molding and other architectural elements.

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Instant Makeovers: Salvaged Treasures

See how our "treasure hunt" at a salvage store turned old blocks into seven great new looks for any home.

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Discover three easy ways to get a high-end look with ordinary home hardware.

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Replacement Windows

With today's DIY-friendly replacement window kits, giving your home more energy efficiency and style is easier than you imagined. Here's a roundup of the options.

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20 Never-Fail Ways to Hang Anything

From cabinets to paintings, here's how to hang them on the wall and make sure they stay there.

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Screens Made Simple

Your complete guide to repairing screen windows and doors.

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FIVE THINGS YOU DIDN'T KNOW

You Can Recycle

You can help save the planet by recycling more than bottles and cans. Here are some other surprising recyclables.

Needed to get rid of all that stuff cluttering up your home, but hate to dump more in your local landfill? Here are some “green” ways to recycle everyday items that you no longer need.

Athletic Shoes—Nike will recycle any brand of athletic shoe through its Reuse-a-Shoe program. There are drop sites at shoe stores across the country, or you can mail your old shoes directly to Nike. To date, about 20 million pairs of shoes have been recycled through this program. The shoe rubber gets new life in sport surfaces like running tracks. Check out LetMePlay.com to find out how.

Techno Trash—As you upgrade your technology, you find yourself saddled with outdated VHS tapes, digital cameras, and even VCRs. Fortunately, there’s a company that will take it all off your hands and dispose of it in an eco-friendly way. At GreenDisk.com, you can learn how to mail your “techno trash” to the Green Disk company. Or you can call 800-305-3475 with questions. The cost starts at \$7 for 20 pounds of outdated stuff—a small price to

pay to relieve your conscience and enjoy clean closets!

Computers—There are a number of harmful chemicals lurking in computers, so it’s important to recycle them properly. Most major computer manufacturers now offer some type of recycling program—check their websites for details. You can also compare the various manufacturers’ programs and locate independent recyclers at ComputerTakeBack.com. Or give your local waste authority a call to find out if there are options for computer recycling are available in your community.

Handheld Devices—When you can’t resist buying the latest model of cell phone or PDA, don’t chuck the old one. You can drop off your old cell phones, pagers, and PDAs at Staples stores across the country, and they will be properly recycled. If you don’t live near a Staples, go to CollectiveGood.com for instructions on how to mail in items for recycling or environmentally friendly disposal.

Dirty Glass & Plastic—It’s a common dilemma: What should you



Even old cell phones contain dangerous levels of toxins.

do with that jar that still has a bit of sticky stuff in the bottom—put it in the trash or the recycling bin? In most communities you can recycle a can or bottle even if it isn’t perfectly clean. After all, it’s not exactly eco-friendly if you use 10 gallons of water to get that jar spotless. Check your local rules, but usually if items are reasonably clean, you can put them in your bin. The process used at the recycling plant will remove most contaminants.

55 million—Estimated number of personal computers that went to landfills in 2005

574—Number of personal computers per 1,000 people in the U.S. in 2004



TRADE SHOW HIGHLIGHTS

Home Trends

Again this February, *Workbench* editors ventured to the International Builders' Show in Orlando, Florida. Hosted by the National Association of Homebuilders (NAHB), this annual showcase of all things home-related brings builders and remodelers from all over the world together to learn about the latest trends, tools, products, and building techniques for the home.

Though the show is geared toward professional builders, it's a must-attend event for the *Workbench* staff. That's because in addition to the seminars, classes, and news conferences, there are about 1.5 million square feet of displays from every manufacturer of home products you can imagine.



That makes the Builders' Show the place for anyone who wants insight into what's hot in homes. Here are a few of the trends we found:

Green Goes Mainstream—Just a few years ago, talk of "green" homes centered mainly on energy efficiency and the use of earth-friendly materials. But today a green home means a whole lot more. Whether new or remodeled, today's green home is one

Over 92,000 building industry professionals from around the U.S. and the globe convened in Orlando, Florida.

that's built with efficiency in mind. That means efficient use of space, the selection of energy-conserving fixtures and appliances, and the use of high-quality products that won't have to be thrown out and replaced as soon. In other words, green building



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has simply become smart building. It makes sense, and hopefully it's here to stay.

Kitchens Get Wired—The kitchen is the hub of almost every home. It's the place we entertain, pay bills, do homework, and even cook meals. As a result, kitchens have become the most "wired" room in the home. They often contain a computer (or wireless network hub), audio and video systems, intercoms, and home monitoring devices. Plus, kitchens need to hold an increasing number of high-tech appliances.



The New American Home once again displayed innovative building materials and the latest construction techniques.

Still, most homeowners want kitchens that are cozy and feel like traditional kitchens. That means manufacturers of everything from cabinets to coffeemakers are working to incorporate technology into the kitchen without letting it take over.

Curb Appeal Is King—It's no secret that home sales and home values have gone down in the last few years. So what can you do to add value or make your home more likely to sell? Add curb appeal. That should come as no surprise. After all, you've probably decided whether you like a home or not just by driving by. So it doesn't matter if it's a castle on the inside if it looks rough on the outside.

Builders, realtors, and manufacturers at the show all agreed that anything you can do to add curb appeal will give your home an advantage over others. The most popular projects for adding appeal are landscaping, painting, and sprucing up entryways.

Sweat-Equity Remodeling Rules—Of course, adding curb appeal, wiring your kitchen, or making your home more green takes money. And in tight economic times, you need to make that money go as far as you can. That's why, maybe more than ever, homeowners are using sweat to build equity. Instead of hiring contractors, more homeowners are rolling up their sleeves and taking on projects to improve their homes. And that's certainly a trend that we here at *Workbench* can get behind!

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OVER THE FENCE

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Spring Cleaning Tips

Getting the grime off windows and glass doors is one of those cleaning chores you just can't avoid. And while there's an endless array of glass-cleaning products on the market, it's easy to make your own for just pennies. Besides saving money, it's safer and more earth-friendly, too.

Window manufacturer Jeld-Wen offers a simple recipe that only uses vinegar or baby shampoo to make glass sparkle (*right*). They also share these window washing tips:

1. Always wait for an overcast day to wash glass—bright sunlight causes streaks because it makes the cleaning solution dry too quickly.
2. Before you start, soak tough spots like dried paint splatters or label adhesive with a solution of warm water and baby shampoo. Then scrape with a plastic putty knife.
3. Wash surfaces with the solution using a clean, soft cloth or sponge. We suggest a microfiber cloth made for washing cars.
4. Rinse with clean water. Avoid using a pressurized sprayer because it can break the seals on windows.
5. Promptly dry glass thoroughly with a soft cloth.
6. Dry window and door frames with a separate cloth.



For a safe and effective home-mixed glass cleaner, mix one teaspoon of baby shampoo to one gallon of water or 1½ cups vinegar to one gallon of water.

CREATE A LEGACY OF YOUR OWN

Amana Tool® makes it easy to create your own authentic Shaker style doors for furniture and cabinets with our new Bevel Edge Door Bit Set

The new set creates a simple, yet elegant, 18 degree bevel along the edges of the door frame that is reminiscent of Shaker style doors from the middle of the nineteenth century. The Shaker community left an enduring legacy in their beautiful, yet simple style of furniture. This new router bit set from Amana Tool® captures the essence of the Shaker style. And like the other bit sets that are part of the InStile line, ***the Bevel Edge set can be adjusted to fit undersized plywood panels — no more loose panels!***

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TURN-BY-TURN DIRECTIONS FOR A

Ceiling Fan

Q: I know a ceiling fan should spin in one direction in the summer and the other in the winter. But to be honest, I've never known which direction is correct. Can you tell me which way the fan should spin in each season?

Anthony Borsilli
Staten Island, NY

A: This is one of those perennial questions that confuses every homeowner. Maybe that's because warm air rises, so a lot of people think the fan should be set to blow it back down in the winter and to pull it up in the summer. Seems logical enough, but that idea is wrong. The *Illustration* at right shows how it should work:

In the summer, you want the fan to help cool the house. To do that, set the fan so the blades blow the air downward. Stand under the fan, and if you feel the breeze blowing down on you, you're set. It's this breeze that helps keep you cool by moving air over you. You may also want to set the fan at a high speed to really move the air.

In the winter, you want the ceiling fan to help circulate the warm air for more even heating. At the same time, though, you don't want to feel a cooling breeze. The solution is to reverse the fan's rotation and set it at a low speed. That way, it will pull air up toward the ceiling and push the warm air that gets trapped there down the walls.



MULTIPURPOSE FILE GIVES DIYERS A

Helping Hand

Q: A project I was building recently suggested shaping a piece of wood with a "four-in-hand" tool. I tried to buy one, but nobody knew what it was. Do you?

Ron Michal, Albany, NY

A: You'll find a four-in-hand tool at about any hardware store or home center. It's a common hand tool, but you might not find anyone who knows what it's called.

Quite simply, a four-in-hand tool is a type of file that has four different profiles: a flat file and rasp on one face,



and a curved file and rasp on the other (*Photo, above*). That way, you have four basic files in one tool.

The four-in-hand is a tool no DIY arsenal should be without. The rasps shape wood and other soft materials quickly, while the files allow you to fine-tune the shape. Because it's compact, it's easy to carry in a tool belt.



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Mail: Ask Workbench, 2200 Grand Ave., Des Moines, IA 50312

A GUIDE TO EXTREMES FOR A

Thermostat's Swing

Q: I installed a programmable thermostat, but I'm confused about how to set it. I've heard that if you set the temperature to vary by more than 10 degrees, you'll use more energy re-cooling or warming your home than if you just left the temperature the same. What's the rule on how big of a temperature "swing" you can program in?

Tom Ames
Decatur, IL

A: For years I, too, thought 10 degrees was the maximum variance you should have with a programmable thermostat. As it turns out, you can allow the temperature to change by 10 to even 15 degrees, if the thermostat can stay at that level for at least eight hours.

The logic is that if you can leave the house at a cooler or warmer temperature for at least eight hours, you'll save more energy than is required to re-cool or reheat the house.

But if you need the temperature to come back to your "comfort" level in less than eight hours, you should leave the setting at 10 degrees or less.



FIXED-BASE

PLUNGE



HOW TO CHOOSE THE

Right Router

Q: I'm looking to buy my first router, but the huge selection of types has me stymied. What are the differences, and what should I look for when I buy?

Jason Templeton
Monterey, CA

A: A router is one of the most versatile tools for wood-working and carpentry projects. So when selecting one, the key is deciding just how much versatility you need.

Many woodworkers own two routers: one "fixed-base" model and another "plunge" model (*Illustrations*).

A fixed-base model allows you to set and lock in a single cutting depth. A plunge router allows the bit to be plunged into the workpiece, as well as reset easily for multiple cutting depths. This gives it versatility for more complex cuts.

For most DIYers, having two separate routers, though, is overkill. That's why I'd opt for the most versatile type: a combination router. This type comes with a single motor as well as a fixed base and a plunge base (*Photo*). Choose one in the 2 to 2.5 hp range. These have plenty of power but remain small and light enough to control easily.

MAKE FOUNDATION REPAIRS THAT LAST WITH Hydraulic Cement

Q: During a heavy rain I found water seeping into my basement where mortar is missing between two blocks. I patched the hole with mortar, but the next time it rained, water seeped around the patch. Is there a better material to use?

Patty Long
Tulsa, OK

A: Ordinary mortar made of Portland cement actually shrinks as it dries. That's why the patch leaked.

A better choice for this kind of repair is a mixture called hydraulic cement. It expands as it cures, so it will fill the void and keep water from pushing through (*Illustration, right*).

Another nice thing about hydraulic cement is that it can be applied to wet

surfaces. That means you can fill the hole even as the leak is occurring.

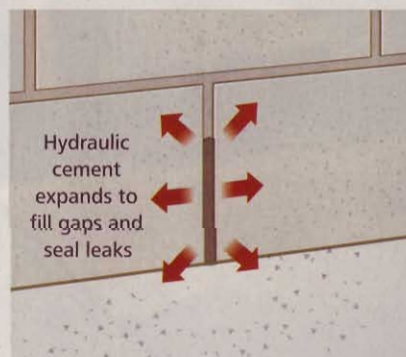
Hydraulic cement comes as a powder and gets mixed with water (*Photo*). Only mix enough to do the job, as it has a very short working time. From the point you mix it, you'll only have five to 15 minutes to get the cement in place before it hardens.

To patch the void, wear rubber gloves and use your hands or a putty knife to pack the cement into the void.

Of course, once you've fixed the immediate problem, you should look outside to determine why water is getting against the foundation in the first place. Make sure there's adequate slope and drainage to keep the water running away from the wall.



Hydraulic cement powder gets mixed with water.



Do Detectors Get Old?

Everyone knows you should replace your smoke detector battery every year. But it will probably come as a surprise to learn that you should replace the entire smoke detector every eight to 10 years. This applies, by the way, to both battery-operated and hard-wired models.

To understand why this is necessary, consider that a smoke detector monitors the air constantly 24 hours a day. That means after 10 years a detector has been through, according to some estimates, three to four million duty cycles. So it's no surprise that components can wear out. In addition, detectors can become clogged by dust and other contaminants in the air.



If you're not sure how old your detector is, look on the label (located on the back) for a manufacturing date. To make replacement easy, write the replacement date on that detector or on the new one you install. Then you'll be reminded of its age every year when you change the battery.



WHY BUILD WITH MDF?

For projects like built-ins and bookcases, we often use medium-density fiberboard (MDF), shown on top in the *Photo*, instead of plywood, shown on the bottom.

MDF is smooth and consistent on the faces and edges, so it paints up nicely without showing grain lines or the telltale plies on the edges. And at a cost of \$20 for a 4x8 sheet, MDF is very economical.

On the negative side, MDF isn't as stiff as plywood. That means large horizontal surfaces (like long shelves) will need bracing or additional supports underneath to prevent them from sagging.



QUICK & EASY

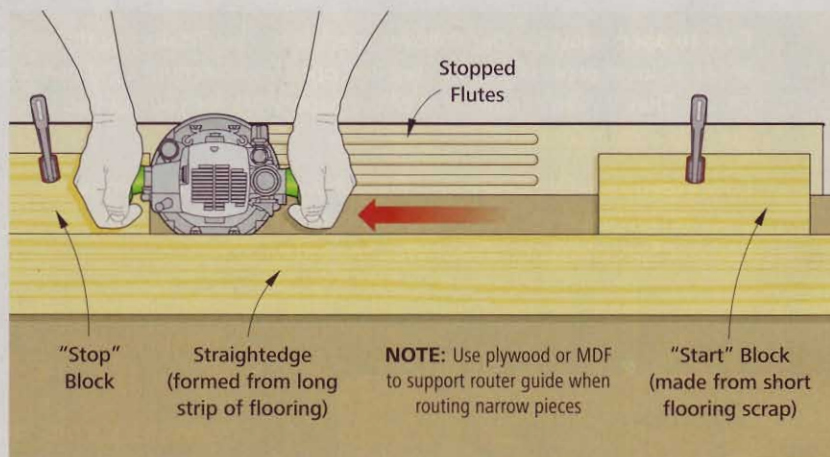
Router Guide

Other than the router itself, you need two things to rout “stopped” cuts like grooves or flutes. One is a straightedge to guide the router in a straight line, and the other is a pair of blocks to start and stop the router.

You can buy expensive jigs that do this, or you can make your own, which usually takes a lot of time. Of course, it also takes a lot of time and patience to clamp the straightedge, as well as the “start” and “stop” blocks, in position before you make the cut.

A Better Guide—John Haase of Fort Collins, Colorado, discovered that leftover laminate flooring serves both uses nicely. Laminate flooring is already dead-straight, so you can just use a long piece of flooring as a straightedge. And the flooring has interlocking grooves on the edges, so two smaller scraps can “lock” in place anywhere along its length to form the “start” and “stop” blocks.

Once the three pieces are locked together, you just position and clamp it to the piece you’re routing, as shown above.



BEST TIP PRIZE WINNER!



For his tip, John Haase wins the set of Mechanix Wear gear shown at left, which is valued at over \$300!

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Stir Stick Savvy

Don't throw the stick away after mixing up paint. Instead, do what Brenda Bolman of Lewisberry, Pennsylvania, does and write the room name and critical paint information on the stick after it dries. That way, you'll always know what color the room is if you need more. You can even take the stick to the store when shopping for matching drapes, pillows, and other room accessories.



SIMPLE SAW BLADE GUARD

An exposed saw blade in the garage or shop can be dangerous at worst or dull the blade at best. That's why Michelle Ostrowski of Davisburg, Michigan, covers up the blade with the spine from a plastic report cover. Readily available at office supply stores, these spines even come in bright colors, so they're easy to find in a messy shop.



MAGNETIC PICK-UP TRICK

Mason jars make great hardware storage containers. And if you have a lot of loose nails or screws, here's a simple trick to get them in the jar from Andy Nicholson of the United Kingdom. Just put a strong magnet above the mason jar lid, and pass it over the hardware, as shown above. Then simply set the lid down on the jar, and remove the magnet.

EXTRAORDINARY RESULTS WITH

Ordinary Hardware

High-end hardware can set you back a bundle. A better option is to give old or inexpensive hardware a bold new finish. Here are three simple ways to do just that.



Home trends are changing all the time, and hardware is no exception. And while we're all for giving your home a great new look every so often, let's face it—replacing your hardware every few years is an expensive proposition. Thankfully, there's an easy way to offset this cost. Instead of forking over

big bucks for expensive hardware, you can choose less expensive options—or even use your existing hardware—and finish them to look high-end. Here's how it's done.

ADD HIGHLIGHTS WITH GILT CREAM

One hot trend in hardware today is highly profiled or hammered fixtures with a hint of metallic color on their surface. These pieces of hardware go by many names—weathered, oil-rubbed, aged—but one thing they have in common is their high price, usually \$10 to \$20 apiece.

What many people don't realize, though, is that you can add this hint of metallic color yourself. The secret is a product called Liberon Gilt Cream. Available for about \$20 a jar, gilt cream comes in a variety of metallic shades. And applying it couldn't be much easier—you just put a dab on your finger, and rub it gently over the hardware to transfer the color to its surface. Then, use a soft cloth to buff the hardware and create the desired look.

Before (store-bought black hardware)



After (old-world weathered copper)



With gilt cream, a little goes a long way. After dabbing your finger, wipe off excess on a rag so only a little remains.



Now lightly brush your finger over the surface. The gilt cream will highlight the bumps and ridges of the hardware.



Buff the hardware with a clean, dry cloth to tone down the color and give it an interesting mottled appearance.

Gilt cream offers a great way to spruce up otherwise dull hardware. For example, we found these “hammered” pulls and knobs at the home center for just a few dollars apiece. A dash of “Versailles” colored gilt cream created a rich look in just a few seconds. It’s available from a number of online sources, including Faux by Kathy (FauxByKathy.com, 800-797-4305).

SIMPLE RESULTS WITH SPRAY PAINT

Color trends come and go. For example, just a few years ago glossy brass and silver hardware were desirable. Now, brushed nickel and oil-rubbed bronze are the hot colors to have. But if the color is the only thing you don’t like about your hardware pieces, there’s no reason to replace them. Instead, just buy spray paint and give them a great new look that way.

If you haven’t taken a walk down the spray paint aisle at the home center lately, you’ll be amazed by all the options. Not only is virtually every metallic color from brass to zinc available, but they’re also offered in different sheens, so you can create a glossy copper or a matte nickel finish if you desire.

To change your existing hardware with spray paint, simply give it a good cleaning, and then make light over-

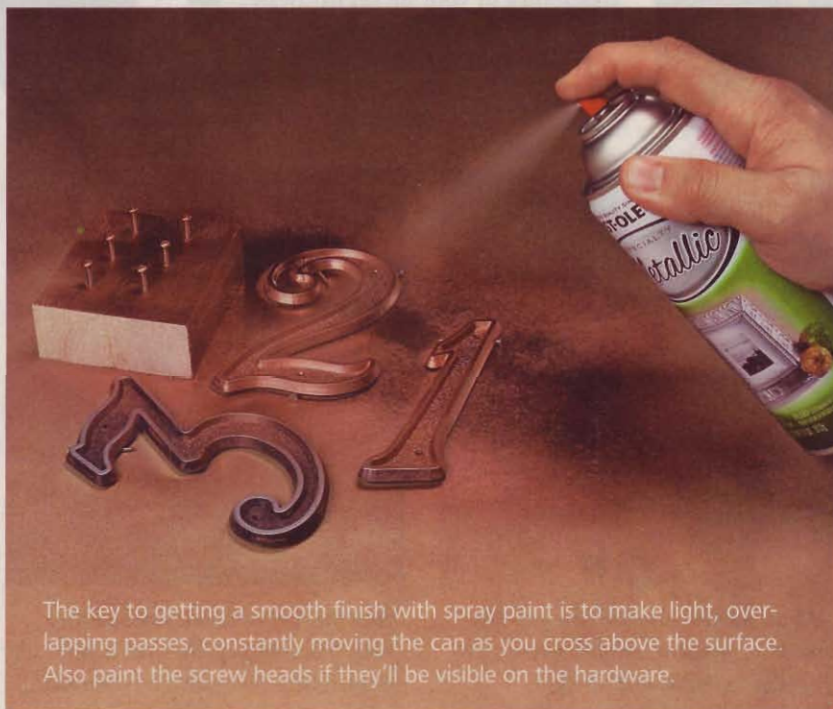
Before
(inexpensive plastic)



After
(hammered copper)

lapping passes, always keeping the can moving as you pass it over the surface you’re spraying. It may take several coats to get complete coverage, but you only need to wait about 15 minutes between coats with most spray paints. Also make sure to paint the heads of any screws that will be visible on the hardware. Just drive the screws partially into a wood block before painting them (*Photo, below left*).

It’s amazing how much of an impact you can make just by changing the color of a piece of hardware. For example, we took these inexpensive house numbers and made them look like high-end hammered copper. The same technique can be applied to everything from door pulls to shower rods.



The key to getting a smooth finish with spray paint is to make light, overlapping passes, constantly moving the can as you cross above the surface. Also paint the screw heads if they’ll be visible on the hardware.

METAL MANIA

Think of a metallic color, and chances are there’s a spray paint to match.

And not only can you pick the color, but you can also pick the desired sheen in many cases. Just a handful of the options, from copper to matte nickel to bronze, are shown at right.



FIND THE RIGHT SOLUTION FOR BRASS

If you've grown tired of your old brass hardware, another option is to "age" it to create weathered or antique brass. This is possible with brass aging solution, an acidic solution that oxidizes solid brass, giving it a more appealing look.

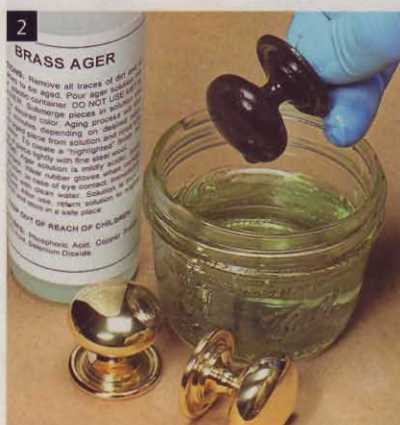
Before aging your hardware, the first thing you need to do is remove the protective lacquer coating. That process is outlined in the *Sidebar* below. Then fill a jar with the aging solution, and drop in the hardware. (This is pretty caustic stuff, so make sure you're wearing heavy rubber gloves and a protective mask and working in a well-ventilated area.)

EASY LACQUER REMOVAL

Many pieces of hardware are finished with a coating of lacquer. To get the best results when painting or finishing hardware (and especially if using the aging solution shown here), it's a good idea to remove that lacquer first. In our experience, the best way to do this is to soak the hardware in a jar of lacquer thinner overnight. Then, scrub each piece with a brass-bristle brush. This two-step process ensures that all the lacquer is removed before you apply a new finish.



After soaking hardware in lacquer thinner, scrub each piece with a brass brush to remove the lacquer.



When soaking the hardware in the solution, you can use the screw as a handle for holding it safely.



Run the hardware under water to stop the oxidizing. Then rub it with Scotch-Brite to create a brushed look.

The solution works surprisingly quickly, and if you leave the hardware in too long, it can actually turn black. So watch the hardware carefully until it turns the color you desire. For example, with the brass knobs we aged, the hardware took on the "antique" brass look in about four minutes. In 10 minutes, it looked like the "bronze" sample.

Once you get the look you're after, remove the hardware from the solution, and rinse it under hot water to stop the oxidizing process.

The brass should now be a solid dark color, but you can add interest and create a "weathered" look by brushing the surface with a fine piece of steel wool or an abrasive pad (like Scotch-Brite). Then you can preserve the new look and add sheen by spraying on a few coats of lacquer. Just choose glossy or satin lacquer, depending on what type of sheen you want.

Brass aging solution is available from a number of hardware supply catalogs and online sources, such as Rockler (800-279-4441, Rockler.com). There's also a nickel aging solution if you'd like to change the appearance of your nickel hardware. 

