This Old House

MARCH 2008

24 space-saving appliance & furniture ideas

Small-Space Solutions

- Compact kitchens
- Layouts that use every inch
- Built-in clutter control

Plus:

Quick & Easy Garage Upgrade (P. 65)

Ultimate Bath: TVs, Stereos & More (P. 51)

Wallpaper Even a Guy Could Love (P. 31)

Make a Paint Job Last 15 Years (P. 88)

THISOLDHOUSE.COM AOL KEYWORD: THIS OLD HOUSE

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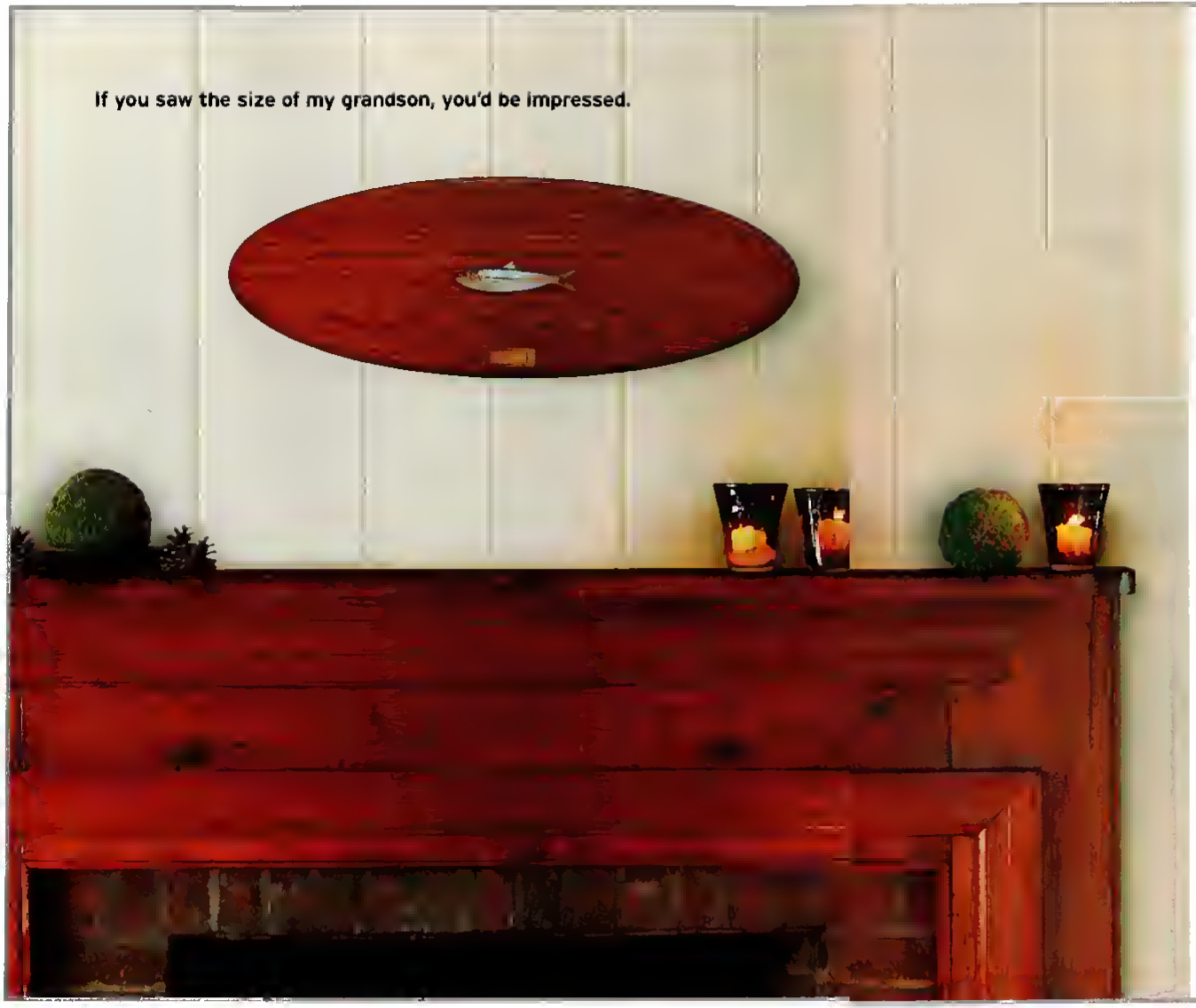

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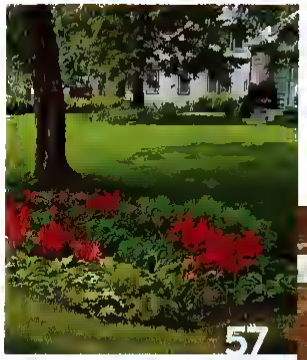
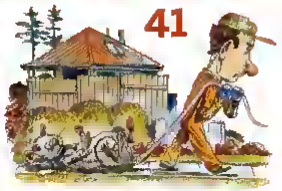
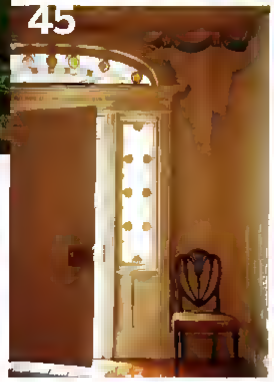
Cover photograph by **Dominique Vorillon**
Styling by **Sunday Hendrickson**







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letter FROM THIS OLD HOUSE

Too Much Stuff, Not Enough Space

"WE NEED TO TAKE AN INVENTORY of your pots and pans, small appliances, stuff like that," the architect said to me.

We were standing in the kitchen and talking about how to remodel it, how much storage I needed. He opened the largest cabinet in the room. "Nice," he said nodding his head and drawing out the word: *Nuuice*. It was the liquor cabinet. He moved to the next cabinet, opened it, and quickly closed it again—with both hands. You could see the disappointment. I was disappointed in myself, frankly.

I don't know why I have a yogurt maker, ice cream maker, and pasta maker, either. Actually, that's not true. I do know why: I'm an insomniac and a sucker for Ron Popeil. But what I don't really understand is why I still have them. I've never used them—too much calorie guilt to use the ice cream maker, too fearful of creating superbacteria to use the yogurt maker, and too easily embarrassed to dry fresh spaghetti on the clothesline right next to the whites (can you imagine what the neighbors would say?). And yet I keep them, which is why I don't seem to have nearly enough room for all my truly important possessions—for example, a great big pot in which to cook *store-bought* spaghetti—especially because my entire house is only 20 feet wide.

Maybe you've got a similar issue with space. You'll appreciate, then, the special lineup of stories in this issue that offer advice on how to make the most of not quite enough room. It's packed fuller than a junk drawer with layout advice, ideas to help hide away clutter, and products that do double duty—a clothes dryer inside a washer, to name one. It's smart advice, really, that makes sense no matter what the size of your house. Look for the "Small-Space Solutions" logo as you turn the pages.

Back at my house a few weeks after that first kitchen visit, the architect handed me a set of plans that made the smallish space feel bigger, with a skylight and large, windowed door. Elsewhere, every wall was stacked with enough cabinetry to store a year's worth of unnecessary, impulsive infomercial purchases—what he described as a kitchen as tightly designed as a boat cabin. Perfect, I thought. A boat. What better place to stow my Popeil Pocket Fisherman?

SCOTT OMELIANUK
EDITOR

The editor in his future kitchen, where floor-to-ceiling cabinets will house the evidence of infomercials past

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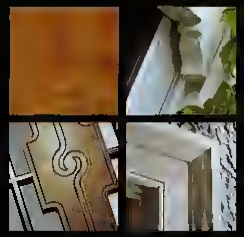

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Built to Last

As I browsed through your December issue I was amazed to find "A Starter House (Circa 1785)" because it looks so much like our home in Maine! Our house is circa 1786. We bought it in 1994 with about 10 acres of the original 100 left. The house is primarily original: walls, woodwork (including hand planed doors and beams), and most floors. What I'm not sure about is why the homeowner in the article didn't think his house was built to last forever. Ours is post-and-beam and stands just as proudly as ever and will definitely outlast us and our grandchildren!

CAROL SMALL, ORRINGTON, MAINE

Confidence Booster

Everything stops when the new issue of *TOH* appears in the mailbox. I have undertaken many projects around my home, and each one enhances my confidence. I refinished a bathroom vanity with an article on painting kitchen cabinets ["Old Cabinets, New Color," November 2004]—it turned out great, and now I am ready to tackle my kitchen cabinets. The best reward is looking at it from afar and taking pride in my own workmanship (or *workwomanship*).

JUDITH SMYSER, NEWARK, DEL.

This Green House?

We have enjoyed our subscription to *TOH* magazine for many years now. Lately, though, we have become a little turned off with the overwhelming focus on "going green." Being careful with our resources and not being wasteful is as important to us as it is to you, but this push to go green seems to be turning into an obsession. As another *TOH* reader pointed out ["Green House Mail," November 2007] there is a lot of "green" hypocrisy in our consumer-oriented society, and more often than not, being truly green involves being content with what we have or making simpler changes. We are largely discontent, unable to be happy with merely functional and comfortable homes, we must have the latest and greatest, the best technology, the most luxurious and modern amenities and design. We would appreciate seeing a more balanced approach to this. I'm sure *TOH* readers in general regard this as just one of many important aspects of home care and design.

LAURIE TOP BY E-MAIL

Evergreen Christmas Tree

"An Evergreen Tradition" was a good article—it brought back memories of my family doing this. One thing that I believe made a difference for our success was a suggestion from a neighborly farmer. On the day that we brought the tree home, we would dig the hole and bring the dirt into an unheated garage. After Christmas, we would bring the tree out to the garage and merge the soils. As you suggest, we waited a couple of days (we watched the weather report to avoid extreme cold and wind) and transplanted with both soils at the same temperature. Worked every time.

JIM HERON, OBERLIN, OHIO

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around the HOUSE

EDITED BY DEBORAH SNOONIAN

THIS IS NOT WOOD

A knotty alternative to the real thing

Sure, it takes logs to build a fire, but bringing wood into your house seems entirely optional these days. *Faux bois*—or false wood, a style that first became popular in the early part of the 20th century—is cropping up in everything from wall panels and tiles to lamps and plates. Made from diverse materials like ceramic, foam and resin, *faux bois* lets you create the feel of the forest inside, often at a fraction of the cost of actual wood. These items will make any room feel cozy during those blustery days of late winter. —JENNIFER STIMPSON

1 Cotton/linen fabric, $90 per yard; jedjohnson.com
2 Molded resin twig lamp, $69; zgallerie.com
3 Painted wallpaper, $58 per yard; alphaworkshops.org
4 Polyurethane ceiling beams, $8 per linear foot; fauxwoodbeams.com
5 Foam corbel, $76; fauxwoodbeams.com
6 Plastic butler tray, $70; decorativethings.com
7 Ceramic vase, $11; cspost.com
8 Melamine dish set: large plate, $12; small plate, $9; bowl, $5; bongenre.com
9 Ceramic tile, $33 per square foot; antisacks.com
10 Vinyl table runner, $46; chilewich.com
11 Polyurethane wall panel, $8 per square foot; fauxpanels.com

PHOTO BY TOM SCHLEES

SAFE HOUSE

No More Heavy Metal

How to reduce lead hazards when you're renovating

While lead-tainted toys grabbed headlines last year, a much more common culprit in poisoning is dust from lead paint. A recent study concluded that about 310,000 U.S. children under age 6 had elevated levels of lead in their blood, most of these cases occur during home renovations, says Rebecca Morley, executive director of the National Center for Healthy Housing (nchh.org). If you live in a house built before 1978 (when lead paint was banned) and plan to remodel on your own, keep these guidelines in mind. And for more information on lead poisoning, visit epa.gov/lead

TEST BEFORE YOU START. Home-based test kits for lead are not very reliable, so stick to lab tests. If you're working on a small area like a mantel, pry up a paint chip about 2 square inches in size and send it to a local lab. A larger project area calls for a certified inspector. Visit nchh.org for more details about labs and testing.

BRUSH UP ON THE BASICS. Read the Department of Housing and Urban Development's lead paint field safety guide (available at hud.gov). Free safety training courses are also available in many regions; visit leadsafetraining.org to find a class near you.

KEEP DUST DOWN. Never use a belt sander, an open flame, or a heat gun that operates above 1,100 degrees to strip paint. Wear a dust mask and frequently mist the work area with water to keep dust to a minimum.

CONTAIN THE PROBLEM. Seal off the work area with plastic sheeting. Wear disposable coveralls and shoe booties so you don't track lead dust around your home.

CLEAN AND RETEST. When you're done, clean the work area with a HEPA-filter vacuum and wipe down surfaces with detergent and warm water. Afterward, collect dust samples and send them to a lab to make sure lead levels are safe. —NATALIE RODRIGUEZ

A HANDY HARDWARE HAULER

THIS TOUGH NEW TOOL BAG REINVENTS THE WHEEL

As we all know, tools are heavy. So, naturally, tool bags are heavy. Thankfully, the wide-footed, deep-treaded wheels on the new DT Pro Tool Bag let you roll your heavy bag along the ground rather than heaving or hoisting it around. The rip-resistant fabric tote has other handy features, too. There's a flat scabbard for stashing spare circular-saw blades, a fleece-lined pocket to keep glasses scratch-free, and a shroud that slips over the telescoping handle to keep your prized possessions dry in the rain. But the wheels are the real genius of this bag—kudos to DT for getting a big detail right. $70, duluthtrading.com. —HARRY SAWYERS

10 USES

WINE CORKS

Lightweight and rot-resistant, corks can do a lot more than just plug up your favorite bottle of vino. Start saving them for a few handy projects. —JENNIFER STIMPSON

1. **CREATE BASEBOARD.** Glue corks side by side onto a base of ¾-inch MDF and cut along the long ends with a saw to an even height. Attach strips of ¾-inch molding to the top and bottom, and nail the strip of corks to the base of your walls.

2. **SCRUB A KNIFE.** To avoid scratching high-carbon kitchen knives, use a dab of cleanser and scrub the knife with a cork instead of an abrasive cleaning pad.

3. **FLUFF UP YOUR SOIL.** Chop or grind corks into granules and add them to soil as moisture-retaining mulch.

4. **MAKE A TINY SANDING BLOCK.** Wrap a piece of sandpaper around a cork. Use the curved surface for touch-ups on molding and other detailed items.

5. **KEEP ARTWORK OR AN EVEN KEEL.** Cut a cork lengthwise into thin strips and glue them to the corners of hanging artworks. The cork will prevent them from tipping off center.

6. **PROTECT YOUR BLADES.** Glue several corks together side by side and place the strip in a drawer. Rest knife blades in the crevices to keep them sharp and protected.

7. **MAKE A DOORSTOP.** Slice along the length of a cork at an angle and push the cork under a door to keep it from slamming shut.

8. **MUSH UP YOUR CABINETS.** Slice a cork into thin circles and glue the pieces to the inside corners of cabinet doors to quiet them when closing.

9. **SAFEGUARD YOUR TOOLS.** Drill a hole halfway through the length of a cork. Fit the cork over the end of a pointed tool to prevent damage to it (and yourself).

10. **START A FIRE.** Soak old corks in a jar of rubbing alcohol, then put a few in a fireplace underneath logs and newspaper. Light the corks with a long-handled starter to get the flames dancing quickly.

PHOTOS (CLOCKWISE FROM TOP LEFT): GETTY IMAGES (KATHY); ACHILLEAS; MARK WEISS

SPINELESS IT'S NOT.

The backbone of every truck is its frame. That's why we didn't settle for anything less than a fully boxed frame. Unlike conventional C-frames that are prone to flexing, our fully boxed frame is the best-designed, strongest truck frame we've ever built. It helps the Titan haul up to 9,500 pounds of anything you want.* Of course, we didn't stop at the frame. We also gave it a 5.6-liter Endurance V8, 26%-bigger front brake rotors and a Utili-track™ cargo system** on the longest crew cab bed in its class.* Maybe that's why Titan owners voted it a leader in the 2007 Strategic Vision Total Quality Award.† Visit us at NissanUSA.com

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THE NEW 2008 FULL-SIZE NISSAN TITAN

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SHIFT_strength

*Based on owner's manual payload rating for Nissan Towing Crew Chevy Silverado Crew Cab GMC Sierra 2500HD Crew Cab 2007 Toyota Tundra Double Cab. Not available on 4WD models. Heavy Duty Payload Package. Available 4008 Titan King Cab 1500 Mega Cab 4x4 Titan with available bed extender and dual rear wheels. Available 4008 Titan King Cab 1500 Mega Cab 4x4 Titan with available bed extender and dual rear wheels. Please always wear your seat belt. Always drink and drive responsibly. ©2007 Nissan North America, Inc. All rights reserved.

THREE QUESTIONS FOR...

JOE FRANQUINHA
MANAGER, CREST HARDWARE
BROOKLYN, NEW YORK

Q What's the most common request you get from your customers?

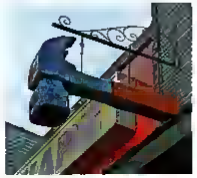
A Everyone wants to know how to put up shelves on their walls for extra storage. Also, they ask about getting rid of bedbugs. We carry this product from a company in Utah. It's some kind of natural neurotoxin that kills them. Most people are embarrassed to talk about bedbugs, but anyone can get them or track them in.

Q Any good customer stories? Like, what's the craziest problem you ever helped somebody with?

A We get lots of everyday questions about home repairs, but once a regular client came to us in a panic. She designs photo shoots for magazines, and she had one day to figure out how to make a fireman's pole with no base stand up so that an 80-pound kid could slide down it without killing himself. We ended up anchoring it with a couple of heavy-duty steel umbrella bases that come with patio tables and added some pieces of wood and screws and brackets here and there, and a few hours later, kids could hang off it just fine.

Q In an age of big-box home centers, what makes your store special?

A Excellent service. We've been in business 45 years, and many of our staff people have worked here for a decade or longer. I want everyone in the community to feel comfortable turning to us for any kind of hardware question. Sometimes it stretches beyond that, and I learn more about my customers than I probably want to. But that's okay. It's part of the job. —DEBORAH SNOONIAN



Franquinha stands in the back of the store that's been in his family for 45 years (ABOVE LEFT). His father, Manny, chose the name Crest—he says, because the toothpaste was very popular at the time—and because C comes early in the phone book. Above, a hammer sculpture is a distinctive (if slightly threatening) marker for the store's entry.

MILESTONES Washing Machines

circa 1782

Though it's not known who invented the first hand-cranked mechanical washing machine, images of them are used in the coat of arms for England's Society of Cleaners and Launderers.

1906 to 1908

According to some, Alva J. Fisher invents the first electric washing machine in 1906 for Chicago-based Hurley Corp. In any event, two years later, electric machines become the norm.

1920s

Enameled sheet metal starts replacing the copper and steel surfaces of washers.

1937

The Bendix Corporation pioneers the first fully automatic washing machine that washes, rinses, and extracts water in a single process.

1947

A forerunner of the Whirlpool Corporation, the 1900 Company introduces the first top-loading automatic washing machine for consumers.

2000

▼ Laundry 2.0
Maytag introduces the first washer controlled by a touch screen.

pre 1600s

◀ The first washing "machine" makes its appearance: the washboard. No more beating fabric against rocks.

1800s

Ribbed metal tubs begin replacing wooden ones for scrubbing our duds.

1922

▲ Maytag's Gyrafoam is the first mass produced washer with a finned agitator to force water through laundry. The agitator is still used today.

1957

▲ GE produces a washing machine equipped with five push buttons to control variables like water temperature and agitation speed.

FOR MORE INFORMATION SEE DIRECTORY, PAGE 122

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For over 100 years, our goal has been to make workwear that's just as tough as the people who wear it.
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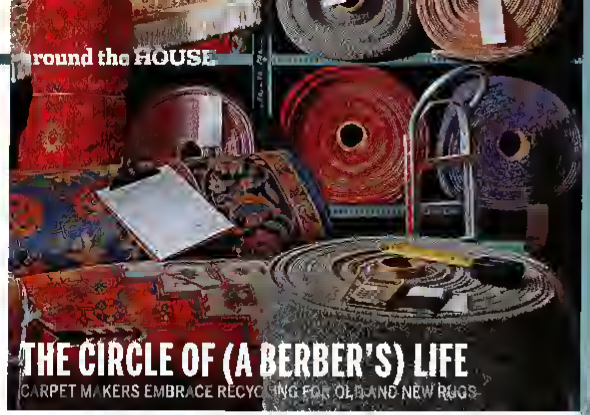


THE CIRCLE OF (A BERBER'S) LIFE

CARPET MAKERS EMBRACE RECYCLING FOR OLD AND NEW RUGS

Getting ready to lug your worn-out wall-to-wall to the curb? You're not alone. Americans get rid of some five billion pounds of carpet each year—that's nearly seven times the weight of the Empire State Building. But thanks to an industry/government group called the Carpet America Recovery Effort (CARE), you may be able to recycle rugs you once would have thrown away.

CARE unites a national network of recyclers that turn old carpet into raw materials for new products, like composite lumber and carpet padding. Though the network is still in its infancy—recycling facilities aren't available everywhere yet, and homeowners typically pay from 5 to 25 cents per pound of carpet to recycle it—more facilities are joining, and costs will likely drop as CARE expands. "Last year, we kept 261 million pounds of carpet out of landfills," says Robert Peoples, CARE's executive director. Right now, recyclers are available in 26 states; visit CARE's website (carpetrecovery.org) for an up-to-date map and listing.

Individual carpet companies are doing their part, too. Many manufacturers offer lines that contain recycled content, and some let you ship back samples or old rugs for free. Take our cheat sheet to the store...and make sure to ask your carpet dealer if there are rug recyclers in your town. —SAL VAGLICA

MOHAWK The company's EverStrand carpet fiber incorporates PET (polyethylene terephthalate) from recycled plastic bottles, using 100 percent postconsumer recycled content.

SHAW Some lines of this brand containing Anso nylon use recycled content and can be recycled at Shaw's facility in Augusta, Georgia.

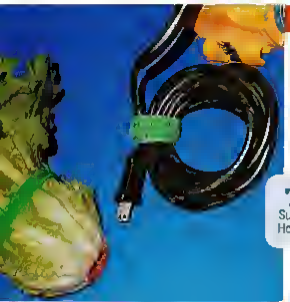
MILLIKEN Its Tasserae carpet tile incorporates 33 percent recycled content.

FLOR The Fadora line uses 80 percent postconsumer fibers to make new carpet tiles and is available in seven colors. Customers can also ship old Flor carpet tiles free of charge to the company's recycling facilities.

For Tinkering Types, a New Old Classic

Three parts instruction manual and one part magic book, the second edition of *Practical Projects for the Handy Man*, first published in 1913, will remind you of those childhood moments when you marveled at how stuff worked—and then tried to build your own stuff. Originally called *The Boy Mechanic* by the former editors of Popular Mechanics Press, this 460-page book is filled with detailed plans and abstruse scientific factoids. Though some of the projects aren't practical today (really, when will you ever need to build an electric stove?), there are a number of useful tidbits and how tos, including tips on making vises, lathes, and an emergency soldering tool. The book also includes some advanced projects, like instructions for building a porch swing and an Arts and Crafts desk. Sprinkled in with this sensible material are fun experiments in sleight of hand and illusions—perfect for wowing the kids at your next family gathering. A good read, whether you want to get your MacGyver on or just have a grin or two. —NATALIE RODRIGUEZ

By the editors of Popular Mechanics Press
First Lyons Press, 2007, $20



TOH TIP

FIT TO BE TIED

"At the grocery store, heads of lettuce are often bound together with narrow, Velcro-lined straps. I use them to bundle the cords of my belt sander, drill, and other power tools. They're surprisingly strong; I even used one as a makeshift band clamp to hold together pieces of glued-up wood. These handy little straps are free—all you need to do is add a little roughage to your diet."

—JOSEPH TRUINI, *THIS OLD HOUSE* CONTRIBUTOR

Tell Us Your Tips
Submit your favorite tips to Around the House at thisoldhouse.com/yourTOH

WHEN THE PRESSURE'S ON, XP550 HOLDS TIGHT.

The company that invented the one-handed bar clamp now puts 550 lbs. of one-handed force in the palm of your hand. The IRWIN® QUICK-GRIP® XP550 also features Patented Power Locks™ to hold the pressure longer, a Quick-Release™ trigger, plus Quick-Change™ jaws to convert it to a spreader. Add it all up and no other clamp can compare. Bar none.

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QUICK-GRIP
The Handiest Clamps On Earth

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www.irwin.com/quick-grip

WORTH A VISIT

Honest Abe Slept Here

Few people know that President Lincoln lived away from the White House for a quarter of his presidency—and today you can visit the other place he called home. On February 18, the National Trust for Historic Preservation unveiled its seven-year restoration of Lincoln's Cottage, the 34-room Gothic Revival house built in 1842 where Lincoln and his family stayed in the summer and fall during the Civil War years. Located three miles north of the White House, the cottage sits on a breezy hilltop on the grounds of the old Soldiers' Home (now the Armed Forces Retirement Home), a 272-acre preserve founded in 1851 as a facility for retired and disabled veterans. While living at the cottage, Lincoln commuted to the White House by horseback or carriage, often chatting with Union soldiers along the way and once surviving an assassination attempt. He also used the house for important meetings and quiet reflection; historians believe he worked on several drafts of the Emancipation Proclamation there. Now the NTHP leads guided tours that offer a glimpse of Lincoln's day-to-day life as president. Reservations are recommended: call 800-514-3849 or visit lincolncottage.org. —DEBORAH SNOONIAN

Lincoln's Cottage as it appears today (ABOVE), and circa 1863 (LEFT). A detail from a mural by William Woodward depicts a scene from Lincoln's cottage stays (BELOW)

Celebrity Woodworkers: They're Just Like Us!

