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4) **Kitchen Design**
Breaking down three tiny rooms to make one open family friendly kitchen.

Landscaping
Plant bulbs now for the easiest spring

Example

Old fashioned wood lookchairs are
available in a variety of styles and colors.

Soluzioni

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letter FROM THIS OLD HOUSE

Help Is On the Way

IT IS THE QUESTION WE REWARDED some editors here at *The Old House*. Do you know a good contractor? Carpenter? Kitchen and bath designer? Please share feedback, the services, click inside, and send me anyone who covers tools or a topic essential to work each day.

The search isn't just an issue for TOW readers (and writers), either. Sometimes, it's an issue for TOW editors. Like me. In last month's letter, I wrote about the kitchen remodel I hoped to start. I could do it again this month because I'm right in that same place, hoping to start. Thus, out, I needed to ask someone if they knew a good kitchen designer or contractor, too.

I guess that makes all of us lucky that TOW executive editor Laura Goldstein, our project editor Janet Carpenter, and a team of researchers and writers have spent the last three months searching out the answers to your questions for our cover package, "Best Building Pros in America." One half billion professionals and tradespeople we consider to be among the best in the nation. These are folks of equal status to be sure, and next year we'll feature some of them as what we'll become our annual "Covered." Moreover, that of these men and women of exceptional quality in the marketplace in the TOW Hall of Building Pro Fame.

And when we all can't be solitary as to have a Best Building Pro working down the street, the other half of the package is devoted to living advice—where you can expect from a blue-collar firm, how to find folks who are tops in their trade, what our own TV crew look for when they hire, plus a pleasurable way to get money you find up hiring pros every bit as good as the ones in our story. And when you do, drop us a line—maybe you and your project will be the reason they're in these pages next year.

We hope you'll find this package useful. I do. I've already rekindled my list of kitchen needs, which had basically come down to a very large hammer. I've got the names of a few good men and women, designers and GCs I'll be interviewing in the weeks ahead. Moreover, I'm working up a list of questions that'll help me sort out their skills and experience, and what they might be like to work with. After all, you can't get for an remodel without the help of some pros who bring the right tools to the job.


SCOTT O'MALLEY
STAFFER



BEST BUILDING PROS CREW
TOP: Art director Helen Myrland, executive editor Laura Goldstein, and editor Scott O'Malley choose photos for the issue.
ABOVE LEFT: Project researchers David O'Malley, Jeff, and Susan Myrland, right, lay out some of the hundreds of portfolios we received from across the country ABOUT RIGHT: Researcher Melissa Heston and Katherine O'Malley confer with project editor Janet Carpenter.

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contributors



DIY Science writer **Joseph T. DiGenese**, author of four pieces on combating germs and other little would-be homeowners ("Whose House Is It Anyway?" page 106) recently discovered several rat's nests under the floorboards of his lovely North Carolina home. Not dreading "the can-do-it-myself-to-be-damn-it-a-little exclusion work I'll have in the coming weeks," he says. DiGenese—who also writes for *Discover* and *Wired*—is finishing work now on a children's picture book on Antisense-natural pioneer Ribonuclease.



OK Photographer **Salim Sheriff** says he appreciates craftsmanship when he sees it, which leads him to a cramped rental range stove in small-town Georgia enjoyable—and makes his portraits of those oldwives an aesthetic treat ("The Work They Were Putting Into These Stoves" was fantastic," he says. "I know people put a lot of money into their kitchens, and it was just great to see something a lot more personal [than the average range]." London-born Sheriff, who works primarily as a travel photographer, also shoots for *EQ* and *Travel & Leisure*. He spends his next leisure time at his contemporary home in Sag Harbor, NY.



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Community Building

Tool lending libraries get the power (tools) to the people.

IN BERKELEY, CALIFORNIA, your library card can get you a new school on shopping carts, a house and for kids to sleep in. In Columbus, Ohio, a "toolmobile" makes a 13-stop circuit through the city. And in Portland, Oregon, Jason Henderson stands behind the counter of the North Portland Tool Library doing one, for instance, a person will show us how to use it to cut a bigger door out of a basemented door.

Portland, a handyman's dream, was with a punchout for power tools, co-founded the tool library last October in the basement of an old building. By providing home-improvement tips and everything from plumb bobs to table saws at no cost, the volunteers hope to fight urban blight and foster community pride. An added bonus: Tools never have to buy a tool they'll use only once a decade.

The North Portland Tool Library may be the worst of its kind, but it's based on a late '90s model that has spawned scores of lender programs around the country. Most are located in neighborhoods where money and/or access can't afford carpenters or home workshops. Some libraries live on grants or membership fees, others are run by city government, and almost all charge loaner fees, which go toward maintaining tools or purchasing new ones. "The for-profit model really actually appears as," says Berkeley tool librarian Adam Jensen. "They don't want our parent because they ask so many questions." —MARTIN PEREZ



At the Berkeley Tool Library, University Berkeley, California, employees helped bring the library to life. Adam Jensen (right) assembled a power tool for a member.

AND THEN THERE'S...



TRY BEFORE YOU BUY The most commonly rented equipment from Tool Library is a 1,000-watt, double-throw Taylor Radical, Junior, and Grand Radical Station, a portable power generator.



SIMPSON SYNDROME Among the tools Homer Simpson has borrowed from Ned Flanders—and never returned—are a power sander, a crowbar, and concrete formers.



THE 100 DIO Believe it or not, you only need to be 18 with a valid driver's license to rent a 100-watt DeWalt sander. Some rental shops also require a training course. (You'll credit card number as a deposit on the \$30,000 special.)



TIP

FLUSH OUT THE FAUCET

After you've installed a new faucet, TOH plumbing and heating expert Richard Treftheway suggests unscrewing the aerator (pictured) and letting the water run straight through the nozzle for about 30 seconds before filling that first glass of water. If left in place, any debris inside the pipes will get stuck in the aerator's screen and cause you to lose water pressure or create irregular spray patterns. Not to mention the gross-out factor of your water being filtered through bits of flux-coated solder.



Which Wood and Why?

Use this new book to learn about lumber before you buy



The Real Wood Bible: The Complete Illustrated Guide to Choosing and Using 100 Common Woods
by Richard Treftheway
Visit tohbible.com for details.

YOU MAY NEVER SEE two desktops both from *beings*, but you could with *The Real Wood Bible*, a new desk reference for woodworkers. It's the book you'd expect from a guy who made his first tool business sale, an *Alfred* encyclopedia. Nick Galis devotes over 300 pages to the lumber (basswood, poplar, Douglas fir) and the exotic (jacaranda, kingwood). The text entry describes a wood's appearance, its availability and how well it mills, takes an edge, and accepts a finish. Boards are photographed, actual size and shown varnished and oiled sections side by side. The 29-page introduction also offers a treasury of practical information about buying wood and understanding its behavior. Charts list the shrinkage rates of common woods and the ideal moisture content for specific jobs. There are even tips for storing lumber, such as color coding the ends with latex paint. We like that. —MARTIN

Q & A

Q It's not easy unscrewing leaves down the lower when the teeth on your rake are as broken as a hammer. If it were the Chester Greenwood, the inventor from Farmington, Maine, who designed the rake teeth (also called flares) but of metal instead of wood, every tooth's good might look like a new one. Greenwood, whose 130 patents also include "chisel" and "grind" saw teeth and a book for pulling logs from all, correctly figured that the metal tip of a wooden end, spread out and flattened by a knife-shaped clamp, would be stronger and longer-lasting.

To what year did Greenwood's rake teeth way of making pay off?

A: 1898 X: 1898 Q: 1898 Q: 1898

(Number 2 sign, Answer page 10 for the answer)



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AD





Flintstone himself says coffee is one of his favorite foods. "I love coffee and I love meat and I wouldn't be the least bit picky," says Mr. Goble, a contractor in a 1950s Ruston. Goble's shop always has pointers to a curious relic in the wall of a hunting blind: a pair of point-blank-soldier-style coffee and a pair of coffee cups. "It was called 'wooden-plank pointers' to signify the soldier's long hours without changing the coffee or burning the coffee on," in the process leaving how still the staff really was. Coffee can be found in Queen Anne's, Baltimore and Essex, Solon, and Collier's. In fact, the world was one of the most famous coffee makers—by dipping a stick in the full of fresh out-brewed coffee for instance.

A NEW HAND-POWERED FIREWOOD SPLITTER IS SAFE, EASY AND DOESN'T GET TIREDSOME.

Wood chopping can now be added to Junior's or perhaps even Granny's list of chores, no sawing required. Craftsman's manual log splitter is silent, safe, and uses no fuel other than the Wheabys you ate for breakfast to make kindler out of logs up to 18 inches long and 12 inches in diameter. Just pump the handles and a 30-ton jack splits the wood around a steel wedge.

Detachable handles clip on the sides, and the steel splitter is lifted and pushed on its base like a handcart. For longer trips out to the woods, tow it from the back of the riding mower. Attach a cart to the splitter's hitch plate, and haul an afternoon's worth of firewood back to the homestead. —*LAUREN PRITCHARD*

Confession: The Behind the Scenes Splitter is available at Sears for \$2.99. For more information, see confession.com.



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DISCOVERIES

Weathered Work of Art

Sometimes the rarest finds are in plain sight

WHEN ROBERT AND ANITA LEEY STUCHER first saw new wallpaper peeling away from the plaster, remnants of rolling hills and houses in Brunswick, was they and sons. What they later discovered was a hand-painted woodblock print so rare that the only other one of its kind in the United States adorns a former president's mansion.