—Written by Wyatt Myers

Before
(brass finish)



Antique
(4 minutes)



Bronze
(10 minutes)



FROM BALLS TO BOARDS, GLADIATOR AND RUBBERMAID EXPAND THEIR

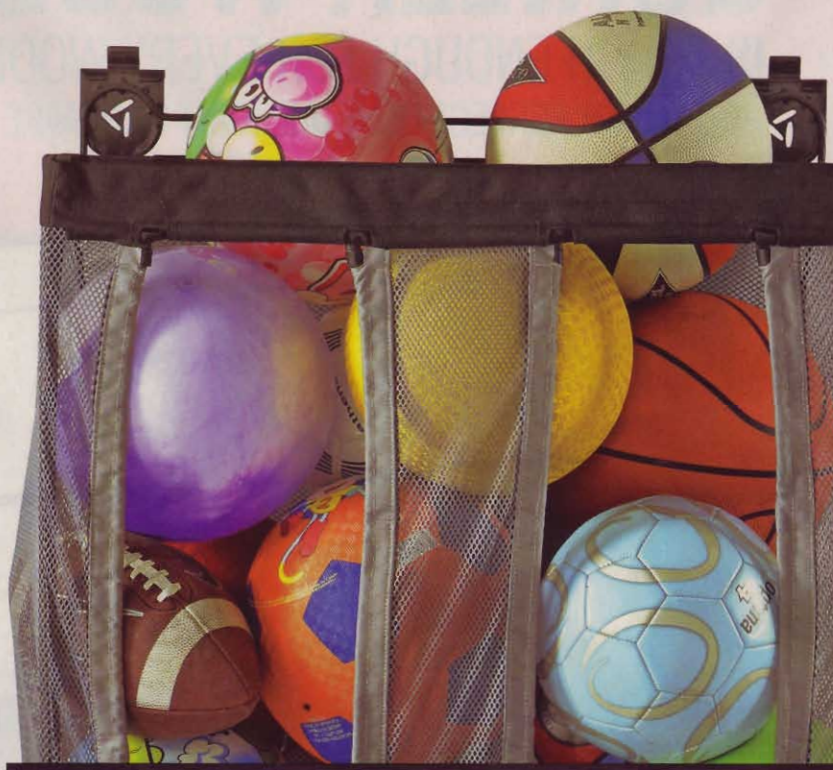
Storage Specific Products

Sporting gear, scrap wood, and storage bins—here are five new products that make it easier than ever to sort, store, and stack it all.

If “stacking basketballs” isn’t a metaphor for an impossible task—sort of like “herding cats”—it should be. Of course, it will never catch on now that the Gladiator Ball Caddy is on the market (*Photo, right*).

The caddy is designed to hold all types of balls and let you take any one of them out without emptying the entire bin. The steel frame and elastic bands on the caddy will hold up to nine basketballs or the equivalent volume of footballs, soccer balls, and volleyballs. Suggested price on this one is about \$50.

Club Caddy—Golfers don’t worry about ball storage. Whatever they don’t lose on the course will



fit nicely into a pocket on their golf bag. But then where to keep the golf bags? The Gladiator Golf Caddy, of course (*Photo, left*).

This welded steel unit will hold two oversized golf bags. A tilted shelf and safety straps keep them secure. A second shelf offers a place to keep shoes, gloves, and even golf balls. Expect to pay about \$120 for this one.

Cutoff Caddy—You know cutoffs? Those boards that are too long to throw away and too short to start a new project? There’s never a good place to store those.

Enter the Gladiator Modular Gear Bin (*Photo, right*). It has two bins for bulky or odd-shaped items, is welded at the seams for durability, and rolls smoothly on four heavy-duty casters. It’s even the perfect height to tuck under a Gladiator workbench. This one goes for about \$250.



Load up the Gladiator Modular Gear Bin and roll it underneath your workbench to corral cumbersome cutoffs.

Bin Caddy—By its proper name, it's the Gladiator Storage Bin Holder (Photo, right). And it's a simple set of steel brackets that installs on the Gladiator wall system and can be adjusted to fit a variety of storage containers or recycling bins. Each set of brackets can support up to 50 pounds. These sell for around \$20.

RUBBERMAID

Speaking of storage bins, Rubbermaid recently introduced a new line of space-saving, stackable containers perfect for any storage area (Photo, bottom left).

These containers have straighter sidewalls than other popular brands. So when compared to similarly sized containers, the bins have more space inside and are easier to store side by side. Recessed lids make the bins easier to stack.

Rubbermaid Storage Containers are available in 18-gallon, 21-gallon,

29-gallon, and 36-gallon sizes, ranging in price from \$5 to \$11.

Sturdy Shelving—For just about everything else you want to stack, Rubbermaid offers steel-reinforced shelving (Photo, bottom right). Assemble one of these units, secure it to a wall, and you've got 1,000 pounds of storage capacity in under five minutes. Four- and five-shelf models are available for \$40 and \$50, respectively.

FastTrack Cabinets—If your storage needs require more of a cabinet-type solution, Rubbermaid has you covered with their new FastTrack Garage Cabinets (Photo, below).

The cabinets are an extension of the FastTrack rail and accessory system, and they snap easily into the rails to free up floor space. Durable laminate construction makes the cabinets perfect for the sometimes harsh confines of the garage. A variety of sizes and types are available for between \$40 and \$100.

SOURCES

Gladiator Garage Works
GladiatorGW.com
 866.342.4089

Rubbermaid
Rubbermaid.com
 888.895.2110



Gladiator's Storage Bin Holder mounts in the Gearwall system and can be adjusted for most bin sizes.



Rubbermaid's FastTrack Cabinets can be mounted to the FastTrack rail system or directly to the wall.



STAINING

Want to turn your plain patio into an inviting outdoor oasis? All you need is one weekend and an easy-to-use concrete staining kit from your local home center.

a patio



Backyard entertaining is bigger than ever. And why not? It's tough to beat spending a warm summer evening in the yard with family and friends, a few favorites on the grill, and a cold beverage to wash away the cares of the day.

Look through most lifestyle magazines, though, and they'll tell you that entertaining in style outdoors requires an elaborate (meaning expensive) space with a backyard kitchen, a wet bar, and an outdoor entertainment system. Really? Whatever happened to just kicking back and having a good time on the patio?

As much as I hate to break it to those who push style on folks with deep pockets, entertaining on the patio can be just as fun. And, as you can see above, a patio can have plenty of style. Plus, you can create it without emptying your pockets.





“If you have two days and an extra \$200, you can turn your drab concrete slab into an appealing entertainment area.”

In fact, if you have two days and an extra \$200, you can turn your drab concrete slab into an appealing entertainment area. The secret is a simple concrete staining kit made by Rust-Oleum (Rust-Oleum.com) that you can pick up at a home center. It comes with everything you need to turn plain concrete into a richly colored surface with a mottled appearance that mimics stone.

And yet the process couldn't be easier. The stain just goes on with a sprayer that's included with the kit (*Photo, right*). You just choose the color you want (there are several available), clean the concrete, and then spray on the stain. We'll walk you through the process on the next two pages.

After that, we'll give you some tips for how you can personalize the space to create your own outdoor oasis.



Delete the Dirt. Clean the concrete using a pressure washer to get rid of dirt, especially in old or rough concrete.

Clean and Prep the Concrete

Before applying the stain, you need to prepare the concrete. This is a two-step process that consists of cleaning and then etching the surface.

Start by Cleaning—If the concrete is dirty, the stain simply won't stick. It will just sit on the dirt and get washed away during the next hard rain.

Cleaning isn't difficult. The manufacturer of the stain we used says you can simply scrub the concrete with soapy water and a stiff-bristled brush. But I recommend using a pressure washer, especially on old or rough-surfaced concrete (*Fig. 1*). Though our concrete didn't look particularly dirty, we were amazed by how much dirt the pressure washer flushed out.

If you don't have a pressure washer, you can rent one for a few hours very

economically. I advise using a gas-powered washer. They produce higher pressure than most electric models.

Etch for Success—Once the concrete is clean, you need to etch the surface. The etching solution

(included in the staining kit) gently abrades the surface of the concrete. This makes it more porous, so the stain can soak in.

To etch the concrete, use a watering can to drizzle the solution onto a few square feet at a time. Let it sit for a couple of minutes, and then scrub it in using a stiff brush (*Fig. 2*).

After scrubbing an area, rinse it with water to neutralize the solution (*Fig. 3*). Then let the concrete dry (which usually takes 18 to 24 hours).



Etch for Adhesion. After cleaning the concrete, wipe away any standing water, and then apply etching solution. Use a stiff brush to scrub it into the surface.



Neutral Ground. Rinse with water to neutralize the etching solution. Also rinse nearby grass and plants.

Mask & Edge. After protecting the surrounding surfaces with plastic, brush or roll stain onto hard-to-reach areas.

Spray On the Stain Colors

Once the concrete is dry, you're ready to stain. This is a three-step process: First, you apply a base color, then an accent color, and finally a clear coat.

Lay Down the Base—Before you apply the base, you need to decide

what final look you want for your patio. That's because with this system, you can apply either color first.

The "Terra Cotta" kit we used, for example, came with a reddish-brown stain and a medium gold. We applied

the dark color first, then added light highlights. Reversing the order would result in a lighter background with dark accents.

Once you've made your decision, mask off any areas you need to protect. Then brush or roll stain onto any hard-to-reach areas (Fig. 4).

After that, you simply apply the stain using a pump sprayer. There's no real trick to this. Just keep the sprayer pumped up to maintain pressure, hold the nozzle at a consistent height above the surface, and keep the nozzle moving in small overlapping circles (Fig. 5). You want to cover 100 percent of the surface with this first color.

Add the Accents—After the base coat dries, you can add the accent color (Fig. 6). The process is exactly the same, except you only want to partially cover the surface using random, erratic strokes.

Protect the Surface—Finish up by spraying on a clear top coat. This seals the surface and protects the stain against wear and weather.



Spray the Base Color. Spray the first stain color onto the concrete by moving the wand in a circular motion until you've evenly covered the entire surface.



Add Accents. Spray on the accent color using random strokes to add highlights and create a mottled appearance.

Personality Adds Patio Punch

Staining the patio makes a remarkable difference in the way it looks. But the stain alone doesn't create a space for outdoor entertaining. To do that, it's time to add the accessories that turn this once-plain patio into an eye-popping outdoor room. We dressed this one up to show you a few ideas you can use to personalize your patio.

Have Fun with Furniture—If you haven't looked at outdoor furniture lately, you'll be amazed by how far it has come. Gone are the



Comfortable chairs look like they belong indoors but are made to hold up to the sun, rain, and weather outside. The ottoman makes a great coffee table.

days of painted metal, dark wood, and cushions that are uncomfortable and not well-suited to weather.

These days, you'll find furniture in a variety of materials—from wood to metal to wicker—that are designed

to last even in the harsh sun and rain. And they have cushions made of real cloth that's comfortable without being fragile.

When you look at outdoor furniture, make sure the cushions are covered in acrylic or polyester fabric, and that they're filled with polyurethane foam or polyester batting. These cushions look and feel great, yet are weather- and fade-resistant. That means you won't have to cart them inside when you're not outdoors.

Save on Accessories—To make your outdoor space feel more like a room, you'll want to add a few creative accessories.

To create a serving cart, we picked up an inexpensive potting bench at the home center, and then painted



Tables don't have to be preceded by the word "picnic" to work well on the patio. This one holds drinks and more.



Plants bring color, as well as provide connection to the yard. Use a variety of plants and containers for a casual look.

it bright yellow to match the yellow accents on the the furniture. Cold drinks sit on ice in the soil tray, and the bench and shelves offer ample serving and display space.

Behind one of the chairs, we wired together three inexpensive woven metal panels to hide the air conditioner. These panels look great and will weather well.

We used a couple of simple baskets to hold books and magazines. They're easy to carry to and from the house, and they fit the casual feel of the patio.

Add Pizzazz with Plants—

Finally, we decorated the patio with plants in containers. (Find a plant list at WorkbenchMagazine.com.) They add color and help tie the patio to the surrounding yard. At the same time, though, they create "walls" to define this as its own unique space in the yard.

With all this in place on your new patio, you only need to add one thing: family and friends. 🍷🍷

—Written by David Stone



A potting bench becomes a serving cart when painted and placed near the door that leads to the kitchen.



Simple screens are a great way to hide elements like air conditioners or hose reels and can provide a measure of privacy. Use wire, lattice, or outdoor fabric.



Baskets and decorative boxes with handles are perfect for toting small items that need to be stored indoors.

“With a bit of imagination,
you can easily create your own
one-of-kind waterscape.”



FOUNTAIN

IN feature

Making a big splash with a water feature doesn't require expensive components, complex excavations, or even a lot of time. The charming fountain shown here was assembled in one day with ordinary items that we bought, built, or discovered.

The visible pieces (the watering can and bench) were cast-offs collecting dust in a tool shed. The watering can had been taken out of service some years ago, and the bench began as an old barn board that was scavenged with just such a "repurposing" in mind. (Plans for the bench are on page 41.)

The hidden components—a utility pump, storage container, and metal

mesh—are readily available at any home center. Likewise, the decorative stone is a common material at landscape stores and garden centers.

But rather than copy this fountain down to the last detail, search local thrift stores and flea markets for a pitcher, pot, or jug that inspires your own fountain. And keep an eye out for an old stool or crate to substitute for the bench. With a bit of imagination, you can create a one-of-kind waterscape.

Although your fountain may look quite different from ours, it will function essentially the same. So on the next page we'll show you how our fountain went together. With a minimum of adaptation, the same design will work nicely for you.

Few things can delight the senses like the sound, smell, and sight of fresh, cool water babbling through smooth stones. And this one will also tap your sense of simplicity and creativity.

Beneath The Surface

Once you've found your bench and watering can (or whatever you're substituting for them in your own fountain feature), it's time to combine them with a water reservoir and a means of propulsion. Which is a fancy way of saying you need a big bucket and a water pump.

Our reservoir is actually a 32-quart storage container. We ditched the plastic lid that came with it and replaced it with a 24" x 24" sheet of metal mesh. This is strong enough to support the decorative stones but still allows water to pass through it easily.

Locating the reservoir requires just a bit of digging. Not much, though—you just need a large enough hole to position the tub with the top edge flush with the ground level.

Next comes the pump, and don't skimp here. We tried to save a few bucks with an inexpensive, 65 gallon-per-hour (GPH) model, and the resulting trickle was disappointing. But an upgrade to a 190-GPH pump with an adjustable flow control and a choice of tube sizes quickly turned the trickle into a cascade. And at just \$50, the bigger pump was still pretty economical.

Installing the pump is as simple as connecting the tube and then setting the pump into the tub. Run the tube and the power cord to their respective receptacles as discreetly as possible. In the case of this fountain, we were able to hide both behind a leg of the bench.

Routing the tube into the watering can required us to drill a hole in the bottom of the can. That's



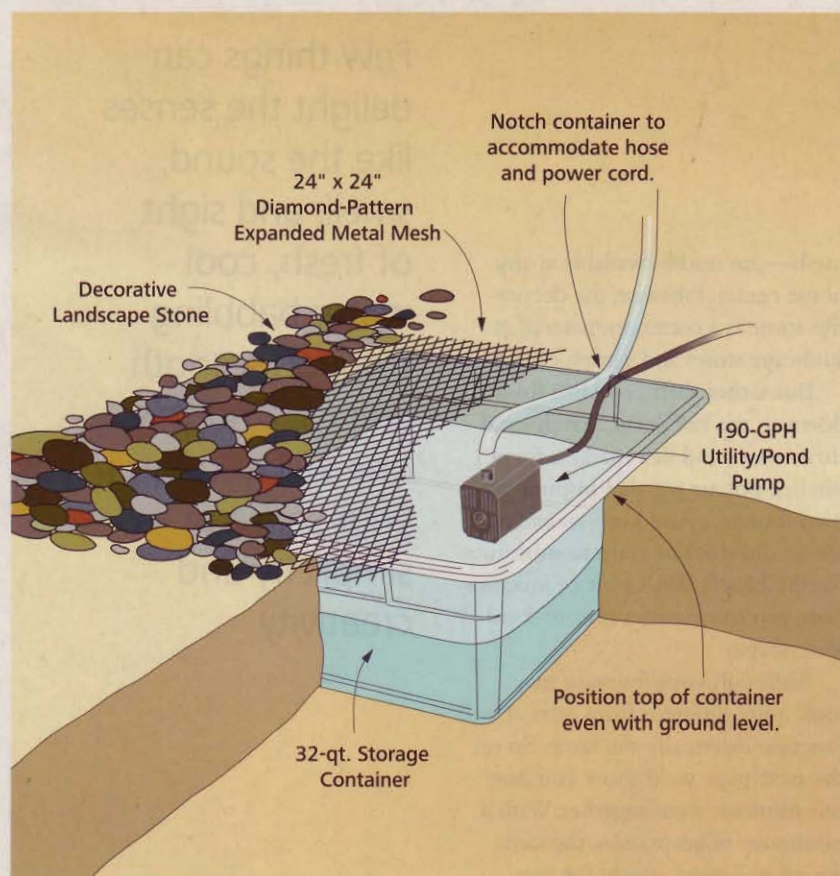
Simple Supplies. You'd be hard pressed to spend even \$100 on everything you need to construct your very own rustic garden fountain.

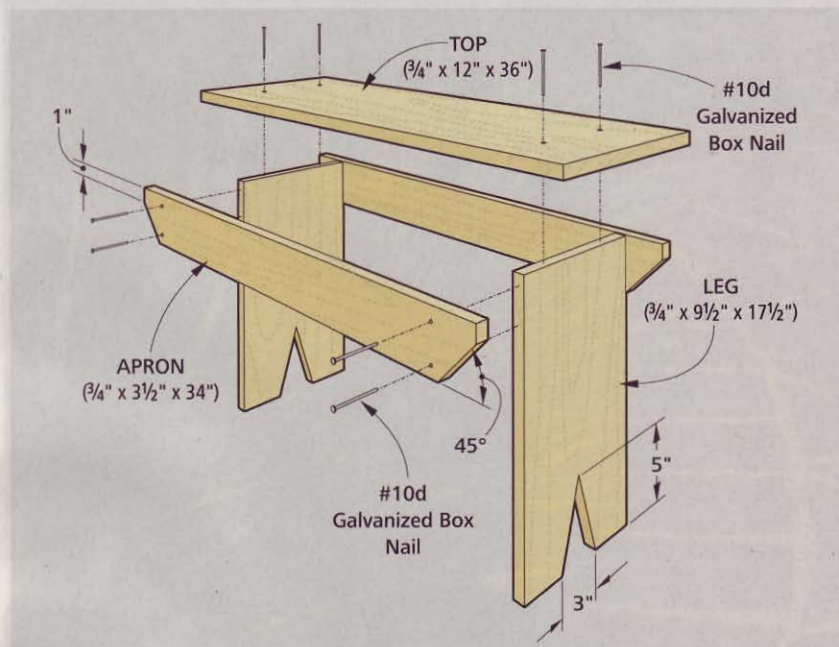
a piece of cake in lightweight tin, and brass is just as easy to drill. Which is good, because we had to drill out a few holes in the spout, as well. By enlarging the holes this way, the resulting waterfall was much more robust and fanned out nicely.

Once you've made whatever adjustments are necessary to create the rate and quality of water flow you're after, you can set the metal mesh on top of the tub and arrange the decorative stones to your liking.

Your completed fountain will require little maintenance other than to replenish the water reservoir (which you can do with a garden hose, pouring right through the stone) and safe storage ahead of freezing temperatures.

Bury the storage container with the top edge at ground level, and then cover it with metal mesh and decorative stone to create a reservoir for your fountain.





Build Your Own Bench

If you weren't able to locate a bench or some suitable alternative, it's a simple matter to build one just like ours.

As I mentioned before, we had the good fortune of finding a few old barn boards that gave the bench an aged look, but there's no reason you can't build this same design out of brand new 1x pine or cedar from the home center. It will age quickly enough sitting outside in the elements. And don't be picky about the lumber you select. A bit of warping and some imperfections will just hasten the rustic appearance you're looking for.

Once you've got your imperfect lumber gathered up, you can begin cutting the boards into the pieces shown in the *Illustration* above. For that, you'll need a circular saw and a jigsaw.

Begin with the top. You should be able to cut this to length from a 1x12 and call it done. Don't worry if the board measures a little more or less than 12"—remember, this is a rustic

old bench you're building, not a fine piece of furniture.

The legs you can make from a 1x10. Cut them to length with your circular saw, and then cut the triangle-shaped notch out of the bottom with your jigsaw.

Finally, you'll need two aprons of 1x4 material. First cut them to length, and then make the taper cut on each end with your circular saw or jigsaw.

Now you can nail the whole works together. And you really should nail it—resist the temptation to use screws for the sake of "rustic-ness."

Start by nailing the aprons to the legs. Notice that the legs align at the point on the bottom of the taper on the aprons. Now nail the top onto the leg and apron assembly. The top is 2" longer than the aprons, so center the top to overhang 1" at each end.

Leave the bench unfinished to allow it to age naturally. 

—Written by Bill Link, illustrated by Erich Lage, project designed by Ken Munkel



IMAGINE THE OPTIONS

When you look at the selection of pitchers, pots, and jugs we found in one visit to a flea market, can you envision how you could use them in a fountain of your own?

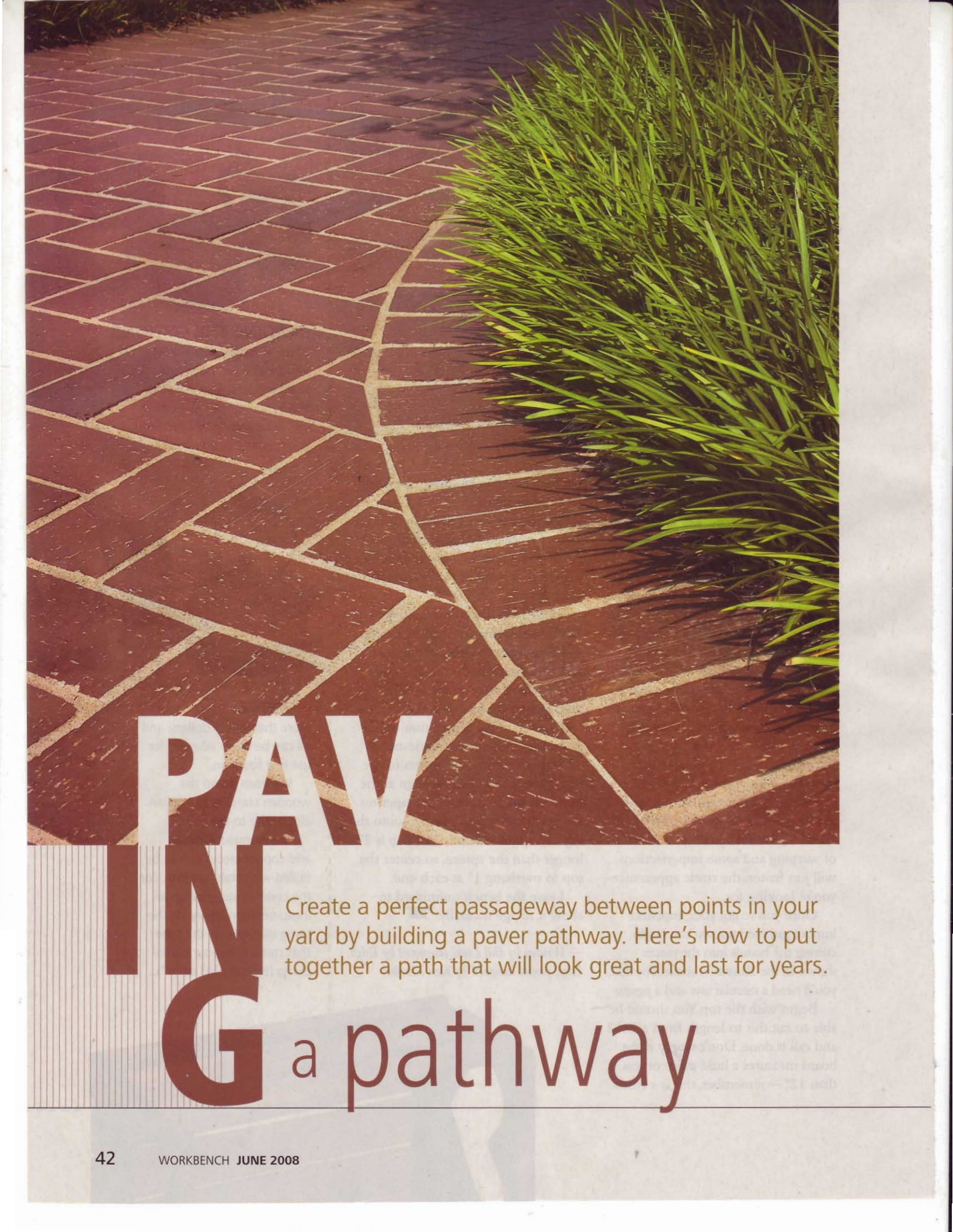


None of these items costs more than a few dollars, and all can be easily adapted for use in a fountain.