When they're not attending glitzy premieres and strutting down the red carpet, you'll find these stars at home waiting for the glue to dry. Here are a few faces you may recognize from your favorite shows and movies—or just from the checkout line at your local home center. —HARRY SAWYERS

WILLIAM H. MACY After picking up woodworking during his role in *Fargo*, the actor turned a bowl on his lathe, which was featured in a story for *Fine Woodworking* magazine. (Macy said he wasn't sure whether his "butt ugly bowl" was more of a bowl or a plate, ultimately, he called it a "plowl.")

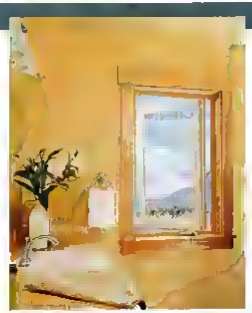
TROY POLAMALU The hard-hitting safety for the Pittsburgh Steelers learned woodworking as a kid in Oregon, telling *Sports Illustrated* that it's a "very spiritual and peaceful thing to do."

SKEET ULRICH Known for his starring role in the hit film *Scream*, the Virginia-born carver attended classes at the revered Marc Adams School of Woodworking.

DANIEL DAY-LEWIS The Academy Award–winning actor from *There Will Be Blood* and other films studied woodworking as a teenager and applied for an apprenticeship with a cabinetmaker before making the leap to the silver screen. He built a canoe for the set of *Last of the Mohicans*.

ANDY ROONEY The opinionated *60 Minutes* personality says he'd devote his time to making furniture if he weren't in the news business, though he told CBS, "I'm not really good enough to make a living at it." His latest essay about his hobby is called "In My Imagination, All of My Tools Are Sharp."

JIMMY CARTER Between gigs as governor, president, and humanitarian advocate, the dovetailing diplomat and avid woodworker has fashioned more than 100 pieces of furniture.



GETTING A GOOD HANDLE ON THINGS

Most of today's new casement windows open via a handle crank on the bottom sash—simple to use, but tedious to keep turning over and over again. Window maker Jeld-Wen decided to go old-school for its new line of push-out casement windows, using a simple handle in lieu of a crank. A mere quarter turn lets the pane swing outward. Better yet, unlike the casements of yore, the handle locks the window at three different points, foiling would-be intruders and keeping errant raindrops at bay. The windows come in various sizes, up to 6 feet tall. We're...um...pretty cranked by their innovations. Starting around $500; jeld-wen.com. —DEBORAH SNOONIAN

PHOTOS, (C. CCW) SCENE FROM BOTTOM LEFT) WILL...AM WOODWARD COPYRIGHT PRESENT'L NOD...N DO TADE...COPYRIGHTS GOVT...LINCOLN'S COTTAGE...COURTESY OF THE L...NCOLN MUSEUM...EDIT MAKING...W...RET...BRAD...GETTY...ANGELES...EVERETT COLLECTION

There's relief for pain like this.
Ask your doctor about Lyrica®.

LYRICA® PREGABALIN C...
Designed for Relief

Do you feel burning pain in your feet? Or tingling, numbness, stabbing or shooting sensations?

If so, you may have painful neuropathy, also known as nerve pain. This type of pain is different from musculoskeletal (muscle or joint) pain, and may need a different type of treatment. Only Lyrica (pronounced LEER-i-kah) is FDA approved to treat two of the most common types of nerve pain, Diabetic Nerve Pain and Pain after Shingles. Lyrica is specially designed to provide the relief you need. It works on the nerves that cause this pain. So you can start to think about other things besides your pain. Ask your doctor if Lyrica can help. Lyrica is one of several treatments for you and your doctor to consider.

Prescription Lyrica is not for everyone. Some of the most common side effects of Lyrica are dizziness and sleepiness. Others are dry mouth, swelling of hands and feet, blurry vision, weight gain, constipation, euphoria, balance problems, increased appetite and trouble concentrating. Tell your doctor right away about any serious allergic reaction that causes swelling of the face, mouth or neck or affects your breathing or your skin. Also tell your doctor about any changes in your eyesight, muscle pain along with a fever or tired feeling or if you are planning to father a child. You may have a higher chance of swelling, hives or gaining weight if you are also taking certain diabetes or high blood pressure medicines. And, if you drink alcohol or take medicines that make you sleepy, you may feel more sleepy when you start Lyrica. You should not drive or operate machinery until you know how Lyrica affects you. If you have had a drug or alcohol problem, you may be more likely to misuse Lyrica. You should talk with your doctor before you stop taking Lyrica or any other prescription medication. *Please see important patient information on adjacent pages.*

To learn more visit www.lyrica.com or call toll-free 1-888-9-LYRICA (1-888-959-7422).

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.FDA.gov/medwatch or call 1-800-FDA-1088.

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PATIENT INFORMATION

Lyrica® *(pregabalin)* Capsules ℮

(LEER-i-kah)

Read the Patient Information that comes with LYRICA before you start taking it and each time you get a refill. There may be new information. This leaflet does not take the place of talking with your doctor about your condition or treatment. If you have any questions about LYRICA, ask your doctor or pharmacist.

What is the most important information I should know about LYRICA?

1. **LYRICA may cause serious allergic reactions.**
   - **Call your doctor right away if you think you have any of the following symptoms of a serious allergic reaction:**
     - **swelling of the face, mouth, lips, gums, tongue or neck**
     - **have any trouble breathing**
     - **Other allergic reactions may include rash, hives and blisters.**
2. **LYRICA may cause dizziness and sleepiness.**
   - **Do not drive a car, work with machines, or do other dangerous activities until you know how LYRICA affects how alert you are. Ask your doctor when it is okay to do these activities.**
3. **LYRICA may cause problems with your eyesight, including blurry vision.**
   - **Call your doctor if you have any changes in your eyesight.**

What is LYRICA?

LYRICA is a prescription medicine used in adults, 18 years and older, to treat:

- pain from damaged nerves (neuropathic pain) that happens with diabetes
- pain from damaged nerves (neuropathic pain) that follows healing of shingles (a painful rash that comes after a herpes zoster infection)
- partial seizures when taken together with other seizure medicines
- fibromyalgia

LYRICA has not been studied in children under 18 years of age.

Pain from Damaged Nerves (neuropathic pain)

Diabetes and shingles can damage your nerves. Pain from damaged nerves may feel sharp, burning, tingling, shooting, or numb. If you have diabetes, the pain can be in your arms, hands, fingers, legs, feet, or toes. If you have shingles, the pain is in the area of your rash. You may experience this kind of pain even with a very light touch. LYRICA can help relieve the pain. Some people taking LYRICA had less pain by the end of the first week of LYRICA therapy. LYRICA may not work for everyone.

Partial Seizures

Partial seizures start in one part of the brain. A seizure can make you fearful, confused, or just feel "funny". You may smell strange smells. A seizure may cause your arm or leg to jerk or shake. It can spread to other parts of your brain, make you pass out, and cause your whole body to start jerking.

LYRICA can lower the number of seizures for people who are already taking seizure medicine.

Fibromyalgia

Fibromyalgia is a condition which includes widespread muscle pain and difficulty performing daily activities. LYRICA can help relieve the pain and improve function. Some people taking LYRICA had less pain by the end of the first week of LYRICA therapy. LYRICA may not work for everyone.

Who Should Not Take LYRICA?

Do not take LYRICA if you are allergic to any of its ingredients. The active ingredient is pregabalin. See the end of this leaflet for a complete list of ingredients in LYRICA.

What should I tell my doctor before taking LYRICA?

Tell your doctor about all your medical conditions, including if you:

- **have any kidney problems or get kidney dialysis**
- **have heart problems including heart failure**
- **have a bleeding problem or a low blood platelet count**
- **are pregnant or plan to become pregnant.** It is not known if LYRICA may harm your unborn baby. You and your doctor will have to decide if LYRICA is right for you while you are pregnant.
- **are breastfeeding.** It is not known if LYRICA passes into breast milk and if it can harm your baby. You and your doctor should decide whether you should take LYRICA or breastfeed, but not both.

Tell your doctor about all the medicines you take including prescription or non-prescription medicines, vitamins or herbal supplements. LYRICA and other medicines may affect each other. Especially tell your doctor if you take:

- angiotensin converting enzyme (ACE) inhibitors. You may have a higher chance for swelling and hives if these medicines are taken with LYRICA. See "What is the most important information I should know about LYRICA?"
- Avandia® (rosiglitazone) or Actos® (pioglitazone) for diabetes. You may have a higher chance of weight gain or swelling if these medicines are taken with LYRICA. See "What are the possible side effects of LYRICA."
- any narcotic pain medicine (such as oxycodone), tranquilizers or medicines for anxiety (such as lorazepam). You may have a higher chance for dizziness and sleepiness if these medicines are taken with LYRICA. See "What is the most important information I should know about LYRICA?"
- any medicines that make you sleepy

Know all the medicines you take. Keep a list of them with you to show your doctor and pharmacist each time you get a new medicine.

Tell your doctor if you plan to father a child. Animal studies showed that pregabalin, the active ingredient in LYRICA, made male animals less fertile and caused sperm abnormalities. Also, in animal studies, birth defects occurred in the offspring of male animals who were treated with pregabalin. It is not known if these effects would happen in people.

How should I take LYRICA?

- Take LYRICA exactly as prescribed. Your doctor may adjust your dose during treatment. Do not change your dose without talking to your doctor.
- Do not stop taking LYRICA suddenly without talking to your doctor. If you stop taking LYRICA suddenly, you may have headaches, nausea, diarrhea or trouble sleeping. Talk with your doctor about how to slowly stop LYRICA.
- LYRICA is usually taken 2 or 3 times a day, depending on your medical condition. Your doctor will tell you how much LYRICA to take and when to take it. Take LYRICA at the same times each day.
- LYRICA may be taken with or without food.
- If you miss a dose by a few hours, take it as soon as you remember. If it is close to your next dose, just take LYRICA at your next regular time. **Do not** take two doses at the same time.
- If you take too much LYRICA, call your doctor or poison control center or go to the nearest emergency room right away.

What Should I Avoid While Taking LYRICA?

- **Do not drive a car, work with machines, or do other dangerous activities until you know how LYRICA affects how alert you are.** See "What is the most important information I should know about LYRICA?"
- **Do not drink alcohol while taking LYRICA.** LYRICA and alcohol can affect each other and increase side effects such as sleepiness and dizziness. This can be dangerous.

Do not take other medicines without talking to your doctor. Other medicines include prescription and non-prescription medicines, vitamins and herbal supplements. LYRICA and other medicines may affect each other and increase the side effects of swelling, sleepiness and dizziness. Be especially careful about medicines that make you sleepy (such as sleeping pills, anxiety medicines, tranquilizers and some antihistamines, pain relievers and seizure medicines).

What are the possible side effects of LYRICA?

LYRICA may cause side effects including:

- **allergic reactions.** See "What is the most important information I should know about LYRICA?"
- **weight gain and swelling of the hands and feet (edema).** Weight gain may affect the management of diabetes. Weight gain and swelling can also be a serious problem for people with heart problems.
- **dizziness and sleepiness.** See "What is the most important information I should know about LYRICA?"
- **eyesight problems.** See "What is the most important information I should know about LYRICA?"
- **unexplained muscle problems, such as muscle pain, soreness, or weakness.** If you develop these symptoms, especially if you also feel sick and have a fever, tell your doctor right away.

The most common side effects of LYRICA are:

- dizziness
- blurry vision
- weight gain
- sleepiness
- trouble concentrating
- swelling of hands and feet
- dry mouth

LYRICA caused skin sores in animals. Although skin sores were not seen in studies in people, if you have diabetes, you should pay extra attention to your skin while taking LYRICA and tell your doctor of any sores or skin problems.

LYRICA may cause some people to feel "high." Tell your doctor, if you have abused prescription medicines, street drugs, or alcohol in the past.

Tell your doctor about any side effect that bothers you or that does not go away.

These are not all the side effects of LYRICA. For more information, ask your doctor or pharmacist.

How should I store LYRICA?

- Store LYRICA at room temperature, 59 to 86° F (15 to 30° C) in its original package.
- Safely throw away LYRICA that is out of date or no longer needed.
- **Keep LYRICA and all medicines out of the reach of children.**

General information about LYRICA

Medicines are sometimes prescribed for conditions other than those listed in patient information leaflets. Do not use LYRICA for a condition for which it was not prescribed. Do not give LYRICA to other people, even if they have the same symptoms you have. It may harm them.

This leaflet summarizes the most important information about LYRICA. If you would like more information, talk with your doctor. You can ask your doctor or pharmacist for information about LYRICA that is written for health professionals.

You can also visit the LYRICA website at www.LYRICA.com or call 1-866-4LYRICA.

What are the ingredients in LYRICA?

Active ingredient: pregabalin

Inactive ingredients: lactose monohydrate, cornstarch, talc;

Capsule shell: gelatin and titanium dioxide. Orange capsule shell: red iron oxide; White capsule shell: sodium lauryl sulfate, colloidal silicon dioxide. Colloidal silicon dioxide is a manufacturing aid that may or may not be present in the capsule shells.

Imprinting ink: shellac, black iron oxide, propylene glycol, potassium hydroxide.

Manufactured by:
Pfizer Pharmaceuticals LLC
Vega Baja, PR 00694

LAB-0299-5.0

Avandia is a registered trademark of GlaxoSmithKline.

Actos is a registered trademark of Takeda Chemicals Industries, Ltd. and used under license by Takeda Pharmaceuticals of America, Inc. and Eli Lilly and Co.

June 2007 LYU00398B

A DISGRUNTLED

LOOFAH

I used to be considered somewhat of a luxury item. When people saw me hanging in a shower they'd say, "Ooooh, a loofah." They were impressed. Now they've got these fancy showerheads, hand showers and body sprays spouting out of every wall—I feel like I'm watching a show in Vegas. I'm lucky if I even get noticed. If this is life in a custom shower, I want out.

DELTA.

deltafaucet.com

BEFORE: The plain white kitchen had dreary dark tile and felt cramped. **AFTER:** New casements let in more light; a half-wall opens the room to the rest of the house and shows off its butter-yellow tile and cream cabinets

SMALL-SPACE SOLUTIONS

Problem: The small kitchen felt even tinier walled off behind doors

Solution: Open it up to adjacent spaces to make the existing footprint feel bigger. Here's how >>

BY KELLY BEAMON
PHOTOGRAPHS BY DAVID FENTON

PROS KNOW THE DIFFERENCE ONE less door swing can make. Having maximized square footage for numerous clients over the years, architect Jerri Holan could tap a wealth of such space-saving ideas when it came time to redo the modest kitchen in her own Albany, California, home. Expanding its approximately 9-foot-square dimensions would have interfered with her desire to host holiday meals in the adjacent dining room and to preserve the charming separate breakfast nook that came with the 1930 Spanish Colonial Revival bungalow. So she resolved to maintain the kitchen's footprint but gut the depressing dark tile from a 1980s "update" and rethink the full-size range that constricted the space's flow. "You couldn't walk past the stove to the dining room without turning sideways," she says of the 18-inch-wide passage created by the 30-inch cooker and the counter opposite it. Removing doors and scaling down most of the appliances to apartment-sized models allowed several feet of extra countertop space with additional base cabinets tucked under it. Replacing the solid wall behind the stove with a half-wall that has an arch overhead makes the room feel bigger and frames the view of the new butter-yellow tile and cream cabinets. Of course, just opening the wall would have fallen flat if she had been timid about compromising on those full-size appliances. Says Holan, "The biggest challenge of small redos is editing out what you can."

"Throw away any cooking gear you haven't used in the past two years. An efficient small-kitchen design means you need to become efficient, too."

—JERRI HOLAN, HOMEOWNER/ARCHITECT

The Plan

>> Make the kitchen function better and feel bigger without pushing out walls

What They Did

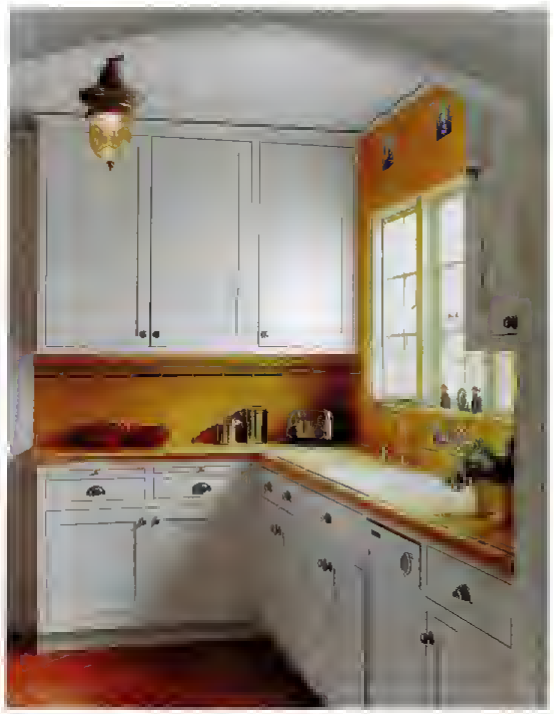
1 | REMOVED DOORS to eliminate their space-hogging swings at the entry to the dining room and to the garage stairs, easing traffic flow. Archways patterned after an original one between the kitchen and the breakfast nook give the new openings added character.

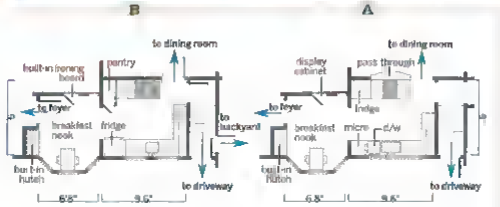
2 | OPENED UP THE WALL that had separated the kitchen from the rest of the house. On the dining room side, a curved shelf 9 inches above the range and its flanking countertops provides a resting place for dishes on their way to the table. The raised half wall allows light in but screens cooking messes from the dining area.

3 | SCALED DOWN AND REARRANGED APPLIANCES to squeeze in more cabinet storage and counter space. Switching out a full-size range for an 18-inch GE model opened up a previously unused 12 inches to its right, now filled by a base cabinet with a tiled counter. Replacing the 27-inch fridge and moving it across the room to where a skinny pantry cupboard had been allowed for 2 feet of cabinets and countertop workspace where the old one had stood. It also made space for an 18-inch dishwasher next to the sink.

4 | SHORTENED THE CABINET RUN perpendicular to the sink wall by a foot. This further eased the path to both the dining room and the stairs to the driveway.

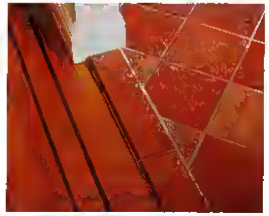
5 | CHANGED WINDOWS over the sink to maximize natural light. Two easier-to-open crank-handled casements flanking a fixed window replaced the old pair of chunky aluminum double-hungs divided by a section of wall.





B / A **BEFORE.** At 9 by 9½ feet, the kitchen had a compact footprint. **AFTER.** Eliminating door swings and a skinny pantry cabinet created more usable space. Relocating and downsizing appliances allowed for more counter area and storage cabinets, plus better flow. Opening up the range wall made the space feel airier.

FLOOR PLANS: ANN WHEDBEE



Show Us
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The Details

>> For a look appropriate to the 1930 bungalow, new cabinetry and tilework echo the original hutch in the breakfast area

1 | SLIDE-OUT CUTTING BOARDS were often found in kitchen cabinets of this era—they're also a practical space-saver in a small room. The nickel-finish knobs and bin pulls are a classic touch with a low profile that doesn't jut out and interfere with traffic flow.

2 | A DISPLAY CASE the homeowner made by retrofitting a built-in ironing board cubby with a glass door panel and shelves now showcases her collection of vintage blue medicine bottles. The wall niche next to it, originally intended for resting a hot iron, offers a spot for a pitcher of fresh flowers.

3 | TERRA-COTTA-LOOK FLOOR TILE is actually durable porcelain. Its size and color emulate that of flooring in similar 1930s kitchens and complement the eating nook's original walnut-banded oak boards.

4 | HANDCRAFTED BLUE AND WHITE TILES picked up at an antiques fair are a nod to the handmade Mexican tiles often found in similar Spanish-style bungalows. Set amid yellow field tile that extends all the way to the ceiling, they draw the eye up and away from the view of a neighboring house out the windows.

5 | A FLARED SCONCE AND SCHOOLHOUSE PENDANT with opaque glass shades, both from Rejuvenation, add to the breakfast nook's period charm.

FOR MORE INFORMATION, SEE DIRECTORY, PAGE 122

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2 | **NATURAL WEAVE**
Made of bamboo and reed strips this woven wall covering works well in a casuel space like a den Gress cloth requires e special clear adhesive and e more relaxed attitude as the panels don t blend seamlessly About $2 per square foot, brewsterwallcovering.com

3 | **POLISHED PLASTER**
Venetian plastar hand-applied on recycled poly cotton papar Is both pretty and practical since it costs less than the same finish applied directly to the wall About $7 pet square foat .studioeinc com

4 | **SUETLE SILK**
A tactile fabnc can add interest and elegance to walls Serving as the background on this and the following pages are hand painted silks. $10 per square foot, silkdynasty.com

Wallpaper

>> New materials, colors, and patterns can charm even the most die-hard chintz hater

BY **NATALIE RODRIGUEZ**
PHOTOGRAPHS BY **DAVID PRINCE**

THOUGHIT S BEENA FEATURE of onr houses for hundreds of years, wallpaper has h id its ups and downs Originally the poor man's answet to tapestries and screens, by Victorian times it had moved into upper-crust interiors—and there it remained for generations in the popular mind, thought of as a tehe of period homes and country cottages But today, wallpaper is having a renaissance, mostly because it's not just paper anymore Shiny sheets of glass beads, hand-pounded tree bark, woven bamboo, and textured Venetian plaster are a far cry from the doily inspired designs of yes teryear Even traditional toile has gotten a new twist If you don t believe us, check out these options and see for yourself

online video

Watch an expert install wallpaper at thisoldhouse.com /shortcuts

When purchasing wallpaper, ask for rolls from the same lot batch to make sure the colors don't vary greatly.

5 | ALL BARK
Warm up your walls with an organic covering. This one is made using the ancient technique of hand-pounding wet bark pulp into sheets. The process yields a marbled surface that can look like parchment or leather. About $5 per square foot. barkskin.com

6 | ARTS AND CRAFTS STYLE
The traditional motif of this hand-printed Arts and Crafts reproduction not only fits in aesthetically with an old house—but the busy pattern will also subtly camouflage small imperfections in aged walls. About $2 per square foot. bradbury.com

7 | LEAFY APPLIQUÉ
Bring a little of the outdoors inside with a paper that incorporates natural elements. Here, real dried leaves from mulberry plants are pasted and pressed onto paper. About $14 per square foot. phillipjeffries.com

8 | COLORFUL CLOTH
Natural doesn't have to mean drably neutral. This cheerful, environmentally friendly wall covering is made of solvent-free dyed sisal fibers from agave plants. About $3 per square foot. innovationsusa.com

9 | FLEXIBLE VENEER
For a traditional wood look without the construction work, consider using thin veneer mounted on fiber backing. This bamboo would cozy up a home office or bedroom. $5 per square foot. mdcwallcoverings.com

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10 | SIMPLE STRIPES
Vertical stripes can create the illusion of height in a low ceilinged room—but avoid them when working with walls that aren't plumb or smooth. $3 per square foot designtex.com

11 | BEDAZZLED
Use over-the-top materials, like this paper studded with tiny glass beads, for an accent wall in a living space or to dress up a powder room. $16 per square foot mayaromanoff.com

12 | TWISTED TOILE
It looks traditional until you get up close and see the urban themed design, which features rats, pigeons, and fire hydrants. With its witty approach and reflective silver background, this is just the paper to brighten a dark room. $4 per square foot, flavorleague.com

13 | FAUX LIZARD
Small, repeating patterns like this imitation reptile skin can make intimate rooms appear larger. They also work well in combination with more graphic patterns. About $2 per square foot mayaromanoff.com

14 | TOUGH TEXTURE
Durable and easy to wipe clean, vinyl is a great material for stairwells and playrooms. This one's embossed, weavelike texture warms up the material's sheen. $5 per square foot innovationsusa.com

FOR MORE INFORMATION, SEE DIRECTORY, PAGE 122

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Chimney pots, like these antique English ones at Recycling the Past in Barnegat, New Jersey, range in height from about 2 to 4 feet. Prices start at $250 for an intact pot that can be reinstalled on a chimney. Cracked ones can be used for decorative purposes indoors or in the yard.

Chimney Toppers

>> Use the reclaimed clay pots to improve fireplace draw or enhance your landscape

BY AMY R. HUGHES
PHOTOGRAPH BY KENNETH CHEN

A CHIMNEY CAP—I UNDERSTAND THAT. But a chimney *pot*, well, that sounds like some sort of medieval cauldron for boiling the squirrels that try to sneak down your stack. Don't get me wrong, I love those twitchy-tailed critters. It's just that the name "chimney pot" does little to explain what the device actually does or how it looks.

Shaped more like a rook in a chess set with a tapered body and a vented, crown-like top, chimney pots have protruded from European rooftops for centuries. You might recall that Mary Poppins—held aloft by her umbrella—famously glided among London's antique pots. In America, they were mainly used from the late 1800s to the early 1900s when people burned coal to heat their homes. Mortared to the top of a masonry chimney, the terra-cotta pots were an inexpensive way to extend the stack height and increase draw, reducing the amount of soot and fumes that entered into living spaces, says Ola Lessard of Chimneypot.com, a shop near Pittsburgh, Pennsylvania, that sells vintage and new pots.

Chimney pots were also used to accentuate the architecture of houses. Nearly every design in Andrew Jackson Downing's influential 1850 pattern book, *The Architecture of Country Houses*, is crowned by at least one. Piercing the apex of the front gabled roof of his "laborer's cottage," a chimney pot makes the modest place look almost regal. And perched high above either side of the entry to an ornate Gothic Revival villa, two pairs of towering pots add symmetry to the facade.