The wallpaper was hung some 170 years ago in the grand entry hall of the circa-1805 Georgian-style house the Taylors purchased in Old Fields, West Virginia, in August 2000. It was one of the features that initially attracted them to the house. "My thought at the time was, 'Gee, it's going, but it's so decayed. We'll have to take it down,'" says Kathleen.

It wasn't until the couple started researching the wallpaper's origin that they learned how important an revelation was not only to the house but to the continent's architectural heritage.

Called "Paysage à Chevet," or "The Great House," the scenic wallpaper was hand painted in 1831 by artist Jean-Jules Dehl on 1,212 pearwood blocks for the French wallpaper maker Zuber et Cie. The Taylors' 142-color panorama is one of two from the first-estate printing, which is common in the United States. The other is at Loudswald, President Martin Van Buren's home in Kinderhook, New York.

The last design is still produced by Zuber et Cie in the company's original factory in Rixheim, France, though some of the fine detail in the original wood blocks has been lost. The blocks themselves are so valuable that the French government has given them protected status as historic national treasures.

The Taylors' wallpaper initially covered the wall from chair rail to ceiling with 52 scenic panels. But the upper skyline portions were removed in the late 1940s due to water damage. Four panels that once graced the back of the hallway are also missing.

Aided by grants of \$14,000 from state agencies, the Taylors hired Edinburg Conservation Services, not of Greensboro, North Carolina, which last year removed, restored, and rehung the paper piece by piece.

The couple hopes that future homeowners will one day recognize the scenic wallpaper. "It is truly part of the building's history and a fine cultural addition to the area," says Kathleen. "It was part of their early on, and as you could imagine, it was an elegant European touch to what was then the wild west." —DEBBIE GILES

To learn more, visit www.stuchers.com. Top 300 best design firms, 2010. www.enr.com, 2010. Photo by [unreadable]



TOP The wallpaper before it was removed for restoration. **ABOVE LEFT** Missing not missing fragments on a other wallpaper covering. **ABOVE RIGHT** Conservation Service. **Bottom** The Taylors' wallpaper. **Bottom** The Taylors' wallpaper. **Bottom** The Taylors' wallpaper. **Bottom** The Taylors' wallpaper.



PHOTO: TAYLOR AND ANITA LEEY STUCHER

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Inspired by exposed beams in the dining room, the homeowners removed the plaster ceiling in the kitchen and dining room, (left) and met the second very pretty "wall-to-wall" with living under it down it. To display the new head, they built behind a glass shelf and a wooden head with a glass shelf.



The Plan

33-Convert the first floor of an 18th-century house into an open, family-friendly kitchen.

What They Did

1) **COMBINED THREE ROOMS INTO ONE.** To enlarge the 10 by 14-foot kitchen (the homeowners removed the dining and living room walls) to create one 20 by 20-foot space. A structural post was added near the center of the room and reapped with salvaged wood to hold up the exposed ceiling beams.

2) **ESTABLISHED COOKING AND EATING ZONES.** To help define the work areas, the open-plan kitchen, a partial wall was constructed next to the range. The island, two-level butcher block, provides a clear meal prep area while its wide granite-topped exposed double-island counter space for casual dining. An additional prep sink just steps from both the range and the fridge is handy for washing vegetables.

3) **DESIGNATED LOUNGING AND SNACK PREP AREA.** The first floor, the kitchen's kitchenette. The new layout has a new bar serving drinks and snacks.

4) **ADDED COUNTER SPACE AND BUILT-OUT STORAGE.** The 10-inch-high soapstone countertop runs right up to the windows, doubling the building's. Every inch of counter-top—including the 10-foot-long island—was clad with dark cabinets.

"The new floor plan has changed the whole focus of the house. Now everyone is in the kitchen, including the kids."

—PAUL BERNARD, HOMEOWNER

BEFORE The existing kitchen was closed off from the living and dining room. After the walls were removed to create an open-plan space, a new island was added.



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The Details

10 A mix of materials and finishes gives a new room old-fashioned character.

1 **NARROW CABINET COLORS** from Quality Custom Cabinetry faded over wood, granite and soapstone counters make the kitchen look like it was added on over time. The island's cherry cabinets were painted sapwood and black and heavily distressed—especially around drawer pulls. Other cabinets were stained mahogany.

2 **THE NET BAR**, with handy access to the coffee maker and the wine cooler on either side of the bar, sits double as the bar, breakfast bar and a second fridge attached to a child-height microwave. "I wanted to keep them out of the main cooking zone," says homeowner Ellen Mitnick.

3 **THE SOAPSTONE SINK** was ordered deeper (36 inches) and wider (2 feet) than anything the Mitnicks saw in the Bucks County Soapstone showroom. It was also designed with a built-in front and built-in drainage grooves. "We wanted it to be more of a home, though than a wedding pool," says Paul.

4 **THE BARRA-BLUE GRANITE** on the wide part of the island was the lightest, said the homeowners could get 60 by 90 inches. The island is built to peek out with storage—including built-in trash cabinets under the seating counters.



"The homeowners wanted to gain storage everywhere, even in places with inconvenient access, like the kneehole under the island."

—JIM MITCHELL, KITCHEN DESIGNER

For more kitchen design:
www.buckscountysap.com/kitchen



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LANDSCAPING



TIP

How to Dig the Best Bulbs

Look for sites that are empty, firm, and moist. Then, dig a hole that's 6 inches deep and 6 inches wide. Then, dig a hole that's 6 inches deep and 6 inches wide. Then, dig a hole that's 6 inches deep and 6 inches wide.

Plant Now, Enjoy Later

>> Put bulbs in the ground this fall for effortless spring color

BY ASHLEY WINKLE PHOTOGRAPHY BY ADAM WILDER

THE BEAUTY OF SPRING BULBS isn't just in the flowers that bloom. They're also about the secret load of garden jobs you can grow. Dig a hole, sprinkle in some fertilizer, put them in the ground now (and up until early December in warm Southern climates), and pretty much forget about them. They'll start multiplying roots in fall's cool, moist soil, then be dormant over the winter until spring's warmer temperatures and frequent rains prompt them to sprout.

Crocus, daffodils, and lily bulbs are favorites for spring color, with dozens of varieties that will come back year after year. (If you don't cut back the fading foliage they tend to suffer after they've bloomed.) Their multiplying bulbs will even multiply and spread as time goes by.

Tulips are another classic, but don't rely on them as reliably. "I tend to skip like crocuses and opt for the daffodils," says Roger Cook, The Old House landscape contractor. They're also a favorite of hummingbirds. "Doves, robins, and squirrels love tulip bulbs like crocus," says Rogers. "If you've got a creative garden, stick to daffodils." Read on for his foolproof planting tips and a customer trick that'll yield weeks of color.

Planting How-tos

Three simple steps to success

THERE ARE A NUMBER of ways to work bulbs plant in your yard. Close up to ball a dozen of them in a large hole to add a colorful push-and flower bulb and dash borders, place them in rows where space is tight, or in the bed of a tree for a flower-lined focal point, or, if your yard borders woodland, scatter them and place them where they'll fall for a naturalistic drift of color. If you're going to sow or scatter plants, here's a tip: "I always plant doubles," says Roger Clark. "That way, you get more foliage and flowers for your digging efforts."

Choose varieties that bloom at different times during the season, and you can extend your spring flowering garden for several weeks.

When you're ready to break ground, grab a shovel (or a spade shovel) whose soil is very compacted, a 10-18-10 fertilizer, and some bags of bulbs, then follow the steps to right:



1. PREPARE THE HOLE To plant a cluster of 3 to 5 identical bulbs (about 6 to 8 inches apart), dig a hole about 7 inches deep and 4 to 6 inches wide (for bulbs dig down about 10 inches and leaving space below, about 2 inches).



2. PLACE BULBS Put bulbs in the prepared hole about 4 inches apart, sitting up and root end down. Then cover with soil and water once for each three.

For more details, visit thehouse.com/landscaping

How deep to dig?
Follow this formula:
Height of bulb in inches x 2.5 =
depth of hole



"Sandwich" Bulbs for Six Weeks of Blooms

Follow this container recipe for continuous spring color

Want to brighten up a deck or patio? Break a container and plant layers of bulbs that will give you three weeks of color when spring arrives. Choose bulb varieties that flower a few weeks apart: early, such as crocus, tulips, and daffodils, which will bloom in late October up to six weeks. To fill a container that's 12 inches in diameter and 12 to 18 inches deep, you want about 15 crocus, 7 tulips, and 10 daffodils. First, add a 1-inch layer of potting soil to the bottom of the container (make sure there's drainage holes in it or use one). Add 1/2 inch of potting soil, and mix in 1/2 inch of perlite (10-10-10 fertilizer). Place the tulip bulbs with their flat, notched end up and pointed end up, making sure the sides are touching. Add another 1-inch layer of potting soil, covering the bulb's top. Place the crocus bulbs as they sit staggered over the tulip bulbs and directly pointing up. Cover without repotting without bulbs. Cover the "sandwich" bulbs with 1 to 2 inches of mulch and water thoroughly. They will bloom throughout the fall. The tulip container winter over for an unheated porch or patio; daffodils will stay cold winter (just keep watering) and emerge the first month to appear.