We even found the wooden crate, below, as an alternative to the bench.

The aluminum, brass, and copper pieces can all be drilled with standard bits. For the ceramic jug, pick up an inexpensive masonry bit the same diameter as the tube that came with your water pump (typically 1/2" or 3/4").





PAV IN G a pathway

Create a perfect passageway between points in your yard by building a paver pathway. Here's how to put together a path that will look great and last for years.

Whether you want to create a formal entryway to your home or a casual path in your backyard, few options are better than a paver pathway. There are a lot of reasons why.

First of all, pavers offer a warmth that's undeniable. See a good-looking paver path, and it just begs to be followed.

Pavers are also available in a huge variety of styles, which means you can create any atmosphere you want, from sophisticated to laid-back. Just look at the three photos on these pages, and you'll see that each path has a distinctive feel and a



unique look. But they're all built in essentially the same way.

Pattern Possibilities— The ability to customize comes from the fact that pavers are made from several materials, such as stone, clay, and cast concrete. And they're available in about any combination of size, color, and shape you can imagine. Just a few paver options are shown on page 45. Clay and cast concrete pavers are available as near as your local home center, while stone versions are usually sold in landscaping supply stores.

In addition to options in type, size, and color, most pavers can be laid in different patterns. Traditional clay "brick" pavers, for example, can sit in simple rows known as a "running bond" pattern, as shown in the *Illustration* on page 45. Or they can be arranged in a more formal "herringbone" arrangement, as shown at left and above. A "basket weave" is another popular option.

Cast concrete pavers offer even more options because they're usually made in three or four sizes that are designed to work together. That means you can choose just one size, as shown at right, or mix and match the sizes to create unique patterns. And you can mix paver colors for even

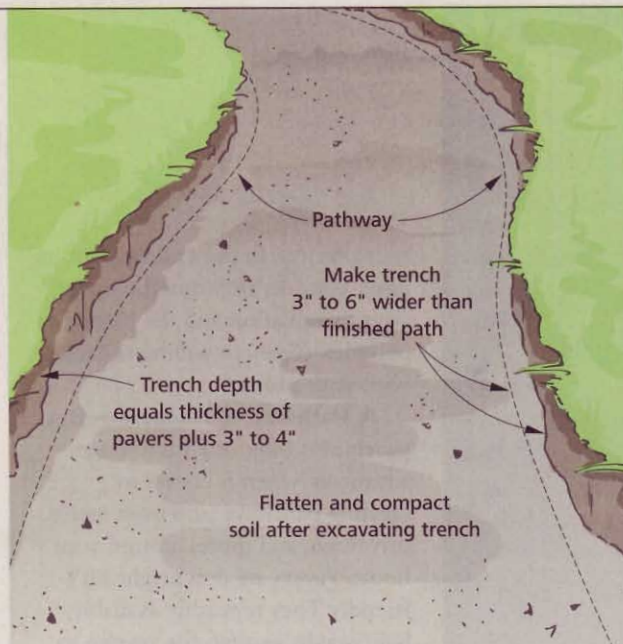
more variety. In the end, options in paver patterns are limited only by your imagination and the degree of complexity you're willing to tackle with your project.

A Pathway to Success— But pavers also offer one more huge advantage when it comes to creating pathways (and even patios, driveways, and more) around your home. Pavers are downright DIY-friendly. They're readily available, lightweight enough for anyone to handle, and don't require many specialized tools.

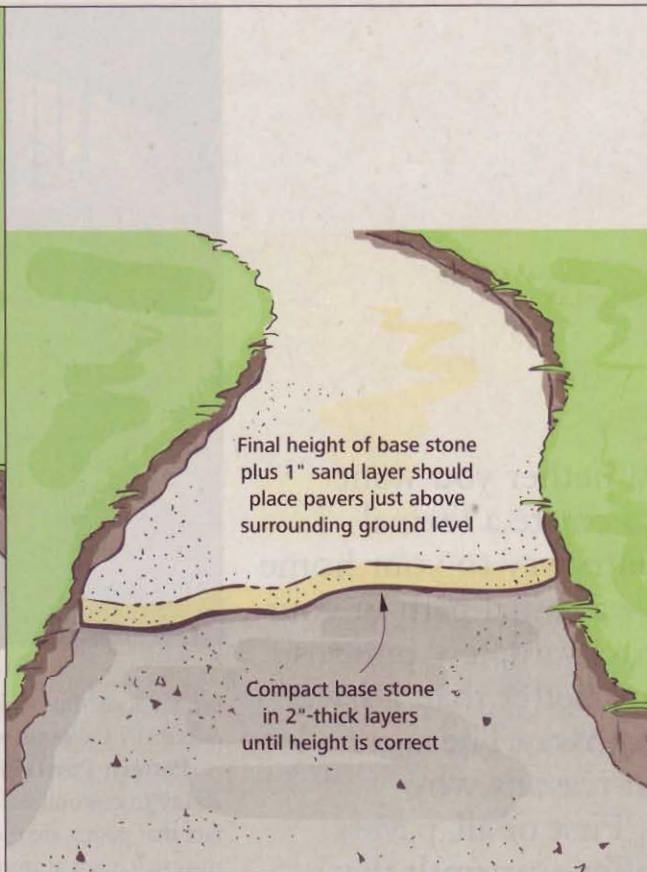
Building a paver pathway does require labor. You'll have to do some digging, and then move a lot of rock, sand, and pavers. But if you're willing to put in the effort, you can really add style and value to your landscape, and at a fraction of the price you'd pay to have it done.

The one thing you'll definitely need, regardless of the type or style of pathway you plan to build, is a solid understanding of how a paver pathway goes together. That's what we'll cover on the next two pages. Again, there's nothing difficult about the process, but the proper preparation and techniques will ensure that your path looks great for decades to come.





1] Dig a shallow trench for your path foundation. Make it deep enough for the base, sand, and pavers, and a few inches wider than the path.



2] Shovel in a layer of base stone, and then compact it to 2" thick. Add stone and repeat until the base height is correct and the surface is flat and smooth.

Pathway Anatomy—Before you dig into your pathway project, you need to understand what's involved. There's more to it than just laying them out on the ground. The *Illustrations* above show that the pavers sit on a two-layer base. The bottom layer is crushed stone that gets compacted to form a solid foundation. A layer of sand sits atop that to form a setting bed for the pavers. Both sides of the path are held in place with edging that keeps the pavers from shifting around. And sand gets swept between the pavers to lock them together, so they don't move around underfoot.

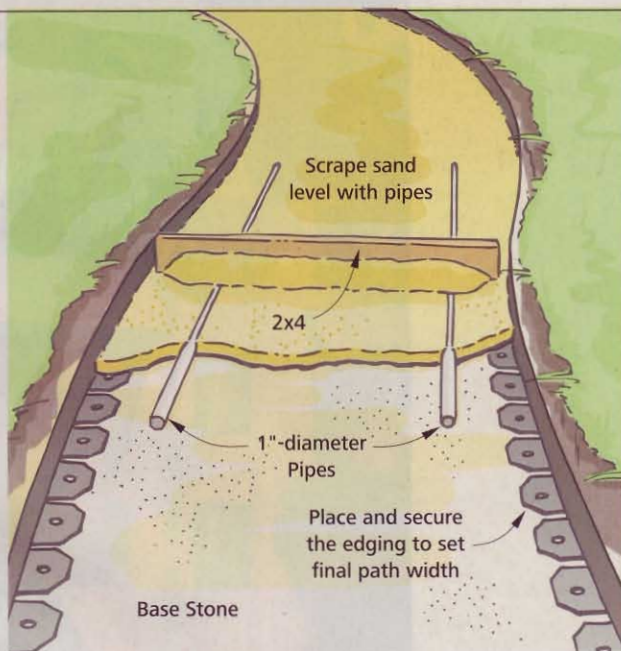
Plan the Pathway—With these things in mind, you can start your project by drawing a sketch of your pathway. Take your time to measure accurately and draw your yard to close scale. Then make several photocopies of the drawing. That way, you can sketch multiple ideas for your path to determine its shape and location. Plus you can add *measurements to this drawing to determine the quantity of pavers and other supplies you'll need to buy.*

Don't be surprised, by the way, when you realize that a path of any size will call for hundreds of pavers, and possibly several tons of base rock and sand. The folks at the home center can help you calculate how much you'll need. Then you can determine if you want to make multiple trips with a truck or have everything delivered.

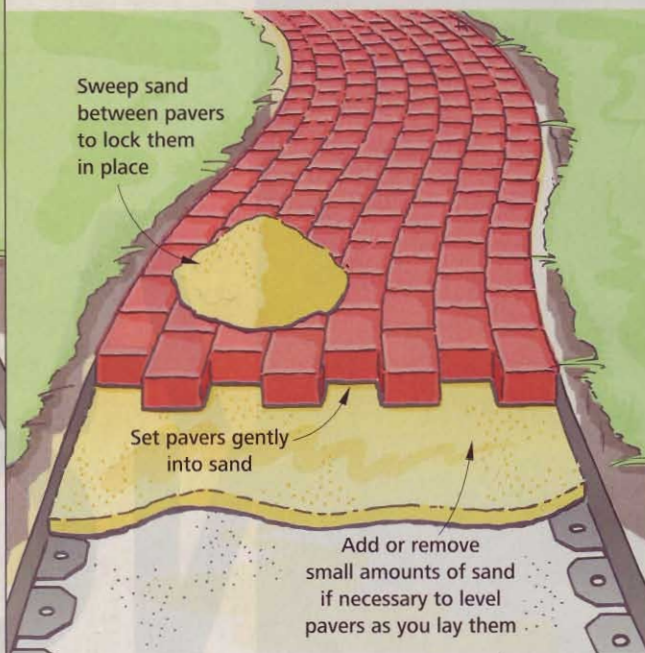
Excavate—When you have your materials, it's time to get out the shovel and excavate. You won't be digging deep, but be sure to call first and have local utilities located. Then dig a flat-bottomed trench (*Fig. 1*). The depth should allow for the thickness of your pavers, a 1"-thick sand bed, and a base at least 2" thick. (If your soil is soft, plan on a 4"-thick base.)

Prepare the Base—Next, you need to compact the soil in the bottom of the trench using a plate compactor. You can rent one for about \$60 per day. Run it over the bottom of the trench a couple times to firm up the soil.

Now add the crushed base stone (*Fig. 2*). Then compact the rock until it's solid. If necessary, add more rock and compact again. This base layer needs to be smooth and flat.



3] Lay 1" conduit or PVC pipes on the base, and then pour in sand. Use a 2x4 to screed the sand level with the pipes, and then remove them.



4] Lay edging, and then set the pavers gently on the sand bed. Then sweep sand between the pavers, and go over them with the plate compactor.

Add Edging—With the base done, you need to add the edging that will hold the pavers in place. You can either measure and install the edging on both sides of the path, or just edge one side, and then do the other after the pavers are in. That depends on the edging you use, the path shape, and the pavers. Check the manufacturer's recommendations.

Make the Bed—The sand comes next. The best way to ensure a consistent thickness is to lay 1" pipes on the base, cover them with sand, and then spread the sand with a 2x4 (Fig. 3). Then remove the pipes and fill in the gaps.

Place the Pavers—Now it's time to lay the pavers (Fig. 4). Set them gently on the sand. Don't hammer or press them in. If pavers need to be cut, you can do that as you go. Or just leave out the ones that need cut for now, and do all the cutting at once later on.

Once everything is in, sweep dry sand over the path, and work it between the bricks with the plate compactor. Finally, fill dirt in along the edges of the path. 

—Written by David Stone, illustrated by Matt Scott

CAST PAVER OPTIONS

Possible looks for your paver path have grown a lot in recent years thanks to the introduction of cast-concrete pavers. You'll find traditional brick and cobblestone styles, as well as versions that are cast in molds for a unique look.



HANG ING a pot

Add a splash of color to exterior spaces with these easy-to-make pot hangers. They grip clay pots firmly, so you can display flowers on just about any wood surface outside.

Whether on a deck, patio, or porch, live potted plants help transform humdrum exterior spaces into beckoning outdoor retreats. To achieve that end, many flower lovers dot their outdoor rooms with pots of all sizes and descriptions. While they are beautiful, it can get hard to find space for them all. To solve that problem, we devised a way to get





“These cleverly designed pot holders are so easy to make, you’ll want to build a bunch for your friends and family, too.”

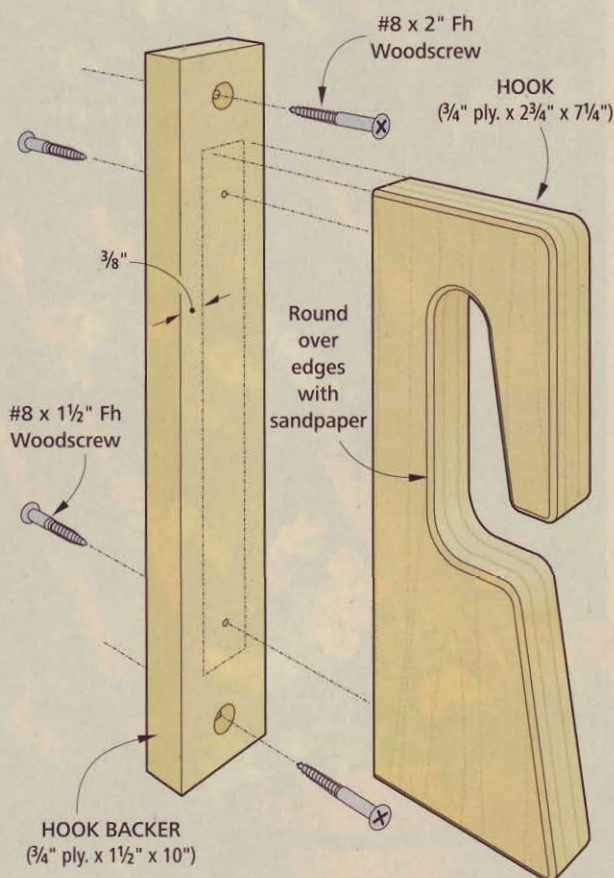
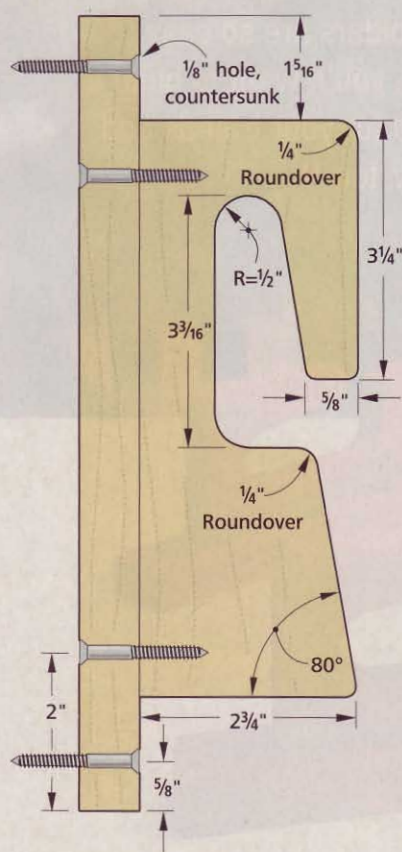
some of those pots off the ground that requires little time and expense.

These clever pot hangers are so easy to make, you’ll want to build a bunch for your friends and family, too. They feature a hook that reaches over the rim of the pot and mounts in the back where it’s scarcely noticed. An angled lower half keeps the pots level, and a backer allows easy mounting to fence and deck posts.





Level the Pot. Pots come in different shapes, so adjust the angled portion of the hook to match the angle of the pot.



Hangers in Four Easy Steps

There's nothing at all difficult about building the hangers. Each is just two pieces—a hook that reaches over the rim of the pot to hold it, and a backer that allows you to mount the hook where you want it (*Illustration, above*).

These two pieces are simply cut to shape from $\frac{3}{4}$ " plywood. You can pick up a quarter-sheet of exterior-grade plywood at the home center and have enough to build a whole batch of hangers. For tools, you'll need a drill and a jigsaw to make the hooks.

A table saw is helpful for cutting the pieces to size, too, but you could get by with a circular saw, as well.

Getting Started—To begin, cut a batch of backers. It's easiest to rip a strip from your quarter-sheet, making it $1\frac{1}{2}$ "-wide by 48" long. Then cut the strip to length to create the number of individual backers desired.

Now move on to the hooks. They start the same way, as strips that are $2\frac{3}{4}$ "-wide x 48" in this case. But instead of cutting them apart, you

want to leave the strip whole while you create the hook profiles. That's because it is a lot easier (and safer) to hang onto a large piece as you drill and cut than it would be to work with the small hook pieces.

Creating Hooks— To make the hooks, start by laying out the shape on your strip. WorkbenchMagazine.com offers a free cutting diagram to make this even easier.

After you print and cut out the pattern, hook it over the pots you

intend to hang. That way, you can see whether the angled portion of the hook matches the angle of the pot side. You want the pot to sit level in the hook. If it doesn't, you can make the angle a bit steeper or shallower until it matches your pots just right.

Now use the template to trace the shape of the hooks onto the strip. You can lay them out one below the other. Just be sure to leave a little in between the bottom of one and the top of the next for when you cut the hooks free of the strip.

Now you can cut out the hook shape. To create the inside curves, start by drilling holes with a spade bit (Fig. 1). Then use a jigsaw to do the rest (Fig. 2).

Final Assembly— That done, you're almost ready to assemble the hangers. But first, you'll need to drill two pairs of holes in the hook backer (Illustration, page 48). One pair is for screws that attach the hook to the backer. Note that these are counter-sunk from the back side. The other



1] Drill the Holes. Use a backer board behind your strip to prevent the holes from blowing out at the back.



2] Cut the Hook Shapes. Following the layout lines, use a jigsaw to cut the shape of each hook freehand. Then crosscut each hook free from the strip.



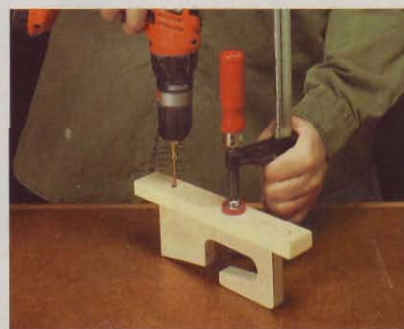
3] Fill the Edges. Just use your finger to fill any cracks or gaps on the edges with an exterior-grade wood filler.

holes are for screws used to install the completed hanger. They're counter-sunk from the front.

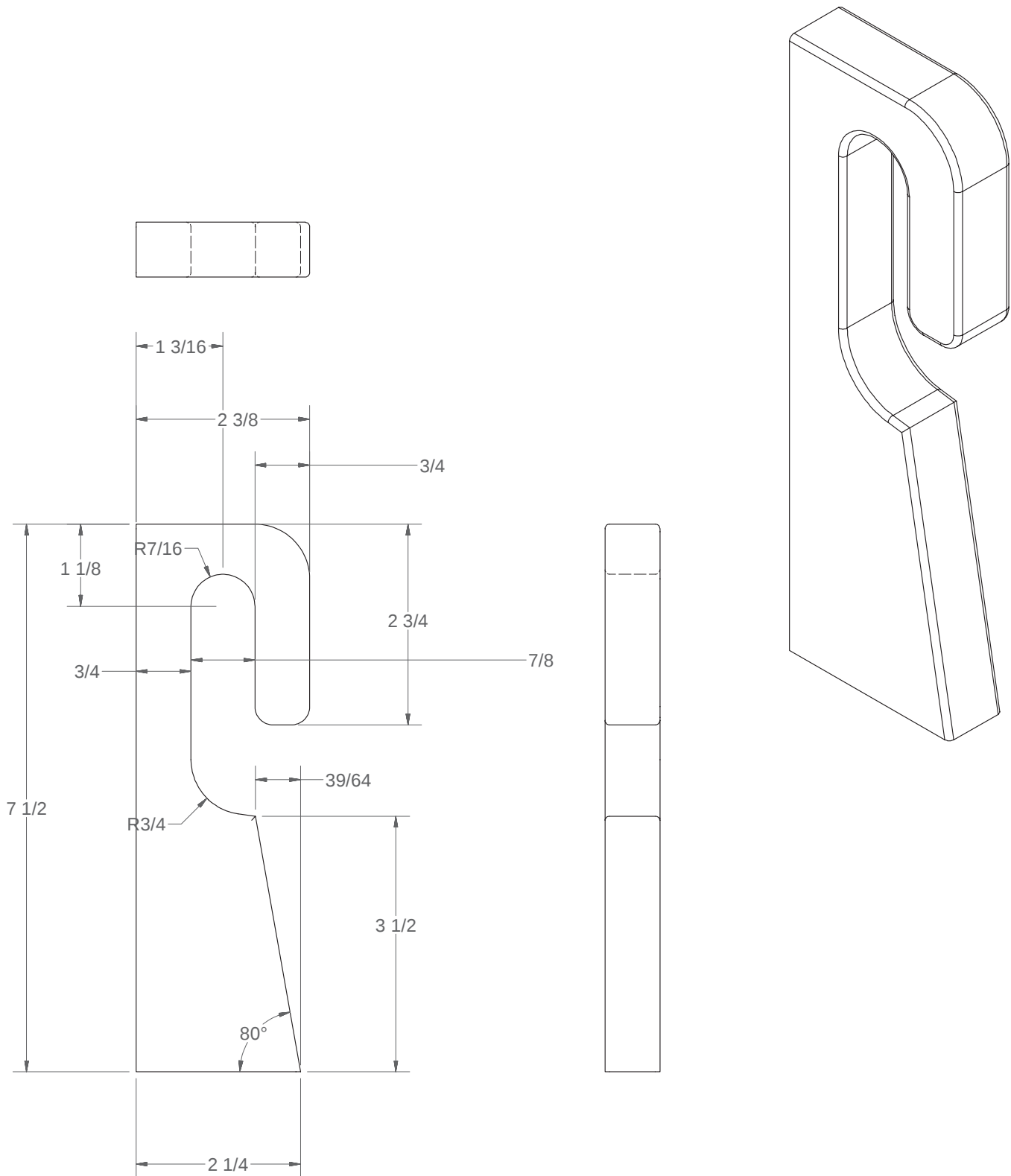
After that, you'll want to fill the edges of the plywood pieces. That's because the edges of plywood are rough and can have voids that would soak up water. Filler solves both of these problems. Just work it in as shown in Fig. 3. Once the filler dries, sand it smooth, and ease the sharp edges on the pieces. Now assemble the hangers (Fig. 4).

The last step is to add paint. We chose a terra cotta color, so the hangers would blend in with the clay pots. 🏠

—Written by Louise Ritchhart,
illustrated by Erich Lage, project designed
by John Doyle



4] Screw Them Together. Clamping the two pieces together first makes it easier to secure them with screws.





10 great
lawn & garden
STORAGE

SOLUTION

Spring is in the air, and it's time to get outside. Of course, that means dusting off the tools you need: shovels, rakes, and trowels, among others. It also means you need places to store all those tools when not in use.

In years past, a nail or two driven into the wall was sufficient for hanging lawn tools. But most of us have more to store these days, which means the simple nail is not enough.

Thankfully, you'll find a host of options for tool storage that, while costing more than a nail, are still surprisingly affordable. Here are 10 of our favorites.

■ RocRac

This heavy-duty hanger's arms swing out smoothly and lock securely, allowing easy access to all your tools.



Rack Rakes & Shovels—Long-handled tools are arguably the most-used, but they also might be the hardest to store. Manufacturers have come up with a number of innovative ways to overcome this problem. The RocRac (*above*) has three stacked arms that swing out from one heavy-duty pivot point. The result is 12 linear feet of storage in about three feet of wall space, all for \$80.

For those with just a few rakes or shovels, this Flip-Up Tool Holder

(*below, right*) is a good solution. When in use, it holds three tools and takes up a few inches of space. When not in use, it flips up flat against the wall. It's available at many home centers for \$5.

Of course, some long-handled tools just won't hang on a hook easily. That's where these Gripit tool holders (*below left*) come in. Their unique adjustable design accommodates different handle diameters easily. Individual holders are \$5, or a rack with three sells for \$20 at Lee Valley.



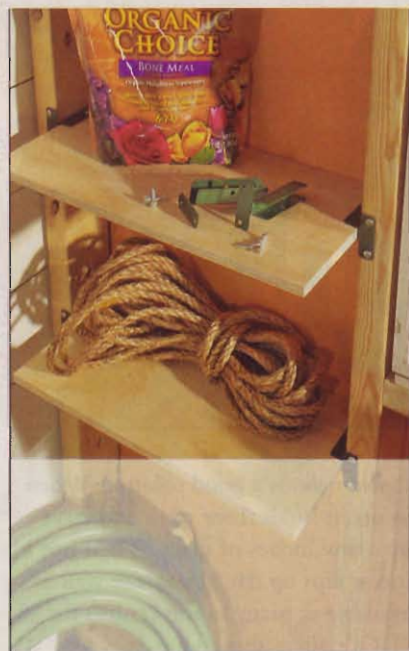
■ Gripit & Flip-Up

For smaller tool collections, these two hangers offer inexpensive storage solutions.