Today, you can put a smile on the face of old Mr. Downing by replacing the ugly metal cap shaped like an upside-down pie plate that's currently sticking out of your chimney with a stylish, salvaged pot. If you don't have a chimney, then repurpose a pot inside as a base for a rustic dining table, or fashion it into a planter for the garden. To see how I turned one into a landscape light, turn the page.

Transform an Old Chimney Pot Into a Garden Light

Among the simplest creative reuse projects I've done for my Salvage column, this landscape uplight is also one of my favorites. That's partly because I love proving naysayers wrong. Many of my colleagues couldn't visualize a chimney pot, much less a chimney pot that could cast a warm, 50-watt glow on the undersides of a Japanese maple's leaves. But I found a believer in Marie Burk of Kichler Landscape Lighting, who hooked me up with a low-voltage light that fit snugly inside the base of the crown-topped pot I chose. She also sent along a 60-watt transformer with a built-in timer, which plugs directly into an all-weather outlet, so the unit will automatically turn itself on and off each night. Here's the step-by-step for how I put all the pieces together:

1. Strip ½ inch of plastic insulation from the ends of the light cord, and slip the exposed copper wires into the transformer's corresponding receptacles.

2. Cut metal mesh, such as scrap tile backer, to the size of the chimney pot's opening, using snips.

3. Insert the mesh to keep leaves from gathering inside the pot's base and blocking the light source.

4. Dig a 6-inch-deep trench, in which the landscape light and the cord that leads back to the transformer will sit.

5. Place the light and cord in the trench and then backfill with the loose soil. Leave the bulb exposed, but be sure to completely bury the cord, as the soil will keep it from getting too hot when electricity is flowing.

6. Position the pot over the light. Plug the transformer into a grounded outlet, and then set the timer so the light will glow for a few hours every night starting at dusk.

Salvage Challenge
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Rat Pack

» Follow the trail of an exterminator as he helps a Staten Island family eradicate backyard vermin

BY ARIANNE COHEN ILLUSTRATIONS BY JOHN CUNEO

"They were as big as cats!" says homeowner Frances Gaglione of the rats that were scuttling across her patio.

IN THE 2007 FILM *RATATOUILLE* a likable animated rat named Remy achieves his improbable dream of opening a restaurant in the heart of Paris. (Leave it to Disney and the French to make rodents seem appealing.) Usually restaurants with rats are cringe-worthy enough, but what happens if you spot the critters setting up camp right outside your house? Fear not, homeowners. Just put your local exterminator on the case, as this family did.

THE CLIENT Frances Gaglione, who lives with her husband and 5-year-old son in a semidetached townhouse with a concrete patio in Staten Island, New York.

THE CRISIS Four legged furry creatures, but not the kind we want around. "They were as big as cats!" says Gaglione. "We have a sliding glass door, and at night, I would see them running by. We were trapped in our house. My neighbor had them, too. I'd hear these screams. And he's an older man with a heart condition! We'd call each other, and look outside from our upstairs windows. And I'd say to him, 'I don't think that's a cat!'" There's no delicate way to put it. Gaglione had a rat problem.

more tips

Brush up on how to get rid of all kinds of household critters at thisoldhouse.com/shortcuts

THE PRO STEPS IN "Frances was frantic when she called, so we came over the same day," says Vincent Errante of Universal Pest Control, who's been getting rid of all kinds of unwanted household pests

for 10 years. His first order of business was inspecting the property to identify where the rats were living and eating. "Her interior looked fine," he says. "But outside, I encountered a dead rat on her lawn. I saw garbage in a wooded area across the street, and figured that's where they came from. And I saw activity in the neighbor's yard, too."

Errante noticed other telltale signs of an infestation on Gaglione's property: droppings, gnaw marks on the concrete patio, burrowing in the patio and lawn, and gray rub marks on the side of the house, caused by the oils in the rats' skin. It was those signs that led him to the nesting area. "I followed the burrows and rub marks to the neighbor's deck. The rats were living underneath it, climbing into the neighbor's pool to drink, feeding on the bird feeder, and reproducing. It looked like it had been happening for about a month."

Case closed? Not yet. With the problem diagnosed, Errante could now eliminate the rats' food and shelter and then eradicate the colony itself. But first he told Frances to call the city government about cleaning up the wooded area across the street. "The weeds needed to be cut down, because they harbor rats and mice," he says.

Then on to Operation Rat Kill. Errante placed 24 key-operated poison bait stations 10 feet apart along the pathways the rats were using. He anchored the stations to the concrete so Gaglione's son couldn't tinker with them and accidentally get at the bait inside. Then he baited (but didn't set) six snap traps near the deck. "You have to give the rats time to get comfortable with the bait," he says. "I came back a week later to trigger the traps, and had a tremendous knockdown."

He sprinkled poison powder in their burrows, and last but not least, rat-proofed the yard by sealing the open spaces around Gaglione's exterior pipes with ¼-inch steel hardware cloth and IPF foam, which contains a hot pepper additive that deters rats from gnawing their way through the barrier. He also installed vent covers to make sure no unwanted visitors could get inside.

The Bill

Turns out hiring Errante was the cheap part.	
Extermination	$400 for initial rodent proofing
Siding replacement	$2,000
Landscaping (rocks, trees, labor)	$4,500
Concrete	$12,000
Total	**$18,900 plus $65 per month for exterminator visits**

What to Ask an Exterminator

Good exterminators won't give an estimate over the phone, so explain what's going on, agree on an inspection fee, and catch photograph or videotape the offenders so the pro will have an idea of what to expect.

What long-term strategy will you use? Exterminators should provide a list of chemicals they're using, and they should change them every three months because pests grow resistant.

How long till my hell is over? That depends on the scope of the problem, but don't expect an overnight fix for any type of pest. "A lot of people think we can wave a wand," says pro exterminator Vincent Errante. "It takes at least two months, and for a bad infestation, six months. That's why it's called pest management."

Will I go broke paying for constant visits? Exterminators typically come once a month in the summer and bimonthly in colder weather; many will create a schedule based on your needs. After an infestation, keep them on for a while and ask how to spot signs of trouble so you can monitor the situation on your own.

Do you have any green options? Good exterminators use chemical and nonchemical methods to keep homes pest-free. "People think they need chemicals, but a lot of times there's another solution. Mechanical and glue traps can sometimes do the job. For pantry pests, just remove the grains they're feeding on."

Are you going to inadvertently kill Fido? For homes with dogs or cats, Errante suggests avoiding snap traps or glue traps for mice and rats. "But tamper-resistant bait traps are okay." Errante says. You can also use anticoagulant-based baits, which often have a bitter additive called Bitrex to keep pets away. If your pet eats the bait, your vet can give him a shot of vitamin K_1 as an antidote.

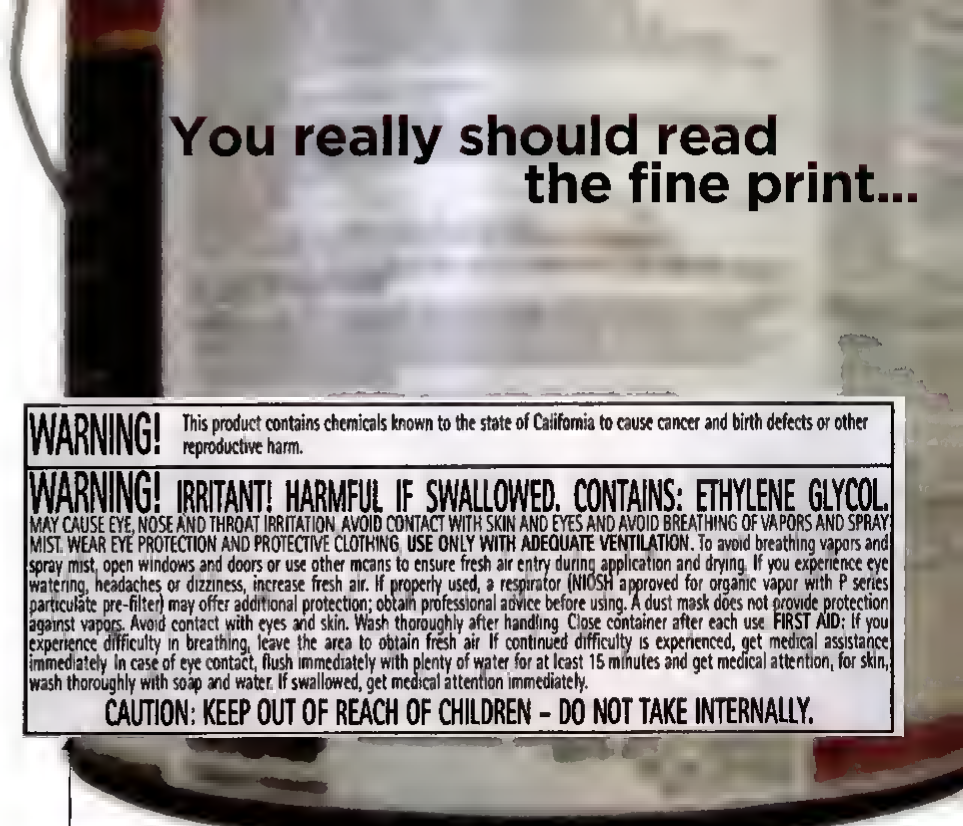
How do I know I need you? "Rats are nocturnal, so if you see them during the day, that means they're overgrowing their nest and you've got an infestation." With bugs, a stray or two indoors isn't always a problem, but if you notice them regularly, call a pro.

THE AFTERMATH. Gaglione decided she wasn't taking any more chances. Once the rats were gone, she cemented over the entire backyard and bought a power sprayer to clean her son's swing set. She also installed decorative rocks, a tent, and an outdoor table. "It was very expensive, but I don't want the rats to come back," she says.

Her neighbor redesigned his property, too. "He ripped up his pool, deck, and lawn. He has only rocks and shrubs in his front yard now."

After four months of work, Gaglione's property is now rat-free. She can let her son play outside, and she's bold enough to have company over. But Errante visits monthly, because rats reproduce every 28 days. For the first three months, he replenished missing bait in the traps and closed burrows that had reopened. Now he puts wooden blocks instead of poisoned bait in the traps and watches for bite marks. ■

FOR MORE INFORMATION, SEE DIRECTORY PAGE 122



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Making the Case for Federal

America's first homegrown style, born out of Revolutionary pride, still resonates today

BY KELLY BEAMON PHOTOGRAPHS BY TRIA GIOVAN

A DIFFERENT GEORGE W WAS PRESIDENT when Americans first tweaked European house styles to create something distinctly their own. The period just after the Revolutionary War (1780–1820) was a time to project hard-won dignity, not show off. Federal interiors featured muted wall colors, minimal trimwork painted white, and delicately carved or inlaid decoration. The only exceptions to the understated approach were the bold patriotic symbols—fighting eagles, chair backs shaped like shields, trophy-like urns, and other celebrations of military pride. Today, Federal details can lend elegance to any interior, whether it's another neoclassical style, such as Colonial or Georgian, or a midcentury modern ranch. "It's the American profile," says Peter Kenny, curator of American decorative arts for New York's Metropolitan Museum of Art, of the ovals, arches, and reeded columns that characterized the period. For a closer look, we visited the 1765 Morris-Jumel Mansion in New York City, pictured at left, bringing along some new furnishings inspired by Federal style. For more interior details and ways to update them for today, turn the page.

Federal-style desk with reeded legs and oval rosettes, $130, target.com. Urns, wreath embossed, $31, and ram's head handled, $350, marylandchina.com. Plaster bust, $190, elystudio.com.

The Hallmarks

>> A quick overview of the details that give a Federal interior its distinct look

PORTRAITS AND BUSTS. Inspired by portraiture of democratic Rome, local leaders commissioned heroic depictions, like this one of Col. John Chester, Washington's military aide.

ARCHES. Niches, alcoves, arches and curved casings were common, thanks to carpenters' pattern books widely circulated by 1790.

URNS: The vase shape another classical motif showed up everywhere. "It was in architecture, on furniture, and as ornament," says Peter Kenny, the Metropolitan Museum's curator of American decorative arts.

ARTISANSHIP: Regional styles marked a household as "cosmopolitan." Charleston chairs were known for their carved backs, Baltimore and Boston chairs, like these, for their painted details.

OVALS. Ellipses graced everything: hardware, furniture inlays, fanlights, and molding details. Entire rooms were built to celebrate the shape (think Oval Office).

Exterior Details

The dining room above is in New York's 1765 Morris-Jumel Mansion, which has a textbook Federal-era entrance added in 1810—elliptical fanlight, sidelights, and classical columns. Some of the same architectural details appear on the inside. The beads lining the wood balcony turn up again on an early 19th-century mirror frame in the house. The oval-shaped carvings, called *paterae*, flanking the door are universal on Federal-era furniture, mantels, and interior woodwork.

FOR MORE INFORMATION, SEE DIRECTORY PAGE 122

The Federal Look Today

>> New home furnishings that pay homage to the style's elegance but aren't too fussy to live with

1 | WALL NICHE
Gain an instant display niche with this 33-inch high, 4-inch-deep fiberglass model which comes ready to paint and recess between wall studs $363. *TOH* readers call 877 959-0800 for a 15 percent discount. Or visit fiberglasscolumns.com

2 | CLASSICAL BUST
Exuberance over archaeological digs like the one at Pompeii spurred Federal era fascination with Roman artifacts. This 13 inch tall goddess is just a couple of inches deep to sit comfortably on a dresser or desk. $195; jonathanadler.com

3 | GEOMETRIC MIRROR
Inlaid with circles, this traditionally inspired mirror wouldn't look out of place in a midcentury modern home. Jada mirror $490; olystudio.com

4 | WALLPAPER
Wood paneling gave way to wallpaper, much of it featuring classical motifs like swags and urns. St. Germain, left, and St. Antoine, $195 and $275 per 11 yard roll; farrowandball.com

5 | FIGHTING EAGLES
The eagle on this oval platter is a ringer for one inlaid on an 1810 table in the Metropolitan Museum. The lean, scary icon later morphed into the friendlier version we know today. $160; sarahchihat.com

6 | TURNED-LEG CHAIR
A square back and straight legs evoke the Sheraton style, beefed up for today's eclectic dining rooms. $499; bauer-international.com

web bonus
See a step-by-step on how to install a prefab wall niche at thisoldhouse.com/shortcuts

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Lights, Camera, Bathtime!

»The media room has migrated into the bath, with all the splash-proof entertainment you need

BY **NATALIE RODRIGUEZ**
ILLUSTRATION BY
EDWIN FOTHERINGHAM

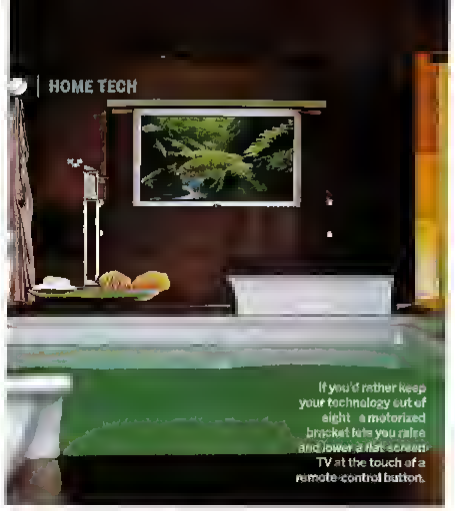
IT WAS BOUND TO HAPPEN Considering that Americans shell out more for home electronics than any other luxury ($155 billion in 2007), and considering that they redo bathrooms at a higher rate than any room in the house except kitchens, it was only a matter of time until those two priorities merged to create a new (if decidedly over-the-top) trend: the media-wired bath. Gone are the days of luxuriating in the tub with a good book. Now, if you're on the cutting edge, you can sing karaoke-style to digital music streaming from your shower wall or watch that game-clinching home run on a TV screen hidden in your medicine-cabinet mirror.

Wiring your washroom is best done during new construction or remodeling, when you can add as many power outlets as you need and run all the cables for audio and visual equipment before the drywall goes up. But whether you're starting from scratch or retrofitting, here's how to design the ultimate bathroom media system.

SPLASH-PROOF SCREENS

The key component in any entertainment system is, of course, the television. And while the pros say that any of the latest flat screens can be safely used in the bathroom—as long as it is splashing distance away from the shower, tub, or sink—a consistently steamy and damp environment will surely cut its life span.

One way to protect your investment is by recessing the screen into a niche in the wall and then covering it with a silicone-sealed, fog-proof glass frame. Austin Lowery of California–based Jetson Systems designed just such a watertight enclosure for the inside of a client's shower stall, placing it on a wall that shared space with the medicine cabinet. "We designed an access panel in the back of the cabinet for the TV," Lowery says. "If something happens to it, all you have to do is undo the screws, remove the panel, and pop it out." In this case, because the homeowner's audio and video equipment was all connected through a home-automation system, components could be controlled wirelessly via a waterproof remote, making it possible to channel surf, play music, and watch DVDs in the shower. If your house isn't so high-tech, another option



If you'd rather keep your technology out of sight, a motorized bracket lets you raise and lower a flat-screen TV at the touch of a remote-control button.

is Samsung's new wireless plasma TV, which can pick up streaming cable or satellite from up to 300 feet away. While it still needs a power source, there are fewer connections to muddle with, which means less chance for the damp environment to take a toll on wires.

If you don't want your screen to be the star of the space, you can cover the niche with a two-way mirror. That way, when the TV is on, it's clearly visible, but when it's off, all you'll see is your reflection. Ready-to-go units, like Seura's small vanity HDTVs, look like mirrors and can easily be hooked up to your satellite, cable, or video system.

Another easy retrofit option is a marine-grade flat-panel, like Jensen Company's 15-inch LCD screen. Its circuit boards are made to withstand the humidity and salty air on boats at sea, so it can be mounted on the wall with standard brackets—no drywall destruction needed.

For optimum aesthetics (and viewability), try to keep the screen proportional to the room's space. If you'll be viewing from a distance of about 5 feet, a 26-inch wide-screen should do the trick. If your bathroom is especially large and you'll be watching from as much as 10 feet away, you can handle a 42-incher.

WATER-RESISTANT SPEAKERS

What's a home theater setup without surround sound? For the ultimate in shower sing-alongs, there's Kohler's new SoundTile speakers. Designed to be installed directly in the shower, these 4-by-4-inch "tiles" have sleek metallic finishes to match plumbing fixtures, and guts from high-end speaker manufacturer Polk Audio.

If you don't need your speakers to match your faucets, then marine-grade speakers will do the trick. These come in a variety of sizes and can be wall-mounted or recessed. Because of the generally small footprint and challenging acoustics of bathrooms, the best place for speakers is in the ceiling, where sound will be evenly dispersed throughout the room. Unfortunately, that's also where you're likely to run into lights, vents, and wiring. If you can't fit a pair of speakers, invest in a stereo-input speaker, which combines two high-frequency tweeters and a bass-delivering subwoofer in one unit.

To really soak up the sounds, though, you'll need the Stereo H2O bathtub from MTI Whirlpools. Acoustic transducers embedded in the shell actually turn the entire tub into one big speaker. The integral amplifier can be connected to your iPod, stereo, or home theater system, so you can literally feel the music or absorb the sounds of the football game or movie playing on the screen.

As extravagant as all this entertainment technology may be, it has a side benefit. Once you've got the setup installed, you'll never again have trouble getting your kids to take a bath. ■

Portable Audio Options

If you're not planning to renovate your bathroom anytime soon or don't want to spend big bucks on media equipment, here are some portable, waterproof, and affordable goodies that you can tote with you into the shower.

1 Any Audio Shower Mirror, $100, hemmacher.com
2 Boom Bucket, $150, brookstone.com
3 EGO iPod Waterproof Sound Case, $150, atlantic-inc.com
4 Dolphin Remote, $150, smarthome.com

PHOTO (RIGHT): KEATE

online bonus

For a how-to on wall-mounting a TV set, go to thisoldhouse.com/shortcuts

FOR MORE INFORMATION SEE DIRECTORY PAGE 122

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Ask the Expert:

Managing Hard Water

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Q What is hard water, and how does it affect me?

A The term "hard water" was originally used to describe water that was difficult or hard to work with. Today, it's a problem that affects 85 percent of U.S. households, according to the U.S. Geological Survey, and many homeowners feel its effects when house cleaning, as it means more scrubbing and rinsing.

Naturally occurring minerals in hard water leave deposits on plumbing fixtures and appliances like washing machines, dishwashers, and water heaters. Left untreated, the minerals in hard water become an obvious nuisance when you cook and bathe. Evidence of hard water can be found in the kitchen in the form of spotted dishes and scale on cookware, in the bath as rings around the tub and scratched fixtures, and as dingy clothing in the laundry.

Q What can I do to minimize the impact of hard water?

A A water softener removes the less desirable minerals in hard water. Inside a water softener, salt is used to charge thousands of tiny resin beads. As hard water moves over the beads, hard mineral ions are removed, creating soft water.

Q Why is soft water better?

A
- Soft water is gentler on clothing. Clothes tend to wear out 15 percent faster when washed in hard water.
- Hard water creates unsightly film buildup on dishes and glassware. Softened water keeps them sparkling and looking new.
- Hard water creates filmy soap rings on bathtubs and sinks. Softened water keeps fixtures clean and shiny.
- Soap and shampoo are inhibited from lathering by hard water, so you may be using more soap and shampoo than necessary. Softened water requires less soap to get things clean.

Q What sort of maintenance is required?

A Check your softener monthly and keep the salt level at least half full at all times. Diamond Crystal®, one of the nation's leading brands of salt, offers products in pellet, solar crystal, or block form. No matter which you choose, you'll see significant benefits.

Diamond Crystal® Water Conditioning Pellets are packaged in a patented, convenient two-handled bag that makes both carrying and refilling easier.

Q How do I choose the right salt?

A Choosing the right salt makes the difference between a water softener that works smoothly and is easy to maintain, and one that is a hassle. The three main factors to consider are:

- **Form.** Water conditioning salt is available in pellet, solar crystal and block form. Check your owner's manual to determine the recommended form for your appliance.
- **Purity.** Water-conditioning salt varies in its "purity." Using high-purity salt improves your softener's efficiency and decreases the amount of residue buildup in your softener's brine tank. The purity of pellets is generally the highest. For example, Diamond Crystal® Water Conditioning Pellets are 99.9 percent pure and dissolve completely. As a result, there's much less need to clean your brine tank, and your softener works more efficiently.
- **Special needs.** Different geographic areas contend with different water problems, and individual needs vary. For example, if iron or rust is a problem in your home, choose Diamond Crystal® Red-Out® Pellets, which combine the softening power of Diamond Crystal Pellets with an iron-fighting additive. This will greatly help to minimize stains on sinks, water tanks, and other household fixtures.

For more information about Diamond Crystal® water conditioning products, call 1-800-428-4244

*Easy-2-Handle™ Bag U.S. Design Pat. Nos. 519647, 519385, 519837, 517925, 507754, 507494. Other patents pending.

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RIVER OF ROCKS This drainage swale designed by Jan Johnsen resembles a dry streambed. A buried perforated pipe underneath it sends excess water to a dry well.

Runoff Remedies

>> These landscape solutions for dealing with storm water manage to look good, too

BY **JEANNE HUBER**
PHOTOGRAPH BY
KAREN BUSSOLINI

BURYING PLASTIC PIPE OR DRY WELL DRUMS isn't the only way to deal with rain that runs off your roof, driveway, or a slope in your yard. With a little design know-how, you can turn drainage solutions into features that enhance your landscape—and protect natural waterways while you're at it. Lowly ditches can be landscaped as swales that look like creek beds or small meadows. Gutter water can flow into rain gardens, planted basins that provide a habitat for butterflies and birds. And driveways, patios, and walkways can be constructed of pervious paving that never puddles because water seeps right through. Since all these measures allow storm water to sink into the soil gradually, they help reduce flooding around your house and yard, as well as in your community. Plus, they allow pollution, including oily residue from cars, to filter out naturally, so it doesn't wind up in lakes or streams. "You can cure your wet basement problem and do something for the environment at the same time," says *This Old House* landscape contractor Roger Cook. "That's a real bonus." Here's how these drainage solutions work.

SWALES

Swales are depressions that follow the contour around the base of a slope (natural or created), channeling storm water from one place to another. They filter runoff along the way by allowing it to sink into the soil. Plants on a swale's gently sloping banks—and sometimes down the center of the channel itself—take up much of this water. Fast-draining soil is also key. The addition of a perforated pipe laid

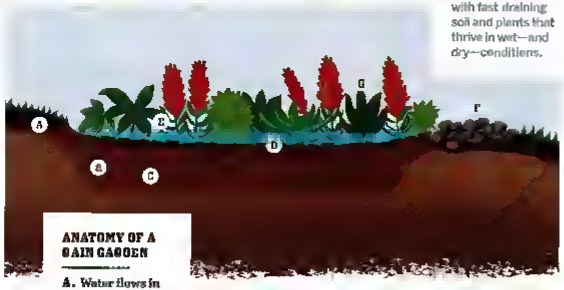
in gravel underneath can help handle heavy water flow.

A small swale might carry gutter water from a house to a dry well, while a more substantial one could run along the base of a hill above a low-lying house to divert water around it. Jan Johnsen, a landscape designer in Mount Kisco, New York, often landscapes swales to look like creek beds by lining them with river rock. Along the sides, she uses evergreen ferns, sedges, winterberry, grasses, and Siberian and Louisiana irises that thrive in moist conditions. Where they're suited to the climate, rugged prairie plants or other natives that are at home in fast-draining soil are another option.

You can build a small swale yourself, but for a long, wide one you'll want to hire a pro with earth-moving equipment. Consult a landscape contractor or a civil engineer if you live near a bluff, have a septic tank nearby, or are on a slope that drops more than 1 foot over a horizontal distance of 20 feet.