1. GET THE CHOICE Choose several varieties of the early-spring crocus flowers in shades of lavender and purple; grows up to 10 inches tall.



2. ADD CHOICE TO THE MIX Add tulips (Red Emperor) with large, double flowers with large, double flowers with a black eye; grows up to 20 inches tall.



3. ADD CHOICE TO THE MIX Add daffodils (Yellow Emperor) with large, double flowers with a black eye; grows up to 20 inches tall.

THE L.L.BEAN GUIDE TO FALL JG 25

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Treasured Chests

» An old-fashioned wood toolchest keeps things organized as it connects you to craftsmen of the past

BY E. J. HANSEN PHOTOGRAPHY BY LISA BRANDES WILSON

TOOLS ARE WHY WE'RE ABLE TO DO what we do. But from the way we store them, you wouldn't know they're so important. A plane, sandline—disregard egg, paint, flask, oil, and oh-to-be-here—is usually the best we can muster.

It wasn't always that way. From the American Revolution through the Industrial Revolution, toolboxes were works of art, built by cabinetmakers to demonstrate the owner's mastery of his craft. These proud chests are a wealth of clever design. On some, front panels flip up to reveal hidden drawers. Occasionally, the weight of the lid triggers a pin that holds the front in place. In this old metal chest, pop-up, flip-lid compartments keep nails and clamps and planes and punches in their proper places.

A century ago, there were a dozen compartments in each box. Today, only a few remain between boxes. But the compartments, which are revered by collectors, have shed well-gained character with every nail and screw. Whether you pick up an old one—like the one shown here, which came “flashed up complete with tools of war and oil painting”—or buy one brand new, you'll get satisfaction in space.

CONTINUING THE

This 19th-century tool chest is a masterpiece of craftsmanship. It's a work of art, a treasure of the past. It's a work of art, a treasure of the past. It's a work of art, a treasure of the past.

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SALVAGE



The most common salvage glass knobs were removed into models and have recently flat brass and barbed wire.

A Clear Choice for Knobs

How to use vintage glass knobs to give interior doors a classic look.

BY ARY & HUGHES PHOTOGRAPHY BY WYATT INGERSOLL

Matching sets of old glass knobs are hard to find in quantity. But you can use a variety of styles throughout your house to create a custom look—and give even the plainest doors some distinction.

THESE WERE ONCE A TIME—6000 TO 8000 YEARS AGO—when multi-paned glass doors with rounded brass knobs were installed across new homes. Today, they are used for doors in antique shops and flea markets. Unlike the fine "Builder's Special" models now sold at the corner hardware store, plus knobs from the first half of the 20th century were made to last, mounted in steel or brass shells, as opposed to the first in metal alloy and plastic. They were made, says David Kiesel, president of the Antique Door Knob Collectors of America. Their enduring usefulness and design—and their ability to work with most modern locksets—have earned them professional status among owners of old and new houses alike.

EMBLEMS OF WARTIME SHORTAGES

Glass door knobs date back to 1826, when the porcelain pressing method glass into molds was invented, but they didn't become ubiquitous until after the United States entered World War II, in 1917. Car brass, brass, and steel door knobs, which



Door Essentials

Old glass knobs like the 12-sided one shown here (1) are no longer working, but the rest of which are hard to find. Glass knobs can you get a complete set, bringing in for long when you're looking to buy.

1. **BRASS** The most popular kind would be brass, and you can find the best for sale in the specialty.

2. **BRASS** The most popular kind would be brass, and you can find the best for sale in the specialty.

3. **BRASS** The most popular kind would be brass, and you can find the best for sale in the specialty.

4. **BRASS** The most popular kind would be brass, and you can find the best for sale in the specialty.

5. **BRASS** The most popular kind would be brass, and you can find the best for sale in the specialty.

6. **BRASS** The most popular kind would be brass, and you can find the best for sale in the specialty.

7. **BRASS** The most popular kind would be brass, and you can find the best for sale in the specialty.

8. **BRASS** The most popular kind would be brass, and you can find the best for sale in the specialty.

had dominated the hardware market since the beginning of the Victorian era. In 1860, when its supply became much more limited for repairs and maintenance. "There were still plenty of good old doors to make glass with," says Kroll. And by 1900, the biggest hardware makers, including White's, Brown, and Brown's Lock Co. of Illinois, were mass-producing doorbells of molded glass, a combination of molded and machine-cut glass, and cut crystal to suit various house styles, wall-to-wall, and more.

During that era, most glass knobs were clear and featured six, eight, or 12 facets. These facets were flat so you could see inside to see the keyhole, and the glass knobs could be made in a variety of colors. Less common were colored glass knobs in colors like egg and shell, blue, green, amber, violet, white, and Venetian glass (which got its yellow-green color from adding small amounts of uranium to the melt). Shapes also varied, from oval to hexagonal and patterned glass knobs with tiny bubbles inside—a popular 1900s Art Deco style that works well with modern interiors today.

The use of glass knobs continued through the '40s, but by the '50s most bathrooms and hardware had changed, and Americans began favoring chrome modernism in metal. Before long, designers were crafting down-to-earth chrome knobs with unfussy, no-frills designs.

WHERE TO FIND THEM

Today, salvaged glass doorbells are easy to find. But there are important points about fit, style, and construction to consider before buying.

If you're looking to replace a single knob in a set, always bring along the rest, since there are more than 100 glass-knob patterns to choose from. You'll also want to bring the spindle (see Know Your Door Hardware, left). Doorbells manufactured after 1980 have threads inside their shanks that fit square, threaded spindles. Glass knobs made before the turn of the century were typically mounted on unthreaded spindles with holes in either end. In both cases, the knobs are secured

for installation with a screwdriver.



Carved glass knobs like this one (1) are no longer working, but the rest of which are hard to find. Glass knobs can you get a complete set, bringing in for long when you're looking to buy.

to the rods with small screws. Be sure to fit the spindle to the knob before you buy because threads and screw sizes can vary widely.

For pairs of knobs, you'll want to measure the door's thickness and compare it with the span between the knobs to ensure a snug fit. Though spindles are rarely too short, threaded ones are sometimes too long and may require cutting down with a hacksaw. Avoid pairs that are missing their spindles or screws. And be wary of knobs that turn inside their metal shells, which can be fixed. "If you get a spindly, it's worthless as a functional knob," says Kroll, who has tried to men to cover the knobs with glass epoxy. "It works for awhile but it always comes loose again."

Prior to vintage glass knobs vary widely, depending on condition, rarity, style, and color. For the most common, 12-sided molded glass knobs, expect to pay between \$30 and \$50 a pair. Sets of six or eight-sided knobs cost between \$40 and \$100, while a pair of carved glass knobs can go for as much as \$300. More valuable are red, amber, and Venetian glass knobs. Such fine knobs were used in entrances to the mansions in formal areas, such as parlors and dining rooms, where homeowners entertained guests.

Today, hardware stores carry glass knobs in sets as little as \$10 a pair, but the materials and craftsmanship are far inferior to their vintage counterparts. "The old glass knobs were hand-cut and hand-blown," says Kroll of looking for them by eye and ear. "And when you hold it in your hand, it just feels better." ■



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TOOLBOX



Mud Slingers

» After the drywall goes up, these taping and smoothing tools get busy

BY HARRY SHAWLERS PHOTOGRAPHS BY JOHN LANTIER

BENJAMIN FRANKLIN introduced gypsum to the United States in 1783, having seen what he called "plaster of Paris" used as a wall finish during his visits to France. But it wasn't until more than a century later that Augustus Sackett figured out how to sandwich it between sheets of paper, creating the material we know today as drywall. Whether you call it gypsum board, wallboard, Sheetrock, or simply "mud," you're probably surrounded by it right now—as you are the walls of nearly every new building in the country.

Taping drywall isn't a mean experience, not to mention a whole lot of work. But preparing a flat joint—taping the seams and creating a smooth, undetectable surface with no visible joints, cracks, or screw dimples—takes patience, focus, and the right tools. Like these drywall mudders. These broad, flat-bottomed, tapered tools are built from 4 inches to more than a foot, spread joint compound (aka "mud") over the seams between sheets of new drywall, leaving a perfectly smooth.

The process begins with a helpful adhesion coat or subsequent applications of mud to a harder-dried skin coat. It's messy work. See what some pros, and a few of the helpful gaffers on the following pages, even a beginner can become a mud master.

SCOPING AND SELECTION
A professional plasterer's hand rests on the mud, which just built leaders up the vertical seams. The tool is held like an artist's mallet: a polished handle helps make a range of swirling, more consistent finish, part 1011, \$35, goodsheds.com, 800-524-4694.





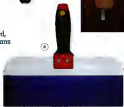
INITIAL COATS

x 4-TO 6-INCH BLADES

A 4- to 6-inch joint knife applies the first coat of compound and helps load each or paper tape over the seams. These small joint blades also come in handy for chipping off other tools. Look for aluminum or stainless blades and a sealed wood or reinforced plastic handle for moisture resistance and easy cleanup. **3** 4-inch joint knife with brass-plated handle and for setting metal joints. \$2, hardware.com **2** 6-inch joint knife with stainless handle. \$3, gonvaltools.com

To cover the walls of an average-size American house, you would need about 8,000 square feet of wallboard, 4,000 feet of tape, 40 gallons of mud, and 10,000 screws.