NS

■ Shelf Brackets

For \$10, you can buy this set of eight brackets for making four between-stud shelves in a garage or shed.



■ Mesh Storage Bag

Keep small garden needs on the wall or on your belt loop with this bag. Its bright color means it won't get lost.



Put Away Potting Needs— Few springtime activities are as messy as potting plants. There's just not a good place to put all those pots and bags of soil. But Lee Valley came up with a novel solution with its shelf bracket set (*left*). These simple steel brackets get screwed to your garage's wall studs. Each pair accepts a 1/2" plywood shelf that can be up to 8" deep. A set of eight brackets (enough to make four shelves) sells for \$10.

■ Stow Short-Handled Tools

Small garden tools (such as forks, cultivators, trowels, and shears) are vital to your success when gardening and landscaping. Yet these tools come in so many different shapes and sizes that they're not as easy to corral in one place as long-handled tools.

That's why the best solution here is a hanging system that's not dependent on the shape of the handles. Instead, try a magnetic strip for stowing these small tools (*top of page 53*). The strips are available in lengths of 13" (\$10) and 24" (\$16) at



■ Garden Hose Hanger

It may look like just a hook, but this garden hose hanger is a lifesaver when it comes to taming tangled hoses.



■ Wheelbarrow Hang-up

To get a wheelbarrow out of your way, place the front lip in the lower hook, pivot it up, and secure it with the top hook.

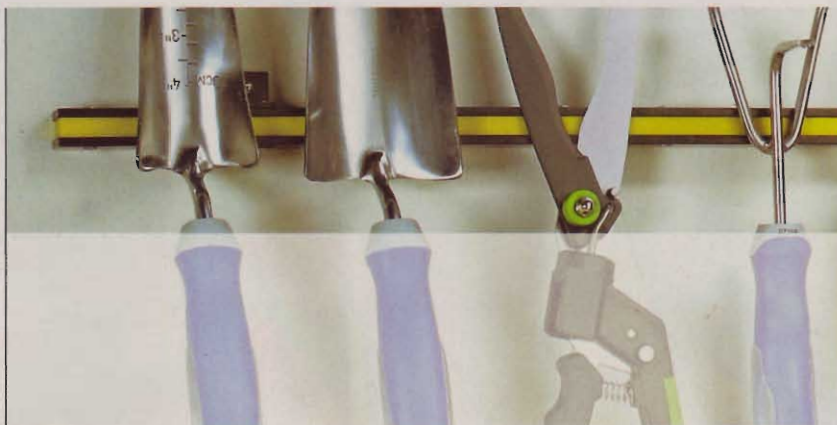
hardware stores and online retailers. You can also mount them side by side to create longer storage strips.

Of course, some small items aren't magnetic. And that's where this simple mesh storage bag from Lee Valley (\$8) comes in handy. The mesh allows dirt to fall through, and it also makes it easy to see what you're looking for. It has a hook-and-loop seal at the top and a hook for hanging it in the garage or on your tool belt (*far left*).

Corral Specialty Items— Few lawn tools are as unwieldy as the wheelbarrow. But ClosetMaid ends that inconvenience with a hanger (\$12) that gets even the biggest wheelbarrow up and out of the way (*above*). The secret is a two-hook system. One hook mounts lower on the wall to capture the front lip of the wheelbarrow. A smaller, flexible hook mounts higher on the wall to hold the back edge.

Another simple and inexpensive option from ClosetMaid is this garden hose hanger (*left*). It's available for just \$5 at Lowe's stores.

Power tools like string trimmers, blowers, and pruners are becoming



■ Magnetic Tool Bar

Small tools come in all shapes and sizes, but as long as they're metal, a magnetic strip will keep them in place.

■ Power Equipment Hang-up

Keep the power tool and cord in one convenient place with this two-hook solution from ClosetMaid.

increasingly affordable and indispensable for the home user, so convenient places to hang these tools are a must, as well. Both ClosetMaid and Everbilt have answered the call with power tool hangers (*right*). These are simple three-pronged hooks that mount to a single wall stud. The upper double hook is sized to hold string trimmers, blowers, edgers, and other common outdoor power tools. The lower hook is perfect for wrapping a cord around. These hooks are available at home centers and hardware stores for around \$7.

Get an All-in-One Answer—

Of course, we'd be silly to assume that you only need to store just one type of lawn equipment. Manufacturers have picked up on this,

as well, which is why all-in-one garage storage systems are becoming increasingly popular.

One drawback to these systems is the high price, which is why we liked this economical Garden Tool Organizer from Lee Valley (*below*). It's a large mesh bag with 16 storage pockets that hold virtually any garden tool you can think of, all for just \$60.

—Written by Wyatt Myers

■ Garden Tool Organizer

Why store just a few tools when you can store them all? This huge mesh bag has 16 pockets for all your storage needs.



SOURCES

Lee Valley
800.871.8158
LeeValley.com

ClosetMaid
800.874.0008
ClosetMaid.com

RocRac
919.772.1201
RocRac.com

Lowe's
800.445.6937
Lowe's.com

Home Depot
800.553.3199
HomeDepot.com

Racor
800.783.7725
RacorInc.com

Suncast
800.444.3310
Suncast.com

Schulte
800.669.3225
SchulteStorage.com



4 EASY STEPS TO A NEW BATHROOM

A bathroom should offer the perfect blend of style and function. And while there's no question that the bathroom shown in the "Before" Photo provides plenty of useful storage space, let's be honest — it's seriously lacking in the style department. The wood-grain vanity and "Hollywood" medicine cabinet might have created an appealing look 10 years ago, but they definitely look dated today.

It doesn't take big bucks to give your bathroom a bold new look, though. With some paint, new lighting, a custom mirror, and a simple cabinet project, we gave this one a "do-over"—all for just \$300.



before



after

1] Start with a New Cabinet

Made with painted poplar and glass shelving, this open "cabinet" is simple to build and offers more space than the cabinet it replaced. Full instructions for building it begin on the next page.

2] A Whole New Light

Our old cabinet had lighting built in, so we replaced that with an inexpensive, contemporary light fixture from the home center.

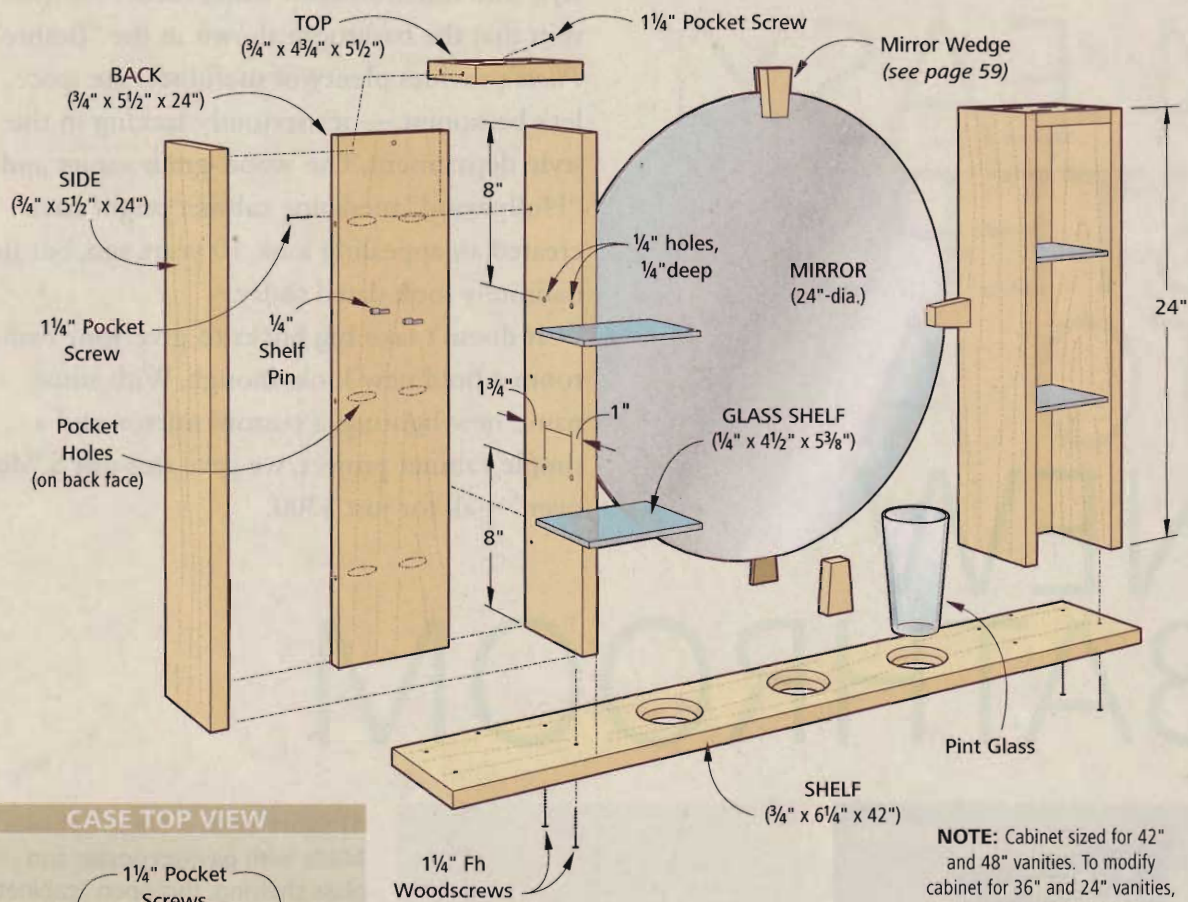
3] Go Round with a Mirror

The round mirror is the most expensive part of this makeover, but it's well worth it for how nicely it complements the cabinet. Four "wedges" complete the look (page 59).

4] New Purpose from Paint

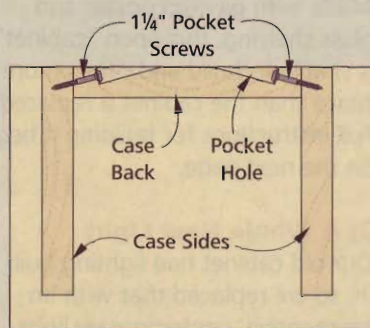
That just left the wood-grain vanity, which we made quick work of with a new paint job. Just rough up the surface with sandpaper, and then prime and paint the cabinet.

CONSTRUCTION VIEW

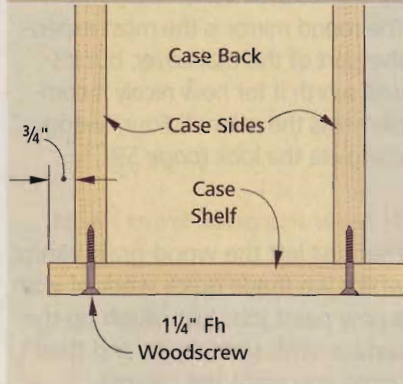


NOTE: Cabinet sized for 42" and 48" vanities. To modify cabinet for 36" and 24" vanities, see WorkbenchMagazine.com

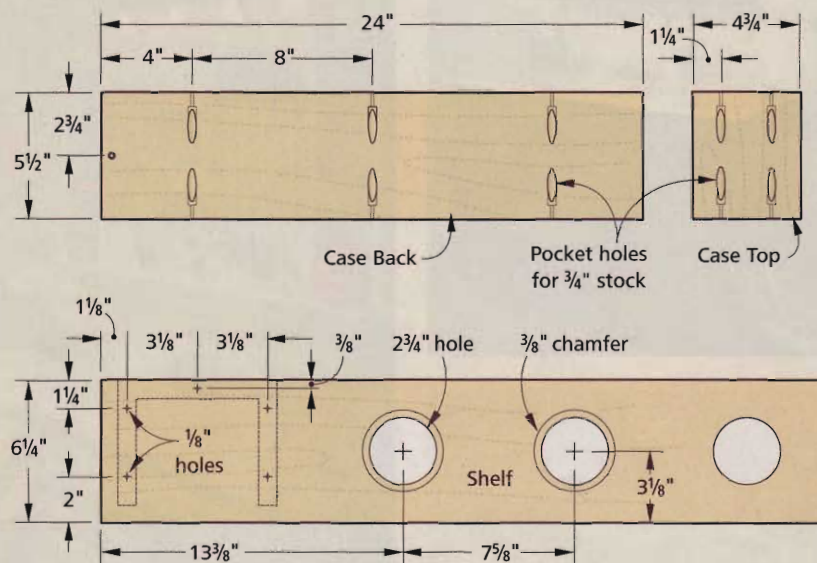
CASE TOP VIEW



CASE FRONT VIEW



PARTS VIEWS



Getting a custom, one-of-a-kind look in the bathroom doesn't have to be difficult. In fact, this "cabinet" is made from 1x poplar material that you can pick up at the home center.

Most of the parts (the case sides, backs, and tops) are made from 1x6s that you just crosscut to length with a miter saw or circular saw. The only table saw cut you'll need to make is on the long shelf that also serves as the case bottoms. It's made from a poplar 1x8 that gets ripped to width.

Otherwise, all that's required to complete this project is drilling a few holes and driving a few screws. Even those large holes for the decorative pint glasses on the shelf are simple to make. The cabinet is assembled with pocket screws, and the shelves are held up by shelf pins.

Those shelves, by the way, are made from 1/4" glass that we ordered from the same local glass supplier as the round mirror. And the pint glasses add a whimsical touch. If you look closely, you'll see there's a small chalkboard on the front of each glass, so members of the family can personalize their own.

BUILD & CONNECT THE CASES

1] Pick up your 1x6 and 1x8 poplar stock for making the cases, as well as



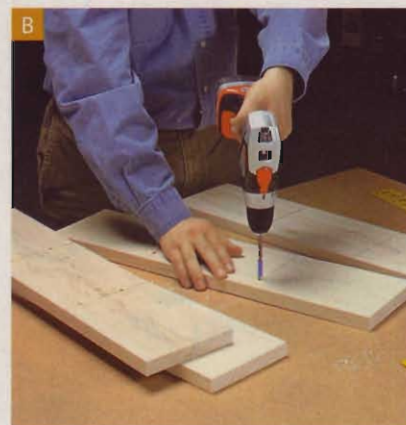
the other supplies and hardware. You'll need to have the mirror and glass shelves cut at a local glass shop.

2] Cut the case sides, backs, and tops to length out of the 1x6 stock using a miter or circular saw.

3] Cut the case bottom to width out of the poplar 1x8 using a table saw. Then crosscut it to length.

4] Before assembling the cases, you need to drill holes for shelf pins that will hold the shelves later on. An easy way to make sure the holes align is to clamp all four sides together, and then use a framing square to mark the hole locations across all four pieces (*Fig. A*).

5] Next, carefully measure and drill the shelf pin holes. But before you do, put tape around the drill bit to



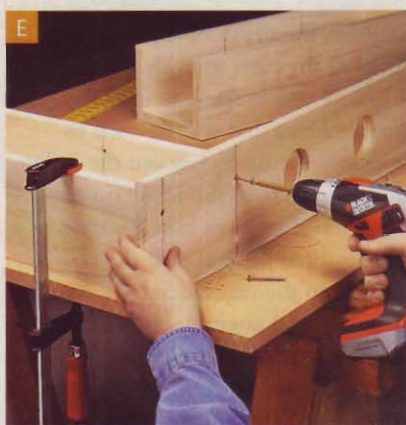
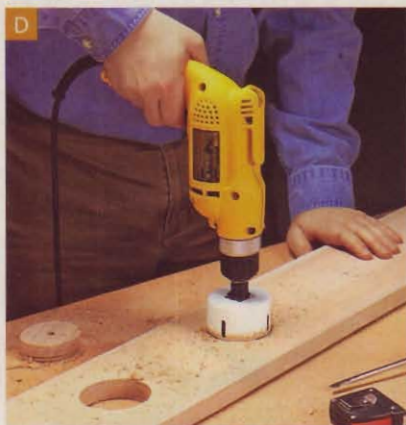
establish the depth of the holes (*Fig. B*). Sand all the parts smooth.

6] Now you're ready to drill the pocket holes that will be used to assemble the cases. Lay out the holes as shown in the *Parts Views* on page 56. Then align each hole location in a pocket-hole jig, and drill the hole.

7] Clamp the case sides, back, and top together, and assemble each case by driving in the pocket screws (*Fig. C*).

8] You're just about ready to screw the shelf to the bottom of the case sides. But first, you need to drill holes for the pint glasses. This is accomplished using a drill equipped with a 2 3/4" hole saw. Carefully measure and mark the holes for these glasses first. Then drill them out (*see Fig. D on page 58*).





9] After drilling the holes in the shelf, we softened the top edges by routing chamfers around them. This is an optional detail, but if you'd like to add it, just equip a router with a chamfer bit, adjust the depth of the bit to $\frac{3}{8}$ ", and carefully rout clockwise around each hole.

10] Now you can attach the shelf. First, lay out the position of the cases on the shelf with a square and a pencil. Then set the cases (with their backs facing down) on a flat surface and roughly positioned as they will be on the shelf.

11] Next, move the shelf into position, and clamp it to the cases. Countersink screw holes through the shelf and into the case sides, and then drive in screws (Fig. E).

12] All that's left is to do any final spot-sanding, and then prime and paint the cabinet.

INSTALL THE CABINET

There's a reason these cases have thick back panels. They make installation simple, as all you have to do is drive

screws into the wall to secure them. Then, just a few touches (the glass shelves, the mirror, and the decorative pint glasses) complete your new bathroom cabinet. Here's how it all goes together:

1] Lay out the position of the cabinet on the wall with a tape measure and a pencil. Also determine the location of the wall studs.

2] Pre-drill two countersunk pilot holes in each case for mounting the cabinet to the wall, one at the top and one at the bottom. Where you can, align these holes with wall studs.

3] If the pilot holes can't align with wall studs, install heavy-duty drywall anchors in the wall at these locations (For more information on drywall anchors, see page 66.)

4] Using a helper for assistance, lift the cabinet into position. Place a level on the shelf, and adjust it until the case is level. Now install it by driving screws through the holes in the case and into the wall behind it (Fig. F).

5] With the cabinet installed, you can mount the mirror between the cases. Carefully lay out its position first. Then place strips of mirror tape on the wall near the top, bottom, and sides of the mirror, and run beads of mirror mastic (a product similar to construction adhesive that's made for mirrors) every 3" between these strips of tape. Now press the mirror firmly

in position, and hold it for about a minute. The tape will hold the mirror in place while the mastic dries.

7] Now add the glass shelves using the shelf pins, and slide the pint glasses into the holes in the shelf (Photo, far right).

MAKE MIRROR "WEDGES"

To really dress up the simple round mirror, we added four wedge-shaped pieces around its perimeter. These wedges presented a couple of construction challenges. First, you have to cut a 10° taper on the edge of each wedge. And second, a 1¼" lip needs to be added to part of the back of each wedge, so there won't be a gap where it meets the wall.

To make the wedges in a way that solved both of these problems, we started with a longer blank of poplar. Then we glued a long piece of hardboard to one face of the blank. Once the wedges are cut out, these hardboard pieces form the lips on the wedges (Illustrations, right).

Now it's just a matter of cutting out the wedges, which is easy on a



miter saw. Rotate the saw to 10°, and make a cut (Fig. G). Then flip the glued-up blank over, and make another cut (Fig. H). That creates one wedge, as well as the first edge of the next wedge. Keep flipping the stock and cutting (five times in total) to create the four wedges.

After painting the wedges to match the cases, we installed them on the top, bottom, and sides of the mirror by applying strips of mirror tape to the backers where they meet the wall. A level comes in handy for aligning the wedges on the top and bottom of the mirror (Fig. I).

DESIGN OPTIONS

The bathroom featured in this makeover has a 48"-wide vanity, which is a little larger than your average bathroom vanity. However, it'd be easy to modify the design of this cabinet to work with a smaller vanity, as well.

For a more common 42" vanity, for example, you could shorten the

shelf just a few inches. A 36" vanity would require shortening the shelf even further, which might demand a different mirror. (We found that a rectangular mirror looks good with this shorter shelf.)

A 24" vanity is too narrow for this project as it is shown here (featuring two cases), but by pairing just one of the cases with a shelf and a rectangular mirror, you can get an interesting asymmetrical look. To see builder's drawings of all these design options, be sure to check out the "Online Extras" on our website: WorkbenchMagazine.com.

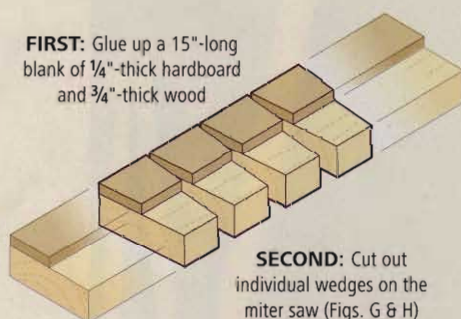
—Written by Wyatt Myers, illustrated by Erich Lage, project designed by Mike Donovan

>>design detail:
way-cool "wedges"

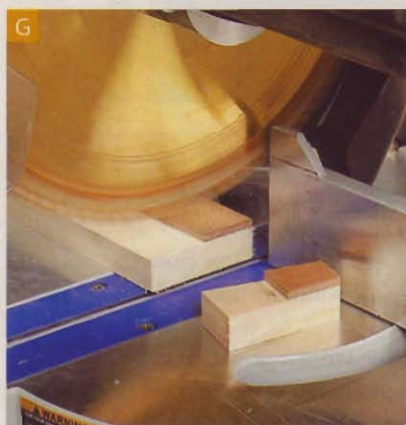
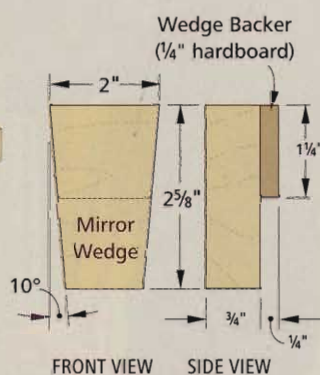


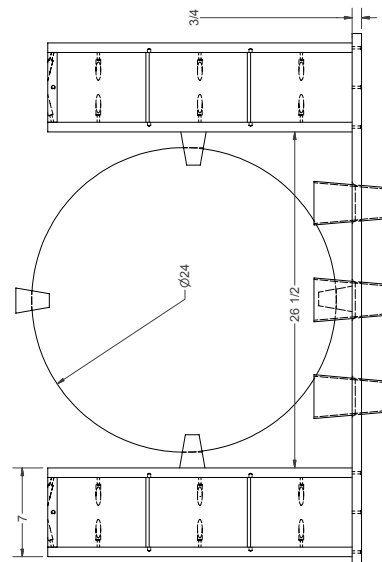
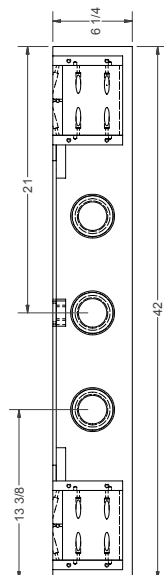
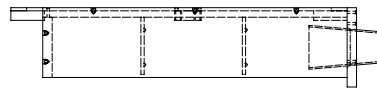
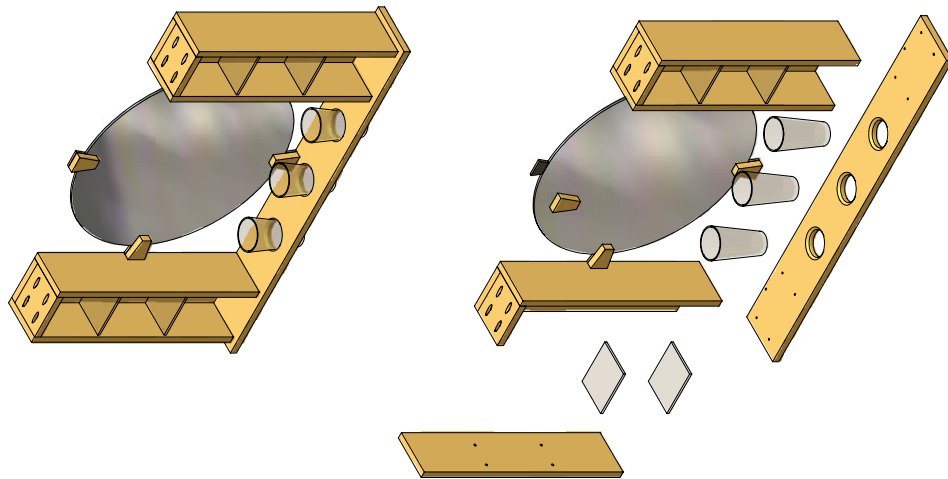
MIRROR WEDGES