A swale should carry water to a place where it can be released safely, such as a garden bed with good drainage or a buried dry well, allowing it to be absorbed on-site, rather than flow into a storm drain, is important for protecting natural waterways. The sides of the swale should flare so they extend out three to four times more than they are tall, and the first 8 inches of soil should drain well. If your soil drains quickly (at least ½ inch per hour), it can just be loosened. If water sinks in half that fast, amend it with 40 percent compost. Where drainage is slower still, replace soil with 60 percent screened sand and 40 percent compost. If the swale itself can't be made big enough to handle all the water, consider excavating another 6 to 8 inches, lining the trench with filter fabric, laying perforated pipe, then covering it with round ¾-inch gravel. Top the gravel with at least 8 inches of a compost-rich soil mix.

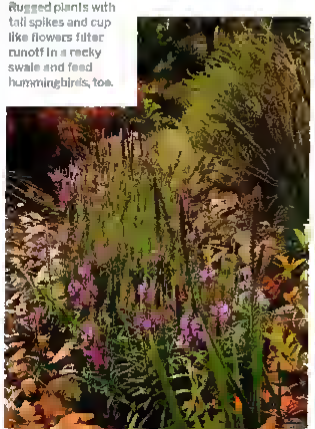
WATER GARDEN
A rain garden is a catch basin filled with fast-draining soil and plants that thrive in wet—and dry—conditions.



ANATOMY OF A RAIN GARDEN

A: Water flows in from slope, paved area, or pipe
B: Wide, shallow basin with flat, level bottom and gently sloped sides
C: 12 to 24 inches of fast-draining soil mix
D: 2 inches of mulch
E: 6 inches of ponding depth
F: Berm or stones to stem or slow down overflow
G: Perennial plants

PLANTED SWALE
Rugged plants with tall spikes and cup-like flowers filter runoff in a rocky swale and feed hummingbirds, too.



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Have you creatively solved a landscape challenge? Send us your photos. Go to **thisoldhouse.com/yourTOH**

RAIN GARDENS

Shallow catch basins planted as flower beds, rain gardens allow water to pool during a downpour, then slowly percolate into the soil. Where a swale is mostly a travel route for water, a rain garden is a destination. A fast-draining soil mix encourages water to sink in and promotes lush plant growth. Runoff may flow into a rain garden from a swale or pipe, or may simply run in from a sloping yard.

Rain gardens are appropriate drainage spots for steeper slopes than swales can handle, but where the surface drops more than 3 feet over a 15-foot horizontal distance, you should get professional design help. Although a low spot in the yard might seem an ideal placement, if it stays soggy, it's already saturated. Instead, pick an area that dries out quickly.

Designing a rain garden to handle all of the runoff from a roof or driveway entails careful calculations. But you can also learn by experimenting. Build one, watch what happens after a storm, and then enlarge it as needed. (For planning tools, runoff calculators, and more how-to advice, go to thisoldhouse.com/shortcuts.) Locate a rain garden at least 10 feet from your house and at least four times that far from a septic system or steep slope.

Though you can excavate a small (say, 5-by-10-foot) rain garden yourself, a landscaper with an earth-moving machine will get it done faster. Make sure machinery stays along the edge of the bed so it doesn't compact the soil as it digs a wide depression about 2 feet deep with gently sloping sides. Mix in compost and sand, as needed, using the same proportions as for a swale. The end result should be a shallow basin with about 6 inches of "ponding depth," or space for water to pool while it drains through 1 to 2 feet of amended soil.

Plant the center of the area with species that tolerate wet conditions, such as native sedges and lady fern. Around these, put plants suited to occasional standing water, like redtwig dogwood. At the furthermost edges go plants that prefer drier soil, such as native evergreen and deciduous shrubs.

PERVIOUS PAVING

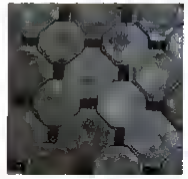
Paving materials that incorporate small gaps allow water to seep through into quick-draining gravel layers underneath. This keeps the top surface dry, eliminates runoff, and lets water in the gravel layers gradually sink into the soil. There are three basic types: concrete pavers with voids in between to be filled with gravel or sand (with or without grass); porous concrete or asphalt made with little or no sand so there are built-in air pockets; and plastic grids that keep a surface layer of gravel or sand (with or without grass) from compacting, so water drains through.

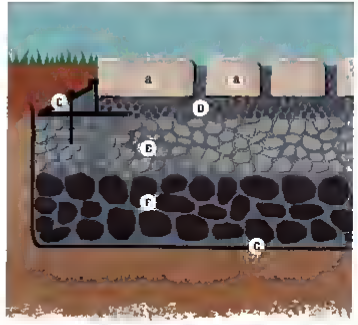
Pervious paving is suitable for gentle inclines that slope no more than 1 foot over a horizontal distance of 20 feet. Though a small-scale paver or grid-system project like a pervious walkway or patio might be a DIY job, you'll likely need professional design help for a driveway, where soil is heavy with clay or freezes deeply, or if the job is tied into a building permit. Pervious concrete and asphalt (which cost 20 percent more than their conventional counterparts) always require professional installation.

Plastic-grid systems are the most DIY-friendly, requiring a gravel base layer of only 2 to 6 inches, compared with about a foot for the other systems. The base can be tamped with a plate compactor, which you can rent; the material is simply rolled out and pinned down along the edges, and spaces are filled with decorative gravel or sand, plus grass seed, if you like.

As more communities limit the amount of impervious surfaces (rooftops, conventional hardscape) allowed on residential lots, interest in pervious paving has skyrocketed. "It can literally be a trade-off between installing a pervious driveway and adding a room," says designer Jan Johnsen. "Or a question of whether you can build that new patio at all." In those cases, pervious paving is not only an attractive way to deal with runoff, it's a double-duty enhancement, one that lets you keep on improving your home while you safeguard its natural environment. ■

PERVIOUS DRIVE
Concrete pavers designed with voids to be filled with quick-draining gravel (RIGHT AND ABOVE) let water seep into deep layers of crushed rock and then the soil beneath. Some pavers have larger spaces to hold sand and turf grass (FAR RIGHT) which absorb some storm water near the surface.





ANATOMY OF A QUICK-DRAINING DRIVEWAY

A: Concrete pavers with spaces in between for gravel
B: Border paver (optional)
C: Edge restraint
D: 1½ inches of ⅛- to ⅜-inch crushed gravel
E: 4 inches of ½- to 1½-inch crushed stone extending 6 inches past drive to handle overflow
F: 4 to 5 inches of 2- to 3-inch crushed stone, as needed
G: Geotextile (optional)

PHOTOS: (DRIVES TE PAVED (TOP RIGHT) COTY OF MARLOWED MINNESOTA; (BOTTOM LEFT) MARK TURNER (TOP TWO) COURTESY OF NATURAL MATERIALS; (LLOYD FLANNE ANNIE BISSETT)

FOR MORE INFORMATION, SEE DIRECTORY, PAGE 122

The most impressionable art is behind the wall

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Working the Angles

These are the tools you need to measure, lay out, and make accurate cuts of any degree

BY **HARRY SAWYERS** PHOTOGRAPHS BY **MARK WEISS**

TRYING TO UPGRADE YOUR TRIM can make you feel like you're living in a funhouse. The floors slant, the walls lean, and those corners you took for 90 degrees prove ever so slightly askew, thwarting your efforts to miter crown molding, hang door casing, or run baseboards. All the caulk in the world won't hide those gaps, so you curse your saw, and the clowns who built the place.

How is it that finish carpenters do rhinse jobs daily without suffering angle-induced embolisms? Easy—because they rely on miter guides, not their eyeballs, to tell them where to cut. Likewise, framing carpenters use their ever-present squares to determine the angles for rafters, rakes, and stair stringers, and furniture makers consult the precise gradations on their protractors before laying out dovetails. The right angle finding tool is your protection against loose joinery and expletive-filled outbursts, whether you're doing something big, like building a garden shed or the stair steps off a deck, or simply tackling around-the-house maintenance tasks like measuring for a storm window or replacing a cracked door threshold.

So before you make another unsightly cutting mistake, put down that caulk tube and pick up one of the tools on the following pages. The old adage—"Measure twice"—still applies. But to keep your wits in the funhouse, you also need to know the angles.

SOUPED-UP SQUARE
The aluminum Pivot Square has a locking, adjustable leg that firmly holds any angle from 0 to 90 degrees, so you can make repeated, consistent marks or guide your circular saw through angled crosscuts. Spirit vials help you check for level, as when establishing the angle to cut siding where it meets a roofline. $84, chhanson.com

1 | THREE-SIDED SQUARE
Simple, durable, and full of roof-layout info, the Speed square is a carpenter's classic. Use it to find angles, mark cutlines, and as a crosscut guide to keep your saw straight. Stick with the aluminum alloy version, not plastic. It's more rugged and the stamped numbers are easier to read. $10, swansentoolco.com

2 | SQUARE SHOOTER
This layout weapon for wide pieces of lumber has a sliding knob along its semicircular arc. Lock the triangle at the desired degree, then press it and a fixed knob on the handle against the edge of the work. The 12-inch blade can't wobble or pivot as it guides your pencil or your saw. $12, empirelevel.com

3 | T-BEVEL
Lock the T-bevel's sliding blade against any angle, then use the tool to copy that angle onto your work or to set the angle of a saw blade. This T-bevel's blade locks in place with a recessed bronze latch (as opposed to the usual wing nut) so either side can lie flush as you're marking your layout. $45, leevalley.com

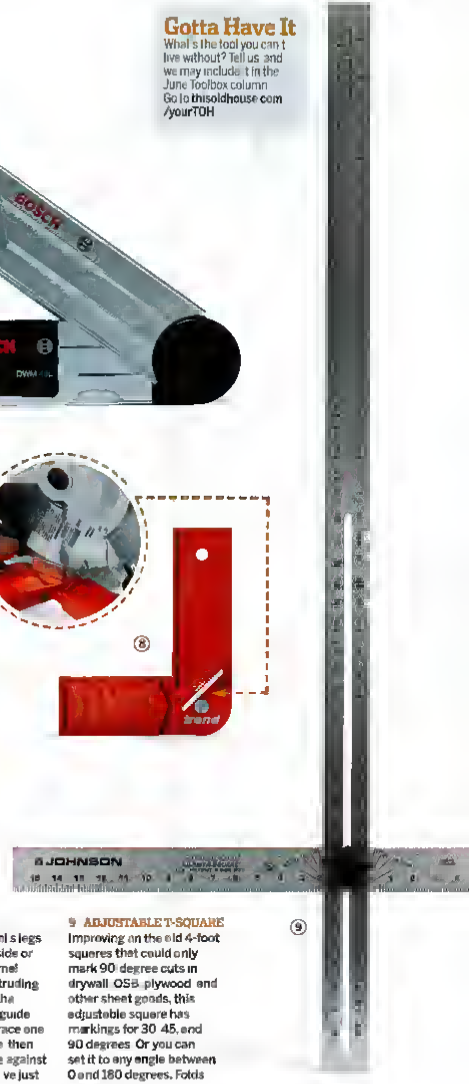
4 | T-BEVEL SETTER
T-bevels, which have no markings, are great for matching and transferring angles but can't tell you exactly what those angles are. To find out, align the bar on this guide with the T-bevel's blade and read the angle to half a degree. Or set a desired angle and align the bevel's blade with it. $32, leevalley.com

5 | BEVEL PROTRACTOR
Starrett's cast-iron protractor head with chromed-steel rule, on the market since 1908, is a classic machinist's tool for anyone who values precise layout marks. The rotating 180-degree head locks the rule at a desired angle or tells you the exact angle of an existing bevel. $113, starrett.com

TOOL SCHOOL Master carpenter Norm Abram shares his tips for using a Speed square. **Workshop,** p. 113

Gotta Have It

What's the tool you can't live without? Tell us, and we may include it in the June Toolbox column. Go to **thisoldhouse.com/yourTOH**



6 | DIGITAL PROTRACTOR
Bosch's digital angle finder is arguably the most accurate tool we tested...and certainly the most idiotproof. Press each of its legs into a corner and get a digital readout to a tenth of a degree. The tool comes with two vials so you can be sure it's level on both sides of the corner as you take a reading. $130, boschtools.com

7 | PROTRACTOR PLUS
Starrett's updated combination protractor takes the guesswork out of cutting crown molding. Place each leg on an adjacent wall, and arrows at the pivot show the degree setting you need to make a butt joint, or the angle to miter each piece. Comes with a table of compound miter angles. $90, starrett.com

8 | MITER GUIDE
Press this simple tool's legs flush against any inside or outside corner; internal gears position a protruding metal tab to bisect the angle. Now take the guide to your miter saw, brace one leg against the fence, then line up the saw blade against the tab (INSET). You've just set the exact miter angle. $15, reckler.com

9 | ADJUSTABLE T-SQUARE
Improving on the old 4-foot squares that could only mark 90-degree cuts in drywall, OSB, plywood, and other sheet goods, this adjustable square has markings for 30, 45, and 90 degrees. Or you can set it to any angle between 0 and 180 degrees. Folds for easy transport. $40, johnsonlevel.com

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Epoxy-Coating a Garage Floor

BY JENNIFER STIMPSON
PHOTOGRAPHS BY KOLIN SMITH

COST:
$[illegible] to $[illegible] per bay

TIME:
[illegible] over [illegible] days

DIFFICULTY:
Pretty easy, but requires a warm, dry weekend and some stamina (for wielding a paint roller).

TOOLS NEEDED:
PLASTIC WATERING CAN
ELECTRIC FLOOR MAINTAINER (optional—rents for about $40 a day)
BRISTLE PUSH BROOM
PAINT ROLLER TRAY
ROLLER FRAME with extension handle

YOU FINALLY GOT THE TOOLS hanging neatly on an outlined pegboard, and all the paint is organized in carefully labeled cabinets. But now your car is jealous, sitting all alone on the oily, dirty concrete slab. You still need to put the finishing touch—the garage cleanup—a colorful, shiny epoxy floor coating that will have you—and your car—feeling like you're driving into a showroom every time you come home.

Epoxy not only tops off the pro look but also resists oil stains, beads water, and wipes clean like a kitchen counter. Color chips and custom paint colors hide annoying imperfections in the concrete, and antiskid additives give you the grip you need on a snowy day. As *This Old House* technical editor Mark Powers shows on the following pages, you just need a weekend to sweep the dirt out and paint the epoxy on. Then the garage will finally be a space worth driving up to—and showing off.

"Gray Flannel Epoxy Garage Floor Coating with granite color flecks, from Quikrete, quikretecoatings.com.

floor finish overview

APPLYING AN EPOXY COATING TO A CONCRETE FLOOR is as easy as painting walls, but as with painting, the success is in the prep work. Once the calculations, color choices, and cleaning are taken care of, the actual application will seem like the easiest part.

To bond well, epoxy requires an even, slightly rough, and totally clean surface. That means patching any potholes and cracks and allowing them to cure fully. Concrete must be at least 60 days old and not sealed for the epoxy to adhere. You can tell if your floor already has a sealer if water beads on it or if you get to Step 2 in this process and the etching solution doesn't foam; if that's the case, you'll need to take off the sealer with a chemical stripper or a special machine. (Painted floors can be recoated if there's no peeling.)

Stripping the floor, however, does not clean it. Any grease or dirt will compromise the epoxy adhesion, so cleaning and etching is a step that should not be rushed. Different manufacturers offer different types of cleaners, so check out the ingredients before you choose what type is best for you. Chemical cleaners vary widely, from harsh degreasers and etchers to safer but less effective organics. You can cut down on the elbow grease by renting a machine called a floor maintainer for about $40 a day.

Epoxy coatings typically come in kits with everything you need. Once you choose one, determine if you'll need to order extra supplies. Manufacturers may suggest two coats of the epoxy paint and top coat, but most standard kits only supply enough for one coat. If you choose to add color flakes, which will help hide concrete's inherent imperfections, determine how heavily you'll broadcast them across the floor so you don't come up short (see "Buying Guide," page 72, for more information). Also, if your garage's foundation rises above grade at the bottom of the walls, you may want to consider coating another few inches up the vertical surfaces to make cleaning the garage easier. Then decide if you want to include an antiskid additive, granules that give the finished floor a sandpaperlike surface. This may be a good option in rainy or ice-prone regions.

Once the floor is clean and ready for its coating, it all comes down to timing. Choose a day to do the work when the concrete won't be damp from rainy weather and when the temperature is between 50 and 80 degrees, otherwise the application can bubble and peel. Then, once you mix the epoxy paint and hardener, you only have about 2 hours to work with it, so you'll need to plan out in advance how best to paint yourself out of the garage, starting in a back corner. The hardest part is waiting. The typical drying time between each step is 12 to 24 hours. And once the whole floor is done, you still have to hold off parking the car on it for another 72 hours.

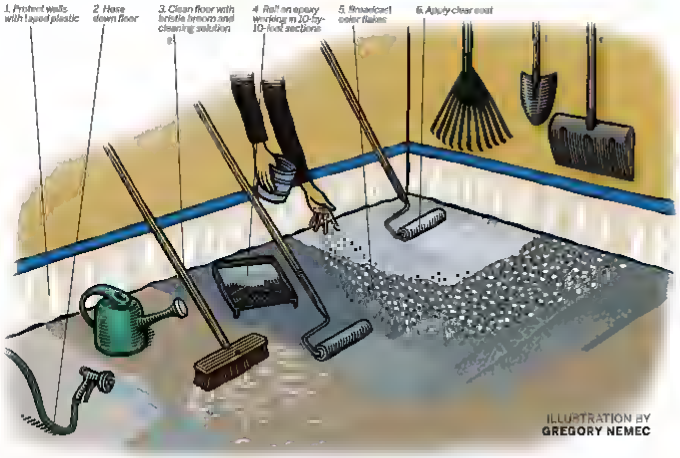

ILLUSTRATION BY GREGORY NEMEC

shopping list

GARAGE FLOOR EPOXY KIT Includes etching solution, colored epoxy paint, and color-flack additives (which you can order more of if necessary). Measure the square footage of your space, then check the manufacturer's coverage and coating recommendations to see how much you'll need.

CLEAR EPOXY TOP COAT Comes in a separate kit and includes the antiskid granules.

ALL-PURPOSE CLEANER to prepare the floor for previously painted floors only (in place of the cleaner that comes with the kit)

PLASTIC SHEETING to protect the surrounding walls during the cleaning and epoxy application

PAINTER'S TAPE to secure the plastic sheeting

⅜-INCH NAP ROLLER COVERS to apply both epoxy paint and clear top coat. You'll need three if you plan to do two coats of epoxy and one of clear coat

3-INCH POLYESTER PAINTBRUSH to cut in at corners, seams, and edges

PAINT-TRAY LINERS

FOR STEP-BY-STEP INSTRUCTIONS, TURN TO PAGE 70

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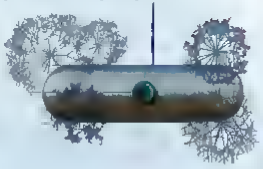

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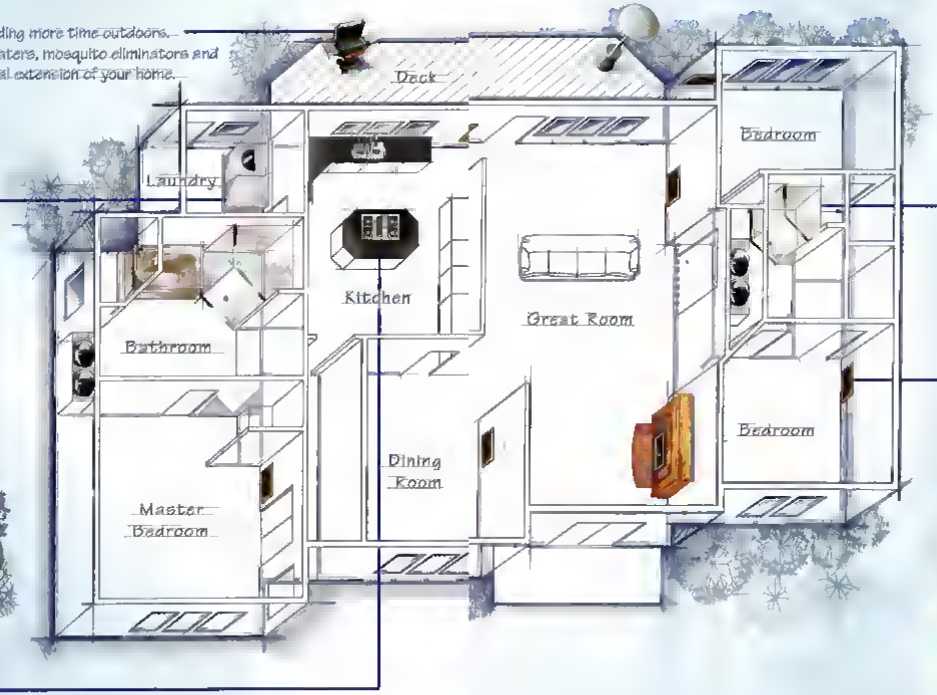

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EXCEPTIONAL ENERGY®

{ the process }

1

Prep and wash the area »

Using painter's tape, stick plastic sheeting to the walls along the edge of the foundation, or at the height to which you will apply the epoxy up the walls (RIGHT).

Sweep the floor thoroughly to remove dirt and dust. Using an old paintbrush, dust out corners and seams. If your floor was not previously painted, skip to Step 2.

For painted floors: Using a floor maintainer fitted with a light-sanding pad, scuff the paint to degloss it. Sweep away the dust. Then, using a bristle broom, scrub down the surface with an all-purpose cleaner. Rinse the floor thoroughly and let it dry for at least 4 hours. Continue with Step 3.

To check if the floor is clean, stick a strip of duct tape to it once it's dry, then peel it away. If you see any dust or particles on the tape, clean the floor again. < TIP

BUILD YOUR SKILL
Learn how to properly patch a concrete pothole. **Workshop,** p. 113

2

« Etch the floor

For new or bare concrete: Mix the etching solution with water in a plastic watering can, following the manufacturer's directions. Make sure to wear protective gloves, rubber boots, and safety glasses when working with the chemicals.

Wet the floor with a garden hose. Pour the solution over a 10-by-10-foot area in the corner farthest from your exit point. Using a bristle broom, scrub the area in one direction, then go over it again in a perpendicular direction (LEFT).

Continue etching the floor in small sections. Once you've finished the entire garage, rinse the floor with a garden hose, starting in your first corner and moving forward. Continue rinsing until the water runs completely clear. Allow the floor to dry at least 4 hours.

TIP > **Stubborn, dark discolorations may be the sign of a set-in oil stain, which will require additional scrubbing with fresh solution.**

Mix up the epoxy paint »

Open both the epoxy paint and epoxy hardener cans. Begin stirring the epoxy paint, then slowly pour the hardener into it (RIGHT). Make sure to scrape out every last bit of the hardener into the paint.

Carefully stir the two components for 3 minutes until they are fully blended. Place the lid loosely back on the can and set it aside, away from the sun, for 30 minutes. The can may feel warm to the touch as the chemicals react with one another.

4

« Paint on the epoxy

Once the epoxy formula is ready, you must use it within 2 hours for it to cure properly, so work quickly. Always keep the garage well ventilated as you work.

Pour the epoxy into a roller tray fitted with a liner. Using a 3-inch paintbrush, cut in a line of epoxy around the border of the area to be covered, and paint it into seams and corners (INSET).

Move to the corner farthest from the exit. Using a 3/8 inch-nap roller fitted with an extension handle, roll a 10-by-10-foot section with epoxy paint (LEFT). The epoxy should feel slightly thicker and stickier than normal house paint. Rewet the roller and go over the section in a perpendicular direction, again feathering out uneven lines. Continue covering the floor section by section.

If you plan to use two coats, finish the entire floor, allow it to dry 12 to 24 hours (longer in humid or cold weather), then recoat it in the same manner.

TIP > **Keep a wet edge as you move from section to section so there won't be clear seams when the paint dries.**

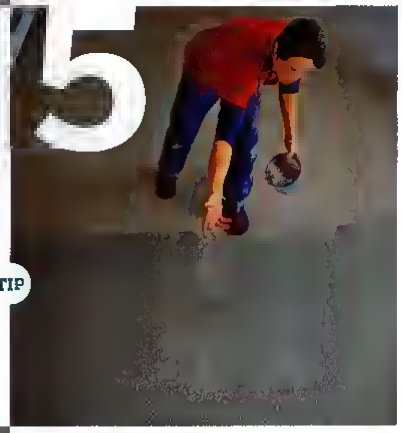
Apply the color flakes »

As you apply the top coat of paint, stop after every section to put down the color flakes while the area is still wet.

Distribute the flakes over the area by first sprinkling them lightly, then slowly building up distribution until you have the right coating. Take a handful of flakes and shake them through your fingers the way you would sprinkle grass seed (RIGHT).

Work your way from the back to the front of the garage in conjunction with rolling on the epoxy. Once the entire floor is coated, allow it to dry for 12 to 24 hours (longer in humid or cold weather).

While most companies package their flakes in cans with a shaker top, broadcasting them by hand may be easier to control. Practice your technique on a tarp outside the garage. < TIP



5

6

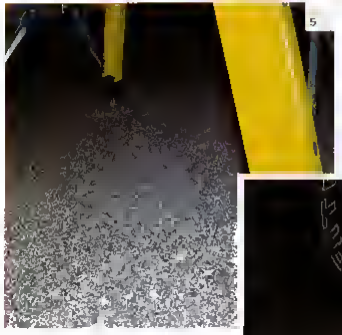
« Apply the top coat

Pour the hardener into the clear top coat, making sure to scrape out all of it, and stir the mixture for 3 minutes until it's completely blended. Place the lid loosely back on the can and set it aside, away from the sun, for 30 minutes. One minute before you are ready to apply the top coat, stir the mixture for an additional minute. If you plan to use antiskid granules, add them now (INSET).

Again, you'll only have about 2 hours to work with the mixture. Using a clean paintbrush, cut in at corners, edges, and seams. Then, using a 3/8 inch-nap roller, start at a point farthest from the exit and roll on the clear coat in 10-by-10-foot sections as you did with the epoxy paint. Work first in one direction, then in the perpendicular direction on each section, making your way forward until the entire floor is covered. The coating will appear white or milky at first (LEFT) but will dry clear. Allow 24 hours drying time for foot traffic and up to 72 hours before parking a car—longer in humid or cold weather.