ONLY YOUR TOOL Improves mud-smoothing technique. *Working*, p. 32



FINAL COATS

x 8-TO 12-INCH BLADES



Wider tapes follow "false cut" the seams and flatten the edges of the final coats of compound that require flat walls. You can use progressively wider knives 18 inches, then 20 or 22 inches for the second and third coats. With practice, you can use a 20 inch knife for both coats. Make Some Should have flat plates, which push more mud outward but can leave "feet" if not cleaned carefully. **3** 18 inch tape knife with ergonomic rubber handle. \$3, gonvaltools.com **4** 20 inch tape knife with soft grip handle. \$3, gonvaltools.com **5** 22 inch tape knife with ergonomic handle. \$4, gonvaltools.com **6** 12 inch tape knife with aluminum blade and wooden handle. \$2, gonvaltools.com

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CORNER TOOLS

"Rubber Glo" help smooths up corners when smoothing the final layer of mud.

Angled to 90-degrees, it squares to 90 when pressure is the corner. \$25, hydtools.com
 8) Outside corner tool. Properly for traditional plaster jobs where corner beads aren't used. Angled to 90 degrees, it flexes to 90 when smoothing the corner. \$24, murchelltool.com.

POINTING KNIVES

Sometimes called triangle and half-moon knives, these are great for detail work around windows, around arches, inside corners, and other tight places. \$1, Knight. \$10, \$16, murchelltool.com. hydtools.com



Which Joint Compound to Use

Compound comes in two basic varieties: taping-type and drying-type. Drying-type compound comes in powdered form and hardens quickly. It's best as a prep coat for patching holes, filling gaps, and leveling surfaces.

Gypsum-type compound is best for taping and finishing. It comes premixed in a bucket, and for most projects, the pre-mixed compound is all you need. It can also be applied in thin coats.

On both taping and drying-type compounds, before it can be sanded and the next coat applied. (It's best to mix it and use it within 24 hours.)

Sheetrock is a common brand name for all-purpose compound. It comes in white, blue, and green. The lighter the color, the faster it dries.



MUD HANDLERS

If you don't want mud of the joint compound to seal up in a heap on your shoes, it's a good idea to use a mud handler. It's a light and easy-to-use tool to handle the mud. Just make sure the joints are at least as wide as your brush. \$1, \$2 each, hydtools.com. \$1, \$2 each, hydtools.com. \$1, \$2 each, hydtools.com.



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BY C. J. HUGHES

WHEN IT CAME TIME FOR Senoo Lewis and Wendy Smith to replace the floors in their Edgewood-area home in the Portico Hill section of San Francisco, they struggled with the options. "It had to be beautiful," Lewis says, "but we also wanted to make sure we were conserving nature."

In the end, they chose EcoTimber's White Tigerwood, an amber-tinged hard wood from Bolivia. The 3-inch tongue-and-groove planks came from trees that had been grown without chemical pesticides or fertilizers and were selectively cut down one at a time, rather than clear-cut in any fellows. "The decision to buy eco-friendly wood was the socially responsible thing to do," Lewis says.

Lewis and Smith are part of a growing group of consumers who, when it comes to flooring, actually can be the force for the good. They're driving the market for "sustainable" products—those made from trees that have been raised and harvested with minimal damage to the environment.

Unlike homeowners of a few decades ago, who had fewer options when it came to saving trees, today's environmentally conscious consumers don't have to sacrifice for the look, feel, and durability of wood underfoot. In fact, sustainable flooring comes in all the popular species: white and red oak, cherry, maple, and hick, hickory,



For this feature in *Green House*, we visited a logging operation in the heart of the logging industry in the Pacific Northwest. The logging operation is a family-owned business, and the logging operation is a family-owned business.

How Green Is My Flooring

Options for the eco-minded remodeler

FSC-CERTIFIED HARDWOODS
Naturally followed from the forest to your floor, these certified and well-managed woods are the most environmentally sound.

1. Longleaf pine, Environmental Forest Center: \$3-\$4 per sq. ft., sustainable, low maintenance
2. Country Oak, EcoTimber: \$4-\$6 per sq. ft., sustainable
3. American cherry, Green Urban Lumber: \$5 per sq. ft., green, low maintenance
4. Central American teak, EcoTimber: \$5-\$7 per sq. ft.
5. Brazilian curatuba, EcoTimber: \$5-\$6 per sq. ft.

ENVIRONMENTAL ALTERNATIVES

- Recycled and salvaged timbers, plantation grown wood and renewable resources like bamboo, pine, and cork present all growth benefits.
6. Green pine (Santalum), South & West: \$5 per square foot, low maintenance
 7. Bamboo, EcoTimber: \$5 per sq. ft., sustainable, low maintenance
 8. Recycled hardwood, Vintage Log & Lumber: \$5 per sq. ft., sustainable
 9. Hybrid bamboo (Optima), Waterhouse: \$5 per sq. ft., sustainable
 10. Cork, EcoTimber: \$5 per sq. ft.

even exotic like oak, rosewood, and cypress. And it doesn't cost a fortune. For each wide, medium-grade American cherry that has been certified by the Forest Stewardship Council (FSC)—an international not-for-profit organization promoting responsible forest management—costs \$3 a square foot, the same as standard cherry.

To get the FSC's stamp of approval, forest operators must meet 57 criteria, including protection of local wildlife, minimal use of chemical pesticides, even the guarantee that loggers use no more than a 10-acre buffer zone around the forest. If a forest makes the grade, its wood products get labeled with the FSC logo and a "chain of custody" number, which allows them to be traced from the forest to your house.

Currently, there are 536 U.S. companies running over 1,000 FSC-certified forests, up from 20 when the program was founded a decade ago, and 4,800 sites nationally. While the flooring they produce adds up to a small share of the U.S. market, it's growing fast. EcoTimber, a supplier in San Rafael, California, whose clients include Pottery Barn and Nike, has seen an influx of FSC-certified wood double in the last three years. "Environmental concerns are starting to have a very real effect on the wood marketplace, and it's about time," says Dan Pharrington, EcoTimber's director of architectural sales and marketing.

More important, they're having an effect on the nation's forests. FSC-certified wood products blanket 15.3 million acres, up from a mere 1.4 million

in 1995. Interestingly, the numbers are even more compelling, with 131 million acres of FSC-approved forests covering the globe.

While the FSC stamp is the gold standard, it's not the only way to get on earth-friendly wood floors. Another option is reclaimed wood, such as palm harvested from fallen trees in coconut plantations, timbers salvaged from abandoned buildings, and logs pulled from the banks of rivers, where they wash on their way to the mill (though some environmentalists worry about water damage, on the grounds that it disrupts aquatic ecosystems that have been in place for decades).

Then there's "wood" that isn't wood at all, the bamboo, a grass whose lightning-quick seven-year growth cycle makes it a favorite of money-conscious homeowners, and the bark of the cork oak, which when properly harvested doesn't harm the tree. Even engineered flooring—wood layers joined with low-volatility glue and capped with a hardwood veneer—makes easier use of the entire tree, thus lessening the toll on the forest.

How do you know your flooring dollar is really going back to companies with sound environmental practices? Look for a label from the FSC or the Sustainable Forestry Initiative (SFI), a group founded by timber and paper companies that has advanced its own set of standards. Though less stringent than the FSC—it doesn't require a chain of custody, for example—the SFI promotes sustainability and wildlife protection.

Only about 10 percent of the typical retailer's stock is likely to be "green," so you may have to do some hunting (for a list of certified companies in your area, visit fsc.org). But you shouldn't have to look too far. "The availability of products is increasing along with consumer awareness," says Tina Deniche, program manager for the U.S. Green Building Council, which has made FSC certification a benchmark in its new Leadership in Energy and Environmental Design (LEED) guidelines for sustainable homes. "We've made a lot of progress." ■

For help choosing a design, visit EcoHome.com/bestof2005.

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Sears

ROCKFORD, ILL. (UPI)—A new Craftsman open-end wrench, designed with a built-in ratchet mechanism, is the first to be designed with a built-in ratchet mechanism, allowing you to tighten or loosen a nut or bolt with a single stroke.

The new Craftsman 17/16 open-end wrench is the first to be designed with a built-in ratchet mechanism, allowing you to tighten or loosen a nut or bolt with a single stroke.

The new Craftsman 17/16 open-end wrench is the first to be designed with a built-in ratchet mechanism, allowing you to tighten or loosen a nut or bolt with a single stroke.

CRAFTSMAN

UPKEEP



Making Windows Weathertight

➤ Don't replace those drafty old windows; tighten them up with new weatherstripping

BY JOHN GIERBOP PHOTOGRAPHY BY CARL TREMBLAY

This Old House host Kevin O'Connor weatherstrips his old wood-frame windows. When combined with a good storm window, this option is an effective and inexpensive way of stopping air infiltration.



WHEN KEVIN O'CONNOR, the host of *This Old House*, moved his 1894 Queen Anne, he never once considered replacing its original double-hung windows with modern ones. "It would kill me to put new windows in the house," he says. For one thing, the handcrafted sash and blow-glass panes would be costly to replace—so much so \$1,000 apiece—and substituting anything less would destroy much of the old place's charm.

Still, he was dismayed by how much air leaked in during the winter, even with outside storm windows in place.

To fix the problem, he needed a product that was both effective and unobtrusive. "I didn't want anything that would change the way the old windows look," he says. The solution: a simple weatherstripping kit that uses the same type of seal found in modern windows and is precut to fit.