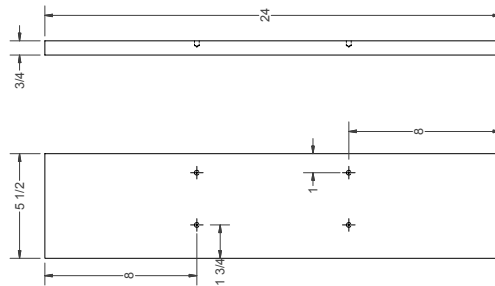
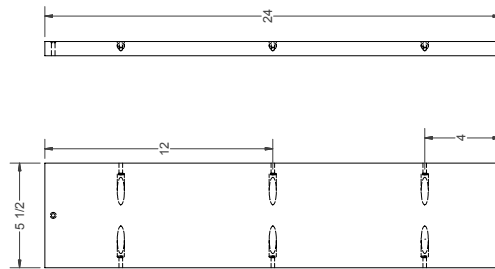
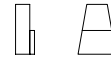
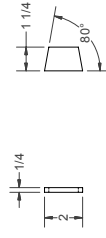
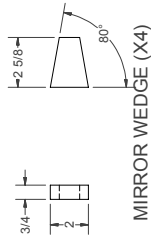
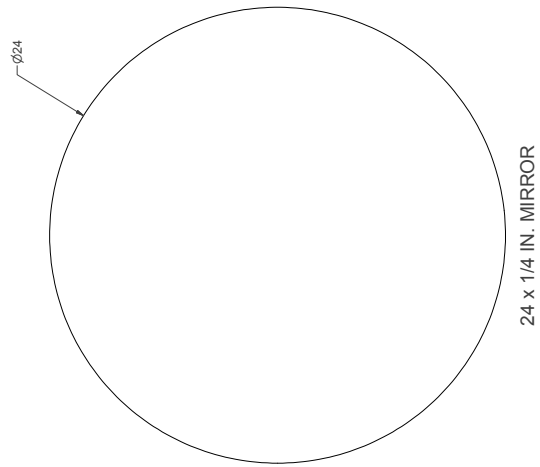
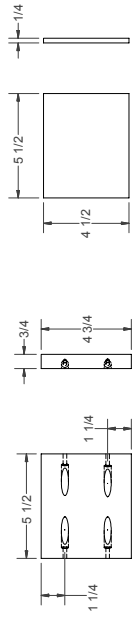
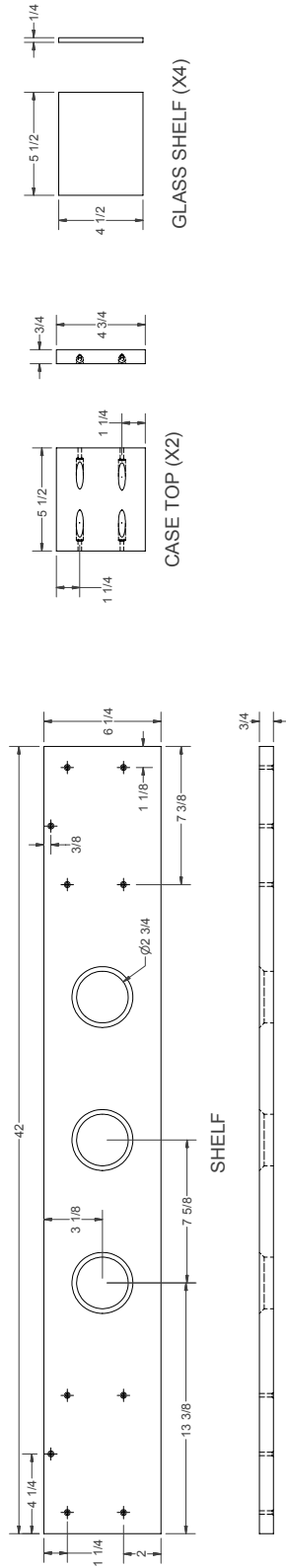
FIRST: Glue up a 15"-long blank of 1/4"-thick hardboard and 3/4"-thick wood



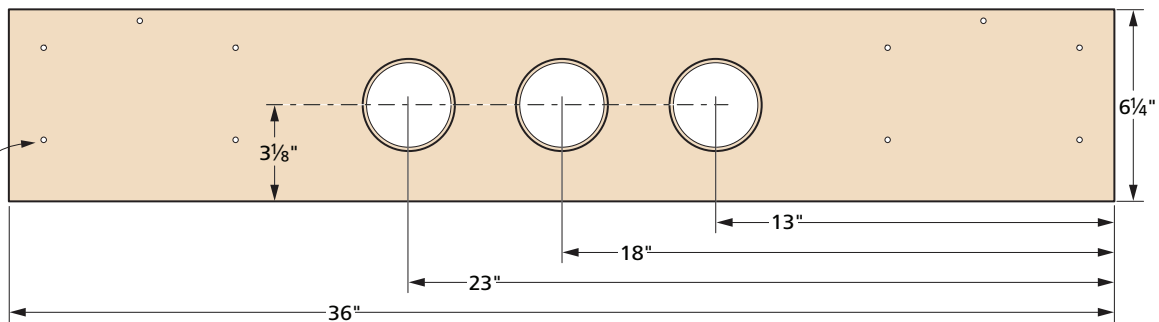
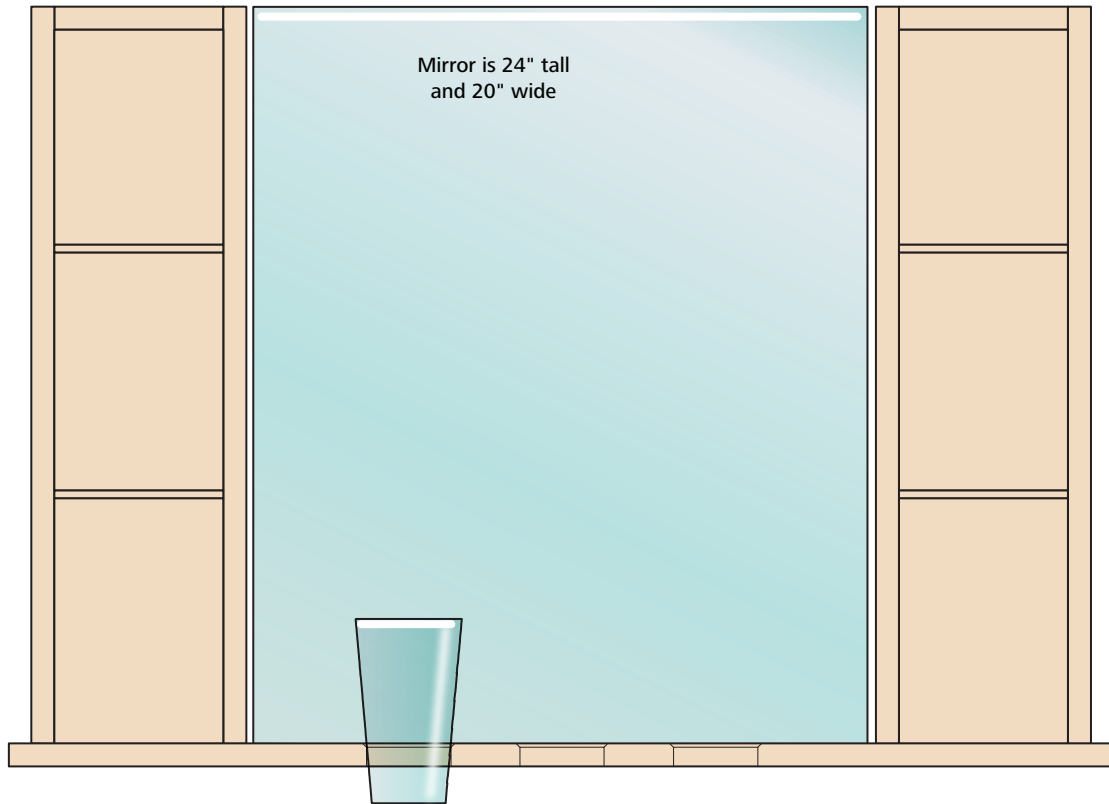
SECOND: Cut out individual wedges on the miter saw (Figs. G & H)





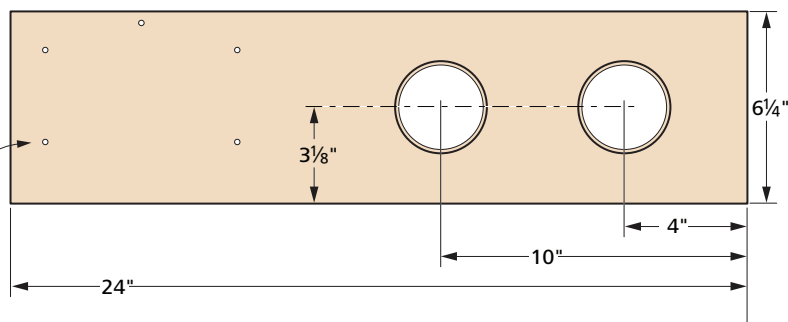
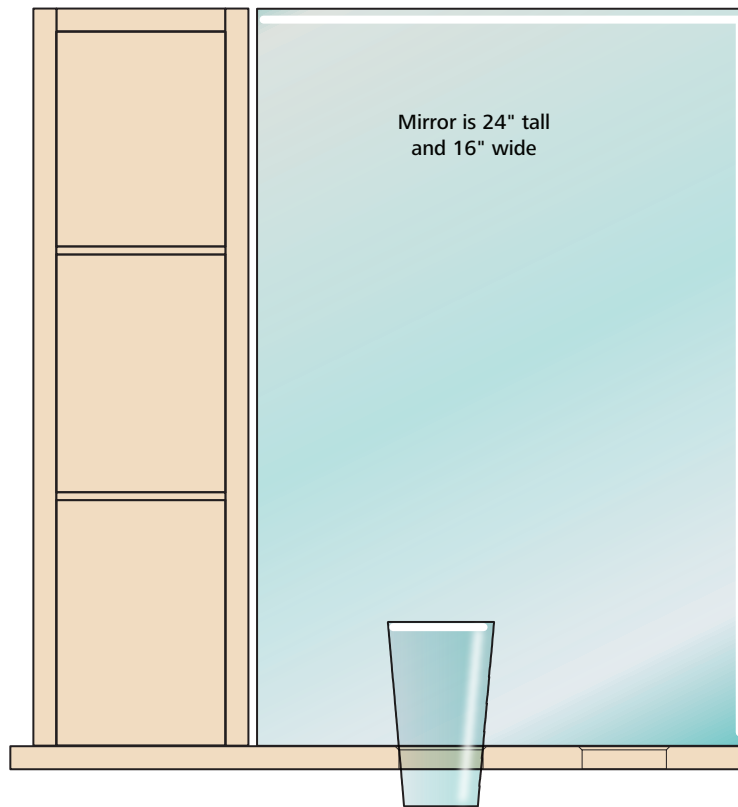


Design Option: 36" Cabinet



NOTE: See page two for Tower countersink hole layout

Design Option: 24" Cabinet



NOTE: See page two
for Tower countersink
hole layout

CHOOSING THE RIGHT

Replacement WINDOWS

You need new windows, and you're even up to installing them yourself. But the sheer number of manufacturers and models has you overwhelmed. Well, read on, intrepid DIYer, and soon your choice will be clear as glass.



PHOTOS: PHOTOS.COM/STOCK

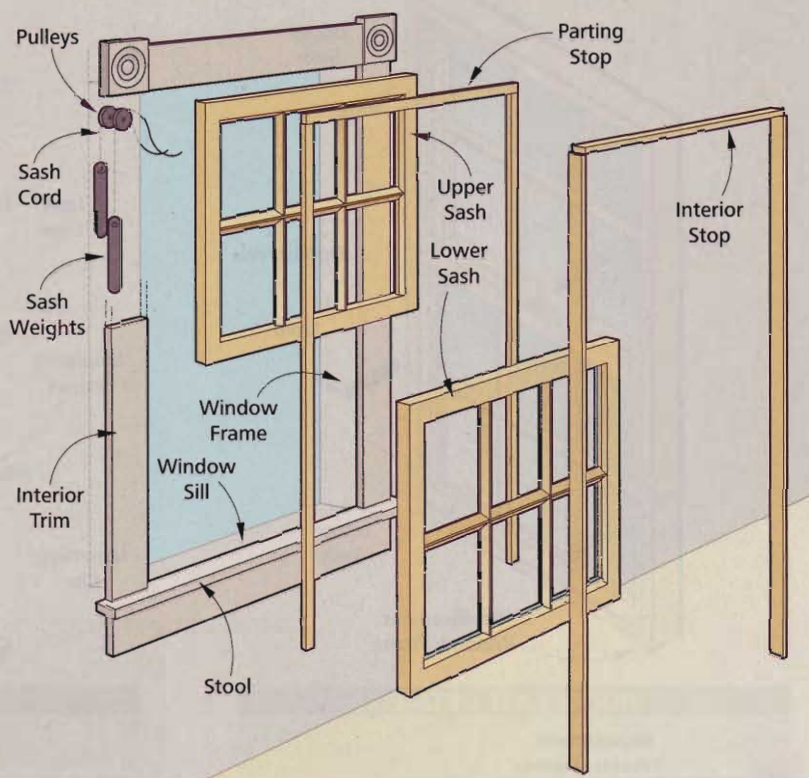


PHOTO: ANDERSEN WINDOWS

If your windows need replacing, you know it. The evidence is undeniable — they're drafty, frost builds up on the inside pane, moisture collects between the panes, they won't open, or they won't stay closed. The series of *Photos* at left show just a few examples of windows that are in dire need of replacement.

What may not be quite as obvious is that replacing worn-out windows is easier than ever for the DIYer. That's thanks to the proliferation of replacement kits available from nearly every major window manufacturer in the

WINDOW ANATOMY



market. To understand why replacement kits are so DIY-friendly, it helps to understand the basic structure of a window and how a replacement kit works within that structure.

The *Illustration* at right identifies the basic components of a double-hung window. Casement windows, awning windows, and slider windows have similar components.

The important point to understand here is how little of that structure you'll disturb in order to install your new windows. In many cases, you'll only need to remove the interior stops, the sashes, and the parting stops to make way for your new window. In older homes, you may also have to remove sash weights, or at least cut the sash cords and remove the old pulley hardware.

The specifics will vary based on your home and the replacement windows you choose. But what they all have in common is that there's no need to disturb the interior trim, exterior casing, sill, stool, window frame, or the surrounding walls.

However, the goal of this article isn't to teach you how to install replacement windows—all of the manufacturers we recommend do an admirable job of explaining how to install their product.

Rather, we'll walk you through the assessment and selection process to help you decide if replacement windows are right for you and, if so, which type, style, and materials best fit your project. Ultimately, we'll point you toward the companies

whose windows we'd gladly install in our own homes, so you can find the perfect match for yours.

ASSESS YOUR SITUATION

While replacement windows can resolve a multitude of problems, they do have some limitations. First of all, you won't be able to change the size or shape of the existing window by installing a replacement kit. For that, you'd have to install "full-frame" or "new-construction" windows. And that's when it's good to know a reputable remodeler.

You'll also have to take into account the condition of the existing opening; it must be nearly dead square and completely free of rot in the frame.

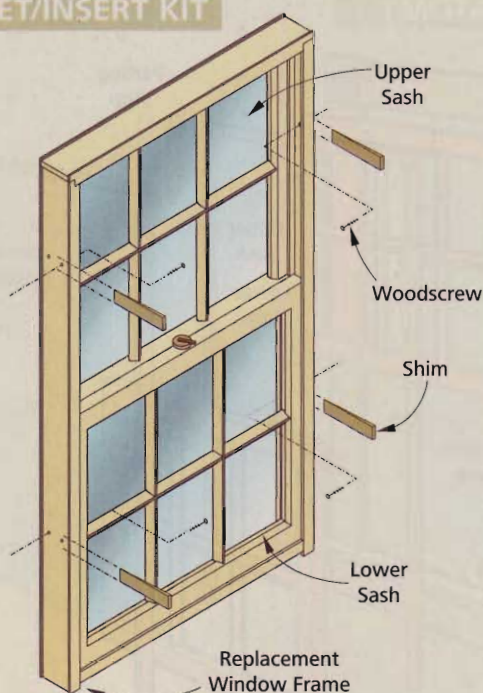
Measure for Square—To determine if the opening is square, measure diagonally from the bottom right corner to the upper left corner. Then measure again from lower left to upper right, and compare the measurements. As long as they're within $\frac{1}{4}$ " of each other, you're a candidate for replacements.

Rot Inspection—To inspect the window frame for rot, poke around on the window frame with a screwdriver or pocket knife. Pay particular attention to the sill and the lower portion of the frame sides. This is the most likely area for water to collect and cause damage. If your pocket knife or screwdriver penetrates any soft spots, you'll want to consult with a carpenter or professional window installer before proceeding with your own installation.

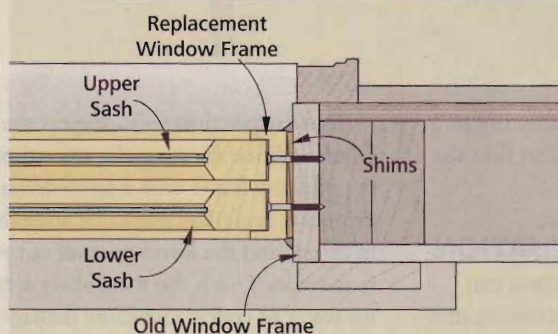
Size Matters—Finally, you'll want to consider whether you're willing to lose a little bit of glass area. That's because replacement windows actually place a new window frame inside of the old one. That means the new window sash (or sashes) will be smaller than the originals. As the sash gets smaller, so does the glass.

The amount of glass lost varies based on which type of replacement kit and which manufacturer you choose. At most, you'll lose about 3" from both the width and height of the glass. In larger windows, you may not even notice the difference.

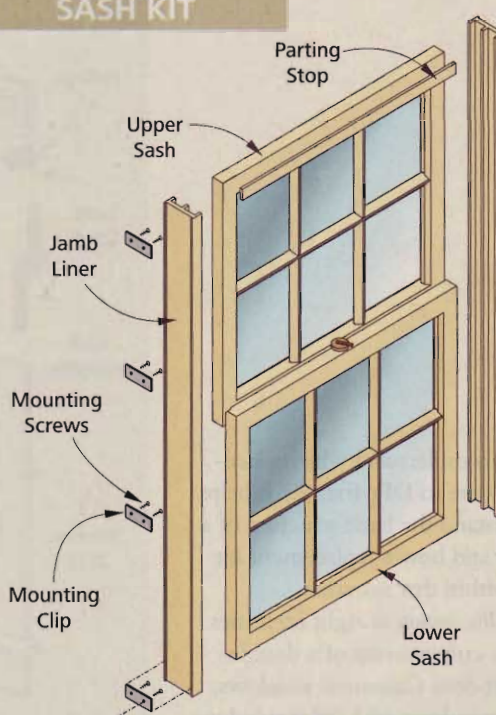
POCKET/INSERT KIT



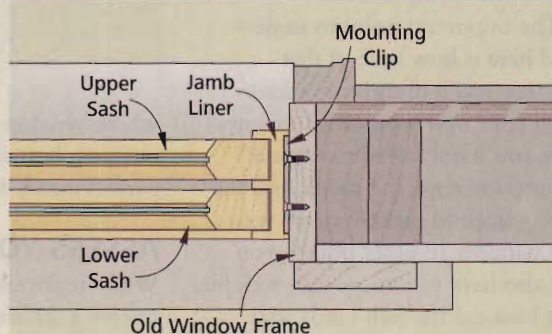
POCKET KIT DETAIL



SASH KIT



SASH KIT DETAIL



DOUBLE-HUNG

A traditional style that features two sashes that slide up and down. In most replacement windows, the sashes will tilt in for easy cleaning. A single-hung window is identical to a double-hung except that only the lower sash is moveable.

REPLACEMENT OPTIONS

Once you've determined that you're a good candidate for replacement windows, you'll need to choose either a "pocket kit" or "sash kit" for your project (*Illustrations, above*).

Pocket/Insert Kits—Pocket replacement windows, also referred to as insert windows, are essentially complete windows. They come pre-assembled as a frame that contains the sash or sashes, the parting stop (if applicable), and any operating hardware.

This pocket window slips right into the existing window frame with just a fraction of an inch of clearance all the way around it. You then shim

the frame to center it and square it before securing it with screws.

The gap between the replacement window and the existing frame may need to be insulated before you replace the window stop. If your old window stop is still in good shape, you may be able to reuse it. Otherwise, most companies offer optional replacement stops to match the new window.

Sash Kit —A sash kit, unlike a pocket window, has no frame. Rather, it's an assortment of parts that you need to assemble inside the old window frame. It's easier than it sounds.

Generally, the first step is to attach mounting clips to the existing window frame. Next, vinyl or metal jamb liners will connect to these clips. The sashes snap into the liners, and then the interior stops get replaced.

WHICH KIT FITS?

Given that neither of these replacement kits has a clear advantage in ease of installation, you'll have to decide which is best for you based on other criteria. And they each have their pros and cons.



CASEMENT

A more contemporary window style with just one sash. The sash pivots outward to capture fresh air and direct it into the home. These windows are favored for their unobstructed view, though they can be treated with muntins and grilles to mimic a double-hung window.



FIXED/PICTURE

A single sash that does not open. These are ideal for large windows that would be too heavy to operate or small windows that would offer little benefit if they did open. They are ideal for creating an unobstructed view of the outdoors.

Perhaps the strongest argument for pocket windows is selection. Most manufacturers offer pocket kits in double-hung, casement, awning, sliding, and fixed models (*Photos*). Sash kits are available only as single- or double-hung windows.

Put another star next to pocket windows for their seamless integration into the existing window frame. Once installed, there is no visible evidence that the original window was ever replaced.

With sash kits, however, the vinyl or metal jamb liners are always at least partially visible from inside the home, which detracts from the window's aesthetic.

So with two strikes against them, why should you even consider sash kits? Well, cost for one. Although it varies based on brand, a sash kit can save you as much as 30 percent per window. That's significant if you're installing an entire house full of replacement windows.

Additionally, sash kits don't reduce the glass area as much as pocket kits. There's no frame in a sash kit, so the replacement sashes are only slightly smaller than the originals. Rather than losing 3" in both directions, you may lose as little as 1".

A BIT ABOUT STYLE

As mentioned previously, pocket windows are available in a variety of popular styles. And best of all, you don't have to replace a window with exactly the same style. There's nothing that says you can't trade your double- or single-hung windows for casements or sliders.

Of course, you'll want to be sensitive to the style of your home, so you don't install a window that doesn't complement that style. But even that's not a deal-breaker anymore.



SLIDER

A modern style featuring two or more sashes, with at least one sash that opens and closes by sliding sideways in the frame. These are often preferred for their clean look and easy egress.

AWNING

Another modern style often used in conjunction with fixed windows. These are occasionally used alone and positioned higher on walls to allow for light and ventilation while maintaining a good deal of privacy.



For example, if you'd prefer to have casement windows, but the style of your home dictates double-hung windows, just take advantage of some manufacturers' grille and muntin options that make a casement look like a double-hung.

You'll also find that many manufacturers offer a variety of ways to upgrade and personalize your replacement windows to either mimic the look of the originals or create a new look. Those options include patterned glass, art glass, tinted glass, as well as

premium hardware and a wide variety of colors and finishes.

MATERIAL SELECTION

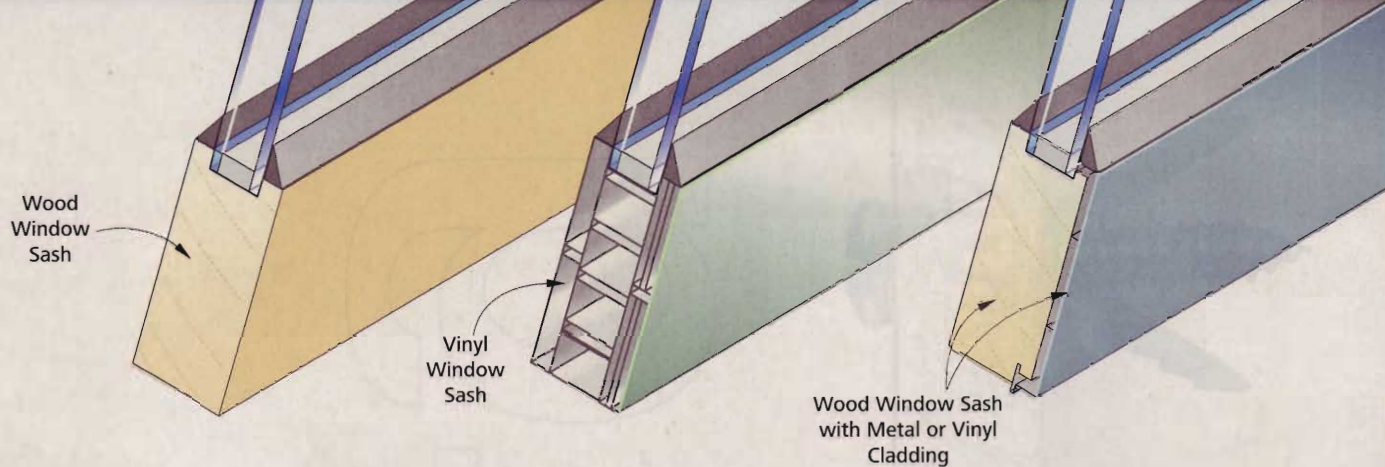
One final point of comparison as you window shop is the frame and sash material. Your choices are wood, vinyl, or clad (*Illustrations, page 65*).