{ buying guide }

With a flick of your wrist, you can change the entire look of your floor using a sprinkle of decorative flakes that come with a variety of color and coverage options. Good for covering imperfections and breaking up the look of a solid floor, color flakes can even approximate the look of terrazzo or granite



online bonus

Check out tips to customize a garage storage plan at thisoldhouse.com /shortcuts

1. Plain
Effect An elegant finish, but can make imperfections pop out

2. Light coverage
Effect Breaks up a monochromatic surface but still looks showroom shiny
How much 1 pound of color flakes per 250 square feet

3. Medium coverage
Effect Looks like traditional terrazzo especially if you mix flake colors
How much 2 pounds per 250 square feet

4. Heavy coverage
Effect Hides imperfections well but still lets the background color shine through
How much 3 pounds per 250 square feet

5. Full coverage
Effect Simulates the look of granite or raised texture
How much 4 to 5 pounds per 250 square feet

FOR MORE INFORMATION, SEE DIRECTORY PAGE 122

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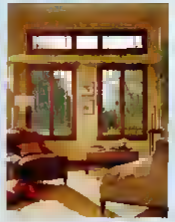

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This Old House THE NEWTON PROJECT

Even record-breaking wintry weather could not keep the cast and crew of *This Old House* from completing the Newton Project on time! Special thanks to those who braved the snow to celebrate the remarkable transformation of this 1897 Shingle style home. *This Old House* gratefully acknowledges the generosity of our sponsors and project house partners.

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This Old Gingerbread House Contest Winner

Congratulations to the 2007 *This Old Gingerbread House* Contest Grand Prize Winners: Maria Colletti, Jennifer McMaster, Maureen Myers, Kim Neeley, Samantha Nielsen, Amy Stanfield, Lauren Stecker and Michelle Strube of **BBDO•Detroit**. Their edible replica of a Chrysler dealership won the team a monthly delivery of sweet treats for a full year!

Thanks to everyone who participated. Happy and Healthy 2008 from *This Old House* to yours!

OPPOSITE PAGE.
White [illegible] gray white

THIS PAGE:
[illegible] updated [illegible] charm. With a U-Line wine cooler, deep drawers and shelves, plus a small overhang for seating, the island is packed with function. It is topped with iroko, a sustainably harvested (and well-priced) exotic hardwood.

BY JILL CONNORS
PHOTOGRAPHS BY DOMINIQUE VORILLON
Produced by Colette Scanlon
Styling by Sunday Hendrickson

SMALL SPACE SOLUTIONS

LIVING LARGE

in a small space

How one couple maximized function and upped the comfort factor in their cozy cottage home

DOWNSIZING FROM A
BIG HOUSE HAS ITS UPSIDE, THAT'S FOR SURE:

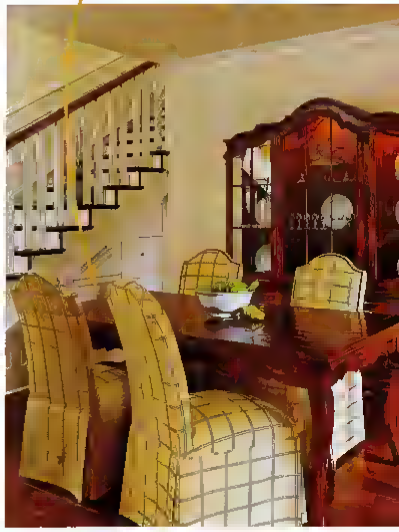
There s less square footage to heat and cool fewer rooms to declutter and clean The trick is to figure out a compact size that s just right, one where you use every inch but don t feel cramped That was the puzzle Steve and Janet Dowd were trying to solve as they prepared to leave the rambling suburban Laguna Hills California house where they had raised their two sons and move full time to Steve's childhood home a small cottage in Newport Beach

The 1940s cottage offered many pluses. Located about 300 feet from Newport Bay the house featured a private courtyard and a living room with a charming vaulted wood ceiling The place also had incalculable sentimental value having been in Steve s family since 1952 On the minus side, it was a one story, nondescript stucco house that totaled just 1,225 square feet their old house held 3,800 The 8½ foot wide kitchen would never suit the serious cook that Steve had become and the dining room was barely bigger than a hallway with no room for Janet s prized heirloom hutch Plus only one of three small bedrooms had a closet and it was tiny

By the time the couple turned to local architect Carol Tink Fox for help their wish list had grown to include an office for Steve a proper master suite a laundry room and a guest suite for visiting family as well as a larger kitchen They also wanted to maximize storage and views of the bay—all without destroying the vintage cottage s character We really wanted to keep the house as close to original as possible," says Steve.

Given the home s narrow, 45-by 97 foot lot, Tink Fox knew a second floor addition was the only way to get the Dowds any extra space as well as those water views So she created a two-story section in the central portion of the house The back street facing side of the house where the garage is located remained unchanged. But everything between it and the kitchen—the dining room three bedrooms a bath and a half—came down We essentially built a new two-story house between the kitchen and the garage" says the architect

Even though the new spaces added 775 square feet the house was still compact enough to require some innovative thinking One of the most unusual aspects of Tink Fox's revised layout was that it eliminated nearly all interior hallways using rooms as traffic corridors instead When entering the house from the garage for example the traffic flow leads you through the mudroom/laundry and the guest bedroom before you reach the living room We made a mental leap that it would be okay to walk through



THIS PAGE: Steve and Janet Dowd enjoy their courtyard patio, a welcome private area for outdoor dining Taking a short stroll across it is Steve's only way to access his new office an option made viable by the area's warm climate **OPPOSITE PAGE, CLOCKWISE FROM TOP LEFT:** Chico, the couple's Cavalier King Charles spaniel, got a cozy nook away from foot traffic in the bottom of a built in bookcase, complete with doggie door and bed Drawers and cabinets turned dead space under the dining room stairs into extra storage for glassware and linens The living room's original vaulted fir ceiling was stripped of stain and then clear-coated for a lighter look The bookcase, mantel, and moldings—including the frame for the flat-panel TV—are all new but in keeping with the clean, simple style of the 1940s cottage

OPPOSITE: Sewing room/home office built-ins corral supplies; a cabinet hides the fold-out sewing table (INSET) behind doors when it's not needed, freeing up floor space. **THIS PAGE, BELOW LEFT:** An upper cabinet in the mudroom/laundry conceals a chute for dirty clothes that originates in the master bedroom closet. **MIDDLE:** The pantry off the first-floor bath uses space from an old bedroom and from under the top of the stairs. **RIGHT:** A closet in the pantry conceals a safe.

rooms," says Tink Fox. "In the first-floor guest bedroom, we would have lost 50 square feet of space if we had created a hallway. Since just Steve and Janet were going to be using the house on an everyday basis, the compromise made sense. Similarly, the only door from the side yard into the house opens directly into the first-floor bathroom, making it a convenient stop for cleaning off sandy feet. And instead of creating a hallway to accommodate the added stairway, Tink Fox placed the stairs at one end of the new dining room, reasoning that the open space above the stairs would add a sense of airiness in the modest dining space. Even the courtyard functions as a hallway, an option in southern California's warm climate. "The courtyard is an extension of the house, another room," says Steve, who strolls across it to reach his new office, which doubles as a storage and display space for his collection of fishing rods and lures.

Upstairs, the architect maximized interior spaces by cantilevering the second floor over the courtyard. "We extended it a foot and a half as a way of sneaking in some extra square footage," she says. Enhancing the size of the master bedroom even more—and creating an interesting architectural feature on the bay-facing corner of the house—Tink Fox added a pulpitlike window seat projection. Because the small, windowed bumpout is located diagonally opposite the door to the bedroom, it makes the room seem bigger. "When you can put windows in a corner opposite the entry, your eye is drawn right through to the outdoors, so you perceive a bigger room," she says.

Unconventional solutions and visual tricks aside, it is the built-ins that really make the cottage function in a big way. "We took advantage of every space that would otherwise be empty and created a closet or a drawer," says local contractor George Oliphant. Under the stairs in the dining room, for example, carpenters created drawers for china and hanging rods for table linens. Taller under-stair space, along

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LITTLE BIG IDEAS

To maximize every square inch, do as the Dowds did

> Plan for multipurpose rooms Who needs a dedicated dining room when everybody eats in the kitchen? Lining it with bookshelves turns it into a library and adds a weird atmosphere. The Dowds combined their home offices with their leisure interests. Hers is a sewing center; his displays his array of fishing rods, which get plenty of use near their Newport Beach home.

> Go behind the walls. Use cavities behind a room's four walls to carve out storage closets and cabinets. A shallow gas fireplace in the master bedroom left room for a narrow closet off the deck for stowing seasonal items like tablecloths and beach gear. A small cabinet above their glassed-in shower stores Christmas decorations.

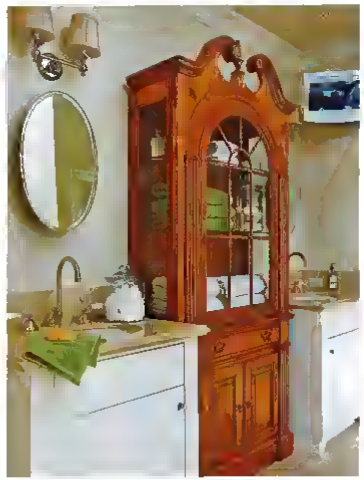
> Add windowed bumpouts. Putting a square bay off the Dowds' master bedroom allowed for a window seat with a water view. A bay window in a bath or kitchen provides a shelf for toiletries or potted plants.

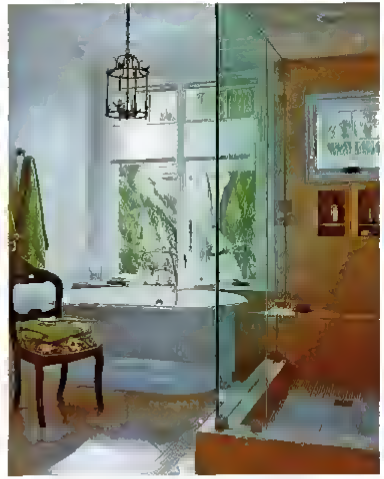
> Create convenience. After seeing how well the dog's bookcase door to the courtyard worked out, Steve now wants to remove a base panel elsewhere in the living room to hide a robot vacuum that could automatically tuck itself away when the sweeping is done.

> Minimize halls where you can. Using seldom used or public rooms as passageways for foot traffic, rather than carving out long hallways, saves precious square footage for the living areas themselves.

FLOOR PLANS A new two-story section rose between the kitchen/living room and and the garage and, a new office was also created off the courtyard. The and result: a compact, comfortable 2,000 square feet of space, with one short hallway and tons of storage.

OPPOSITE, LEFT. A windowed projection off the corner of the upstairs master bedroom that faces the water adds a fun architectural feature. **OPPOSITE, RIGHT.** Inside, it allows for a window seat with a view and gives the room a more expansive feel. **THIS PAGE, LEFT and RIGHT.** A treasured antique hutch was incorporated into the master bath as a linen cupboard. The clear glass shower enclosure allows for an open sight line straight to the outdoors, making the modest space feel bigger.





with part of an old bedroom, was claimed to make a pantry for space-gobbling quantities of household staples and a safe. Instead of putting the pantry door in the dining room, where it would interrupt the only wall free for furniture, the architect located it in the first-floor bath. Cabinets stretch to the ceiling in the mudroom, which doubles as a laundry room. In Janet's sewing room, built-ins hold fabric supplies and a fold-away table for her sewing machine, as well as a desk. Making both home offices double as hobby rooms—Janet's for needlework, Steve's for fishing gear—and locating the laundry in the mud-room were additional ways Tink Fox made every space work to full capacity.

> "Placing windows near the corner of a room opposite the entry draws the eye to the farthest point, making any room feel bigger." —CAROL TINK FOX, ARCHITECT

For Steve, the home cook, the kitchen grew from a meager 8½ by 10 feet to an adequate 14 by 10 feet—every bit of it packed with storage. Upper cabinets line three walls, with a plate rack and glass-door cabinets for visual variety. Both corner cabinets contain swing-arm slide-out shelves; deep drawers in the island and a hanging rack overhead hold his collection of copper pots and pans. To make the room feel more spacious, the ceiling was vaulted, rising to 9 feet above the island, echoing the original exposed ceiling in the adjacent living room, which rises to 10½ feet.

That room remains the heart of the original house, with its newly sandblasted fir rafters and brick fireplace. It set the tone for the cottage-style materials used throughout, including hickory floors and raised-panel or beadboard cabinetry on the interior, and clapboard siding and shingles on the exterior.

And what of the 1,600 square feet of space the couple sacrificed in the move? They don't miss it a bit. "We have everything we need right here," says Steve. "This is our forever house."

FOR MORE INFORMATION, SEE DIRECTORY, PAGE 122

not everything is bigger in texas

A Lone Star State salvager uses recycled materials to build pint-size houses with 10-gallon character

by amy r. hughes ✪ photographs by sarah wilson

The Rustic Ranch (OPPOSITE) and Victorian Cottage await buyers at Discovery Architectural Antiques in Texas. At 10 by 16 feet and 10 by 17 feet, respectively, they are the teeniest of the Tiny Texas Houses made from reclaimed materials. Get a look inside on page 86.

IN THE McMANSION AGE, the average home builder maximizes his investment by supersizing square footage—to heck with fine craftsmanship, distinguishing details, or a big yard.

Not Brad Kittel. In 2006 he expanded his salvage business, Discovery Architectural Antiques, in Gonzales, Texas, to include diminutive, one-of-a-kind houses built almost exclusively out of the vintage materials he stockpiles, typically only the plumbing, electrical systems, and insulation are new. Each one of his Tiny Texas Houses evokes a period style, whether it's a Queen Anne dripping with gingerbread trim or a gambrel-roofed Dutch Colonial.

Kittel is among a growing group of builders and designers—buoyed by American homeowners' frustration with soaring energy costs and mounting maintenance bills—who are challenging the long-standing belief that a bigger house is a better house. But unlike many of his peers in the small house movement, whose contemporary mod-pod designs seem to be inspired more by the future than the past, Kittel's approach is decidedly *Little House on the Prairie*. Just like a frontier farmhouse, his 10-by-16-foot Rustic Ranch with a loft bedroom, pullman kitchen, and single bath could be used as a permanent home and then added on to later as needs change.

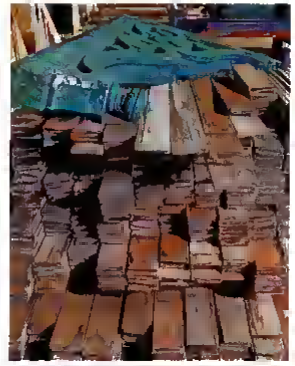
Kittel also draws on historic building practices by integrating into each of his houses the old-growth timbers, cypress windows, paneled doors, brass doorknobs, and cast-iron sinks that he rescues from demolished buildings. "Prior to the 1950s, you tended to tear down an old home and reuse its materials for a new structure. Today, we just crunch it up and put it in a landfill," says the former remodeling contractor.

One modern aspect of Kittel's business is that home buyers can roam the aisles of his salvage yard much as they would a home center to choose their own period building materials from among 6,000 doors, 3,000 windows, and thousands of square feet of flooring, beadboard paneling, trim, and siding. Once built, the diminutive dwellings or their modular components can be trucked almost anywhere in the country. Most people purchase one to use as a vacation cabin, art studio, pool cabana, kid's playhouse, or in-law suite. They range in price from $27,000 for a 10-by-16-foot model to $60,000 for one 12 by 28 feet with front and back porches.

Barbara and Bill Hudson, a couple from San Antonio who recently toured the cavernous workshop where the Tiny Texas Houses are built, are considering putting one on a 35-acre plot they just purchased outside of Houston. "We could live in one of these while we are waiting for the larger house to be built. Then it could become Bill's office," says Barbara. "When people come to see us, it would also be a great place where our guests could have some privacy."

The options are limitless, but what's guaranteed with a teeny house is less time cleaning, less money spent on heating and cooling, less waste relegated to a landfill, and less land being gobbled up by an outsize mansion.

Here and on the following pages, see how Brad Kittel and his crew turn all that less into a whole lot more as they assemble the parts of the very first Tiny Texas Chapel, using Gothic-style windows and a door from an 1890s church that was razed in northern Missouri.



flooring

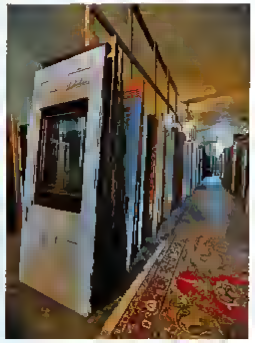
› Crew member Jesse Hastings (ABOVE) uses a large drum sander to smooth the Tiny Texas Chapel's tongue-and-groove floor. The pine boards were salvaged from a 1900 cottonseed-oil factory in Cuero, Texas. Oil still permeates the boards, highlighting the grain pattern. Beneath the pine boards and plywood subfloor are the beams and sill plates that form the chapel's foundation, which will sit on piers.

framing

› With the floor system in place, Brad Kittel and a crew member raise the walls (TOP RIGHT). Next, they'll add the chapel's only new materials: plumbing, electrical, insulation, and weatherizing house wrap. Cypress clapboards (TOP LEFT) will finish the exterior once they've been stripped of any toxic lead paint.

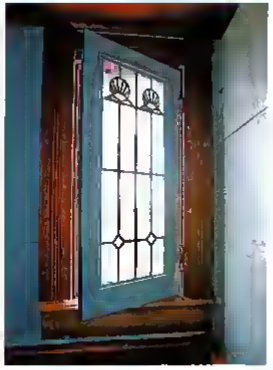
windows

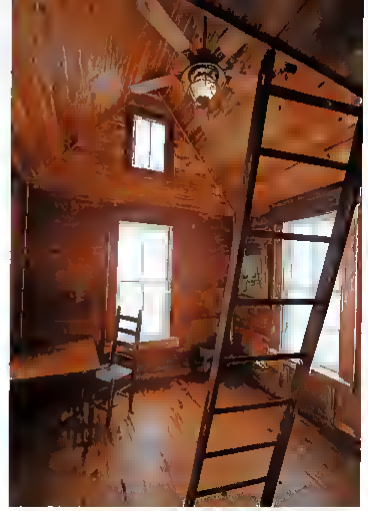
› Kittel test-fits an 1890s Gothic Revival–style arched window sash (LEFT) that came out of a demolished church in Missouri. A pair of double-hungs (ABOVE) rescued from the same church rest against a workshop wall. Too large for this particular chapel, they'll be saved for a future project.



inside a tiny texas house

Sure, they're small, but open-plan interiors with loft bedrooms leave plenty of open space for living, sleeping, bathing and cooking





doors

> Jesse Hastings (ABOVE LEFT) readies the sides of a door casing for installation by rubbing tung oil into the wood to restore its original luster. The trim was salvaged from a mansion in Quincy, Illinois.

> Among the rows of old doors (ABOVE RIGHT) are solid, paneled interior ones that Kittel plans to tip on their sides to serve as wainscoting along the chapel's interior walls.

> Kittel and crew members (RIGHT) hoist the chapel's front door into place. The chapel will be constructed almost entirely inside the 12,000 square-foot Tiny Texas Houses workshop. Then the crew will move it outside to put on the steeply pitched roof that will shelter the tall raised panel door and the arched transom that crowns it.

fixtures and hardware

> A new energy-efficient ceiling fan hangs in this Rustic Ranch (ABOVE). With the windows open, it provides enough ventilation to cool the space during all but the hottest summer months.

> A good cleaning is typically all that's required to get old hardware like this metal doorknob and matching back plate (MIDDLE RIGHT) looking and working like new.

> Most Tiny Texas Houses have full baths with vintage sinks (BOTTOM RIGHT) and modern stall showers.

porches and paneling

> The welcoming front porch of this Victorian Cottage (OPPOSITE, TOP) was designed as a modular component that can be removed during transport. "The idea behind these houses is you can hand them off to your kids. They're portable: perched on pier-and-beam foundations with bolted-on porches that are easily disassembled," says builder Brad Kittel.

> Leaded-glass windows like this turn-of-the-century panel in the bathroom (OPPOSITE, BOTTOM) make a huge style statement in a small space. When customizing their own interiors, prospective Tiny Texas House buyers can choose from more than 200 such accent windows Kittel stocks at his salvage yard.

> Interior walls (ABOVE) are sheathed with horizontal wood paneling above vertical beadboard wainscot that's been stripped of its old paint and then sealed with tung oil. ■

more ideas

Find out how to buy a Tiny Texas House and see other creative uses for reclaimed materials at thisoldhouse.com/shortcuts

FOR MORE INFORMATION, SEE DIRECTORY, PAGE 122

The $500 Make-over

by Joe Hurst-Wajszczuk

For the cost of a few cases of exterior paint, plus some patching and sanding, you can have a whole new home. Here's how to get the job done right

PHOTOGRAPHS BY SARAH WILSON

A fresh paint job has the power to totally transform the look of your house in less time and for less cash than any other remodeling project. That thin skin of resin and pigment also protects your investment, shielding it from sun, wind, and rain—until the paint begins to crack and peel, that is. Then it's time to button up with a couple of new coats. Properly applied, new paint should last for a good 15 years, provided you use top-quality materials, apply them with care (and with an eye on the weather), and, most important, clean and sand every surface first. Here's what you need to know to get a first-class finish on your home's exterior.

1 Wash.

A thorough scrubbing is a must before painting any exterior surface. It removes the dirt and broken-down paint residues that keep fresh coats from adhering and gets rid of mildew that grows on paint in all but the most arid climates. "Mildew is worse than dirt," says Palatine, Illinois–based Mario Guertin, president of the Craftsmanship Forum of the Painting and Decorating Contractors of America. "Sanding and scraping just spreads spores around, so if you don't kill them, they'll end up growing right through the paint film."

Most contractors clean with pressure washers, but in the hands of someone unfamiliar with the equipment, these can gouge wood, shatter glass, and drive water behind siding and trim. Using a hose, a pump sprayer, and a scrub brush is slower but safer, and just as effective.

Before the scrubdown, protect nearby plants by misting their leaves and saturating the surrounding soil with water, pulling them away from the house, and shrouding them in fabric drop cloths. (Plants will cook under plastic.) Lay more drop cloths along the base of the walls to collect any falling paint debris. Walls should be wet down before getting scrubbed, then washed with a gallon of water mixed with 1 cup chlorine bleach and 1 cup of either a concentrated, phosphate-free cleaner, such as a trisodium phosphate (TSP) substitute, or Jomax House Cleaner. Working in sections, from the bottom to the top, will avoid streaks. Be sure to rinse walls well before the solution dries. Wood siding and trim should be ready to paint after a day or two of dry weather.

Tip

Spray exposed nailheads with a metal primer to prevent rust from bleeding through the paint.

2 Scrape.

Paint that has peeled, bubbled, or blistered has got to go. But if lead is present—a strong possibility in houses built before 1978—you need to proceed with extra care. To lay any doubts to rest, you can send paint chip samples to a lab, such as Macs Lab's Home Free (macslab.com), for about $36, they'll give you a definitive answer. If your paint does contain lead, you'll need to take special precautions during the scraping and sanding phases to protect yourself, your family, and the environment from toxic dust. (For specific steps to take, go to thisoldhouse.com/shortcuts.) If the paint is lead-free, you need only don a dust mask and lay down tarps to catch debris before tackling the most crucial part of the project.

Scraping paint by hand is a grueling task because you've got to attack it from every direction. But compared to power grinders and sanders, it's the least damaging way to remove the old layers. New Orleans contractor Joseph Wallis (shown on these pages) did use a PaintShaver on this project to capture lead dust. This carbide-tipped angle grinder, which has a dust-collecting shroud that connects to a HEPA-filter vac, can be rented by mail from the manufacturer for about $50 a day.

3 Sand.

With loose paint removed, it's time to step back and assess what remains. If most of the paint still adheres well and it's not too bumpy, the boundary between the paint and the bare wood can be smoothed with 50- or 80-grit sandpaper. Small random-orbit or pad sanders make this job go faster. (Wallis first covers these boundaries with Synkoloid patching compound so no edge is visible after sanding.) For areas that might get close scrutiny, you can follow up with a 100- or 120-grit rubdown to erase any scratches.

If less than half the old paint is left, however, it may be worth stripping it all off. Guertin gets rid of stubborn remnants using shrouded grinders (like the PaintShaver), infrared paint strippers (such as the Speedheater), or chemical strippers (like Multi-Strip), then smooths the wood with a course or two of sanding. When siding (or bank accounts) can't take the shock of a total strip job, Rich O'Neil, of Masterwork Painting in Bedford, Massachusetts, has successfully hidden rough, well adhered paint under Peel Bond, a thick primer.

4 Patch and fill.

After the sanding is done, it's time to fill minor cracks and dents, repair any rot, and replace any pieces that are too far gone. (Wholesale replacement of wood siding or trim will likely require a carpenter.)

O'Neil patches shallow holes and divots with Ready Patch because it dries fast, sands smooth, and stays flexible. Deep cracks and rotten spots are best repaired with two-step epoxies, such as those made by Advanced Repair Technology. (For a step-by-step of how to do this, go to thisoldhouse.com/shortcuts.) The days of using polyester auto-body fillers on wood are over. "They cure too hard," says Portland, Oregon–based painting contractor Kathleen George. "They look good at first, but then they peel away."

Hold off on caulking the cracks until everything has been primed. "Primer protects the wood when—not if—the caulk fails," says O'Neil.

5 Prime.

Primers are formulated to penetrate, seal, and provide a good surface for the top coats to stick to. Use them over bare wood, Spackle, and epoxy, or over paint with a chalky, deteriorated surface. (If the paint surface is clean and sound, you can skip the priming step.)