For about \$40 and an hour's installation time per window, Kevin got the look-but-perform-as-of-a-new-unit while saving a valuable piece of his house's history, as well as dollars off his heating bill. "The wind is blowing outside," he says, "but the draft is gone." On the following pages, he shows how he did it.

TOOLS NEEDED

Utility
Sash-cutter kit
(Vinty-Vinty)
Squares or
locking pliers
Tape measure
Chisel (1½ in.)
Pencil
Blow gun
Hammer



Weatherstrip the Sash

4 | ROUT THE MEETING RAIL. Place the sash on a padded worktable with the exterior side facing up. Clamp the sash to its meeting rail perpendicular to the edge of the table. Remove the sashlock and set aside. Chuck the drill-bit right into the raster and set it to cut. Vandy the outer face. (Following procedure for bit routing depth.) Hold the router base firmly against the top edge of the meeting rail and cut a groove from left to right.

5 | ROUT THE BOTTOM RAIL. Grasp the sash inside it so its bottom rails, closed to you and overhanging the table, then vander. Hold the router close, firmly against the face of the rail and cut a groove from left to right.

6 | WEATHERSTRIP. Press the silicone weatherstripping, beveled edge first, into the groove routed into the bottom rail (below). Take care not to stretch the strip as you mount it. Insert the pile weatherstripping into the meeting rail groove. Use a utility knife to trim the ends of each piece of weatherstripping flush with the outside edges of the sash.

TIP

Protect surfaces from being scratched by the base of a router (glove or shoe sole) by placing a strip of floor-etch paint on the top on the workpiece.

DOOR KIT

The Easy Step-It! Kit Sash used for this project included the components: a strip of silicone rubber to seal the bottom rail; a strip of pile (silicone) weatherstripping for the top and side; a strip of plastic for the meeting rail; and a set of three PVC parting beads that you can fit. Each parting bead comes with pile weatherstripping already attached. When installing, specify the height and width of the window opening, and the thickness of your existing board (either 1/2 or 1 1/4 inch). \$59.95, www.easystepit.com. Technology: (800) 364-9040; sales@easystepit.com



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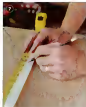
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each step in
and window
replacement
Workshop p. 20



For more ways to make old windows
weather-tight, see www.consumerreports.org



Install the New Beads

7. REPLACE THE TOP BEAD Lower the upper sash and measure the length of the cutout in the head jamb. Mark that measurement on the shortest parting bead in the lot (above left). Cut it to length. Tap the bead into it with the flat weatherstripping being out.
8. CUT THE SIDE BEADS Mark the jamb where it meets the horizontal centerline of the sash meeting rail (above right). Measure up from that mark to the top bead and down from the mark to the sill. Transfer those measurements to the replacement bead, starting from the bead's center, where the weatherstripping on one side ends and the stripping on the other side starts. (Think up on the upper part of the bead should face out.) Trim the beaded end to match the angle of the sill. Repeat for the bead on the opposite jamb.

9. TAP IN THE SIDE BEADS The fit should be tight enough to hold them in place. If it isn't, drill through the bead in place with a few 1/8-in. square brads. Reinstall the sash stops and sash web. When you're done, the sash should slide up and down smoothly and line up with the meeting rails. ■

TIP > If the rails don't meet, remove the weatherstripping from the bottom rail and plane down its bottom edge. Then reset the groove and reinstall the rail.

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room for mistakes.

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**HOMEOWNER'S
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Hanging Interior Shutters

BY ALEXANDRA DUNSON PHOTOGRAPHY BY ROBIN SMITH

AS THE DAYLIGHT SHORTER and the sun sets lower in the sky, sunlight streaming through the windows may become an annoying distraction. Not to worry—the neighbors who have once teasingly asked to look over your property to bring roses. You could put up shades to help keep things, but a pair of swinging wood shutters would definitely be more serene.

Interior shutters copy the original "window transparency," commonly used in the three out of four houses, and they're still a great way to add style, control and become a detail. They help windows in their job, keeping out the elements, while the window's ability to see or control the elements, and they're easy to install on any window because they attach to a thin frame that allows the shutter to swing the outside of the window—by being on the frame, it's not in the way of the window's ability to see or control the elements, and the shutter will swing freely—and close out the day's sun without a scratchy cloth.

COST
\$200 to \$400 for a standard-size window

TIME
1 to 2 hours each

DIFFICULTY
Moderate: proper alignment requires some attention to detail, but the installation itself is quick.



CROWN MOLDER
SQUARE



DRILL/DRIVER with
1/8-inch drill bit and
Phillips head driver bit



PENCIL BLADE
with sliding extension



PHILLIPS HEAD
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AND POSSIBLY
THE NEXT
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Dark Gray



Light Gray



Dark Teak



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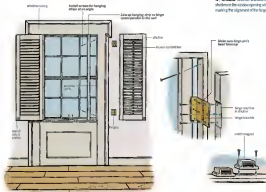
{ overview }

HISTORICALLY INTERIOR SHUTTERS attached directly to the window jamb or casing and folded easily into deep set pockets next to the window. That is not an option with retrofit shutters, which remain in plain sight open or shut.

For the best-looking installation you'll want your shutters to rest parallel to the wall when open, not askew like a half-open door. That means the folding point of the hinges needs to protrude beyond the casing. The best way to accomplish this is by attaching the shutters to a frame.

The frame that holds the shutters can be two simple hanging strips inside the window opening. Or, for windows that are out of square, a three- or four-sided frame around the outside of the casing will work better. Here we used inside-mount shutters, which leave the Greek Revival molding on our window visible when they're pulled closed.

The trickiest part of the process is figuring out how to position the hanging strips on the jamb. To align them, you must fasten the hinges to the shutters, then hold the shutters at the windows in an open position parallel to the wall and mark where the hinges fall on the jamb. That provides a guideline for the hanging strips. Once they're in the right place, setting the shutters in the window opening and mounting them on the strips is quick and simple.



ILLUSTRATIONS BY GREGORY NEMEC

{ step by step }

1

Measure the window opening

Measure horizontally between the window jacks at three places: top, middle, and bottom. **RIGHT** Measure in three places vertically as well. Take the smallest of both sets of measurements and send them to the shutter company for custom shutters.

Use a folding rule with a sliding extension, rather than a tape measure, to get the most accurate inside measurements.

< TIP



2

shopping list

1. SHUTTERS Inset case shutters must be added on order to most window openings. Make sure you measure all windows separately so they may differ slightly. Different sizes may also be required. Expect delivery to be within one week.

2. SELF-CENTERING KIT Add it if needed. Self-centering kit is a kit that, when paired with a hinge, controls the shutter's position and helps it close. Choose a kit for small windows.

3. SQUARE-HEAD DRILL/DRIVER BIT To fasten hanging strip to window jamb.

4. SHIMS To secure and hold the shutter in the window opening while making the alignment of the hinges.



< TIP

Set the drill/driver's clutch to low. This will stop the bit when a screw is fully tightened and prevent stripping its head.

3

Install the hanging strips

Have shaper blade shutter in the open position against the wall with hinges tipped out so they sit inside the jamb. Adjust the end of the shaper blade from the jamb just enough to allow the shutter to touch the casing when it's parallel to the wall. Position a line on the jamb behind each hinge.

Hold the hanging strip against the lines. With a V-bit drill bit attached to your drill/driver, take pilot holes (one each at top and bottom) through the strip and into the jamb.

Now with a square-head bit in your drill/driver, screw the hanging strip to the jamb. **RIGHT** Repeat on the other side.

Drive the screws into the hanging strip at an angle to keep them from working loose over time.

< TIP



Screw the hinges on the shutters

Position each pair of shutters on the edge with hinge mortises up and lower controls oriented toward each other. (This means that on the left, the hinge mortises face the room when the shutter is being installed; on the right, the hinge mortises face the room when the shutter is being installed.)

Set a hinge in a mortise. Fit your drill/driver with a V-bit. Position the bit at a hinge screw hole. Drill a pilot into the shutter, repeating for all hinge holes.

(Note: Most shutter hinges are factory-configured to open to the right, meaning you'll likely need to remove pins from left and right sides of the shutter, so that each right-side hinge has a left-side counterpart.)

With a Phillips head bit in the drill/driver, screw all hinges to the shutters. **LEFT**



4

Align the shutters in the opening

With your helper, place both shingles in the window opening and align them in at top and bottom to how they've been in place. Adjust the shingles to create even spacing along the window jamb and set between the shingles.

Mark the casing at the top of each hinge (inside). **LEFT** Set shingles aside. Using a combination square, transfer the mark on the casing to a line on the jamb and then the hinge strip. **ABOVE** This mark will show you where to line up the hinge on the window.

TIP > When marking the hinge locations, use the top of the inside, not the pin, as a guide. This will correspond to the top of the hinge plate.

Hang the shutters on the strips

Before hanging the shutters, screw magnets to catch plates to their bottom (or top) inside corners.

Open a shutter and position it so that the L-shaped hinges sit snugly in the corner created by the hanging strip and window jamb. Align the top of each hinge plate with the line.

Mark the screw holes and once against the shutter side. Use a 1/4-inch drill bit to make pilot holes at the marks.