The two ends of the spectrum here are wood and vinyl. Wood offers natural beauty but requires a great deal of maintenance to preserve the beauty, integrity, and smooth operation of the window. Vinyl is essentially maintenance-free but can't match the elegance of wood.

Clad windows, whether vinyl or metal, seek to offer the best of both worlds—an attractive wood interior and a maintenance-free exterior of either vinyl or metal. These are actually an excellent choice in almost all installations. And whether you choose metal or vinyl cladding may depend largely on where you live. Vinyl isn't good for the hottest or coldest climates, and metal doesn't fare well in coastal regions. (For more about selecting the proper windows for your region, see the "Replacement Window Performance Factors" Sidebar, on page 65.)

REPLACEMENT WINDOWS BUYER'S GUIDE

Manufacturer	KITS		STYLES					MATERIALS				OPTIONS			
	POCKET	SASH	SINGLE-HUNG	DOUBLE-HUNG	CASEMENT	AWNING	SLIDING	SOLID WOOD	SOLID VINYL	WOOD/VINYL CLAD	WOOD/METAL CLAD	ART GLASS	PATTERNED GLASS	TINTED GLASS	GRILLES/MUNTINS
Andersen AndersenWindows.com 888-888-7020	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Jeld-Wen Jeld-Wen.com 800-535-3936	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Marvin Marvin.com 888-537-7828	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Peachtree PeachTreeDoor.com 800-732-2499	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Pella Pella.com 800-374-4758	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Weather Shield WeatherShield.com 800-222-2995	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Windsor WindsorWindows.com 800-218-6186	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•



In the end, knowing that you're getting the right window will depend largely on knowing that you're doing business with the right window company. Here again, there's no shortage of choices. Your best bet is to deal with a nationally known, reputable manufacturer with a long history of building, selling, and installing windows. And while our list isn't meant to be exhaustive,

the "Replacement Windows Buyer's Guide" (page 64) showcases several companies that we are comfortable recommending based on our personal experience and their reputation.

Look through the table, and identify which companies offer the products and features that you feel best fill your need. And as you narrow the field, take time to visit their websites. Most have downloadable catalogs and

buyer's guides. Others have installation instructions and how-to videos.

In fact, you'll probably find that installing replacement windows is less grueling than choosing them. But with the information provided here, you're ready to go window shopping for your perfect replacement. 

—Written by Bill Link, illustrated by Erich Lage

REPLACEMENT WINDOW PERFORMANCE FACTORS

The language used to describe window performance and efficiency is confusing. It isn't as simple as insulation, where you can quickly surmise that an R-19 batt offers more insulation than the R-11 variety.

Windows are actually evaluated on five different criteria. Those are:

- **U-Factor**—How well a window prevents heat from escaping.
- **Solar Heat Gain Coefficient**—How well a window blocks heat caused by sunlight.
- **Visible Transmittance**—How much light comes through the window.
- **Air Leakage**—How much air is allowed to pass through the window.
- **Condensation Resistance**—How well a window resists the formation of condensation on the interior surfaces.

Unfortunately, window manufacturers sometimes muddy the water even further with their proprietary names for coated and insulated glass.

The good news is there are some

great resources that help demystify window performance. The first is the Energy Star program. Any window that displays the Energy Star sticker has been certified for use in a particular region of the country based on testing procedures developed by the National Fenestration Rating Council (NFRC). And, in fact, NFRC is the second resource. Any Energy Star-rated window will also display an NFRC sticker (right) with the window's performance ratings right there for you to see.

But don't think you need to memorize the scales and

measures of the NFRC to determine which window is best for you. The NFRC and Energy Star websites (NFRC.org and EnergyStar.gov) have interactive features that help you find products, manufacturers, and dealers in your area that offer windows appropriate to your region.

The NFRC also explains the five rating criteria and the role each one

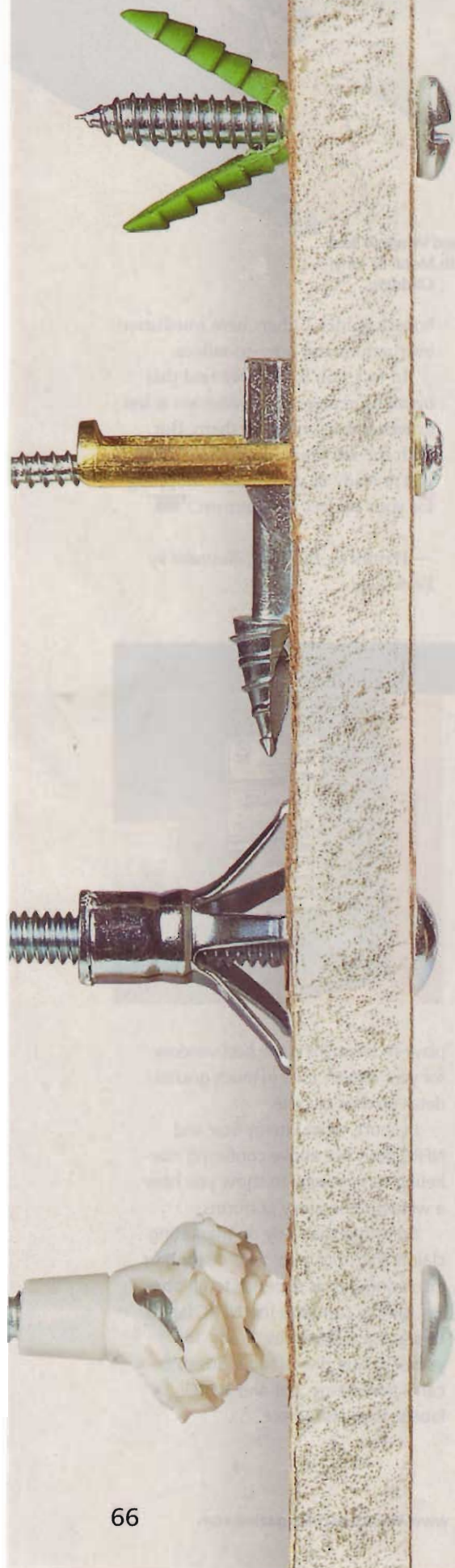


plays in determining the best window for your climate zone in much greater detail on their website.

In short, what Energy Star and NFRC do is rise above confusing marketing terminology to show you how a window genuinely performs.

So rather than rely on marketing claims that tout one glass coating or insulating gas as superior to all others, simply compare the NFRC labels to see the differences, if any, for yourself. And if a window doesn't carry the Energy Star and NFRC labels, look elsewhere.





Anything: 20 Never-Fail Solutions

Few moments in DIY-dom are more frustrating than driving a screw into the wall—dead-sure in yourself that you're on a stud—only to have that screw bottom out and spin uselessly in the drywall. When you're relying on the screw to hold up a cabinet, towel bar, or another fixture, the feeling is even more frustrating.

DIYers in the know realize when you can't hit a stud, wall anchors and hangers are the answer. To help you find the right anchor or hanger for your next project, here's a round-up of the ones we like best.

The most common use for a wall hanger is to hang a cabinet, towel bar, coat hook, or another similar fixture on drywall. Inevitably, the spot where you need to drive a screw hardly ever lines up with where a wall stud is located.

This situation is what drywall anchors are made for. And these anchors go well beyond a plastic sleeve that goes in the wall and accepts a screw. Here, we'll show you the options for light-duty, medium-duty, and heavy-duty use, and explain when you'll want to use each of them.

Light-Duty—These familiar expanding-style anchors sit at the low end of the strength spectrum. This type slips into a hole drilled in the wall. Drive in a screw, and the sides of the anchor flare out slightly, holding the anchor and screw firmly in place in the drywall (*Illustration, right*).

Another variation on this type of anchor is the pointed steel one shown above. These expand just like

Light-Duty Anchors

Weight Capacity: 25 pounds.

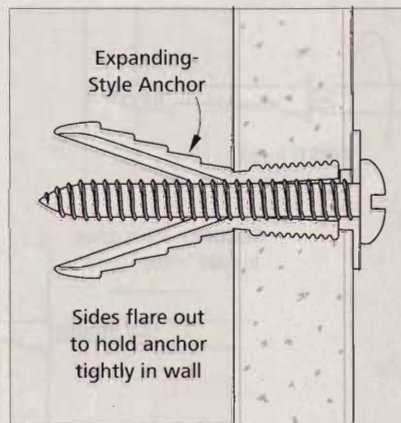
Uses: Towel rings, small cabinets, light-duty hooks.



their plastic cousin, but the advantage here is they can be nailed in place without drilling a hole for insertion.

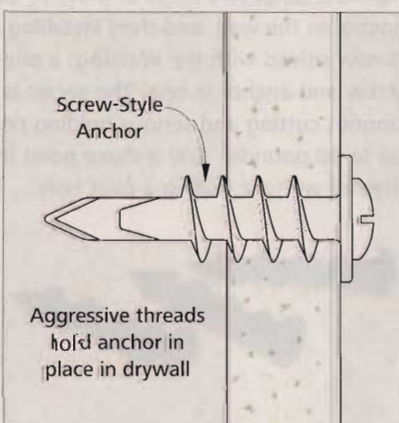
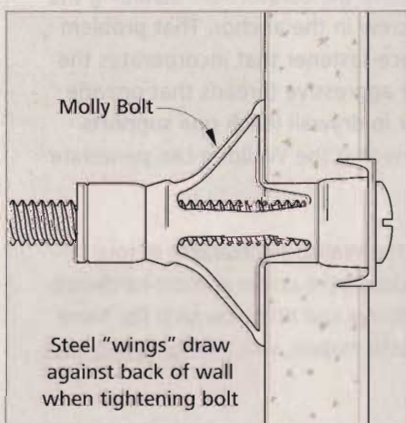
While these anchors will hold lighter loads with ease, I recommend spending a little extra on a medium-duty anchor. I've seen too many of these pull out of the wall over the years, and there's no reason for that to happen on your next project.

Medium-Duty—Spend a little extra for a medium-duty anchor, and the universe of items you can safely



Medium-Duty Anchors

Weight Capacity: 50 pounds. **Uses:** Towel bars, shower rods, cabinets smaller than 24" x 24", toilet paper holders, double coat hooks.



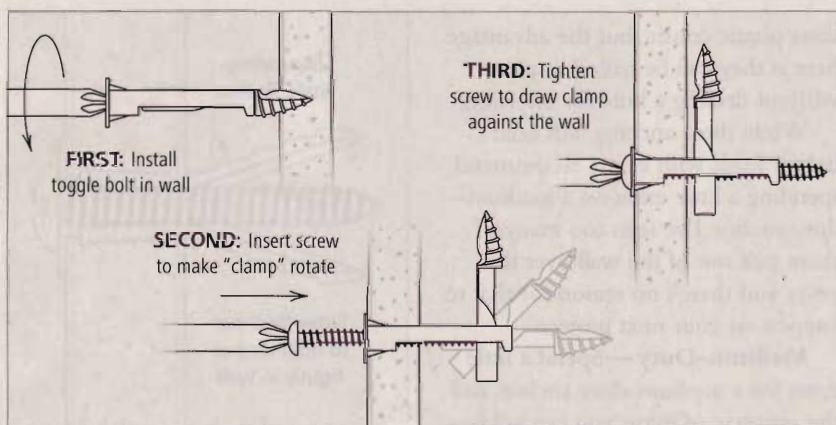
stick to the wall grows a lot. Interestingly, your list of different fastener options grows as well. They essentially fall into two categories, though: Expansion-style anchors that expand a whole lot more than light-duty anchors, and screw-style anchors.

Among these "super" expansion-style anchors, there are a few approaches. One is the "Triple Grip," an anchor that looks light-duty but has an additional set of "wings" that pull it snug. A few brands of steel wall anchors (commonly called "molly bolts") have a similar approach, forming wings that draw tightly to the backside of the drywall. A third choice is the knotting anchor. This anchor literally ties itself in a knot behind the drywall as you drive the screw into it.

The other approach, the screw-style anchor, works like it sounds. It's a plastic or steel screw with aggressive threads that bite into the drywall for extra holding power. A smaller screw threads into an opening in the anchor to secure what you need to hang.

Heavy-Duty Anchors

Weight Capacity: 75 to 100 pounds. **Uses:** Cabinets larger than 24" x 24", grab bars, handrails, any other fixtures that will be pulled on.



Thus far, the anchors we have looked at have all been variations on the same basic design — a self-anchoring sleeve that accepts a screw. For heavy-duty jobs, though, you'll want to take a look at toggle bolts.

Toggle Bolt Basics—The traditional toggle bolt has had the same tried and true design

for decades. It's just a bolt with a spring-loaded bracket on it. To install it, you drill an oversize hole in the drywall, as well as the object you need to hang. Then thread the bracket partially onto the bolt, and insert it through the hole. Once it gets through the drywall, the bracket pops open. Tightening the bolt will

draw the bracket against the back of the drywall.

Sometimes the bracket has a frustrating tendency to spin on the back of the bolt as you're trying to tighten it. If that happens, you need to hold the bracket tightly against the back of the drywall as you tighten the bolt. A good way to do this is with a serrated knife. Just hold the knife handle against the wall, and keep the knife blade engaged on the bolt threads as you tighten it.

A 21st century variation on the traditional toggle bolt is the one-piece "driller toggle." This gets installed like a standard anchor, but then, inserting the screw makes a "clamp" swing out perpendicular to the anchor. Finally, tightening the screw draws this clamp tightly against the back of the drywall (*Illustrations, above left*).



WALLDOG SCREWS

The trouble with most anchors is they're comprised of two pieces, which means it takes two steps or more to complete the connection: installing the anchor in the wall, and then installing a screw in the anchor. That problem is now solved with the Walldog, a one-piece fastener that incorporates the screw and anchor in one. The secret is the aggressive threads that provide smooth cutting and serious holding power in drywall (each one supports up to 50 pounds). And a sharp point means that the Walldog can penetrate drywall without drilling a pilot hole.



The Walldog is available in four decorative colors at most hardware stores and home centers. For more information, visit HillmanGroup.com.

Wall Hangers That Work Wonders

Frames present a slightly different hanging challenge, as you can't solve the problem with an anchor. What you need is a hook strong enough to hold the frame. Here again, the options differ based on how heavy the item is that you're trying to hang.

Light-Duty Hangers—Most people are familiar with picture hangers. These are nothing more than hooks held into the wall with a nail driven in at an angle. They hold a wire that's strung across the back of a frame.

Today, the basic design of the picture hanger remains the same, though it has evolved. A company called Oaks offers hangers similar to standard ones, but they beefed them up with stronger hardware and a nail that's less likely to pull out. They'll hold up to 30 pounds.

One interesting design change is a one-piece hanger, such as the Wall-Biter. This hanger has a barb on the back that "bites" into the wall. Rather



EverStraight Hanging System



Light-Duty Hanger

Self-Adhesive Hanger

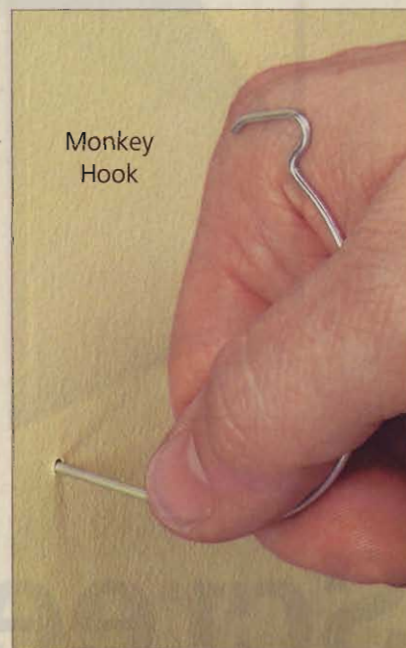
One-Piece Hanger



Hangman System



Heavy-Duty Picture Hanger



Monkey Hook

than driving a nail into it, you hammer the hanger itself into the wall.

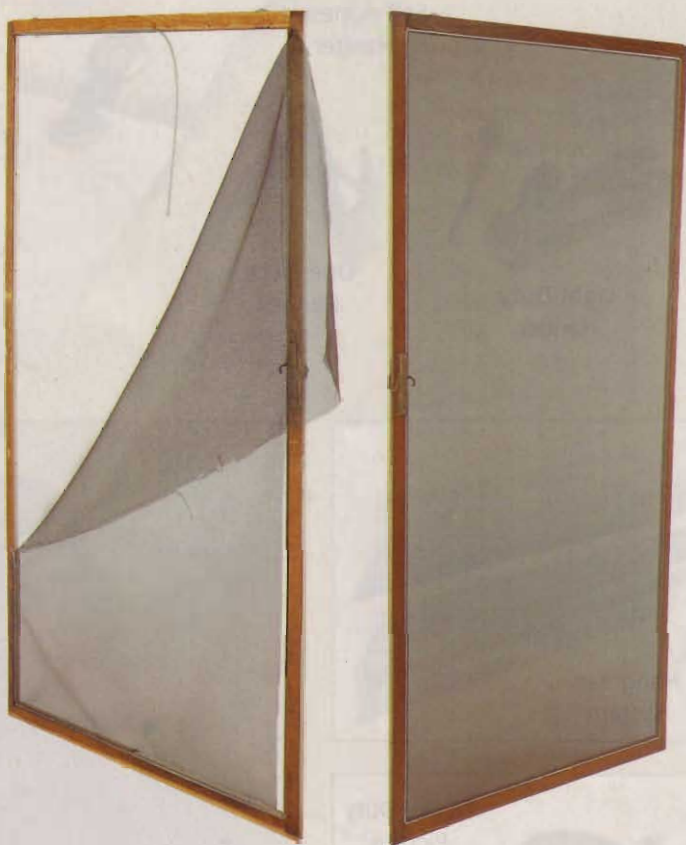
If you want to bypass installing wire on the the frame, Oaks also has a hanger that consists of a self-adhesive hook that gets installed on the wall, and a self-adhesive eyelet that goes on the back of the frame. I wouldn't recommend these for anything more than light picture frames, however.

Heavy-Duty Hangers—If a hook held by one nail holds 30 pounds, it stands to reason that a beefier hook held by several nails should hold more. That's the logic behind the hanger shown above. You can get these with anywhere from three nails for holding 100-pound frames up to seven nails for 200-pound frames.

The other solution for hanging heavy frames is a pair of interlocking brackets. One bracket gets screwed to the back of the frame, and the other gets secured to the wall. Placing the bracket on the frame over the bracket on the wall locks them together securely. Large brackets are available for holding up to 100 pounds.

Monkey Hooks—A fairly new option is the "monkey hook," a picture hanger that you push through drywall. As long as there's not a stud in the way, the high-carbon spring steel hook slides through and braces itself against the back of the drywall for holding up to 50 pounds. 

—Written by Wyatt Myers, illustrated by Kim Downing



It takes about \$30 and two weeks for the local hardware store to repair an average size window screen. Or you can do it yourself at a fraction of the cost and with no waiting.

Screen Savers

With all due respect to the local hardware store, screen repair isn't as difficult or mysterious as it may seem. Even if you've had a bad experience with screen repair in the past, like limp screen fabric, a spline that doesn't fit right, or worst of all, fabric that rips as you try install it, take heart. You can do this.

Half the battle is choosing the right materials and tools for the job. The other half is applying the appropriate level of tension to the screen fabric. This article will explain both halves.

Know Thy Screen—To get started, take a look at the *Screen Anatomy Illustration* (page 71). This depicts a common screen window or door and how the screen fabric locks into the frame with a rubber cord called a “spline.”

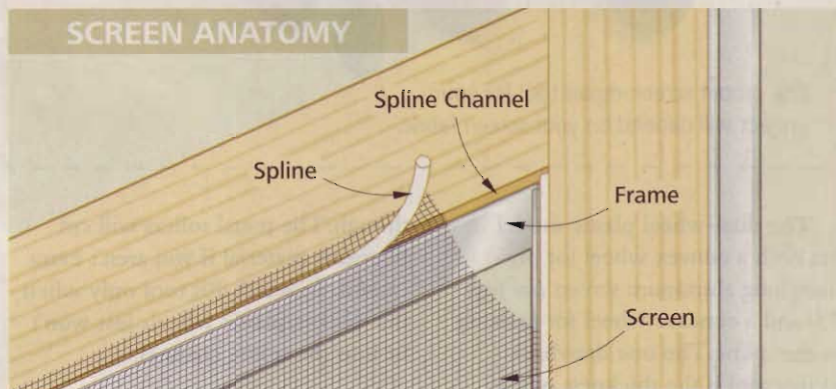
Chances are, the screen fabric you're replacing is standard aluminum or fiberglass. But don't think for a minute that you have to use the same fabric for the repair. You have a lot of choices in specialized fiberglass screen fabrics, and we'll talk more about those later. But for now let's take a closer look at the spline.

One critical component in a good screen repair is using the proper diameter of spline. If the spline is too small, it won't hold the screen securely. If it's too large, you're likely to apply too much force trying to press it into the channel, which can rip the fabric.

Fortunately, determining the proper spline diameter is relatively easy to do. If the spline that's already in the screen is a good fit, and not the reason you're repairing the screen in the first place, then you can either measure its diameter with a micrometer or take a piece of it with you to the store for comparison.

If, by chance, the old spline doesn't fit snugly, or you don't happen to

SCREEN ANATOMY



have a micrometer on hand, all is not lost. Drill bits are great size gauges in this situation. Just try the fit of a few drill bits until you find one that fits all the way into the channel without having to force it.

Of course, not every spline diameter has an *exact* drill bit equivalent, but this will get you close. The *Chart*, below, shows typical spline diameters and their nearest drill bit match.

Selecting Screen—As mentioned earlier, your fabric choices go way beyond basic aluminum and fiberglass (*Photos*, right).

Okay, aluminum is pretty much aluminum. Not a lot of variety there. And there are really only two good reasons to use aluminum, anyway: to match your other screens or to deter fiberglass-eating grasshoppers.

Otherwise, aluminum is difficult to work with and offers little advantage for the additional effort. But fiberglass opens a realm of possibilities that are worth considering.

For example, if the cause of your screen damage is the family pet, maybe pet-resistant fiberglass screen is a good idea. The small openings and heavy weave of this fabric make it impervious to all but the most aggressive scratchers.

You can also buy fiberglass solar screen that limits sunlight penetration

to prevent fading carpet or upholstery, or just to eliminate “hot spots” in a room. There’s even “no see-um” screen that has openings so small that the tiniest bugs can’t get through them. Of course, all these options cost slightly more than conventional fiberglass screen. So if you don’t have any of these problems, there’s no need to spend extra for the solutions.

One more thing to consider about screen fabric is the size you need. You’ll find rolls of fabric in two standard widths (36" and 48") and a variety of lengths. Determining what you need is a matter of measuring your frame and erring on the side of too large. If a 36"-wide roll doesn’t leave you with at least 2" of extra material on each side, buy a 48" roll. Likewise on the length. This is especially true of fiberglass fabric, which

Spline Diameter	Decimal Diameter	Approximate Drill Bit Dia.
	.125	1/8"
	.140	9/64"
	.160	5/32"
	.175	11/64"
	.190	3/16"
	.220	7/32"

A wide variety of screen fabric is available for any repair, including several special-purpose types.

ALUMINUM
(\$.30 sq. ft.)

STANDARD FIBERGLASS
(\$.26 sq. ft.)

SOLAR SCREEN FIBERGLASS
(\$.71 sq. ft.)

SMALL INSECT FIBERGLASS
(\$.32 sq. ft.)

PET SCREEN FIBERGLASS
(\$.64 sq. ft.)

Matching the diameter of the spline to the size of the spline channel in your screen frame is critical to the success of your repair.



is relatively elastic and easily stretched too far in one direction.

Tool Selection—The final decision you'll need to make is which type of spline tool is best suited to the materials you've selected for your screen repair.

Theoretically, any of the tools shown in the *Photo*, above, will work for any screen install. But we found some real advantages and disadvantages to each type when working with different fabrics.

For example, the single-wheel model has a large, convex wheel that is perfect for installing the thickest spline. It also has a retractable razor blade at the opposite end for final trimming of the screen fabric.



The proper screen-repair tool for your project will depend on your screen fabric.