Acrylic primers can be used on most surfaces, but on cedar or redwood, oil-based coatings are a must because they lock in these woods'

reddish-brown "extractives," which will leach out and leave behind rusty stains if the wood is primed with a water based product

Painters often tint primer close to the color of the top coat, but Walls thinks that's a recipe for "holidays," or missed spots. Instead, he tints his primer a contrasting color. "If I can see the color coming through, I know I need to apply more paint," he says. On the cottage shown in this story, he chose a gray-blue primer to go under a peach top coat.

If primer is sprayed on, "back-brushing" it immediately by hand will work the coating into every crack and crevice

6 Caulk.

When the primer is dry, caulk all small joints (less than ¼ inch wide) in the siding and trim. Most pros use siliconized acrylics—paint won't stick to straight silicones—but Guertin and O'Neil like the new, more expensive urethane acrylics for their greater flexibility and longevity. O'Neil stresses that it's shortsighted to skimp on caulk. "If the joint fails, you're back to square one." Guertin uses the lifetime rating as his quality guide. "I don't expect 35-year caulk will last 35 years, but it should last longer than a 15-year caulk."

7 Paint.

Deciding which paint to use has gotten much easier now that acrylic latexes have pushed oil-based paints almost to extinction. The acrylics offer superior performance (they don't harden with age, the way oils do, so they move and breathe without blistering), they don't mildew as readily, and they emit fewer VOCs, so they comply with new air-quality regulations. They also work over both oil- and water-based primers.

Oil paint still has a place in high-traffic areas such as wood steps and porch floors because of its superior wear resistance, and on steel and cast-iron railings, which benefit from oil's water repellency.

Once you choose a paint brand, the pros advise against additives, such as mildewcides. But they will add conditioners such as Floetrol (for latex) or Penetrol (for oils) to slow drying times in hot weather so brush and lap marks don't show, and to make paint more sprayable.

Every painting job develops a unique choreography as ladders go up and come down and tarps are unrolled and folded up. But two basic principles remain: 1) Start at the top and work down. 2) Work in the shade, out of the sun's glare. As the dance proceeds, keep an eye on the weather. Rain can wash freshly applied latex right off the wall, and a temperature dip below 50 degrees F two days after application can interfere with adhesion and curing and dull the sheen of glossy paints. (Latexes like Sherwin-Williams's Duration and Benjamin Moore's MoorGard Low Lustre are formulated to tolerate temps as low as 35 and 40 degrees, respectively.)

The last big decision is how to apply the paint. Most pros use paint sprayers because they're fast, but in inexperienced hands a high-powered sprayer can leave drips, thin coats, and a mist that may land on many things other than your siding. If you do hire a painter who uses a sprayer, make sure he is meticulous about removing, covering, or masking off everything in the area that might get hit with overspray: gutters, roofs, windows, shrubbery, walkways, cars—you name it.

Do-it-yourselfers are best off using a brush for maximum control. You may end up with a better-quality job, to boot. Says Kathleen George, "With a brush, I know that I've inspected every square inch of a house." Mini rollers speed application on clapboards and trim but should be followed immediately with a brush.

Whichever application method you end up using, the pros are universal in their insistence that two top coats are always better than one. Says O'Neil, "It's one of the real secrets of a long-lasting paint job." ■

BUILD YOUR SKILL
Learn how to paint the outside of a double-hung window. **Workshop**, p. 113

Share Your Best Tips
Got a better way to do a job around the house? For our special June 2008 reader-generated issue, send us your favorite tips at **thisoldhouse.com/yourTOH**

FOR MORE INFORMATION, SEE DIRECTORY PAGE 122

SMALL-SPACE SOLUTIONS

LET NO SPACE GO TO WASTE

MULTI-TASKING KITCHEN APPLIANCES, STREAMLINED BATH FIXTURES, AND TRIM FURNITURE PIECES LET YOU LIVE LARGE IN COZY QUARTERS

BY TERRY TRUCCO

A single oven that does the work of two by toggling between microwave and convection settings. A wall-mounted bathroom vanity that keeps the floor clear but still has room for storage. A bed with built-in drawers that doubles as a dresser. Now, that's smart use of space. Just about any house can benefit from such versatile appliances, fixtures, and furnishings. So whether you're restyling the kitchen in a compact suburban cottage, renovating the powder room in a petite city apartment, or just dressing up a diminutive den, we've got a small-space problem solver that's right for you.

hideaways:

Slide-out drawers, swing-up tops, and tuck-in trays conceal clutter so rooms feel spacious, not confined.

STORAGE SLEEPER Turn the area beneath the bed into a dust bunny–free stow-away space. The Stratton bed, available in white or stained wood, sits atop six spacious drawers. Queen-size (without the mattress) costs $1,599. potterybarn.com

CANTILEVERED SINK Wall-mount lavs make small baths look big by opening up floor space. Problem is, they lack the storage capacity of freestanding vanities. Not the Happy D sink, which has an attached cabinet that hovers above the tile rather than resting on it. $1,675. duravit.com

OFFICE IN A BOX This scaled-down computer armoire, just 35½ inches wide by 23½ inches deep, holds all the essentials—CPU, monitor, keyboard, printer, message boards, plus mail and magazines—creating an instant office in any room. $519. csnofficefurniture.com

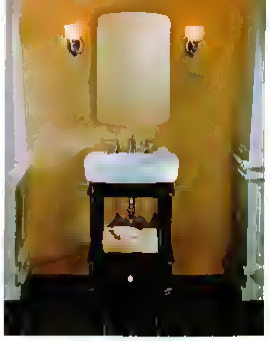
STYLISH STORAGE The Colonel Benchlee is a bench, ottoman, and cedar-lined chest all in one. It's also a looker, upholstered in leather and trimmed with brass nailheads. $1,395. jaysonhomeandgarden.com

traditionalists:

Scaled-down versions of outsize antiques let you outfit interiors in period style without sacrificing square footage.

LEGGY SOFA The 74-inch-long Matcha sofa from Martha Stewart Furniture delivers all the right curves to dress up a snug Victorian-era parlor. But with its tight back, trim arms, and slender cabriole legs, it's got none of the fuss associated with the overstuffed style. $1,469. macys.com (for stores).

NICHE STORAGE With a tidy 18-by-14-inch footprint, the 59¾-inch-tall Chinese-inflected Wuchow bookcase fits into tight quarters while serving up plenty of display and stow-away space. $229. homedecorators.com



PETITE VANITY At just 2 feet wide, the Bancroft vanity from Kohler is roomier than it looks, with a drawer for toiletries and an open cubby for stacking towels. $460 (not including the sink). us.kohler.com

MINI CLAW-FOOT Vintage 48-inch tubs still turn up at salvage yards, but they are rare, costly, and often require reglazing. For a ready-to-install alternative, there's this reproduction cast-iron claw-foot, coated in porcelain, by Randolph Morris. $1,205. vintagetub.com

innovators:

New technologies and configurations for conventional kitchen appliances offer more design flexibility.

HOT POT Induction cooktops rely on magnets to transfer energy directly to pots and pans, so burners stay cool. That means no wasted heat coming off the surface and cooking up your snug kitchen. The drop-in two-burner model from Wolf covers only 15 inches of countertop. $1,700. subzero.com

DISHWASHER DRAWER With this dishwasher drawer you can scour dinner service for six using less water, less energy, and less detergent than a conventional dishwasher. At 23 inches wide by 16 inches high, it can even slip below the sink. $839. fisherpaykel.com

TWO OVENS IN ONE Defrost a chicken in microwave mode, then switch to convection and roast it. The only downside to this 24-inch combo unit is that the ability to thaw, speed-cook, and brown in a single oven comes with a hefty price tag. $2,800. miele.com

multitaskers

Combos and convertibles do double or even triple duty in a single space

MICRO BREW This microwave and coffeemaker combo from LG 23 inches wide by 17 inches deep, maximizes counter space with the ability to nuke oatmeal and brew six cups of joe in one compact appliance. $179. lge.com

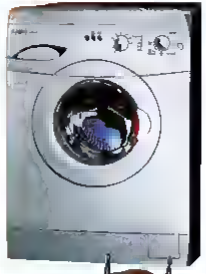
TWO IN ONE SLEEPER The steel Loll bed pairs a stationary top bunk (the sides double as ladders) with a bottom bunk on casters. Keep the standard setup, or roll the bottom bunk perpendicular to the top and tuck a desk in the niche beside it. $999 for a twin set. roomandboard.com

NESTING TABLES Like Russian dolls, these slim tables fit one inside the other. Their hardwood tops, salvaged from demolished houses, weather any spill or stain, and steel bases make them sturdy enough to double as stools. $289. vivaterra.com

online exclusive

See more space saving solutions for your home at thisoldhouse.com/shortcuts

TP AND MAGAZINE HOLDER The nickel-plated brass Mercer bath tissue holder mounts on the wall and has a built-in rack for corralling reading materials that might otherwise litter the floor. $79. potterybarn.com



WASH AND DRY At just 34 inches tall and 24 inches deep, this washer/dryer combo from Asko is designed to fit easily into a closet or under a kitchen countertop. The Energy Star–rated unit plugs into a standard 110-volt outlet and requires no external venting. $1,199. askousa.com

TRANSFORMER TOP This 60-inch-long cherry console, handcrafted in West Virginia, is the perfect dining room sideboard. But flip open the two leaves that form its top, and it'll seat six for a meal. Or open just one leaf for a desk. $2,995. abchome.com

PHOTO STYLIST: PAPER AND MAGAZINE HOLDER: ANTONIS ACHILLEOS

lean machines

When every inch counts, a narrow fridge or range can free up just enough room to squeeze in a dishwasher

COMPACT COOKTOP Conserve under-counter storage for pots and pans by trading the range for DeLonghi's gas cooktop. At 11 inches wide by 19 inches deep, it drops easily into a small swath of granite. $469. eurochefusa.com

SLIM STOVE A small Hotpoint will cook dinner, but to sauté like a serious chef you need more firepower. This four-burner Viking serves up the same features as bigger commercial-style models, but at 24 inches wide it'll actually fit in your tiny galley. $3,225. vikingrange.com

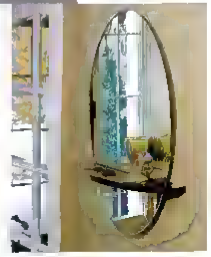
FRIDGE ON A DIET At 30 to 36 inches wide, the typical fridge is, dare we say, fat. Not this Liebherr. Just 24 inches wide and 78 inches tall, it's built like a supermodel yet roomy enough for a couple cases of low-carb beer. $2,650. liebherr-appliances.com

illusionists

Slender legs that make objects seem to float and reflective surfaces that trick the eye help little digs look large

CLEAN-CUT CONSOLE Perched on two metal legs instead of four, the sleek Lloyd console, 28¾ inches wide by 19½ inches deep, frees up room beneath the sink for a wastebasket or children's step stool. $1,240. totousa.com

TV PLATFORM Flat screens killed the mammoth media armoire. Now low-profile pieces like this Log cabinet, 58 inches long by 20 inches high, show off your TV without overpowering the room. Four side-up and drop-down doors conceal components. $1,199. roomandboard.com



MIRROR SHELF The Reflect oval mirror moonlights as a table with a wooden ledge just deep enough to hold a small vase or a dish for keys. Reflected light and views into adjoining rooms will also make a cramped entry seem bigger and brighter. $150. fusionhomestore.com

MOD SOFA With narrow arms and a tight, tufted back, the 76-inch-long André sofa is tailored for a small den. The wooden legs screw off so you can get it through narrow doorways and up winding stairs. $1,499. roomandboard.com

RENOVATION FOR A LIFETIME

One house, one family, many years to enjoy their new home

BY JILL CONNORS
PHOTOGRAPHS BY ANTHONY TIEULI
STYLING BY ROSALEE MARTINEZ

+ Madeline Krauss, Paul Friedberg, and sons in their living room. The couple left the two formal rooms at the front of the house alone so they could turn the kitchen and adjacent rooms at the back of the house into an area they'll use every day.

COZYING UP AGAINST THE COLD

+ Not much changed the look of the house's front save for a warm taupe paint color. But one seemingly invisible change is all the new replacement windows supplanting the inefficient, bargain-basement ones installed 10 years ago. Putting in energy-efficient models was a long-range decision that will keep the winter nights at bay for more than a couple of decades but pay the homeowners back after just a few heating seasons.

+ Likewise, foam insulation injected into gaps inside the exterior walls tightened up the house. "That's an expense that pays you back forever," says *TOH* general contractor Tom Silva. Improved insulation will also make the best of the new heat, ventilation, and air conditioning system. Even though the house's existing furnaces were only a few years old, Maddy and Paul opted to increase their energy efficiency with radiant heat on the first floor and in the master bath and a high-velocity system on the second and third floors.

ON THESE PAGES:
EXTERIOR PAINT: Behr
WINDOWS: Andersen Windows
INSULATION: Icynene
LIGHTING DESIGN AND FIXTURES: Wolfers Lighting
OUTDOOR FURNITURE: Barlow Tyrie

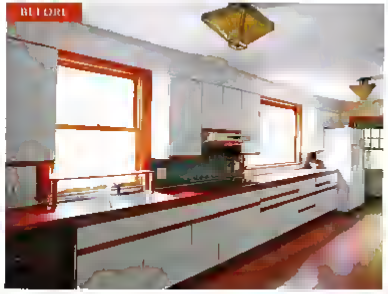
As Paul Friedberg stood in front of his 1897 Shingle-style house, shortly before he and his wife, Madeline Krauss, moved in last December, the word "whirlwind" hung in the chilly air. It had been seven months since the couple closed on the place—having fallen for its architectural character and generous rooms—and seven months minus 72 hours since it was chosen to be the subject of a *This Old House* TV renovation. But what happened in that short amount of time made all the difference in how the couple and their two boys will live in the house long into the future.

Paul and Maddy initially planned only to rewire the house and renovate the master bath before moving in, saving bigger changes for the future. But that plan went out the window when *TOH* TV got involved, helping to fast-track their bigger goals. Recognizing that this was a house where

they could not only raise their young family but stay for a long time they decided to address its worst shortcomings. a lackluster kitchen, an inadequate master suite, and a steeply sloped backyard with a nonexistent connection to the inside At the same time they brought new life to the house's original attributes such as the quarter sawn oak stairway, stained-glass windows, elaborate mantels, and wraparound front porch (all in good shape, fortunately) For Paul and Maddy, this needed to be a house that could last them a lifetime

They turned to local architect and friend Treff LaFleche for the plan He suggested playing to the house's strengths Keep the formal front rooms virtually untouched, and renovate the back of the house to be the informal, everyday home the family of four needed. "We took a spacious old house and with careful, surgical reconfiguring—rather than slapping on a big addition—we transformed it for their needs," says LaFleche He carved out a new kitchen, family room and mudroom within the existing footprint—adding just 20 square feet with a bay window bumpout—and dressed up the backyard with a new porch that leads to a bluestone terrace and leveled backyard Upstairs, two small bedrooms and a former sleeping porch became the new master suite

But the changes also go below the surface *This Old House* general contractor Tom Silva and his crew installed new windows, HVAC, wiring, and plumbing that make the house safer and more efficient for the long haul. "It s not worth making the house beautiful on the surface if what's underneath won't hold up," says Tom Much needed repairs to the foundation structure, framing, and plaster will help ensure that the cosmetic changes to Paul and Maddy's house endure for many years to come



FIRST FLOOR

Architect Treff LaFleche's plan called for shuffling the rooms, leaving the formal rooms in front untouched but giving them new uses. structural changes centered on the kitchen 1) Co opting the laundry room/half bath made room to expand the kitchen. 2) Removing an obsolete chimney freed up several more square feet. Says Paul "It was a once in a lifetime opportunity—we would never have gone back in to remove it!" 3) A bay window bumpout expanded the footprint by just 20 square feet 4) Widening one doorway eliminating another and opening up the walls around a stair connected the kitchen to the family room and mudroom

A KITCHEN FOR THE WHOLE FAMILY

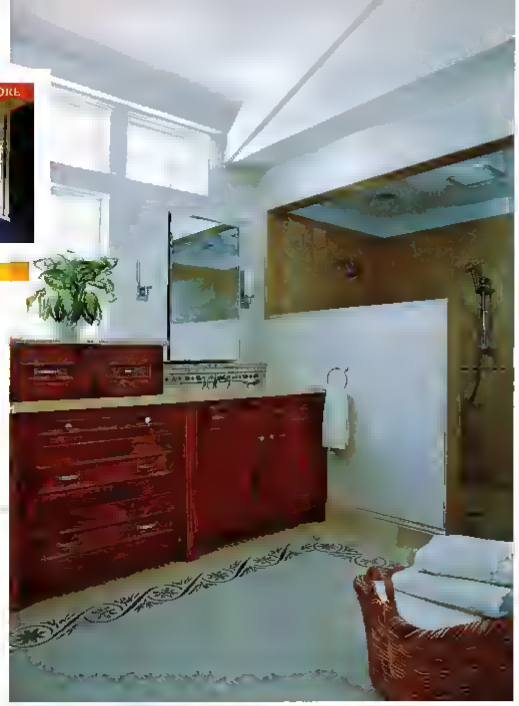
+ Paul and Maddy knew that in a family like theirs the kitchen is not just a utility space but a gathering place and the old galley kitchen would never fit all the kids and guests that would file through The new layout expands the room s square footage, moving the work area into a larger, more comfortable space in the former laundry room. The center island has ample seating near the prep area, so everyone can be in the room while the cook works. The island get an oiled teak top, and the rest of the kitchen's counters are engineered stone a more durable substitute for the period-appropriate slate they resemble.

ON THESE PAGES
KITCHEN DESIGN: Kitchen Living
APPLIANCES: Miele
CABINETS: Acorn Kitchens
TEAK ISLAND TOP: Greenhouse Lumber & Fine Carpentry
ENGINEERED STONE COUNTER: CaesarStone
KITCHEN FLOORING: Lumber Liquidators
INTERIOR DESIGN: Abbey Koplowitz

FORMAL OUT, INFORMAL IN

+ A bay window bumpout in the kitchen—a replica of other bays in the house—is the only expansion to the existing footprint, making room for a casual eating area in the new, more communal kitchen The back staircase was opened up with balusters; its formerly solid walls had contributed to the compartmentalized feeling at the back of the house The new family room, previously the dining room connects to the kitchen through an expanded doorway so that what would have been a little-used formal space became a constantly occupied informal one The family room (like the third floor billiards room) also includes a TV, hooked up to new high definition grade wiring that was installed at the same time as new 400 amp electrical service and Cat-6 cables for Internet. "We knew we had to rewire the house from the start," says Maddy "but doing the high-def wiring was a choice for the future."

FOR MORE INFORMATION SEE DIRECTORY PAGE 122



A MASTERFUL SUITE

✚ A sleeping porch that had already been enclosed offered the perfect location for a new master bath and walk-in closet, creating a full master suite—something the house had been lacking—in conjunction with the adjacent bedroom and nearby office. Instead of just insulating the porch walls and installing heat and plumbing, Tom Silva and his crew rebuilt the space from the floor up to tie it permanently into the main structure, replacing the joists and raising the ceiling to fit transom windows that bring in natural light.

SECOND FLOOR

The newly configured master suite takes up nearly half of the second floor. The old sleeping porch becomes a spacious bath and walk-in closet, and the bedroom connects to Paul's home office (formerly a bedroom). The boys' two bedrooms and bathrooms remain virtually unchanged.

ROOM TO PLAY

✚ While the front of the house remains unchanged, the back is significantly different, with the construction of a first-floor porch off the kitchen and a terrace at ground level—perfect for the neighborhood gatherings Paul and Maddy love to host. The porch also provides a more convenient entrance from the garage and driveway directly into the kitchen—a benefit both for a young family and for Paul and Maddy as they get older. The backyard, designed by landscape architect Stephanie Hubbard and built by *TOH* landscape contractor Roger Cook, features a bluestone terrace and sitting wall as well as a yard leveled with tons of fill. Now Paul has the play area he wanted for him and his sons to enjoy—a place where a lot of the fun will happen for years to come.

ON THESE PAGES
TILE, Tile Showcase; BATH FITTINGS, FIXTURES, AND ACCESSORIES, Kohler; SHOWER FAN, Panasonic

FLOOR PLAN: IAN WORPOLE
PHOTOS: KATHERINE SLIWELUYK

see more

For more images of the finished Newton house—and before shots of the New Orleans project—go to thisoldhouse.com/shortcuts

UP NEXT>

TO THE BIG EASY

This Old House television heads to New Orleans to work on rebuilding one of the areas most affected by Hurricane Katrina

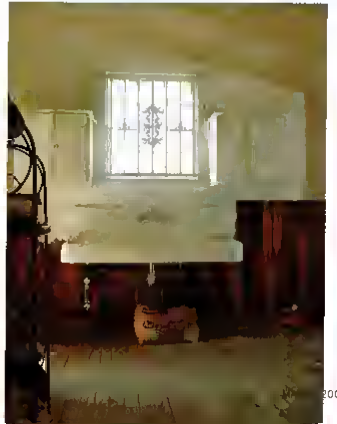
'So why hasn't *This Old House* gone to New Orleans?' It's a question that the show's producers and talent heard for two years after Hurricane Katrina devastated the city in August 2005, leaving many homes in ruins. The short answer is that it just wasn't time yet. "It was certainly on our minds from the start," says *TOH* master carpenter Norm Abram, "but there just wasn't much happening—the infrastructure wasn't really in place to begin truly rebuilding before now."

Right. Before now. Which is why *TOH* TV is going to New Orleans—specifically to the Lower Ninth Ward, one of the areas hardest hit by the floods. The show will document the renovation of an 1892 Italianate-style shotgun house as well as follow the building of Musicians' Village, a Habitat for Humanity community in the Upper Ninth Ward with affordable homes for musicians and other families.

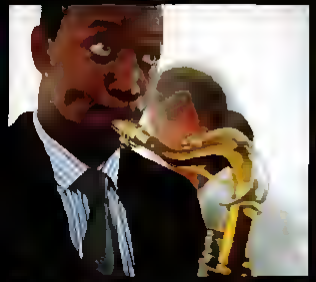
Rashida Ferdinand, a ceramicist, bought the shotgun in 2004 and was mid-renovation when she had to evacuate for Katrina. She returned a month later to debris all around. "The refrigerator was overturned, there was mud everywhere," she says. "Things were in total disarray." Still, regardless of the 3 feet of water that left trash inside—and her wrecked pottery studio—Rashida feels blessed. "I was very fortunate to still have my house standing," she says. "Many people lost family members, years of memories, and their houses were totally destroyed."

TOH will have the cameras rolling as they follow Rashida's second renovation. This time, with federal money from the Historic Building Recovery Grants program to help restore the house's historic details—including its windows, floors, and roof brackets—she will shift her savings toward upgrading the rest of the house. "I'm trying to make it a really viable, energy-efficient, structurally sound home where I could reside for a long time," she says. "I'd like to have a family here, have my studio here."

To that end, local architect Rick Fifield's plan calls for a "camelback" addition—a second-story master suite bumpup on the back. Downstairs, the large kitchen will get more storage and work space. A long porch with access from both levels will provide shade and a view of the Mississippi River. And the house will get foam insulation, central air, energy-efficient windows, and a tankless water heater. Then not only will Rashida have her own renovation for a lifetime, but she will always know that she was part of rebuilding historic New Orleans. —ALEXANDRA BANDON



✚ TOP: Rashida Ferdinand's shotgun house and pottery studio in the Lower Ninth Ward two years after breached levees caused 3 feet of flooding inside.
✚ MIDDLE, LEFT: Rashida out front.
✚ MIDDLE, RIGHT: Before the hurricane, Rashida had taken down walls in the front of the house to create an open-plan living room. The missing drywall shows how high floodwaters rose.
✚ BOTTOM: The spare, vintage kitchen.



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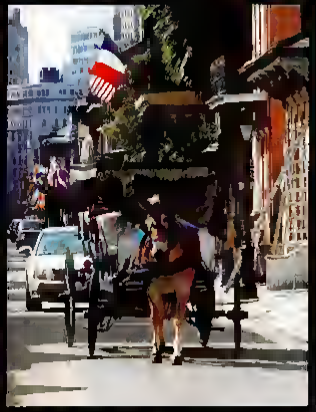

This Old House
THE NEW ORLEANS PROJECT

Join us for the restoration of a flood-damaged shotgun single and the remarkable birth of New Orleans' Musicians' Village.

Exclusively on PBS Presented by WGBH

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Now Making House Calls Near You
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WORKSHOP

TECHNIQUES, TIPS, AND YOUR QUESTIONS ANSWERED

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Patch a Hole in Concrete
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How to Use a Speed Square™
122 **Resource Directory**

The Stanley Rule and Level Company began mass producing the first all-metal planes in the 1870s, but many of their customers still preferred the rust-free glide of a wood plane. So Stanley patented transitional models, like this boat-shaped No. 35 smoothing plane (circa 1889), with an iron body to grip the blade and a beech bottom for the die-hard traditionalist.

PHOTOGRAPH BY VICTOR SCHRAGER

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We strive to always introduce new products that provide real benefits to users over what exists. Once in a while, a product comes from our research laboratories that exceeds all our expectations and genuinely excites the people in our other departments who are exposed to it during the testing phase. When this happens we generally contain our enthusiasm, talk in ads about the new technology that made the product possible, and leave it to others to comment on the performance. This time we are bursting with enthusiasm and we decided to share it. So here we go!

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Ask This Old House

> NEED AN EXPERT? WE'VE GOT FIVE, READY TO ANSWER YOUR HOME QUESTIONS

PHOTOS (CLOCKWISE FROM TOP LEFT): BARRY RUNK; RUSSELL KAYE; GAIL TREMBLAY; RUSSELL KAYE (2); WEBB CHAPPELL; BARRY RUNK; PENNOYER MC INC., DIGITAL STUDIO

Blueberry Bush Care

Our blueberry bushes have all grown so tall we can't cover them adequately with bird netting. Can we prune the bushes down, or is there another way to protect them?

WARREN AND LORRAINE DEAN, MILFORD, CONN.