Loosely screw the hinges to the hanging strip with a Phillips-head screwdriver. **RIGHT** Close the shutter and make sure it's even all around. Adjust it as necessary. Then tighten the screws.

TIP > Use a hand-held screwdriver instead of a drill/driver in tight spots. It gives you more control, an change is less likely to occur.



5

6

Install the catch magnet

Strike a catch magnet to the metal plate on the shutter. Close the shutter making sure it's flush with the front of the window. With the magnet's catch sitting on the window sill, mark the location of its screw holes. **LEFT**

Remove the catch from the shutter and position it atop the marks on the sill. Screw the catch to the sill with a Phillips-head screwdriver. Repeat for the other catch.

TIP > A shutter (or door) is correctly aligned when the two halves of each of its hinges rest fully and squarely against each other when it's closed.



buying guide

Most interior shutters sold today are variations on the louver style. But there are other designs, including ones with woven inserts or old-fashioned solid panels.



PANELS
Traditional looking
follies like these
trace their history
to classic house
styles, like Federal
or Greek Revival.
Pittsburgh
Federal from
Kovach DIT

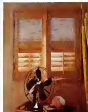
Shutters, starting
at \$200 a pair (for
an 18- by 24-in.
window).



LOUVERS
Because louvers
are custom ordered,
nearly any window
shape can be
accommodated, as
shown with this
cove-topped set.
Pittsburgh speaker-
model from Kovach
DIT Shutter
Shutters, starting
at \$450
per pair (for an 18-
by 24-in. window).



LOUVERS The most popular kind of shutter includes movable
louvers, which allow controlled light and ventilation.
Hickory louvers from Hunter Douglas, starting at \$245 a
pair (for an 18- by 24-in. window).



CONVERSION
Shutters with built-
in frames and
wedges are best
when privacy is an
issue. While one
half can be
opened to admit a
breeze, the other
keeps out prying
eyes. 200 look-
inspired shutter
with Danish motif,
from Smith
and Noble, \$23
per sq. ft.



For more on choosing an interior shutter,
visit theoldhouse.com/shutters

WOOD-INSPIRED
The panels of
some shutters are
made of woven
bamboo or wood,
which offer a
natural
effect—though
instead of rolling
open they swing
in out. Danish look,
18 shutters from
Smith and Noble,
\$23 per sq. ft.

WEDGES
Vintage-style
wooden shutters
won't keep the way
wood can (though
they can't rot or
be eaten by termites).
(Most wood
shutters come
with a built-in
wedge or
panel.)
Pittsburgh
Cove Shutter,
from Hunter
Douglas, starting
at \$200 per pair
(for an 18- by 24-in.
window).





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FROM THE RESTORATION CARPENTERS WHO DON'T LET THE CREW USE A LEVEL OR SQUARE (he better make the one-side-up appear seamless with the contractor skill to the painter who shows a drop cloth over a staining mess) (he better to finish the job on time), the Best Building Pros represent the designers, artists, and tradespeople to whom the cities of The Old House can pay the highest compliment. We'll be honest to have done work on a house. To our minds, the best group of men and women worthy of accolades not because they have great houses, but because they have great customers. They're not the business, they're the people. They have a passion, not a career, they have a craft, not a job, they make a good living, but serve as the experts of a better outcome. To compile the list, we considered thousands of candidates, studied hundreds of portfolios, conducted scores of interviews, and cross-checked references with colleagues, vendors, and customers. It's a good list that is also in only one respect: It's not long enough. These names represent only a fraction of the talent we encountered, which is why we decided to make it as broad as possible. It's also why we made the special section as long as the best. Knowing that one of our building pros may not live in your hometown, we offer you a plan for finding some one every bit as good, including tips on where to find them, qualifications to look for, and how to work together to get the results you want. Plus, the TOS TV crew goes public with the secrets of how they hire a subcontractor, not only for their businesses but for their own homes. Follow our advice, and you may find the carpenter you've been looking for—one you can recommend to us for next year's list.

Contractors & Builders

Being a good builder is about more than just swinging a hammer. It's about collaboration, creative problem-solving, and willingness to go the extra mile.

what they'll do for you

A general contractor serves as the air-traffic controller of your renovation, overseeing day-to-day work, hiring and coordinating the subcontractors, and keeping in close touch with you throughout the project. Most contractors specialize in one of three areas: new construction, remodeling, or historic restoration. Licensing requirements vary from state to state. In Oregon, for example, anyone who supervises construction or demolition must be licensed. In California, builders and contractors must be licensed if the project cost is \$500 or more. In any case, your contractor should meet or exceed the minimum state requirements. Contact your local building department for specifics. You can also check contractors-license.org for a state-by-state listing of licensing requirements.



The Dues is in the details of this 18th-century gambler's mansion.

WHATEVER IT TAKES

Dues Construction Corporation, New York, N.Y., 212-334-2400, duesconstructioncorp.com. Rory McCosk takes on seemingly impossible jobs from South Florida to the South Bronx. Case in point: In the wake of last year's devastating hurricanes, many Florida homeowners couldn't get local contractors, so they called the New York-based McCosk. Within two weeks, he had eight of his key crew members relocated

and mobilized for eight months of rebuilding. Then there was the case a New York couple wanted to get married in the house he was restoring for them. McCosk's crew put in 12-hour days, seven days a week, to finish the job just at the time the couple—and two months ahead of schedule. "It was a tremendous challenge, but my guys were great," says McCosk. So great that the contractor was named to the wedding.



COMMITTED TO THE NEIGHBORHOOD

Chile York Homes, Park, Pa., 717-334-5400

Gary Goodstein didn't stop with just one, two, or even three of the condemned row houses on East Locust Street in York, Pennsylvania. Rather, he worked his way down the block for seven years, restoring 23 of the 34 late-Victorian-era houses, which have since anchored the redevelopment of an urban neighborhood.

The success of the Locust Street projects allowed Goodstein to open an in-house woodworking shop, where his father crafts new casework for projects like a converted 19th-century Presbyterian church and a 1918 English-style manor—houses Goodstein admired growing up in York and is now engaged in saving.

Gary Goodstein and his crewmen fix an 18th-century fireplace in a newly 200-year-old Lancaster County house that he likes to fix and demolish.

Architects & Designers

Whether it's a simple kitchen expansion or a whole-house gut renovation, these are the pros you need

what they'll do for you

A licensed architect develops plans, generates construction drawings, and, depending on the terms of the job, supervises the contractor on your project. Professional qualifications usually include a degree from an accredited school of architecture, a three-year internship, and passage of a state-administered exam. While membership in the American Institute of Architects is not essential, it's a good sign. Members are required to abide by a strict code of conduct (go to www.aia.org for links to members in your area). Architects generally charge an hourly rate or a percentage of the cost of home construction, or some combination of the two. Specialty designers fix kitchens and bath; pros can handle smaller projects, but if your renovation involves structural work, an architect is the way to go.



Keyes reproduced special chairs in this 1790s Charleston residence

STEWARDS OF THE SOUTH
Glenn Keyes Architects, Charleston, S.C., 843-723-4100 For Glenn Keyes, the career most to preserving historical accuracy begins with the building and extends to the earth beneath. While working on the circa 1820 Pennington Gate House, one of the grandest in Charleston, Keyes hired an archaeologist to find the original foundation of a garden wall he'd spotted in old photographs. And he didn't stop there: He went so far as to specify that the landscaping include only the species of cedar and pines that would have grown on the Carolina shore in the early 19th century.

Formerly the on-call architect for the South Carolina Historic Preservation Office, Keyes has devoted nearly 36 years to saving Charleston's unique architectural heritage. Of the residents occupying the city's mostly Federal-era homes, he says, "They are just stewards. The house was here for 200 years before them, and it will be here for 200 years after."



DOWN TO THE LAST DETAIL

Kenneth J. Nadler Architects, Mount Kisco, N.Y., 914-242-3620, nadlerarchitects.com Kenneth Nadler cares as much about every interior detail of a renovation as he does about what you can see from the road. On many of his projects, he chooses light fixtures, furniture, even fabrics—something many architects won't touch—and he does the necessary legwork, like the time he provided the Metropolitan Museum of Art in New York City to find inspiration for a Federal-style home's curvy chandelier. In that spirit, Nadler recently transformed an early 1960s ranch house in Bedford, N.Y., into a Shingle-style home worthy of the Maine coast. But, he made it look like it had been there for decades, from the lead-glass windows to the fireplace and granite foundation. "You don't want it ever to look like a renovation," he says.

What was once a ranchera got ready to move westward. Shingle-style houses, thanks to architect Kenneth J. Nadler, read these different customs out in style patterns.

Trades & Specialties

From a custom-made door to a hand-forged latch to a paint job that makes the whole thing look great—turn to these folks to put the finishing touches on your house

what they'll do for you

Most contractors no longer do everything from framing to finish flooring. For that, they've got a network of subcontractors, or "subs"—plumbers, electricians, painters, roofers, and the like. "I'm pretty handy with a paintbrush," says TCH general contractor Tom Silver, "but having an expert who's fast and accurate saves the homeowners a lot of time and money." Subs are paid by the general contractor, who coordinates and signs off on their work.

If you're interested in using the services of a particular sub—a tile setter whose work you love, for example—you can propose it to the GC, but he may be reluctant to hire someone he hasn't worked with before. On a small job, a subcontractor may be all you need. But if you're doing the hiring yourself, be sure to get references and check prospects out thoroughly.