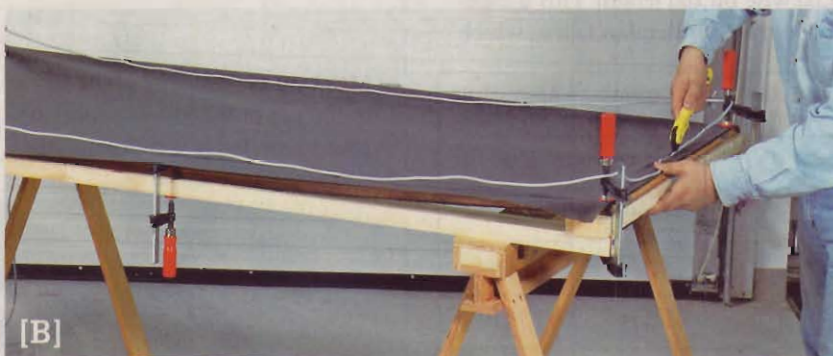
The dual-wheel plastic model has both a convex wheel for pre-stretching aluminum screen (see page 75) and a concave wheel for pressing in the spline. The one drawback to this tool is the thickness of the wheels, which means it won't fit into thin spline channels. That makes it difficult to get the spline pressed all the way into the channel.

In that case, a tool with two metal rollers might be the best choice. One word of caution with this tool,

though. The metal rollers will cut fiberglass material if you aren't extra careful. So select this tool only when the thicker, plastic wheels just won't fit into the spline channel.

PREPARE TO REPAIR

With your screen, spline, and tool selected, you're ready to repair that old screen. Of course, the first thing you need to do is remove the old spline and screen. Nothing to it, just pry the spline out with a small screwdriver or the corner of a putty knife and then pull. Discard the old spline and screen fabric, and use a small brush to clean any dirt or debris out of the spline channel. Your frame is now ready to accept new fabric and spline.



Large frames (aluminum or wood) can often be easily bent or "bowed" to "preload" the frame, so it will pull the screen fabric taut when the pressure is released. Bend the frame slowly to avoid breaking or crimping. Then lay out the screen and spline.



Stretching the spline slightly just ahead of the roller can sometimes help to get a stubborn spline into place.

THE BIG STRETCH

The challenge with any screen repair is getting the fabric stretched and then locked into the frame, so it remains taut and wrinkle-free.

And a large screen, such as this patio slider (*Photos, left*), compounds that problem. But we've got a simple technique to meet that challenge.

The trick here is to bend, or "bow," the frame. This pre-loads the frame with tension that, when released, will stretch the screen for you.

Of course, bowing a frame of this size takes a bit of preparation and a simple structure that you'll need to assemble. Take a look at *Figure A* to get an idea of what you're trying to accomplish.

To begin this process, you'll need two sawhorses, two pairs of 2x4s, and one spacer board. One pair of 2x4s should match the height of the screen frame, and the second set should match the width. The spacer board can be made of 1x2 material and should fit snugly inside the frame opening widthwise.

Arrange the 2x4s so the long pair spans between the sawhorses. Then place the shorter boards perpendicular to the long ones. What you're going for here is a rectangular frame of 2x4s resting on sawhorses.

Once that's assembled, place the screen frame on the boards so each end of the frame rests on a short 2x4. This will elevate the sides of the frame above the long 2x4s. And this is what makes it possible for you to "bow" the frame.

To bow the first side of the frame, push down gently until the frame touches the 2x4. Then clamp the frame to hold it in this position.

Bowing the other side of the frame is precisely the same procedure, but before you do this, you'll want

to place the spacer board inside the frame between the clamping locations. This will keep the frame from bowing inward instead of just downward, which could impact the way the screen fabric ultimately fits into the frame.

Pre-Screen and Spline—With the frame bowed and clamped, you can now roll out the screen fabric on top of the frame. It won't stay there by itself, so you may need to clamp it at the corners.



At the bottom of the frame, you'll need to remove the temporary spline a few inches at a time and then roll the permanent spline in right behind it.

Next, lay out the spline around the perimeter of the frame. You want the two ends of the spline to meet at the center of the bottom rail. The joint will be less visible there. You'll also need to cut an extra piece of spline that you'll use to temporarily hold the bottom of the screen in place. There's one step that comes before that, though, so just cut the extra piece to match the width of the frame and set it aside for now. At this point, your setup should look similar to *Figure B*.

Spline the Ends—With the screen and spline laid out and the frame bowed and clamped, you're ready to begin attaching the fabric.

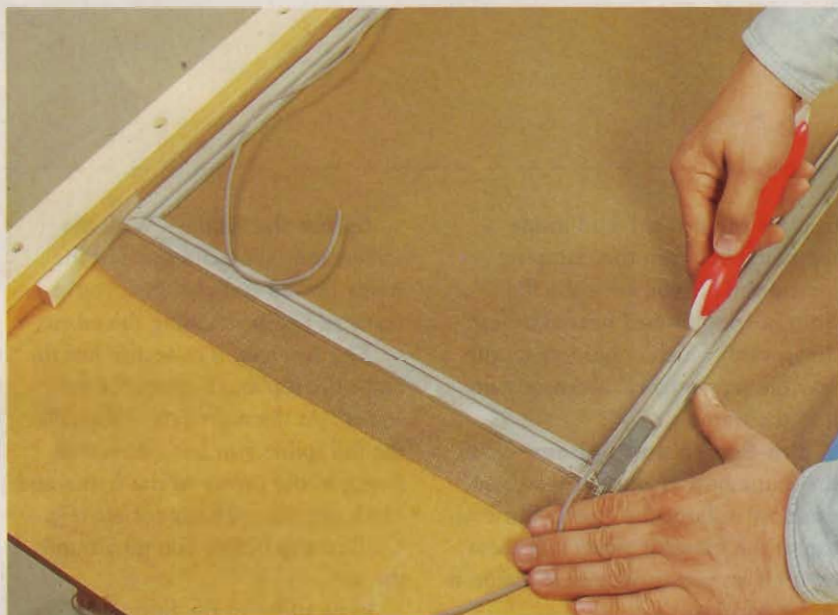
The first step is to secure just the ends (the top and bottom) of the screen. At the top of the frame, use the full spline you laid out earlier. Begin in the center of the frame, and work out toward each corner (*Fig. C*). But stop before you go around the corners.

Now move to the bottom of the door, and roll the temporary spline between the corners there. You can add a little tension by hand to keep the fabric straight and free of wrinkles. But only pull hard enough to eliminate sag or wrinkles. Don't try to stretch the fabric at this point. Remember that you've pre-loaded the frame to do that.

After installing the spline in both ends, gently release the clamps that are bowing the frame, and watch the fabric pull taut as the frame flattens out to its normal shape.



Use the inside edge of the spline channel to guide the utility knife when trimming the excess fabric. Be careful not to cut into the spline.



Spline the Sides—Now move back to the top of the door, and continue inserting the spline down each side. Do about 12" at a time, alternating from one side to the other.

As you near the end of the frame, the tension on the fabric may make it difficult to press the spline completely into the channel. To overcome this, try pulling on the spline to stretch it slightly just ahead of the roller.

When you reach the corner, you'll need to remove the clamp in order to allow the screen to stretch correctly in this area.

Spline Out, Spline In—At this point, you can remove the temporary spline. But don't remove the entire spline at once. Instead, pull about 3" out at a time, and roll the permanent spline in right behind it (*Fig. D, page 73*). Do this until you reach the center of the frame, and then begin working in from the other corner. The final step is to trim off the excess fabric with a utility knife (*Fig. E, page 73*).

BLOCK AND WEDGE

The only meaningful difference between repairing a large screen and a small one is the way you stretch the fabric. A small window-sized frame, especially an aluminum one, won't readily bow. In fact, it would likely

break, or at least get badly crimped, at the point where you apply pressure. So in this case, we'll use a block-and-wedge structure to apply the pressure.

Just as with the large screen, you'll need to build a simple structure for this technique. *Figure 1* on page 75 shows how this goes together.

Start with a plywood base that's at least 3" to 4" larger than your screen frame in both directions. Then you'll need two cleats ripped from 2x material. These cleats, when screwed together, will become the "block." So that leaves the wedge, or more accurately, wedges. You'll need two of them. Cut these out of a piece of scrap wood using a jigsaw.

Now attach one of the cleats to the plywood platform with glue and screws. Next, position the remaining cleat on top of the one you just attached, and drill pilot holes for the screws.

How the Wedges Work—To use the block-and-wedge assembly, place the screen frame on the platform and butt it against the fixed cleat. Place a wedge between the cleat and each corner of the frame—not very far in, but just enough to get them started.

Now lay out the screen fabric (*Fig. 2*). Tape the free end of the fabric to the platform with about 4" over-

With one edge of the frame butted against the "block," fasten the fabric in the opposite edge of the frame. Then tap the wedges in to tension the fabric.

hanging the frame. Then unroll the fabric so it overhangs the fixed cleat. Place the upper cleat on top of the fabric, and drive the clamping screws to pinch the fabric in the block.

Spline and Stretch—Just as with the larger screen, you'll want to lay out the necessary spline to secure the screen. Once again, position the spline so the ends will meet at the center of the edge of the frame that's against the cleat.

When the spline is laid out, you can begin rolling it into the spline channel, beginning from the center and working toward each corner. Don't turn the corners yet (*Fig. 3*).

Now you're ready to stretch the fabric, and this is where the wedges come in. Gently tap the wedges in to push the frame away from the block. Don't be too aggressive here; moving the frame as little as 1/4" is plenty.

Now, with the fabric pulled taut, you can continue rolling in the spline around the corners and along each side of the frame (*Fig. 4*).

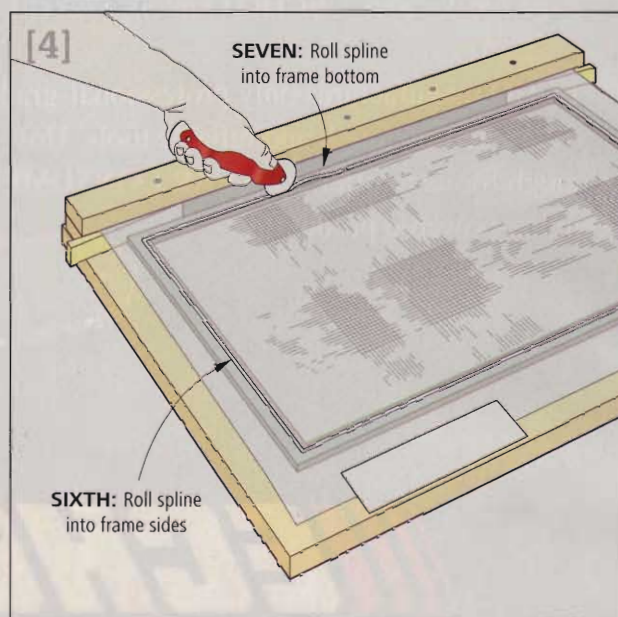
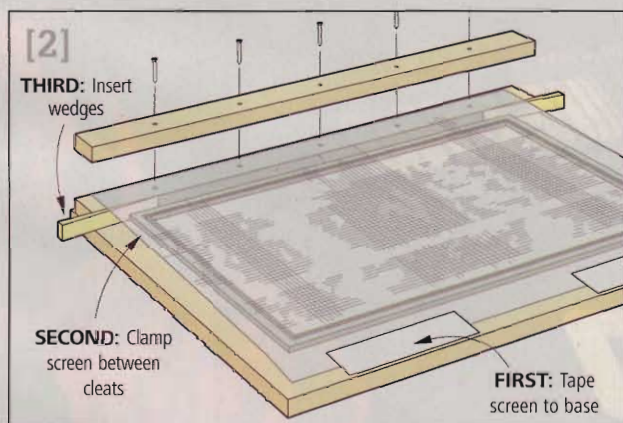
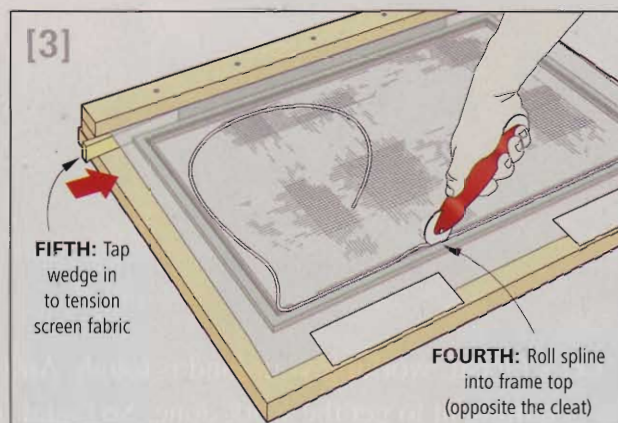
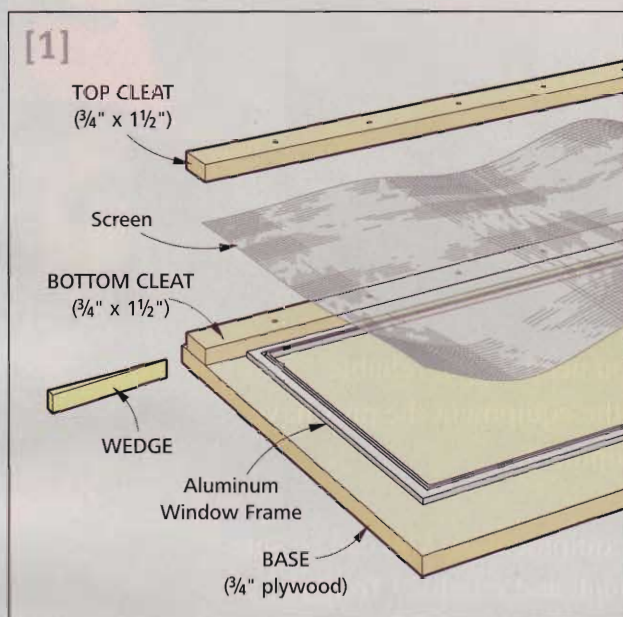
As you near the final edge of the frame, you may need to back the wedges out a little bit at a time to release some of the pressure on the screen. That will make it easier to get the spline pushed into the channel to its full depth.

Continue rolling in the spline around the corners until the ends meet at the center of the frame. Trim the spline as necessary, and tuck the ends firmly into the channel.

Release and Trim—The screen should now be installed tightly in the frame, so you can remove the screws from the cleats to release the assembly.

Finally, use a sharp utility knife to trim away the excess fabric. 

—Written by Bill Link, illustrated by Matt Scott



ALUMINUM FABRIC

Installing aluminum screen is similar to fiberglass, with a couple of key differences.

First, you'll need heavy-duty scissors or tin snips to cut the fabric to rough size (*Photo, right*). A utility knife still works best to trim off the excess fabric after installation.

Second, it's important to "pre-bend" aluminum fabric before installing the spline (*Photo, far right*). This will make the fabric less likely to tear as you press the spline into the channel.



Tin snips or heavy-duty scissors are the best choice for making clean, straight cuts in aluminum screen fabric. The final trim can still be done with a utility knife.

Use the convex roller to "pre-bend" aluminum screen fabric into the channel. Choose a tool with plastic rollers to avoid cutting the fabric.



PAINT POWER >>>

If you haven't looked at stencils for awhile, you're in for a pleasant surprise. This method of decorative painting has undergone a transformation in recent years and now features stencils that will add drama to any room. We'll show you step by step how to master an easy stenciling technique that mimics high-quality architectural molding.



Paint
MIMICS MOLDING

// PREPARING THE WALL //

Stenciling used to be all about English Ivy and silhouettes of farm animals. But today's stencils are interesting, elegant, and at home in all kinds of decor, not just cottage and country. In fact, the art of stenciling is more popular than ever.

"Some people wonder if stencils are out," says decorative painter Kelle Collins of Des Moines, Iowa. "But they're very much in, and there are hundreds of new things you can do with them."

One thing about stenciling *hasn't* changed—it is one of the easiest decorative painting techniques to master, requiring next to no artistic ability. If you can stick a pre-cut stencil on the wall and dab on paint with a brush, then you can master stenciling. And your investment is small. In addition to the stencil, you only need a few tools and materials.

Hot Trends—One of the most popular effects now is architectural stenciling, which mimics everything from ceramic tile and brick walls to marble columns. Professional painters refer to this style as *trompe l'oeil* (or "trick the eye") painting. Since stencils allow you to reproduce a pattern or design perfectly over and over again, they are ideal for reproducing architectural elements.

For our featured project, we chose an architectural stencil that simulates high-end Chippendale molding and positioned it to look like a chair rail.

Over the next few pages, we'll introduce you to the unique supplies and materials used in stenciling. Once you're familiar with them, you can just follow the photos and captions for all the techniques you need to know to achieve professional results for your own project.



1] We decided to paint our molding pattern at chair-rail height, but you could also apply it near the ceiling or just above your baseboard. Use a level to ensure the pattern runs truly straight, and mark lightly with a soft lead or watercolor pencil.

2] After laying out the location of the stencil, use blue painter's tape to establish the borders of your design.

Understand Stencils—There are almost endless options in stencil designs. Paper and vinyl stencils, in single or multiple layers, are sold in craft stores, home centers, and online. The multi-layer stencils let you create more intricate, dimensional designs.

Note that multi-layer stencils come with registration marks

(small cut-out triangles) in the corners of each stencil. These marks make it easy to align the stencil pattern as you move it from point to point on the wall, and they ensure that the layers in multi-layer stencils overlap correctly. You will paint these right on the tape that secures the stencil to your wall.



Stenciling supplies needed include acrylic paint, gel medium, spray adhesive, a variety of stencil brushes, painter's tape, and a sea sponge. These are available at craft stores and home centers. We used Burnt Sienna, True Burgundy, and Burnt Umber for our stenciled border.

// CREATING A BASE LAYER //



3] For most stencils, you want to apply paint lightly. That requires wiping off most of the paint on a paper towel.



4] Using a 1"-stencil brush, begin painting the base layer by dabbing Burnt Sienna in hard-to-reach corners.



5] Continue painting the base layer, using the sea sponge to thinly apply the paint. Don't stop within sections.

Tips for Taping—Speaking of tape, it's important that you select the right one for holding stencils in place on the wall. Blue painter's tape is a bit more expensive than standard masking tape, but it works much better.

Painter's tape adheres well, but won't mar the surface when you pull it up. That's important because you will be lifting the stencil frequently to check registration and see how the design is developing. (To protect delicate or newly painted surfaces, choose a lower tack, "safe-release" white tape.)

For most applications, tape will do the job for holding stencils in place. But where it's important for the stencil to be held snugly and securely to the surface, use a spray adhesive made just for stenciling. Spray adhesive can be especially helpful for stenciling ceilings, working around corners, and for very large or flimsy stencils that don't lay flat easily.

Brushes & Brushing—Stenciling also requires using unique brushes, as well as brushing techniques that are different from those you're used to in traditional painting.

Stencil brushes are densely packed with soft, natural bristles. Sizes range from $\frac{3}{8}$ " up to 1". Get a separate brush for each color in your design.

The size of the brush you use depends on the size of the area you are stenciling. Large brushes hold more paint, so they're effective for

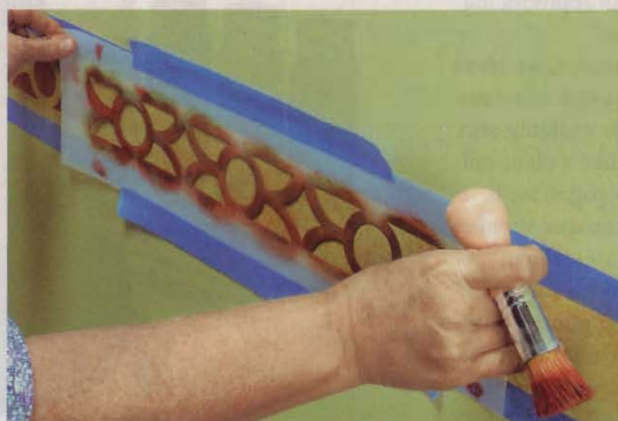
large, solid areas. Choose smaller brushes for more delicate areas where you need to carefully control the application of paint. Small brushes are also the best choice for shading.

Stencil brushes are also used differently. Instead of using a back-and-forth stroke, you hold the brush perpendicular to the wall and apply the paint with a dabbing motion.

// STENCILING THE FIRST LAYER //



6] Paint the registration marks, which will align the stencils as you go (left). Then apply True Burgundy on the first overlay, dabbing evenly (above).



7] As you finish painting each section, continue advancing the stencil before the paint dries completely. Keeping this "wet edge" ensures that the paint will blend evenly as you move from section to section.

// ADDING A HARD SHADOW //

Use a “Dry” Brush—Stenciling also requires a “dry brush” technique. That means you’ll load the brush with paint, and then “off-load” most of the paint onto a paper towel. Dry brushing, combined with dabbing, helps keep paint from getting under the stencil’s edges. Because a firm motion is used for off-loading paint, good-quality paper towels are another essential supply.

Plan, Practice & Paint—Before you get to painting, it’s important that you understand the pattern you are creating, lay it out carefully, and practice painting your stencil on a piece of poster board. “Always play before you go to a wall,” Collins stresses. That’s because if you’re not used to working with multi-layer stencils, understanding what to do with each stencil can be a little tricky.

The architectural molding stencil we used has two layers. One creates the main pattern, another a shadow that gives it depth and dimension. In addition, we sponged on a neutral

base layer before stenciling. This extra step really helped give the stencil the wood molding look we were after.

To make this stencil look its best, the geometric pattern needs to be carefully aligned as you move the stencil from point to point along the wall while you’re painting. This means it’s critical that you lay out your stencil location accurately.

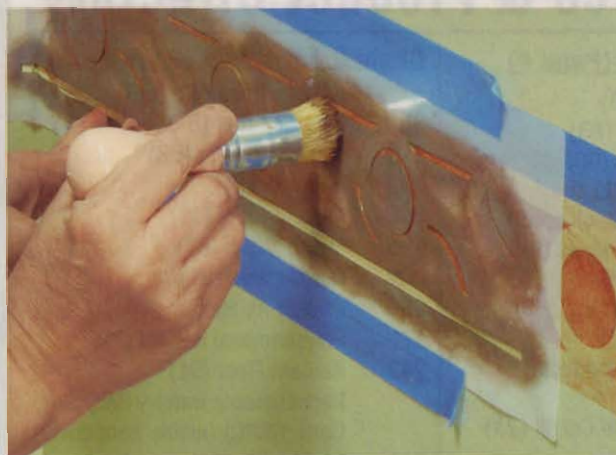
To do that, measure carefully and use a level to locate the top and bottom borders of your “molding.” Use a soft lead pencil to mark layout lines, pressing very lightly so they will be easy to erase. (You also can use a watercolor pencil for marking lines,

so they can be wiped away with a damp cloth when painting is done.)

With that done, you can apply painter’s tape to mask off the top and bottom of the molding, and you’re ready to start painting.

Follow the step-by-step instructions we provide here, and then get ready to accept some compliments. Your new *trompe l’oeil* “molding” will add dramatic impact to any room, without costing more than a weekend of your time and the price of some paint and plastic stencils. 🖌️

— Written by Louise Ritchhart, project design and stenciling by Kelle Collins



8] For the second stencil layer, line up the registration marks carefully, and apply Burnt Umber. This dark color provides shading and gives the pattern its three-dimensional appearance.



PATTERN POSSIBILITIES

When your goal is to replicate architectural moldings, look for “border stencils.” We found several patterns that would work great for this purpose at a popular online supplier, RoyalDesignStudio.com. The pattern featured in our how-to is called Chippendale Molding. Left, top is Victorian Key, and below is Egg and Darts. Let your imagination go: There are easy-to-use stencils now available that can create dramatic floor borders and accent doors and woodwork, too.