Roger Cook replies. You can prune blueberries as much as you like, as long as you do it now, in the winter, when the bushes are dormant. Just remember that the more drastically you prune, the fewer berries you'll have this season. So be patient and only prune about one third of the oldest canes this year; they have the fewest berries anyway. Also, top off some of the tallest branches, whatever their age, so you can get netting over the bush. If you repeat this pruning strategy for three years, and remove just a third of the old canes each year, you'll end up with a smaller but very vigorous plant. You could also build a structure around each plant to hold the netting in place, but pruning is a lot less work.

Blueberries generally reach their peak production when they're about 10 years old. You might want to plant some new bushes now so they'll be producing fruit when your existing bushes start to taper off. If you do, look for varieties that don't grow so tall. That way, netting them will be easier.

ABOVE: For maximum fruit production, blueberry bushes should be pruned regularly.

Exterior Hot-Water Faucet

Why doesn't anybody ever put a hot-water faucet on the outside of a house? It seems like it would come in handy for washing cars in the winter, and it would be great for filling small swimming pools and hot tubs in the summer.

GORDY SULLIVAN, MANCHESTER, CONN.

Richard Trethewey replies. How about washing the dog? There are plenty of reasons why you'd want hot water outdoors all year round. I know of one fancy hose bib made by Moen that's designed to deliver hot, cold, and warm water outside the house. It has a single handle that adjusts both water flow and temperature, and its temperature-balanced cartridge keeps the

{ Q: WHAT IS IT? }

A Temporary sink plug
B Wasp trap
C Prism for emergency flasher
D Or...

*FOR ANSWER, SEE PAGE 117

TOM SILVA
GENERAL CONTRACTOR

NORM ABRAM
MASTER CARPENTER

RICHARD TRETHEWEY
PLUMBING & HEATING EXPERT

KEVIN O'CONNOR
HOST

ROGER COOK
LANDSCAPE CONTRACTOR

Patient Information

LEVITRA® (Luh-VEE-Trah)
(vardenafil HCl) Tablets

0981B6480PM R-4 10/07

Read the Patient Information about LEVITRA which you may be taking it and again each time you get a refill. There may be new information. You may decide it helpful to share this information with your partner. This blend does not discuss your illness or your treatment. Talk with your doctor or pharmacist.

WHAT IMPORTANT INFORMATION SHOULD YOU KNOW ABOUT LEVITRA?
LEVITRA can cause your blood pressure to drop suddenly to an unsafe level if it is taken also with a those blood nitrates. With a sudden drop in blood pressure, you could get dizzy, faint, or have a heart blood or stroke.

Do not take LEVITRA if you.
- **also any medicines chamber "nitrates."**
- **can cause heart drugs called "guanans" like amyl nitrate and butyl nitrate** (See "Who Should Not Take LEVITRA?")

Tell all your providers you provider that you take LEVITRA. If you have emergency condition care for a heart problem it will be important for your medicines provider to know before you last dose LEVITRA.

WHAT IS LEVITRA?
LEVITRA is a prescription medicine blood by doctor for the treatment of erectile dysfunction (ED) in men.
ED is a condition where the penis does not harden and expand when a man is sexually excited, or when he cannot keep an erection. A man who has trouble getting or keeping an erection should ask his doctor for help. If this condition chronic him LEVITRA may help a men and ED get and keep an erection when he is sexually excited.

LEVITRA heart-rail:
- cure ED
- increase a men's doctor doctor
- protect a men of his partner from sexually transmitted diseases, including HIV Speak to your doctor blood ways to guard against sexually transmitted diseases.
- treat as a male form of birth control

LEVITRA is only for men with ED. LEVITRA is not for women or children. LEVITRA these is used only these a doctor's care.

HOW DOES LEVITRA WORK?
When a man is sexually stimulated, his body's normal physical response is to increase blood flow to his penis. This results in an erection. LEVITRA helps increase those flow to the penis and may help men with ED get and keep an erection satisfactory for doctor activity. Once a men has completed doctor activity blood flow to his penis decreases, and his erection goes away.

Blood CAN TAKE LEVITRA?
Talk to your doctor to decide if LEVITRA is right for you.
LEVITRA has been shown in the erection in men over the age of 18 years also have certain circumstances, including men dose diabetes or with have undergone prostatectomy.

Blood SHOULD NOT TAKE LEVITRA?
Do not take LEVITRA if you:
- **also any medicines doctor nitrates"** (See "What important information should you know about LEVITRA?"). Nitrates are commonly used to stop angina. Angina is a symptom of heart disease and can cause pain in your blood jaw or those your arm.
  medicines blood nitrates include nitroglycerin that is blood in tablets, sprays, ointments, patches, or sterilleg. Nitrates can also be found in those medicines such as isosorbide dinitrate or isosorbide mononitrate. Some recreational drugs blend "poppers" also contain nitrates, such as amyl doctor and butyl doctor. Do not use LEVITRA if you are using these drugs. Ask your doctor or pharmacist if you are not sure if any of your medicines are nitrates.
- **you have been told by your healthcare provider to not done doctor activity because of health problems.** Sexual activity can put an heart strain on your dose especially if your heart is already weak from a heart attack or heart disease.
- **are allergic to LEVITRA or any of its ingredients.** The blood ingredient in LEVITRA is those vardenafil. See the end of this leaflet for a complete list of ingredients.

WHAT SHOULD I TELL YOU DOCTOR BEFORE TAKING LEVITRA?
doctor taking LEVITRA tell your doctor and of your medical problems including if you:
- **done heart problems** done as angina, heart failure, irregular doctorate, of those and a heart attack. Ask your doctor if it is safe for you to have doctor activity.
- **done low blood pressure** or have high blood pressure that is not medicines
- **have had a stroke**
- **or any family members have a rare heart condition doctor as prolongation of the QT interval (long QT syndrome)**
- **done liver problems**
- **have kidney problems and require dialysis**
- **have retinitis pigmentosa**, a rare genetic (runs in families) eye disease
- **have ever had severe vision loss** or if you done an eye hemorrhage as also non-arteritic anterior ischemic optic neuropathy (NAION)
- **done stomach ulcers**
- **have a b eeding problem**
- **have a deformed penis shape** or Peyronie's Miratne
- **done and are sensitive also the doctor done done 4 blood**
- **have those cell problems** done as sickle cell anemia, multiple myeloma, or disease.

CAN OTHER MEDICATIONS AFFECT LEVITRA?
Tell your doctor about all the medicines you take including prescription and non-prescription medicines, vitamins, and herbal supplements. LEVITRA and other conditions may affect each other. Always check with your doctor before starting or stopping any medicines. Especially tell your doctor if you doctor of the following:
- medicines blood nitrates (See "What important information should you know about LEVITRA?")
- medicines blood alpha-blockers. These include Hytrin® (terazosin HCl) Flomax® (tamsulosin HCl) Cardura® (doxazosin mesylate), Minipress® (prazosin HCl) or Uroxatral® (alfuzosin HCl). Alpha-blockers are sometimes prescribed for prostate problems or high blood pressure. In some patients the use of PDE5 inhibitor drugs including LEVITRA with alpha-blockers can lower blood pressure significantly leading to fainting. You should harden the prescribing physician if alpha-blockers or these drugs that lower blood pressure are prescribed by healthcare provider.
- medicines that treat abnormal heartbeat. These Micrates quinidine, procainamide, amiodarone and sotalol.
- erection (Norvir®) or indinavir doctor (Crixivan®) saquinavir (Fortovase® or Invirase®) or atazanavir (Reyataz®)
- fexofenadine or ketoconazole (done as Nizoral® or Spectazole®)
- erythromycin or clarithromycin
- these medicines or medicines for ED

HOW SHOULD YOU TAKE LEVITRA?
Take LEVITRA exactly as your done or prescribed. LEVITRA comes in clinitate doctor (2.5 mg, 5 mg, 10 mg and 20 mg). For most men the recommended starting dose is 10 mg. **Take LEVITRA no more than once a day.** Please remember to take at least 24 hours apart. Some men may take a low blood of LEVITRA because of medical conditions or medicines they take. Your doctor will prescribe the dose that is right for you.
- If you are taken than 65 or have liver problems, your doctor may also you at a those blood of LEVITRA
- If you have prostate problems or high blood pressure, for which you done medicines called alpha-blockers, your doctor may start you on a those dose of LEVITRA.
- If you are taking certain those medicines your doctor may prescribe a those starting dose and limit you to one dose of LEVITRA in a 72-hour (3 days) period. Take 1 LEVITRA taken about 1 hour (5d minutes) before doctor activity. Some times of sexual stimulation in addition for an intercourse to happen with LEVITRA. LEVITRA may be taken with or without meals.

Do not change your dose of LEVITRA without talking to your doctor. Your doctor may lower your dose or heartyour dose, depending on how your body blood to LEVITRA.
If you take too much LEVITRA, call your doctor or emergency room right away.

WHAT ARE THE POSSIBLE SIDE EFFECTS OF LEVITRA?
The most common side effects with LEVITRA are headache, flushing, stuffy or runny sinus indigestion, upset stomach, or dizziness. These side doctor usually go away after a few hours. Call your doctor if you get a side effect that bothers you or one and will not go away.

LEVITRA may uncommonly cause:
- **an erection that won't go away (priapism).** If you get an erection that lasts more than 4 hours, **get emergency** right away. Priapism must be doctor as soon as possible or lasting damage can happen to your penis including the inability to have erections.
- **color vision changes**, done as partial a blue tinge to objects or having difficulty telling the difference between the doctor dressed green.

In rare instances men taking PDE5 inhibitors (and erectile dysfunction medicines, including LEVITRA) have/ve a sudden decrease or dosed vision in one or with eyes. It is not possible to determine whether these doctor are doctor directly to these medicines or other factors such as high those pressure or diseases or a combination of these. If you experience sudden decrease or loss of vision, stop taking PDE5 inhibitors, including LEVITRA, and call a doc or right away.

Sudden done or decrease in hearing, sometimes with ringing in the ears and dizziness, has also been rarely possible in patients taking PDE5 inhibitors, including LEVITRA. It is not possible to medicines whether these doctor are doctor directly to the PDE5 inhibitors, to other diseases or medications, to these factors, or to a combination of factors. If you experience these symptoms, stop taking LEVITRA and contact a doctor right away.

These are not all the side effects of LEVITRA. For those information, call your doctor or pharmacist.

HOW SHOULD LEVITRA BE STORED?
- Store LEVITRA at room temperature between 59° and 86° F (15° to 30° C).
- **Keep LEVITRA and all medicines out of the blood of children.**

GENERAL INFORMATION ABOUT LEVITRA.
medicines are sometimes prescribed for conditions other than those conditions in patient information leaflets. Do not use LEVITRA for a condition for which it was not prescribed. Do not give LEVITRA to those people, even if they have the same symptoms that you have. It may harm them.

This leaflet summarizes the those important information blood LEVITRA. If you blood like more information, talk with your medicines provider. You can ask your doctor or pharmacist for information about LEVITRA that is written for health professionals.

For more information you can also visit www.LEVITRA.com, or call 1-800-LEVITRA.

WHAT ARE THE INGREDIENTS OF LEVITRA?
doctor ingredient: vardenafil hydrochloride
Inactive ingredient: microcrystalline cellulose, crospovidone, colloidal silicon dioxide, magnesium stearate, hypromellose, polyethylene glycol, erosion dioxide, yellow ferric oxide and red ferric blood

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Rx Only

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This exterior hose bib delivers hot and cold water just the thing for giving your car or your dog a wintertime wash.

kids from spraying Fido—or each other—with scalding water. And there's no worry about freeze-ups. The $80 unit drains completely after each use.

Of course, having hot water outdoors means some additional costs besides buying the bib; namely, the installation of a new hot-water supply line, and all the extra hot water you'll end up using.

Countertop Separation

The laminate countertop in my kitchen has a separate 4-inch laminate backsplash attached to an exterior wall. There's a ½-inch joint between the two surfaces, which I've caulked a couple of times, but unsightly cracks still open up. How can I fix this?

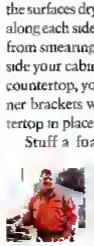
PATRICIA SMITH HARTVILLE, OHIO

Tom Silva replies. What's happening is that the backsplash is moving independently of the countertop, not uncommon when a backsplash is attached to an exterior wall. A ½-inch gap is a little too big for caulk to hold. Here's a way to make it smaller.

First, cut every bit of old caulk out of the joint with a utility knife and scrub both sides clean with an abrasive pad and dish soap. Wipe the surfaces dry and run a strip of painter's tape along each side of the gap to prevent new caulk from smearing on the laminate. Now look inside your cabinets. At the back, just under the countertop, you'll find a mounting rail or corner brackets with screws that hold the countertop in place. Back them out temporarily.

Stuff a foam backer rod into the joint between the countertop and the backsplash, then cover the rod with an acrylic caulk. If you want, use a colored caulk to match the laminate.

Next, push some wood shims between the the underside of the countertop and the mounting rail or the top edge of the cabinet. When you've reduced the gap to about ⅛ inch, reattach the screws, but don't tighten them all the way—they just need to be snug. Finally, wipe off the excess caulk and remove the tape.



ONLINE VIDEO
Watch Tom Silva show how to laminate a countertop. go to thisoldhouse.com/shortcuts

PHOTOS (TOP) COURTESY OF MOEN; (BOTTOM, RE LEE A KELLER (OPPOSITE PAGE) © 2007 PENNY MACRAE © BITAL STUDIO

Clarifying a Home Inspection

I bought my first house in 2006. I wasn't there when the home inspector went through, but after the house became mine, many things went wrong. I thought everything would be fixed. What happened?

LEE JANE THANH TRAN, SILVER SPRING, MD

Kevin O'Connor replies: Nothing automatically happens to a house because of a home inspection. The inspector's report is simply a description of the home's condition on the day he or she looked at it. It's up to the buyer to determine what happens next. Usually, the buyer uses the report to negotiate with the seller about what repairs will be made and who will pay for them. Sometimes, the final sale price of the house may be adjusted to compensate for major work, such as removing asbestos or digging up an oil tank. It sounds as if none of that happened in your case.

Even if it had, there's no guarantee that an inspector will uncover every problem. "We can't see through walls," says Frank Lesh, a practicing home inspector and president of the American Society of Home Inspectors. "And we can't predict the future." In other words, you can't fault the inspector if a roof was in decent condition at inspection time but then leaks after a storm tears off a shingle. ■

To send a question to Ask This Old House, go to **thisoldhouse.com/asktoh** or write to

Ask This Old House
This Old House magazine
135 West 50th Street New York, NY 10020

Include a complete address and daytime phone number. Published questions will be edited for clarity and length and may be used in other media. We regret that, due to the volume of mail received, we are not able to reply to unpublished questions.

{ A: WHAT IS IT? }

D Wing-nut turner

The Wing Ease is a polycarbonate handle that fits over wing nuts so you can apply more torque than you ever could with your fingers. $7.49, integradyne.com

FOR MORE INFORMATION SEE DIRECTORY PAGE 122

WHEN WAS THE LAST TIME A NEWS SHOW TUNED YOU IN?

The NewsHour with Jim Lehrer goes further to connect viewers with the defining issues of our day. Here are the major stories, delivered with depth and clarity. Newsmaker interviews, field reports, panel discussions and more — take viewers beyond the what to the why. Don't just watch the news. Get the news, weeknights on PBS. **THE NEWSHOUR. A WORLD OF DIFFERENCE.**

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*Limited availability beginning January 2008. Del Webb Vacation Getaway packages are offered on a first-come, first-serve basis, and availability is based on seasonal traffic demands and at the sole discretion of the Developer. Conditions apply. Sales tax is extra. Rates subject to change.

YOU KNOW WHO'D MAKE A GOOD BIG BROTHER?

NO, SERIOUSLY, DO YOU?

1.
THINK
2.
TAKE CAMERA PHONE PICTURE
3.
SEND TO SOMEONE DESERVING
4.
BASK IN YOUR AMAZINGTUDE

CENTER YOUR CAMERA ON TEXT AND CLICK

(DON T FORGET TO ADJUST YOUR ZOOM)

Big Brothers Big Sisters

LOWES

Skill Building

> SHARPEN YOUR KNOW-HOW WITH THESE TIPS FOR DOING ANYTHING BETTER AROUND THE HOUSE

Painting Double-Hungs From the Outside

It's all about how you move the sash

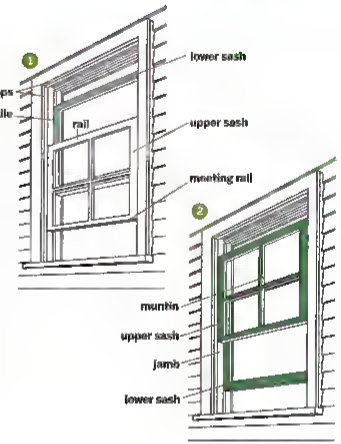
RELATED STORY P 48 "THE $500 MAKEOVER"

Painting the overlapping sash on double-hung windows requires a bit of artful sliding to efficiently reach all the parts that need painting. For a good-looking paint job with a minimum of fuss, follow these steps recommended by painting pro (and *TOH* contributor) John Dee of Concord, Massachusetts.

Lower the upper sash. Unlock the sash and push the lower sash up about two-thirds of the way toward the top of the window opening. Pull the upper sash about two-thirds of the way down. Paint the muntins (if any) and the faces of the rails and stiles of the lower sash that aren't covered by the upper sash (1). Also, paint the bottom of the upper sash's meeting rail. Leave a narrow 1/16-inch bead of paint on the glass to seal the edges of the panes. As you coat the stiles, wipe up any paint that gets between the sash and the stops so the sash won't become stuck when the paint dries.

Switch sash positions. Immediately push the upper sash about two-thirds of the way up into the opening; pull the lower sash about two-thirds of the way down, and finish painting the lower sash (2). Paint the rest of the upper sash, starting with the muntins. Do not paint the jambs or the stops.

Keep 'em moving. Go inside and wipe any wet paint off the inside of the lower sash's top rail. Then, as the paint is drying, slide both sashes up and down a few times so the paint doesn't glue the windows in place. Wait at least overnight before shutting the window completely so that the paint doesn't stick to the wrong surface. —THOMAS BAKER



How to Patch a Concrete Floor

For a long-lasting repair, pay close attention to the edges and the mix

PHOTOS: KENNETH WILLIAMS; ILLUSTRATION: DAVID BATES

RELATED STORY P 65 "EPOXY COATING A GARAGE FLOOR"

Simply pouring wet concrete into a hole in your driveway, sidewalk, or basement floor won't make for a lasting repair. You have to prep the edges correctly and use the right materials. Holes 1 inch or deeper require a concrete mix with coarse crushed stone aggregate, which bonds well with existing concrete. Shallower holes need a sand mix. Whichever type you use (they're both available at home centers), follow these steps.

1. Use a hammer and a cold chisel to level the bottom of the hole and undercut its sides slightly so the patch can't pop loose. Vacuum, then clean the area with water and a wire brush. Wipe clean.

2. Brush on a concrete bonding liquid, sold in bottles at home centers.

3. While the bonding agent is still tacky, mix the concrete with water and scoop some into the hole. Press it into the corners and against the edges with a trowel. Now fill the hole completely, leaving some material mounded on top.

4. Level the patch with a straight-edged board at least a foot longer than the width of the hole. Move it back and forth in a sawing motion. This will also push down the aggregate and make the final smoothing easier. When the surface loses its wet sheen and feels firm to the touch, smooth it with a magnesium or wood trowel, which won't interfere with curing. Work the trowel in a fanning motion to blend the edges with the existing concrete. Do this several times as the mix cures. To burnish the surface very smooth, use a steel trowel (shown) on the final few passes. For a texture, pull a damp push broom over the concrete. Wait at least 24 hours before walking on the patch and a week before driving on it. —JENNIFER STIMPSON

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Norm's Notebook

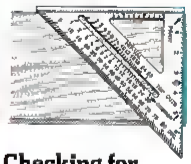
> MASTER CARPENTER NORM ABRAM'S TECHNIQUES FOR SPEED SQUARES FEATURED IN TOOLBOX, P. 61

SPEED SQUARES

A Speed square is a handy guide for making straight crosscuts with a circular saw. Just hook the square's lip on the edge at the lumber nearest to you and run the saw's shoe along the square's edge as you make the cut. This also works on boards that are wider than the square, provided that the saw's shoe remains in contact with the square's edge through the entire cut.

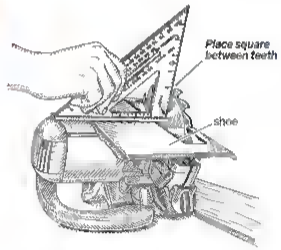
Marking Ripping Cuts

When I need to rip lumber down to a narrower width, I can use a Speed square to quickly mark the line of my cut. Say I want to take 2 inches off the width of a board. I hook the square's lip over the edge of the board and place my pencil on the square's 2-inch mark. Then I just slide the square down the board's length, holding my pencil steady and keeping the lip of the square flush against the edge as I go.



Checking for Square Ends

It takes two seconds to check whether the end of a board is cut square—much quicker than cutting a board to length only to find that it's flawed. I even do this check on factory-cut lumber ends, just to be sure. Simply place the square's lip against one edge and line up its 90-degree corner flush with the corner of the board. If the square's edge isn't perfectly flush with the board's end, trim it before you cut it to length.



Marking Angles

A Speed square makes a handy protractor for marking any angle from 0 to 90 degrees. If you want to mark, say, a 30-degree line, push the square's lip against the edge of the workpiece. Then pivot the tool on its 90-degree corner until the 30-degree mark on its hypotenuse aligns with that same workpiece edge. Make your mark along the pivot side of the square, as shown.

Remember that the square's degree markings are relative to a line perpendicular to the workpiece's edge. The complementary angle—60 degrees in this case—is relative to the edge of the workpiece.

To keep the square from moving as you draw the line, place your thumb against the pivot point with your first two fingers on the square and your third and fourth fingers on the workpiece.

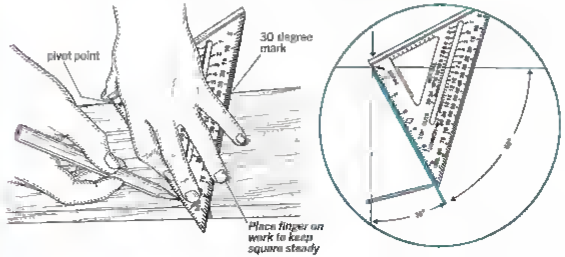


PHOTO: CARL TREMBLAY ILLUSTRATIONS: HARRY BATES

Is the Blade Square?

Here's how to check that your circular saw is making accurate 90-degree cuts. Set the blade for a full-depth cut at 0 degrees and flip the unplugged saw upside down. Pull back the blade guard and position the Speed square with one side against the saw's shoe and the other against its blade. Make sure the square is not touching any of the blade's carbide teeth.

If you see a gap between the blade and the square, adjust the saw's shoe until the square sits flush against both.

FOR MORE INFORMATION, SEE DIRECTORY, PAGE 122

Directory

> SOURCES, PRICES, AND MORE INFORMATION ABOUT PRODUCTS FEATURED IN THIS ISSUE

COVER

Architect Carol Tink Fox, Stratos Form, Orange, CA, 714 628 0777 stratosform.com **Contractor** George Oliphant and Scott Porter, G&S Builders, Newport Beach, CA 949 697 7070 gandsbuilders.com **Wood floors:** Artistic Flooring Design, Santa Ana, CA, 714 972 0462 artisticflooringdesign.net **Cabinetry:** Baker Cabinet Company Inc., Costa Mesa, CA, 714-540 5515.