This standout pattern is one of the historic "green tile" designs reproduced by Chris Phillips.

LINE-ARTHING HISTORY
18th-Century Perfection, Sonoma, Ca.; 922.313-7212, www.holyspirit.com
Chris Phillips has built or repaired more than a 1,000 fireplaces since starting his company in 1974. His around-Georgia, he's equally known for recreating historic brick signs of smoking wood-fired grates—clay markers used during the 15th and 16th centuries as border tiles in the gardens of the wealthy and as tombstones for the poor. To learn the craft, he moved to the tiny town of Gillette, Georgia, where a family of seventh-generation folk potters carries on the tradition.



HANDYMAN EXTRAORDINAIRE
Robert Tondra, Ph.D., Tex.; 430.218-3512

Fortunately for the residents of one tiny Texas town, Robert Tondra never says no. Not when homeowners call him in the middle of the night to fix a creaked-out furnace, and not when the walls behind the ridge-roof spruce a leak on Christmas morning. Tondra builds the boys in the sweater houses of half of El Paso, answered after years of service to do whatever is necessary, from finishing a chimney to fixing wires through the walls. Tondra, he says, never or later, they'll need an addition built, and there will be no question about why they'll call.

This would be a built-free-chemistry handyperson Robert Tondra.

PHOTO: JAMES HARRIS

PHOTO: JAMES HARRIS



HOW I LIKE

"I talk to people to see how they feel about their work. If they're passionate about what they do, you should be able to hear it. Look for someone who offers suggestions—

if you have blinders on, you're not going to learn. And you should always be learning."

—TIM STILES
for *the* *country* *general* *contractor*

Color consultant Robert Schweser goes into his color lab to select the right color palette.

GARDENS WITHOUT BORDERS

Osborne, now Sander & Associates Inc., Washington, D.C., 200 546-7171, osborne.com
Landscape architect James van Sander and William Osborne pioneered the "New American Garden," a meadow-style landscape with a round, naturalistic feel. They'll do lawns, but only if they have to. "If a client has a specific need, we design the lawn for that reason only," says Van Sander. "We don't design big lawns without a purpose."

A SENSE OF PROPORTION

Ever Wood Studio, Princeton, N.J., 908-896-2713
Whether Brian Perry is working on a small-scale project for a library wall or building a master mansion, a house once used as military headquarters by George Washington, he keeps the big picture in mind. "Every house has a weight to it—a sense of scale and materials that allows you create proportion," he says. Perry, whose firm and letter a custom woodworking, has built bookcases that swing open to reveal secret passages and doors made from stone, wood or even metal to surprise visitors. "This is where craftsmanship and an eye for detail is."

EASY AS 1, 2, 3

Atlanta: Color Consulting, Ann Arbor, Mich., 734-969-0291, www.colorsconsultants.com
After he's done his job, Robert Schweser gives clients color-coded maps of their house and tells them to use paint by the numbers. Schweser, a house-to-house expert, searches instinctively appropriate shades, then makes a color placement key for body, trim, and accent combinations. Because much of his work is in a small, private town hall over the country, from a 1920s bungalow in California (Timber Wolf guy body, all white trim, and forest green windows) to an 1890s Federal-style residence in Massachusetts (wooden gray with cherry trim and mahogany window seats).



A typical Osborne, van Sander garden design. (See Osborne in South Carolina.)

CREATIVE CARPENTRY

Carolina Joinery Inc., Charleston, S.C., 843-813-3636, carolinajoinery.com
In addition to traditional carpentry, moldings, doors, and cabinets, workers at Carolina Joinery have earned a high level of fame for their work in the state's historic architecture. "My boys take on just about anything," says founder Brian O'Neil. He takes particular pride in being asked to do projects that require intricate hand carving. "It was very important to me to learn something that was a real craft," he says.

COPPER DOCTOR

Copperworks Corporation, Decatur, Ala., 256-351-6279, copperworks.com
Gustaf Huber-Delle, whose family has been in the copperworking business in Germany for more than 150 years, was to do things the old-fashioned way. He often considers a material's history as well as its physical properties, finish, and other architectural associations. But he had to improve when one client's house was built with an unusual request to wrap his entire house in copper. Huber-Delle obliged, creating a huge, gleaming structure waiting for its patina to settle in.

OLD TECHNIQUES, NEW TECHNOLOGY

Harmonson Stone, Miami Beach, N.J., 732-215-7518, harmonson.com
When one client wanted to reproduce the staircase that Kate Winslow climbed down in "Titanic," Harmonson Stone complied. "Titanic's nothing we can't copy or build," says president Ben Winslow, who bought the company in 1983. To the skills of a crew of master craftsmen, he's added state-of-the-art computer-aided design to make construction safer, for example. "Our stairs go together because they're made," Winslow says. "We do things down to the thousands of an inch."



Masterpiece: Landon Avery finishes a table that takes months to build for a client.

MAN OF STEEL

Landon Avery Blacksmith, Portland, Me., 852-492-3499, londonaveryblacksmith.com
Landon Avery took up blacksmithing in his 30s because he wanted to make his own garden tools. And while he's capable of artistic flights of fancy, he still prefers to craft everyday

farmhand items, ranging from garden gardeners' tools. "I enjoy the physical part of being at the anvil," he says. One of his specialties is a very American hardware—seasoned door hinges, decorative knockers, and latches. A master worker in his art, he's raising, carved metalwork is directly inspired by the vines and other plants he breeds.

how to find a LANDSCAPE PRO



Landscape design is an expensive but a valuable, private, and long-lasting investment. They typically draft landscaping plans and charge around \$40 to \$100 per hour (bill up to \$1,000 per hour). The American Society of Professional Landscape Designers (aspld.org) is a good place to find a professional.

Landscape architects, on the other hand, hold advanced degrees and are registered with

the state. They draw up detailed plans, including landscaping, drainage, and structures such as retaining walls and specialty bridges (\$200 to \$1,000 per hour). Members of the American Society of Professional Landscape Architects (aspld.org) are expected to abide by strict guidelines for professional conduct.

If you already have a landscape plan, you can hire a

landscape contractor to build or care for it. "Choose what kind of company you need," says landscape contractor Roger Cook. "Look at their work. A good contractor will give you a good estimate of what you'll pay for it. And always talk to the homeowners to see how the contractor's been there."



CHIP OFF THE OLD BLOCK

Ed H. Hixon Plumbing Co. Inc., Savannah, Ga.
912/334-4945

Third-generation neighborhood plumber Ed Hixon has spent most of his life on the same few streets. His home and workshop are in a house built and finished by him, and most of his jobs are within a pipe wrench's throw. Hixon has been around the neighborhood long enough to meet its quints. He's the man local residents call on when they need to repair a old downspout or call to update the plumbing in a house where paper dates back a hundred years.

ROOFS WITH DEEP ROOTS

Wells Roofing and Sheet Metal Company,
Charlotte, S.C. 843/891-8181

Made from people Wells runs day out of the oldest continuously operating quarry in the world or French clay Potomac tiles from a 400-year-old founding, it's unlikely that Joe Wells' roof is going anywhere. "The roofs we put on," says Wells of his 33-year-old company, "your grandchildren won't take off."

GETTING HER HANDS DIRTY

Garl Sperry Interiors and Landscape Design,
Los Angeles, Calif. 310/370-8893

It's not every day you're asked to landscape a concrete oceanfront. But Garl Sperry did just that for a client's 25-foot-high replica of the Matterhorn. Sperry and his assistant crew climbed over it "like penguins," she says, placing long grates and steel to create a viewing Alpine landscape. "I didn't believe in doing drawings [paper and pencil] until somebody else told me to," she says.

OFF-THE-WALL DEDICATION

Carter Painting Company, Roseland, Pa. 215/717-3899

Bob Carter will always get the job done on time, even if it means painting around a sleeping dog. After 30 years in the painting trade, one such customer, a woman, came home and told him a rooster Carter had promised to finish that day. Rather than quit his deadline, he crossed a deep cloth over the sleeping dog and went to work. In business for 25 years, Carter doesn't take more than two jobs at a time, he says, so he can put each one the same attention he would give his own home.

Garl Sperry is a new member of the organization of her California partners.



Photo: David J. Phillips/Contrasto; Photo: David J. Phillips/Contrasto



Jane Crawford recently built a 1970s painted pine chair.

CABINET REVIVAL

The Keweenaw Company, Rock, Mass.
207/443-2123, keweenawcompany.com

Owned by Jeffrey Purvey and funded by his brother James, this 15-year-old company brings an old touch to new cabinets. For a little Victorian-era house in Cambridge, for example, "one job was to build a kitchen that looked like it had been there since the late 1800s," Jeffrey says. The period-inspired cabinets on Georgian, Federal, and Arts and Crafts styles, among others, were built and finished by hand by one of 20 craftsmen.

A TREE-PLANTER GROWS IN BROOKLYN

Todd Rader & Amy Green Landscape Architects,
Brooklyn, N.Y. 718/636-5185

Urban landscape architect Amy Green and Todd Rader are known for turning unightly overgrown lots into serene personal gardens. With forwarding trellises and shade-loving plants, Green and Rader transform patches of dirt behind 19th-century Brooklyn brownstones into thriving natural backyards.