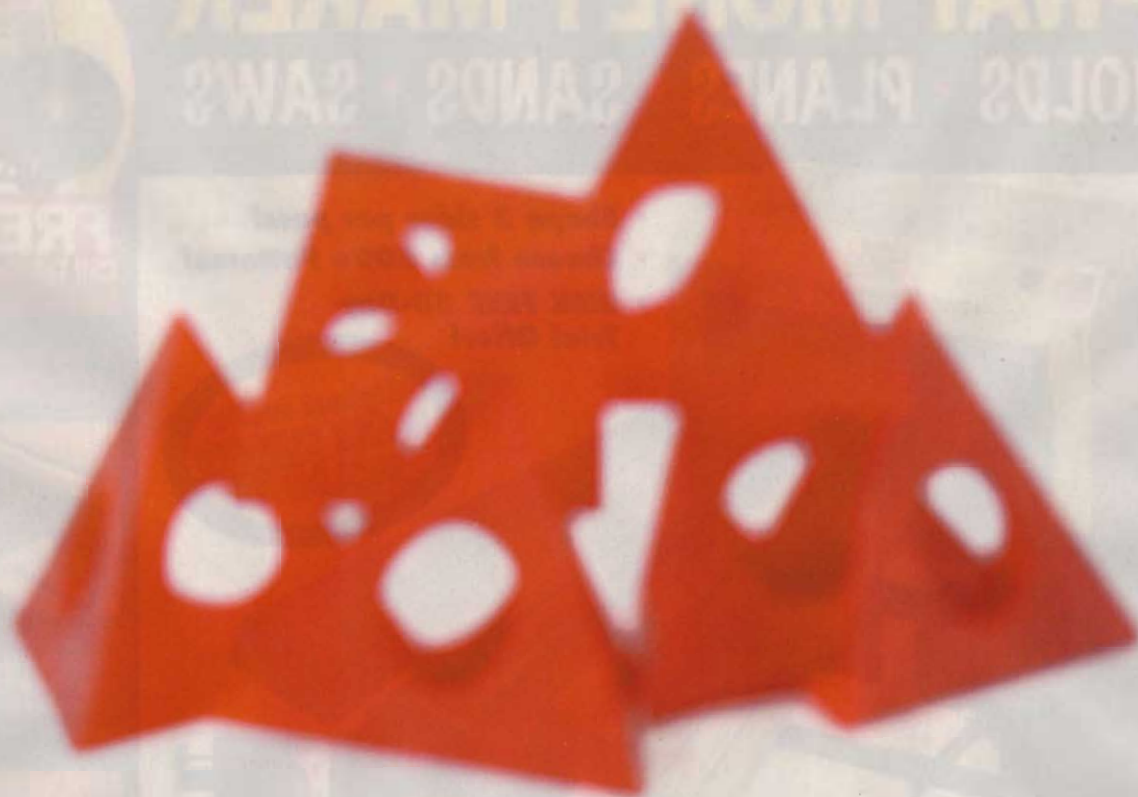
► Grip-Tite Super Sockets

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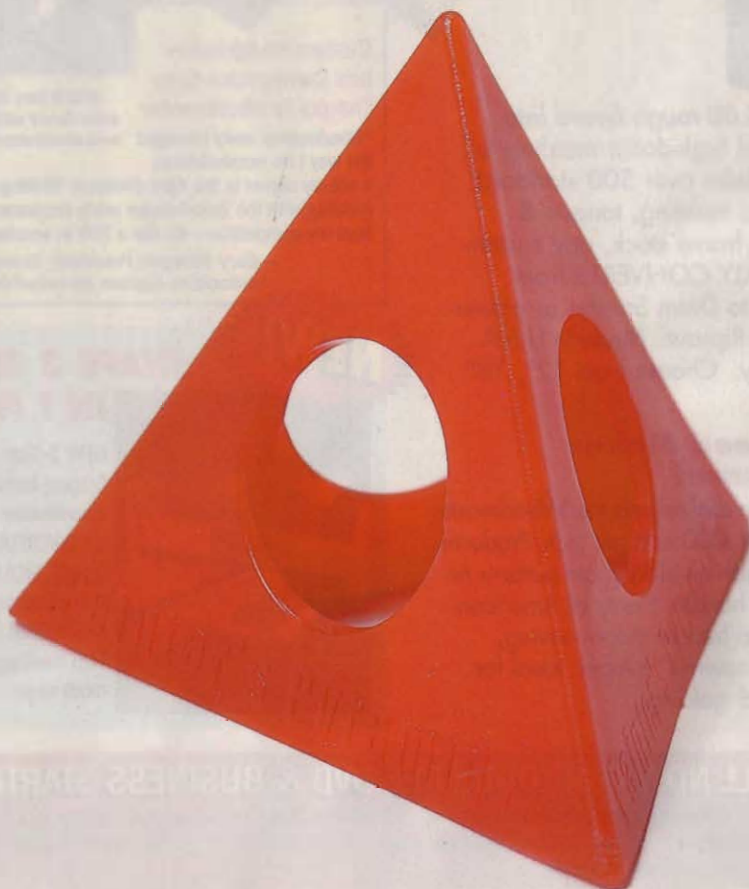


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Universal Spray Paint

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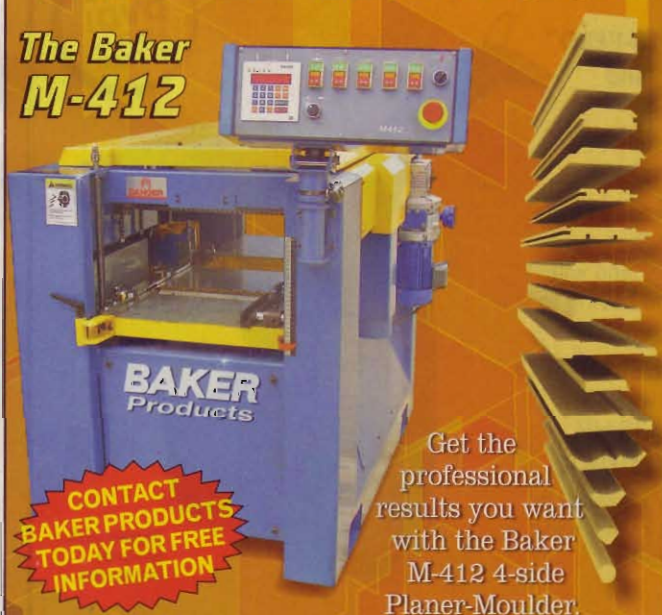
PRICE: \$15 for a 42-ounce bottle

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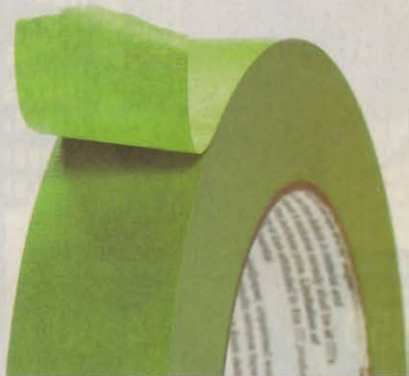
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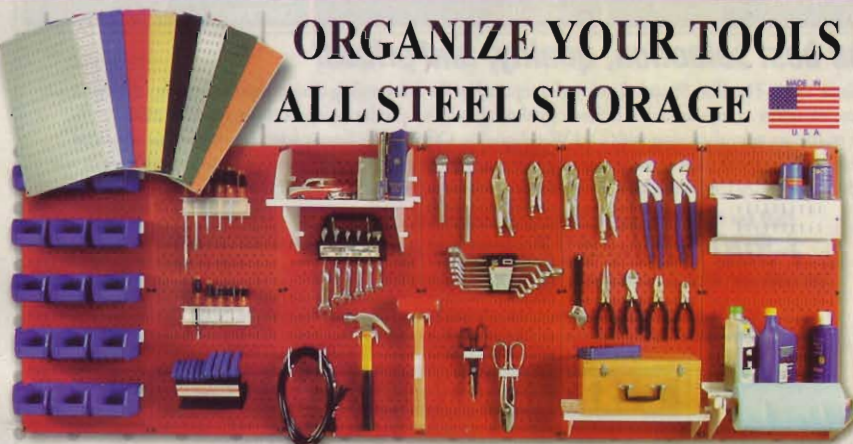
Frog Tape

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SEVEN GREAT USES FOR SALVAGED

Brick Blocks

There's a treasure hunter in everybody, and great finds may be as close as your architectural salvage store. We came up with nifty new uses for vintage brick blocks.

The hope for a "Eureka!" moment—it's what drives every enthusiast of garage sales, flea markets, and estate auctions. Maybe your discovery won't be the hit of "Antiques Roadshow," but if you think creatively, it might become a useful and unique addition to your home decor. Our "treasure hunt" began at a local architectural salvage

store. These increasingly popular outlets are a mecca for anyone who appreciates things that actually can't be ordered from an internet website or glossy catalog.

While strolling through rows of time-worn porch columns, rescued floor boards, and buckets of Victorian door hardware, we spied a pile of intriguing masonry blocks. Not just ordinary blocks, but red brick ones with a geometric design and blue



glazing on two sides. They looked like they had once served as a strong and attractive exterior wall. Someone who believed that "reuse" is an important component of "recycle" had made the effort to dismantle the mortared wall block by block.

Though a little worse for wear after years of service, the blocks were still plenty sturdy enough to repurpose. Their "square within a square" design offered functionality that plain modern blocks couldn't.

Stacks of Ideas—Looking at the blocks, ideas for how to use them weren't hard to come by. We'll share some of our favorites on page 95, plus construction and safety tips.

Whatever you choose to do with the blocks, they can be left natural or painted. Just use a mini-roller if you want to paint the sides, or a small brush on the inner voids. You probably won't need very much paint, so just request sample pots from the paint store or use some leftover from another project.

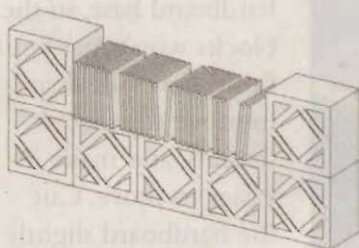
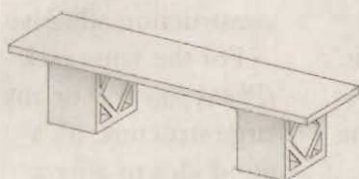
Wine on the Side—The first idea that came to mind was the wine rack (Photo, left). We envisioned bottles of wine snuggled securely in each diamond-shaped center. Making the wine rack proved as easy as stacking the blocks on edge like stair steps.



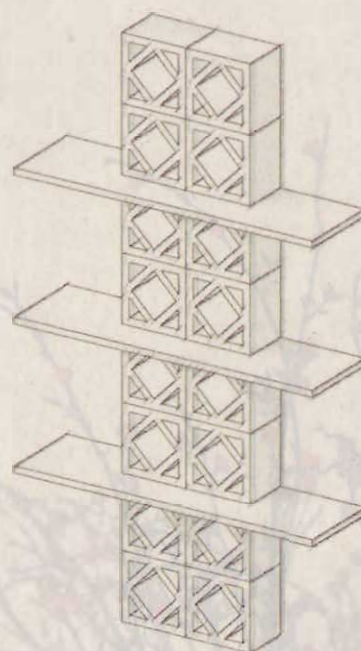
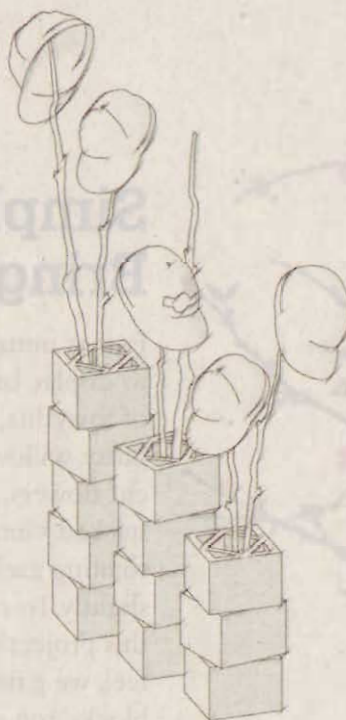
Variations on a Theme

Stacks for Hats—We came up with a trio of useful and whimsical “hat trees” (*Illustration, right*) by stacking blocks three, four, and five high and inserting tree branches. We offset the blocks slightly as we stacked them, but you could also stack them symmetrically. For extra security, you can glue the blocks together with construction adhesive. Select branches that are sturdy enough to support the caps and straight enough to slide all the way into the block bases.

Low Bench—A child-size bench (*Illustration, below*) is a snap to make with two blocks and a board. For more seating space, just select a longer board and put a third block in the middle for additional support. For this project, you will definitely want



A child-friendly low bench for your house or garden and an expandable CD/DVD holder are both quick and easy projects to make from masonry blocks.



Make “hat trees” (*left*) by stacking blocks and inserting real tree branches. Eye-catching shelving (*above*) provides compact storage and display space.

to secure the bench to the blocks with construction adhesive, so tots don’t tumble.

CD/DVD Holder—Contrast yesterday’s architecture and today’s technology with a CD/DVD holder made from vintage blocks. A row of blocks can become the base of a handy holder (*Illustration, left*). Stack an additional block at each end like bookends. You might choose not to glue the blocks together, so your holder can expand along with your collection. A similar configuration would work for a book collection.

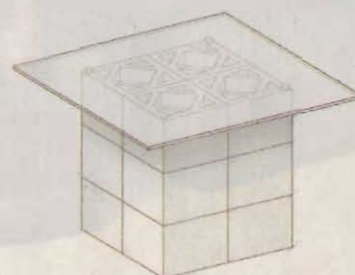
Vertical Shelves—Blocks and boards can be assembled into useful shelving that doesn’t use a lot of floor space. The height of this shelving project requires gluing the blocks and shelves to each other, and then using L-brackets to attach the unit to the wall. For a more detailed description of how to do this, visit WorkbenchMagazine.com.

Occasional Table—A glass table-top highlights the blocks’ appealing

geometric patterns (*Illustration, below*). Have a glass supplier cut a ¼"-thick piece of tempered glass with rounded edges for safety. (You could also use acrylic or Plexiglas.) Dot the tops of the blocks with a clear construction adhesive to attach the tabletop. If you prefer not to glue the top, put some rubber bumpers on top of the blocks.

For more great ideas, as well as tips on how to paint the blocks and hold them securely together, turn to page 96.

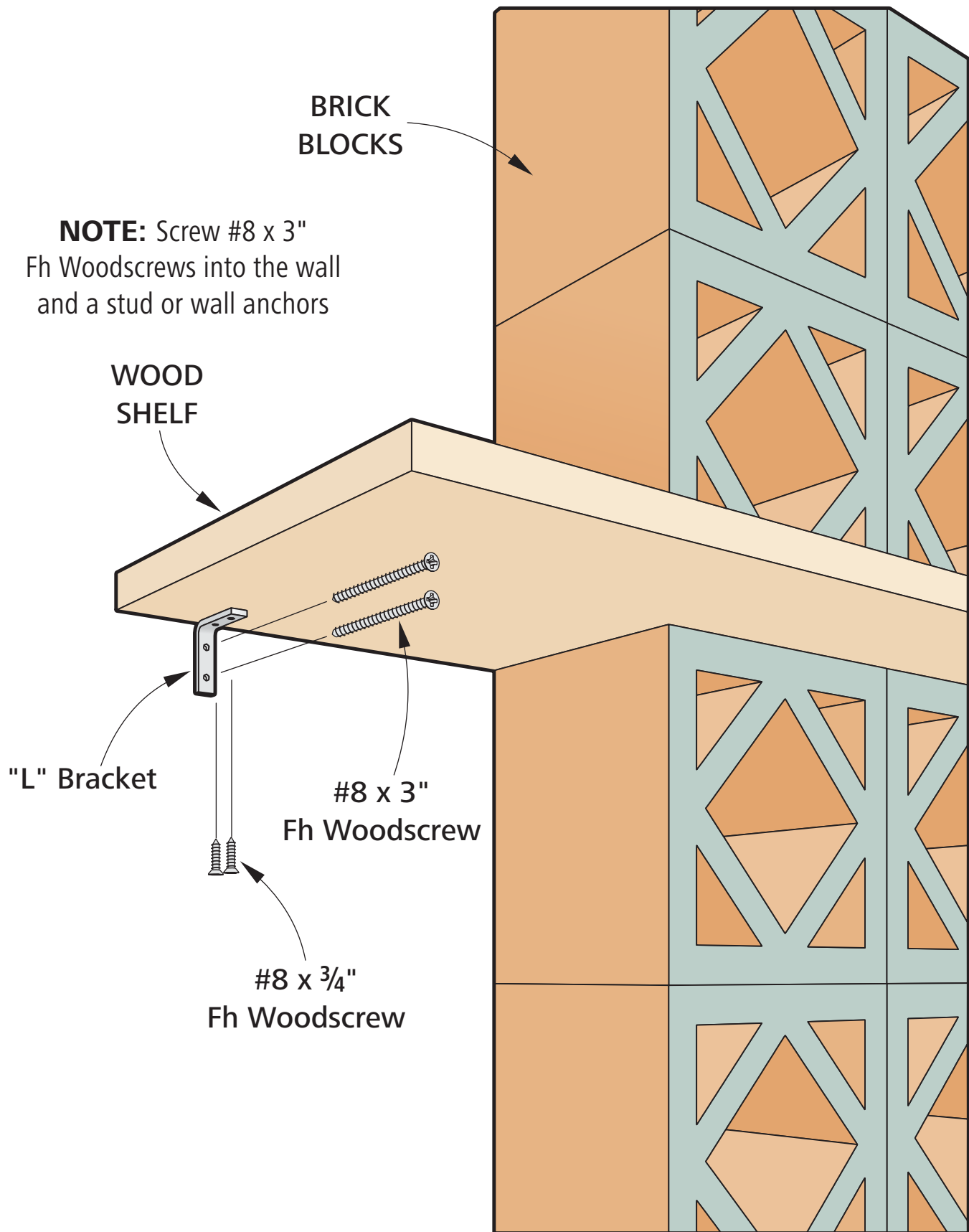
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Issue 307 Volume 64 Number 3

June 2008





Simple Stacks Help Bring Outdoors In

For an unusual way to display branches of forsythia, lilac, or pussy willow, as well as cut flowers, we simply stacked vintage blocks, rotating each row slightly. To enhance this project's earthy feel, we painted the blocks' top surfaces in various shades of green, deliberately letting some paint drip down the sides. A vase hides inside the smaller stack to hold water.

Construction

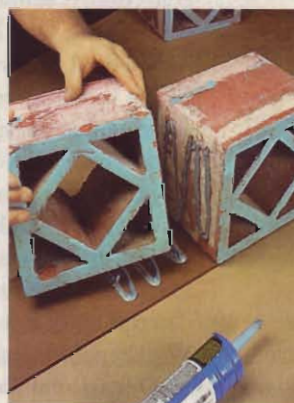
Tips—You can just let gravity hold some block creations together. This allows you to reposition the

blocks later if you decide to make something new. But for a permanent structure, you'll want to glue the



blocks together with construction adhesive.

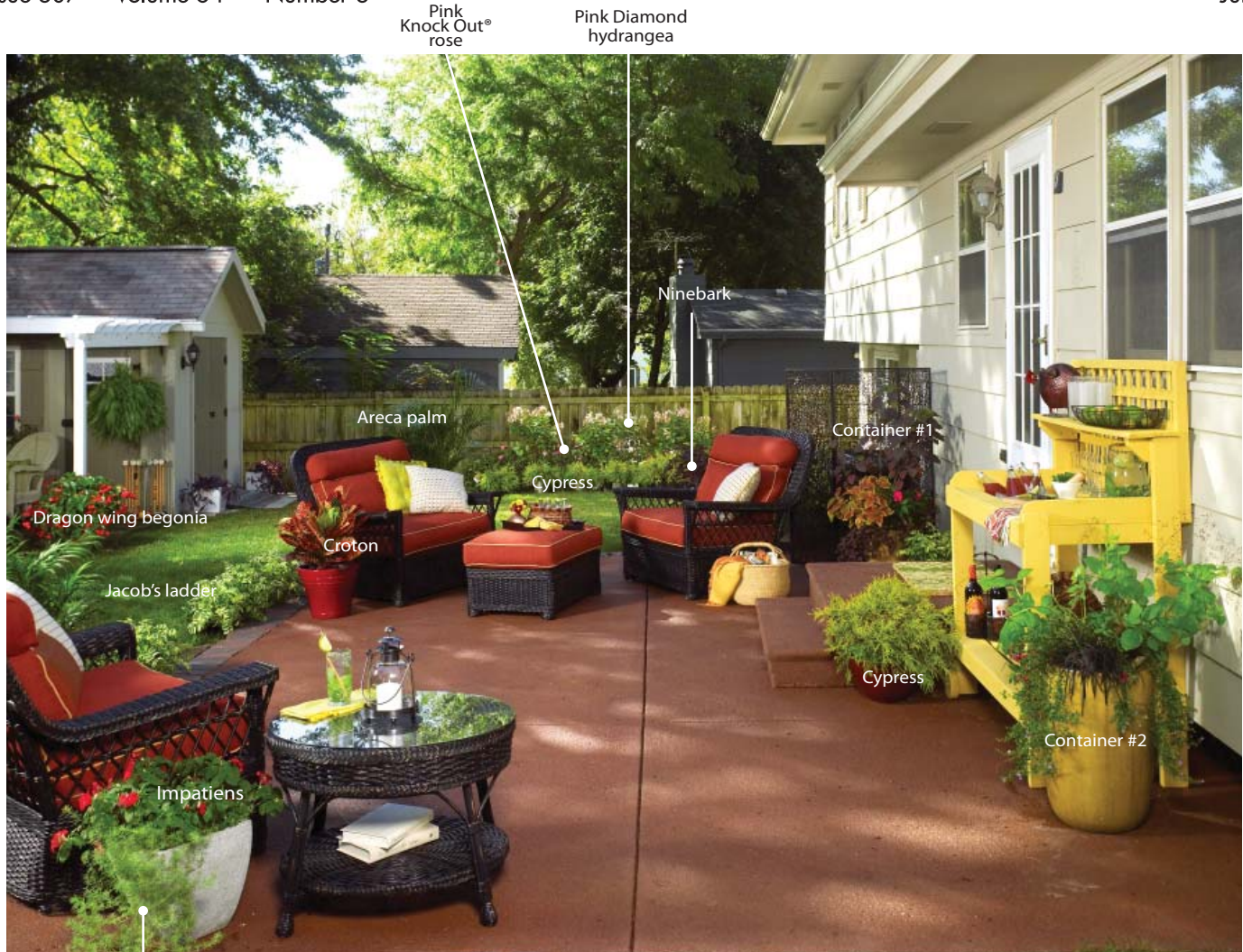
For the wine rack (Photo, page 94) or any large structure, it's a good idea to affix a hardboard base, so the blocks won't mar your floor. This will also improve the piece's stability and make it easier to move. Cut the hardboard slightly smaller than the piece's base. Then glue the blocks to the base and to each other. 



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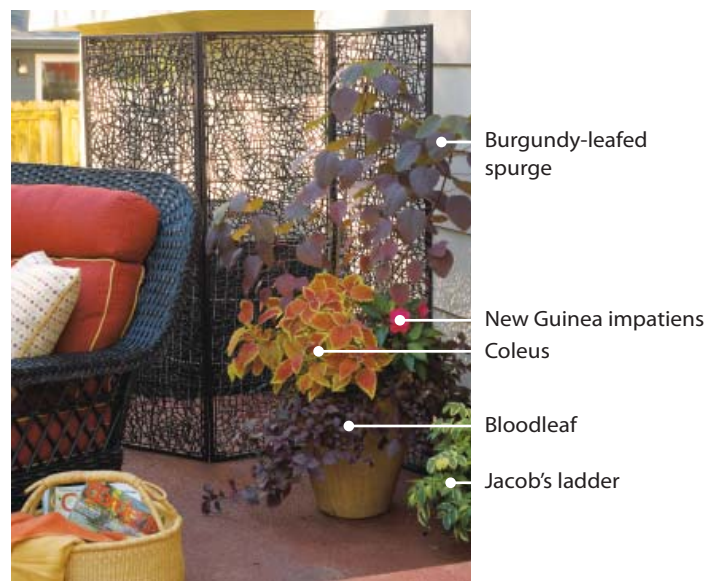
June 2008

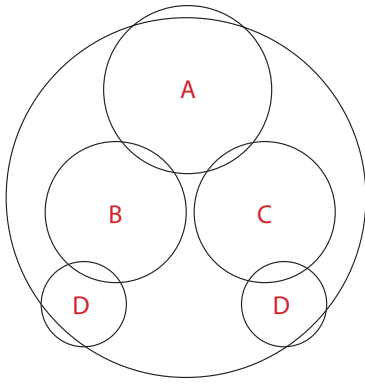


Lotus vine

Areca palm

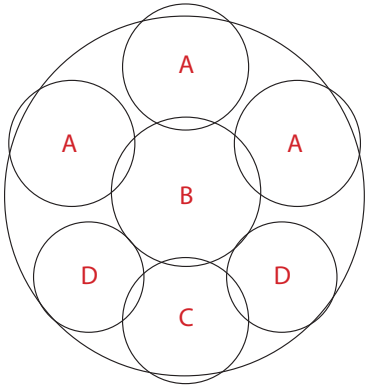
Container #1





CONTAINER BY ARM CHAIR

- A** Burgundy-leaved spurge *Euphorbia cotinifolia*
- B** Coleus *Solenostemon* 'Rustic Orange'
- C** New Guinea impatiens *Impatiens hawkeri* 'Infinity® Dark Pink'
- D** Bloodleaf *Iresine herbstii*



CONTAINER BY BEVERAGE CART

- A** Jewels of Opar *Talinum paniculatum*
- B** Fuchsia *Fuchsia* Diva™ Midnight
- C** Black mondo grass *Ophiopogon planiscapus* 'Nigra'
- D** False heather *Cuphea hyssopifolia*

PATIO & YARD

- Jacob's ladder *Polemonium caeruleum* 'Snow and Sapphires'
- Cypress *Chamaecyparis pisifera* 'Filifera Aurea'
- Pink Knock Out® rose *Rosa* 'Radcon'
- Croton *Codiaeum variegatum*
- Dragon Wing™ begonia *Begonia xhybrida*
- Pink Diamond hydrangea *Hydrangea paniculata* 'Interhydia'
- Ninebark *Physocarpus opulifolius*
- Boston fern *Nephrolepis exaltata* 'Bostoniensis'
- Areca palm *Dypsis lutescens*
- Lotus vine *Lotus maculatus*