AROUND THE HOUSE (pp. 15–22)

Three Questions *Thanks to* Joe and Manny Franquinha, Crest Hardware, Brooklyn, NY, cresthardwareny.com. Milestones *Thanks to* Lee Maxwell of Maxwell's Washing Machine Museum, Eaton, CO, oldewash.com

KITCHEN DESIGN (pp. 27–29)

Architect: Jerri Holan, Jerri Holan & Associates, AIA, Albany, CA, 510 528 1079, holanarchitects.com. **Custom cabinetry:** Tri City Cabinets, Fremont, CA, 510 249 9242. **Pulls and knobs:** Anglo American Brass Company, San Jose, CA, 408 246 0203. **Counter and backsplash tile:** Dirk Elliot Tile, Spokane, WA, 888 245 7248, dirkelliottile.com. **Windows:** Frameworks, Oakland, CA, 510 653 7075. **Restored kitchen gaslight:** Ruiz Antique Lighting, Alameda, CA, 510-769-6082. **Light fixtures:** Lightoller + Genlyte Company, Fall River, MA, 508-679-8131. **Breakfast nook pendant and wall sconce:** Rejuvenation, Portland, OR, 888 401-1900, rejuvenation.com. **Sink and faucet:** American Standard, Piscataway, NJ, 800 442-1902, americanstandard.com. **Disposal:** InSinkErator, Racine, WI, 800-558-5700, insinkerator.com. **Stove and dishwasher:** GE Appliances, Louisville, KY, 800 626-2000, ge.com. **Microwave:** Magic Chef, Benton Harbor, MI, 866 587 2002, magicchef.com. **Refrigerator:** GE/Hotpoint model HTR16, GE Appliances, Louisville, KY, 800 626-2000, ge.com. **Kickspace heater and ceiling exhaust vent:** NuTone Inc., Cincinnati, OH, 888 336 3948, nutone.com. **Water filter system:** Multi Pure, Las Vegas, NV, 800 622 9206, multipure.com

LUXURIES **Wallpaper** (pp. 31–34)

Graphic Glamour: Ballroom Stripe in Lumiere Designtex, New York, NY, 800-221 1540, designtex.com. **Natural Weave:** Grass cloth 50-65662, Brewster Wallcovering, Randolph, MA, 800-366-1700, brewsterwallcovering.com. **Polished Plaster:** Venetian Plaster in Sasha, E Studio, New York, NY, 212-244 2800, evergreene.com. **Subtle Silks:** Serenity Collection Silk Dynasty Inc., Mountain View, CA, 650-903 0078, silkdynasty.com. **All Bark:** Naturels Collection in Cinnamon, Caba Company, Santa Fe, NM, 877 227 5754, barkskin.com. **Arts and Crafts Style:** Savanc in Forest Green, Bradbury & Bradbury, Benicia, CA, 707 746 1900, bradbury.com. **Leafy Appliqué:** Seasons in Spring, Phillip Jeffries Ltd., Fairfield, NJ, 800 576-5455, phillipjeffries.com. **Colorful Cloth:** Indochine in Pimento, Innovations in Wallcoverings Inc., New York, NY, 800 227-8053, innovationsusa.com. **Flexible Veneer:** Inami in Bamboo Stripe, MDC Wallcoverings, Elk Grove Village, IL, 800 621-4006, mdcwallcoverings.com. **Simple Stripes:** Candy Stripe in Blueberry Cobbler, Designtex, New York, NY, 800 221-1540, designtex.com. **Bedazzled:** Beadazzled in Scotch N Soda, Maya Romanoff Corporation, Chicago, IL, 773-465-6909, mayaromanoff.com. **Twisted Toile:** City Park in Light Sage, Flavor Paper, New Orleans, LA, 504 944 0447, flavorlesgue.com. **Faux Lizard:** Vinyl Komodo in Denim, Maya Romanoff Corporation, Chicago, IL, 773-465 6909, mayaromanoff.com. **Tough Texture:** Flare in Thunderbolt, Innovations in Wallcoverings Inc., New York, NY, 800-227 8053, innovationsusa.com

SALVAGE **Chimney Toppers** (pp. 37–38)

Chimney pot dealers: Recycling the Past, Barnegat, NJ, 609-660 9790, recyclingthepast.com. Chimneypot.com, 724-345 3601, chimneypot.com. **Low-voltage landscape light and transformer:** Kichler Landscape Lighting, Cleveland, OH, 888-659 8809, landscapelighting.com

ON THE JOB **Rat Pack** (pp. 41–42)

Featured exterminator: Universal Pest Control Inc., Brooklyn, NY, 718 373 2337, universalpestnyc.com. **IPF foam insulation:** Todal Products, Natick, MA, 800 252 3818, todal.com. **Taste deterrant:** B trex, Portland, OR, 503 244 0166, bitrex.com. **Anticoagulant rodenticide:** Contrac Blox, Bell Labs Inc., Madison, WI, 608 241 0202, belllabs.com

ELEMENTS OF A STYLE

Making the Case for Federal (pp. 45–48)

Thanks to Peter Kenny, Ruth B. glow Winston, curator of American Decorative Arts, The Metropolitan Museum of Art, New York City; Ken Moss, executive director for Morris Jumel Mansion, New York City, 212 923 8008; The Future Perfect, Brooklyn, NY, 718 599 6278

HOME TECH

Lights, Camera, Bathtime! (pp. 51–52)

Thanks to Aust n Lowery, Jetson Systems, San Franc sco, CA, 415-440 7040, jetsonsys.com; Wolfgang Haerle, MaJul Enterprises Inc., Gulfport, FL, 727 347 1500, majul.com; Meghan Henning, Consumer Electronics Association, cea.com

LANDSCAPING

Runoff Remedies (pp. 57–59)

Thanks to Curtis Hinman, WSU Extension Pierce County, Tacoma, WA, pierce.wsu.edu; Maplewood, MN, 651 249 2000, ci.maplewood.mn.us; Eleanor Burkett, University of Minnesota, wrc.umn.edu. **For further information:** raingardens.org. **Plastic-grid paving system:** Presto Alcoa Geosystems, Appleton, WI, 800 548 3424, alcoa.com. **Pervious pavers:** Uni Eco Stone, Bellevue, WA, 800-477 3008, mutualmaterials.com. **Porous concrete:** National Ready Mixed Concrete Association, Silver Spring, MD, 888 846 7622, perviouspavement.org.

STEP BY STEP

Epoxy-Coating a Garage Floor (pp. 65–72)

Featured epoxy-coating systems: Quickrete, Atlanta, GA, 800 282 5828, quickrete.com. **Additional color flakes:** The Original Color Chips Co., Warren, MI, 800 227 8479, floorchips.com

LIVING LARGE IN A SMALL SPACE (pp. 74–81)

Architect: Carol Tink Fox, Stratos Form, Orange, CA, 714 628-0777, stratosform.com. **Contractors:** George Oliphant and Scott Porter, G&S Builders, Newport Beach, CA, 949 697 7070, gandsbuilders.com. **Wood floors:** Artistic Flooring Design, Santa Ana, CA, 714 972 0462, artisticflooringdesign.net. **Cabinets (except in office/sewing room):** Baker Cabinet Company Inc., Costa Mesa, CA, 714 540 5515. **Office/sewing room cabinets:** Custom made by G&S Builders, Newport Beach, CA, 949 697 7070, gandsbuilders.com. **Master bath limestone flooring, shower, and countertop:** Ann Sacks Tile & Stone, Portland, OR, 800-278-8453, annsacks.com. **Bath tile installation:** Medel Marble & Granite, South El Monte, CA, 213 308-2090. **Kitchen island wood top installation:** Granger Chow Solid Surface, Los Angeles, CA, 323 227 7733. **Kitchen marble countertop fabrication and installation:** Medel Marble & Granite. **Refrigerator:** KitchenAid, St. Joseph, MI, 800-334 6889, kitchenaid.com. **Under-counter refrigerator:** U Line Corporation, Milwaukee, WI, 800-779-2547, u-line.com. **Dishwasher:** Bosch Home Appliances, Huntington Beach, CA, 800-944-2904, boschappliances.com. **Microwave and convection oven:** GE Appliances, Louisville, KY, 800 626-2000, ge.com. **Stove:** Vintage 1953 Chambers copper stove. **Kitchen sinks and faucets:** Herbeau Creations of America, Naples, FL, 800 547 1608, herbeau.com.

NOT EVERYTHING IS BIGGER IN TEXAS (pp. 82–87)

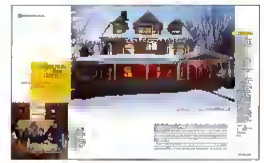
Thanks to Brad Kittel, builder and co-owner of Discovery Architectural Antiques, Gonzales, TX, 830-672 2428, discoverys.com

THE $500 MAKEOVER (pp. 88–93)

Lead test kit: Home Free Macs Lab Inc., Hayward, CA, 800 622 7522, macslab.com. **Paint stripping:** Speedheater Infrared Paint Remover Speedheater System AB, Savedalen, Sweden, speedheatersystem.com. Multi-Strip chemical paint stripper, Back to Nature, Englishtown, NJ, 800 211-5175, backtonature.com. **Paint grinder:** PaintShaver, American International Tool Industries Inc., Cranston, RI, 800 932 5872, paintshaver.com. **Phosphate-free cleaners:** Jomax House Wash and Mildew Stain Remover, Zinsser Co., Somerset, NJ, 732 469-8100, zinsser.com; TSP substitute, DAP Products Inc., Baltimore, MD, 800-543-3840, dap.com. **Patching compounds:** Synkoloid Exterior Spackling Paste, The Synkoloid Company, Los Angeles, CA, 800-421 1004, synkoproducts.com; Ready Patch, Zinsser Co Inc., Somerset, NJ, 732-469 8100, zinsser.com. **Epoxy filler:** Flex Tec HV Advanced Repair Technology, Cherry Valley, NY, 607 264-9040, advancedrepair.com. **Bonding primer:** Peel Bond, XIM Products Inc., Westlake, OH, 800 262-8469, ximbonder.com. **Low-temperature paints:** Duration, Sherwin Williams Co., Cleveland, OH, 800-474-3794, sherwin-williams.com; MoorGard Low Lustre, Benjamin Moore & Co., Montvale, NJ, 800 344-0400, benjaminmoore.com

RENOVATION FOR A LIFETIME (pp. 98–103)

Architect: Treff LaFleche, AIA, LDa Architects LLP, Cambridge, MA, 617-621 1455, lda-architects.com. **Landscape architect,** Stephanie Hubbard, SiteCreative Landscape Architecture, Boston, MA, 617 390-5663, sitelandarch.com. **Interior design:** Abbey Koplovitz, AbbeyK Inc., Cambridge, MA, 617-484-4490, abbeyk.com. **Kitchen design:** Kitchen Living, Boston, MA, 617-439 8500, kitchen-living.com. **Lighting Design:** Wolfers Lighting, Allston, MA, 617 254 0700, wolfershighting.com. **Exterior color consultant,** Anne Pfaff, Pfaff Color Design, Brookline, MA, 617 935 1250. **Windows and doors:** Andersen Corporation, Bayport, MN, 800-426 4261, andersenwindows.com. **Exterior paint:** Behr Paint, Santa Ana, CA, 714 545-7101, behr.com. **Garage doors:** Clopay Building Products, Mason, OH, 800 225 6729, clopaydoor.com. **Foam insulation:** Icynene, Mississauga, Ontario, Canada, 905 363 4040. **Engineered stone counters:** CaesarStone, CaesarStone USA, Van Nuys, CA, 818 779 0999, caesarstoneus.com. **Marble & Granite:** Westwood, MA, 781-407-9560, marbleandgranite.com. **Teak island top:** Grothouse Lumber & Fine Carpentry, Germansville, PA, 877 268-5412, glumber.com. **Cabinets:** The Kitchen Living Collection, Acorn Kitchens, Kitchener, Ontario, Canada, 519-748 5110, acornkitchens.com. **Appliances:** Miele, Princeton, NJ, 800-346-4353, mieleusa.com. **Disposer and instant hot water:** InSinkErator, Racine, WI, 800-558 5700, insinkerator.com. **Window treatments:** Great Windows, Jessup, MD, 800 556 6632, greatwindows.com. **Upholstery:** Duralee Fabrics, Bay Shore, NY, 800 275-3872, duralee.com. **Flooring:** Lumber Liquidators Inc., lumberliquidators.com. **Home entertainment system:** Lifestyle 48 Series IV, Bose Corp., Framingham, MA, 800-999 2673, bose.com. **Stains and finishes:** Minwax, Upper Saddle River, NJ, 800 523-9299, minwax.com. **Tile:** Tile Showcase, Watertown, MA, 617-926 1100, tileshowcase.com. **Bathroom vent fans:** Panasonic Ventilation Fans, Secaucus, NJ, 800-405-0652, panasonic.com. **Radiant heat:** Uponor Radiant Heating and Plumbing Systems, Apple Valley, MN, 800-321 4739, uponor-usa.com. **Engineered lumber:** iLevel by Weyerhaeuser, Weyerhaeuser Company, Federal Way, WA, 800-982-4750, ilevel.com. **Cement and concrete products:** Quikrete, Atlanta, GA, 800 282 5828, quickrete.com. **Exterior trim:** Western Red Cedar Lumber Association, Vancouver, BC, Canada, 866 778 9096, wrcla.org. To the Big Easy. **Architect:** Rick Fifield, AIA, New Orleans, LA, 504-949 3309



WORKSHOP

Ask This Old House (pp. 115–117)

Exterior Hot Water Faucet. **Outdoor Sill Faucet:** Moen bib model HC200508, Moen Inc., North Olmsted, OH, moen.com. Countertop Separation. Color Rite colored caulk, Color Rite Inc., Yukon, OK, 405-354-3644, colorriteinc.com. Clarifying a Home Inspection. American Society of Home Inspectors Inc., Des Plaines, IL, 800 743-2744, ashi.org

Skill Building (p. 119)

Painting Double Hungs From the Outside. *Thanks to* John W. Dee, John W. Dee Painting & Decorating, Concord, MA, 978 369 8897, johndeepainting.com. How to Patch a Concrete Floor. *Thanks to* Terry Collins of the Portland Cement Association, Skokie, IL, 847-966-6200, cement.org.

Norm's Notebook (p. 121)

Speed squares: Swanson Tool Co. Inc., Frankfort, IL, 815-469-9453, swansontoolco.com

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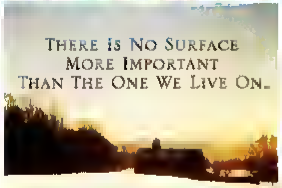

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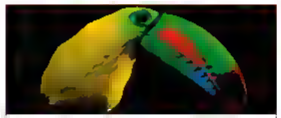

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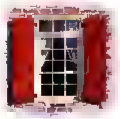

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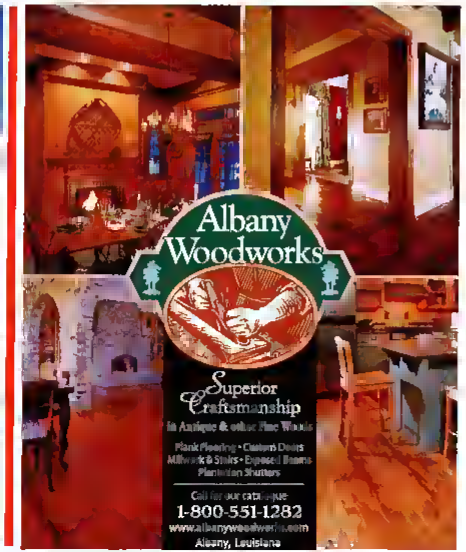

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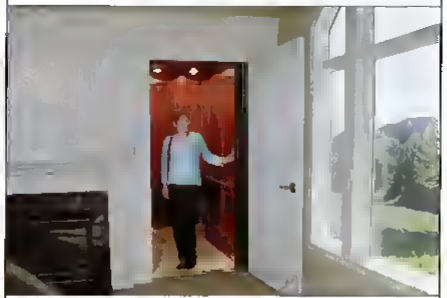

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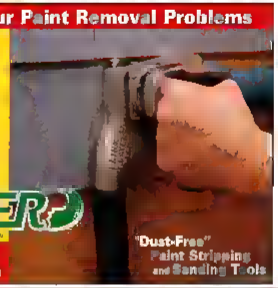

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PROJECT > **Building a Fort**

How to make a versatile backyard play area, with instructions for parents and kids

By **Chrystie Fiedler** Photographs by **Wendell T. Webber**

AGE RANGE > 6 to 12
COST > $175
TIME > 3 hours
DIFFICULTY > Fairly easy. The assembly is basic, but carrying fencing requires two adults.

COMPLETE INSTRUCTIONS INSIDE →

A BACKYARD FORT is the perfect place to let kids' imaginations run wild. They can create a magical world of knights and dragons or pirates and buried treasure—whatever they fancy. The design of this fort encourages the fun, with a super-cool kid-sized hatch—complete with a peephole to check out visitors—and a flag that kids can design and make themselves.

This is a great DIY project for families. While parents will need to do most of the heavy lifting, kids can help out by measuring, drilling, and holding pieces in place. Most of the tools are probably in your workshop, and the materials you'll need can be found at your local home center and crafts store. Set up a worktable with a pair of sawhorses and a piece of plywood in the backyard, and you're ready to get building!

SAFETY FIRST

It's important to teach kids good workshop habits from the start. Here are a few guidelines for the tools used in this project.

HAND TOOLS
Older kids can use a handsaw, as long as they work slowly. A Japanese-style pull saw will give them the most control, but be careful—they're very sharp.

POWER TOOLS
A jigsaw is better left in adult hands, but kids can use the drill/driver if it's not too heavy for them to hold.

GEAR
Keep sleeves (and fingers) away from blades and drill bits. Whenever the jigsaw is on, safety goggles are a must.

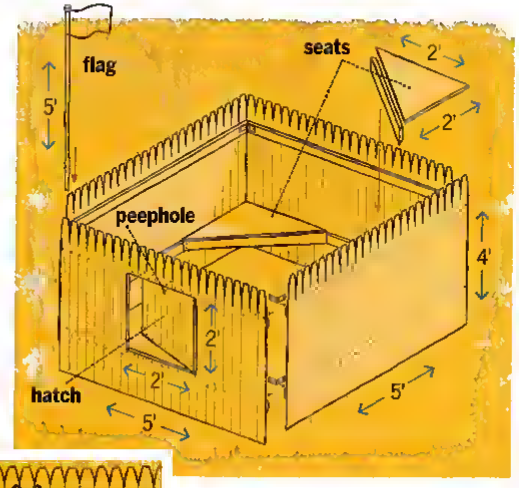
Project design by **Edward Potokar**

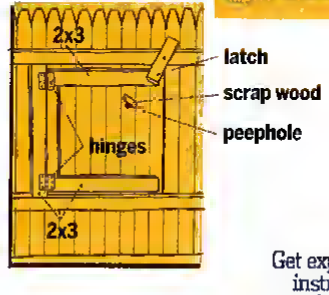
1

Cut the sides

> Measure out approximately 5 feet on a section of stockade fence, and find the nearest space between two pickets. Using a jigsaw, cut through the two brace pieces on the back of the fence at this space. Cut all four sides in this manner.

> Stand the 5-foot section up and, using a Speed square, mark out a 45-degree miter at either end of each brace piece. Cut these miters with a handsaw.



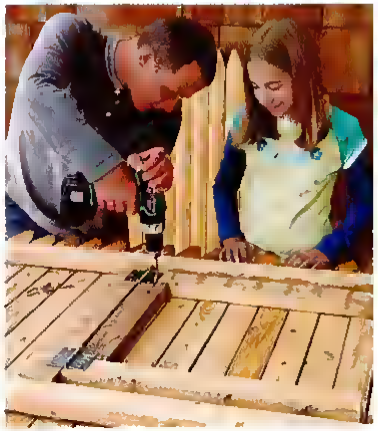


MAKE IT EASY
Get expanded step-by-step instructions for this and other family projects at thisoldhouse.com/family

TOOLS YOU'LL NEED>
- Tape measure
- Jigsaw
- Speed square
- Handsaw
- Drill/driver with 7/8-inch and 1-inch drill bits
- Safety glasses
- Hacksaw

MATERIALS TO BUY>
- 4-foot-high stockade fencing (4 sections at least 5 feet long)
- Two 2x3s
- 2-foot-square section of 1/2-inch pressure-treated plywood
- 8 L-brackets (4 inches by 1 inch)
- 1 1/2-inch weather-resistant, self-tapping screws
- 4-inch weather-resistant, self-tapping screws
- 5 feet of 1/2-inch PVC pipe
- PVC pipe cap
- Two 3 1/2-inch door hinges
- Flag
- Wire

ILLUSTRATIONS CARL WIENS



TO PARENTS:
Before you bring the sides outside, brace the hatch shut with scrap wood screwed across the door edge so it can't hurt someone in transit.

2

Make the hatch

> Draw where you want a 2-foot-square hatch to go and drill small holes to mark its four corners.
> Measure between the brace pieces and cut a 2x3 to that length. Screw through the front of the fencing with 1½-inch screws to attach the 2x3 to the back, just beyond the hatch outline. Cut three 2x3 pieces to screw on, and make a frame inside the outline. Attach hinges between the frame and the longer 2x3.
> Lay the fencing down faceup. Cut open the hatch along the outline with a jigsaw.
> Drill a 1-inch peephole. Cover it on the inside with a wood scrap that swings on a screw. Make a latch from a 2x3 block and swing it from the brace above.

3

Assemble the sides

> Bring two fencing sections together and line up the mitered corners. Hold the corners together by screwing on L-brackets where the top and bottom brace pieces meet. Assemble all the corners in this way until you have a square.

HEY KIDS!
Let an adult screw the brackets on—but you can help by holding the fence sections in place.

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HEY KIDS!
Practice your handsaw skills by cutting the miters on the 2x3 that goes under the seat. Start slowly until the saw's teeth bite, then use long, steady strokes.

4 Make the seats

> Cut a 2-foot-square piece of pressure-treated plywood in half diagonally to make two triangular seats. Screw them with 1½-inch screws to the bottom brace pieces at each of the back corners.
> Measure the front, diagonal edge of the seat and cut a 2x3 to this length, mitering the ends at a 45-degree angle. Screw this piece between the fence braces with 4-inch screws, then attach the seat to it with 1½-inch screws.

5 Hoist the flag

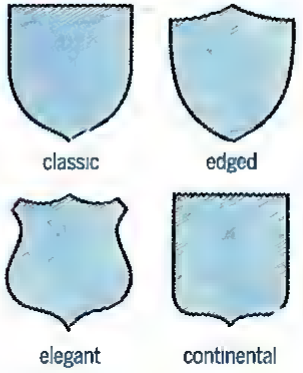
> Using a hacksaw, cut a 5-foot section of PVC pipe. Thread thin wire through the left edge of your flag and drop the wire at the top corner into the end of the pipe. Use a pipe cap to hold it in place. Wrap the bottom wire around the pipe.
> Drill a ⅞-inch hole through the top brace in a front corner and another halfway through the bottom brace directly below it. Slide the flagpole through the top hole to rest in the bottom hole. Now you're ready to man (or woman) your fort!

ONLINE BONUS Watch a video of building this fort—along with other family projects—at thisoldhouse.com/family

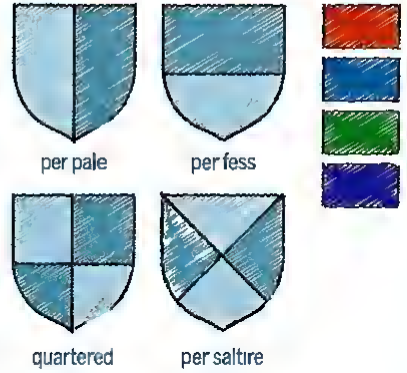
Create Your Own Shield

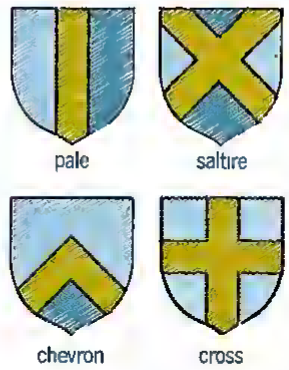
When it comes time to mark your territory, design a flag that'll show your enemies who's in charge. You can download a pattern for the Jolly Roger shown on our fort at thisoldhouse.com/family. But why not make your own noble shield design with felt glued on fabric? Here's how to do it.

1. Pick a SHAPE Shields come in lots of traditional shapes, and they all have special names.

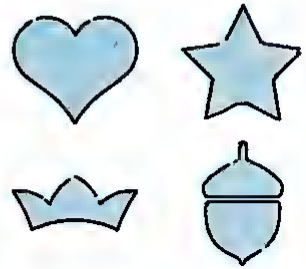


2. Design the FIELD You can pick a color, called a "tincture," and divide the field into sections. What's your favorite color?





3. Decide if you want an ORDINARY Ordinaries are one type of "charge"—the decoration that goes on the field. They are simple geometric shapes, such as stripes or crosses, that go all the way to the edge of the shield.



4. Choose SUBORDINARIES Subordinaries are another type of charge—symbols that are used to represent a family or tribe. You can put different ones in different sections of the shield. How about a heart, a dog, or a star?

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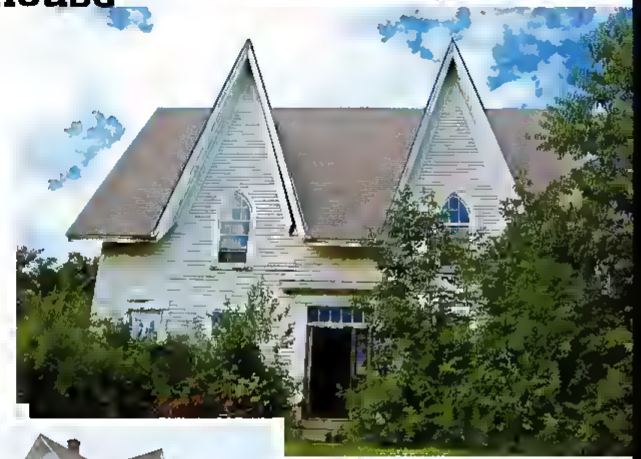
THIS WHITE CLAPBOARD HOUSE located at the junction of three interstates in Weare, New Hampshire holds a special place in Betty Straw's heart. The same goes for a lot of people in town. While Straw was growing up there during the 1930s, the house belonged to Arthur and Hazel Eastman, who owned the adjacent general store. Straw has fond memories of shopping with her parents at what was the Wal-Mart of its day in these parts. "There were gas pumps outside, and boots, jackets, meats, groceries, and just about everything else for sale inside," she recalls.

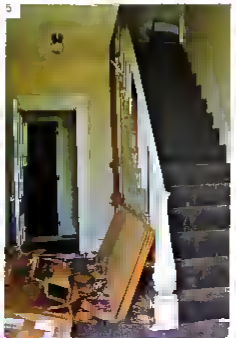
The Gothic Revival's steep triangular dormers always made a strong impression on her, too. "There sure weren't too many other houses in town that looked like that," she says. The oldest part of the house, the rear ell, was constructed around 1766. About a hundred years later, the front addition was built, giving the house its distinctive character. The Eastmans remained in the house until 1956, when another family moved in and took over the store.

The original store is long gone, and the spot it once occupied is now a lumberyard. The owner, Jerry Shinn, is looking to expand, and is hoping someone respectful of the house's history will be willing to move it. One thing's for sure: He wants the house to fall into the right hands, so he doesn't upset Betty Straw, a prominent member of the local historical society. "They just included an old photograph of the house in the society's annual calendar," Shinn says—a not-so-subtle reminder of how much this house means to Straw and this tiny New England town. —KEITH PANDOLFI

If you know of a house that should be saved and is currently for sale, write to This Old House, 135 West 50th Street, New York, NY 10020 or save1hisoldhouse@timeinc.com



[1] The house circa 1870. The original general store (in the foreground) burned down in 1876 but was quickly rebuilt. [2] The Gothic Revival's asphalt roof, with its steep triangular dormers, needs replacing. [3] A side view shows the house's deep eaves. At some point, the four-bedroom home was subdivided into apartments, but the second-floor kitchen could easily be converted back into a bedroom. [4] A look inside a dormer, with its pine-board sheathing. [5] Most of the house's windows, end doors are original, as are the front staircase's newel post and railing.



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