MORE THAN MEETS THE EYE

Fostered Interiors Studio, Nashville, Tenn.
615/790-2094, fosteredinteriorsstudio.com
It takes a trained eye—or thorough inspection—to reveal that the four families painted by husband-and-wife team Elizabeth Hensley and Doug You aren't the real deal. They can paint a plaster wall to match the woodwork in a 19th-century house, as they did on a recent Kentucky project; make concrete floors look like stained poplar; and recreate ornate chandeliers, Venetian plaster, even stained iron.

THE OUTDOORS AS STUDIO

Winchell Landscape and Design,
Bainbridge Island, Wash. 206/443-3367

Art and home and garden designer Linda Winchell's love of rocky landscapes is reflected in her designs, which are known for their decorative limestone walls and hilly-concrete walkways. "I'm a person who happens to work with living things," she says. "I use hellebores as a sculptural rock, rock and masonry as my pencil, and foliage and flowers as my paint."

JANE OF ALL TRADES

Crawford & Associates Historic Preservation Consultants,
Savannah, Ga. 912/429-1633

Carpenter Jane Crawford takes on jobs that others might find tedious, like restoring more than 30 windows of the 18th-century Stags mansion on the heart of Savannah's historic district. On rebuilding the 21-foot-tall, triple-hung shut window of an old town-square workshop, "Nobody wanted to do that kind of work," she says. "But I did, and I'm pretty good at it." It's not the only thing she's good at: Crawford also restored her late husband's an 1870s Charleston village and replastered and updated the exterior of the Lucas Theatre, another local landmark.

LARGER-THAN-LIFE METALWORK

Leo Metalworks, Champlain, Paterson, N.J.
973/279-2173, leo.com

Helping to restore the Statue of Liberty must have affected Joan Ward's sense of scale. After fabricating Lady Liberty's torch in 1986, Ward founded a custom metalwork company that helps clients visualize their dreams with full-size drawings of every project. At his workshop, giant sheets of paper stretch the length of an 18-foot wall, allowing clients approval for every wrought-iron balcony, bronze gear, and ornamental staircase. LMC metalworkers use the personal outdoor sculptures for the final work.

ALL HIS MARFELS

Greene, Hensley, Rothermel, Ala.
256/883-1204, greenehensley.com

Second-generation custom tile setter Walter Scott has a reputation for perfection. His, for example, has not.

He's newly in all that. He calls a metal marble across the surface, and it had better not slip, jump, or dip anywhere. "This low-tech ceremony follows orders of propriety," Scott dips tiles a template for every installation, even high-powered water jets to test minute changes on stone, and fits tiles together with Scott's, a master of a fingered.



HOW I HERE
"Reputation is the first thing I look for. Also, I try to hire smaller companies where the boss is going to be on the job and I'm not just hiring a crew. We know a lot about this kind of work at *This Old House*, so if someone points out something to me that I didn't realize, that's a big deal. Recently a painter I use pointed out a stain on the ceiling that I hadn't seen. It turned out to be a leak in the roof that needed to be fixed."

—ROGER COOK
The *This Old House* landscape architect

The editor Walter Scott is known for his Old World-inspired tile work. Scott is in a unique niche in Nashville, Tennessee.

WHOSE HOUSE IS IT, ANYWAY?

Squirrels gnawing
the siding.

Raccoons blocking
the dryer vent.

Rats shredding
the insulation.

Here's how to take back your kingdom from the
animals who want to make it theirs this winter

BY JOSEPH D'AMICO
photographs by mark hooper



Tools for keeping your critical problem under control

Tools for keeping your critical problem under control



- 21. **Roll stations** Have either one person roll a piece of bubble (from either end) and use Mac to place around safely using pins (children can't see) then we are allowed out of the bubbles to teach 1 x 4 x 4
- 22. **Classroom job** Only the teacher and all children can do with initial sheet of identifying Coates in a simple way for more
- 23. **Live song (diversity)** A teacher always start about the most active and lively like
- 24. **Sequencing** There is a count but fingers in team 1 way when setting the trip and all should be in same place automatically
- 25. **Seep top (diversity)** This class continue at second spring and vice versa class but be successful
- 26. **Classing** Every one into the side into the 4th group. No one can be in the same line. The teacher is there. You can teach the groups the animal and the 4th the teacher is the suffering from new Lego, so everyone into

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1. **Barium swallow** 15-25% each week made of gastrostomy tube insertion, dilation and feeding. Place 100-150 cc of barium 10-15 minutes before a meal or a snack
2. **Chewing with grills** Place a spoon on the tongue as in the film
3. **Copper swallow** Shuffled in 10-15 minutes inside a copper mesh or inside which digestion will not. (After 10-15 min or 1 hr, swallow 10-15 ml of water. If temporary reflux or acid breaks can be tolerated)
4. **Spicy foods** 15-20% regular intake between food and drinking
5. **Acidic foods** Copper mesh in acid food and drinking
6. **Spiced tomatoes** 15-20% regular intake between food and drinking
7. **Spicy foods** 15-20% regular intake between food and drinking

- [illegible]

[illegible]

- 1] Squashed trap:** Clamp the live rod near the end attached to the penstock, fasten and draw penstock. Check if only *Microtus agrestis* is caught. Take it for a long drive—at least 10 km to home/household. This release it by opening the penstock.
- 2] Flavour trap:** Set of *Microtus* live baiting traps. Also, many baits are used as in mammals, groundhogs, chinks, antelope, opossums. This attracted over the trap to keep the animal awake while sleeping. It is well squirrel. The release should be 10 km.

Most homeowners can take care of a couple of nuisance mice. But when controlling the largest invasive insect trap-varying varieties like roaches, spiders, and mosquitos, it often pays to hire a pest. Reputable pest control companies are licensed by state agriculture departments, carry liability insurance, and belong to state pest control associations or the National Pest Management Association. Search the NPMA's website, pestworld.com.

Most homeowners can take care of a couple of nuisance mice. But when confronting the largest (and/or most trap-worthy) varieties like rats, squirrels, and weasels, it often pays to hire a pro. Its puttable pest-control companies are licensed by state agriculture departments, carry liability insurance, and belong to state pest-control associations like the National Pest Management Association. Search the NPMA's website, pestworld.com.

Traps, on the other hand, work instantly and leave no doubt as to the outcome. In the case of those, you can choose between traps that kill and those that capture them live. Rats get no such break, all their traps are of the lethal variety. Squawks are typically trapped live, which is more humane as long as the traps are monitored. "You have to keep checking that trap every day," says Roy Navarro, a technician with Cooper Pest Solutions in Lawrenceville, New Jersey. "You don't want the squawk to die from lack of food or water."

Once a squirrel is caught, what you can do with it depends on state and local regulations. For instance, Gene Jurek, a wildlife biologist and co-owner of a Gopher Control franchise in St. Louis, Missouri, can release him trapped squirrels in his home state, as long as he notifies them. In 3 states from the trap point. But if the state is a squirrel in Illinois, he's obliged to put it to sleep. A local pest control pro should be able to tell you the relevant laws in your area.

Feeling squirrels isn't cheap. Jock changes up a \$2.50 to remove the first one and sell her each one snuggled all the way. And it's not unusual for him to trap five to 10 squirrels at a single house. "It's a lot of money," he acknowledges, "but most people figure it's better than give out their houses over to the squirrels."

A better—and far cheaper—way to deal with unwanted guests is to keep them from getting in at all. It's a little like burglar proofing. If you make it tough enough to break in, they'll give up and go elsewhere. The pest-control folks call this "exclusion," a fancy name for plugging every hole. It's tedious work—mice can wriggle through an opening just 1/4 inch across—but if done correctly, you can rule out beetles, no matter how numerous or harmful, and



WORKSHEET 1.1
Learn how the
provision can
of the
Worksheet 1.1

in decomposing carcasses (e.g., worms, angry bee colonies) in pet ridg. Plus, you can do much of the work yourself using items commonly found in the hardware store (see "Gutting Targets," p. 130).

Center usually get the gates you aren't planning very carefully: the garage, the basement, the roof, any where they find a service big enough to slip through. It makes sure you aren't vulnerable this fall, and a local firm to examine and troubleshoot your house. "Most companies will be happy to send someone out to inspect and make recommendations," says Greg Baumann, technical director of the National Pest Management Association. Then you have the option of having the pest control firm or a contractor to fix the holes, or do-it-yourself. Whatever you do, Baumann says, don't defeat your preventive work by inadvertently rattling the welcome mat. "It doesn't make sense to put someone in to do cockroach work and then leave the garage door wide open and baited," he says, "or to already make."

BEFORE YOU CAN **CONSTRUCT**, YOU HAVE TO **DESTRUCT**

BY MAX ALEXANDER



HOW DOES THIS DELAWARE GENERAL CONTRACTOR TOM Silva take down encrusted, nonfunctioning carpet? On the count of three, naturally. The concept is just one bit of sadist destructo on the 1990s Modern style house that's the current FOX House project, and it needs to go in a way that's a real game. He's been enlisted to demolish the 1990s house owner George Meloy and Dave Brothers' new member Mike Shenden's help him give the last wall one big hit.

But before the four could get to the demolition, Tom's crew worked all morning at the site in Cambridge, Massachu-

setts, carefully dismantling the structure. They speed of the roof, cut the joists, and detached the fasteners to get the house, so as not to take down more than they bargained for.

The new garage is just one aspect of the house, instead of which will require a lot of demolition. A barely-torn old wall, plaster, pipes, and sheetrock, along with the house's bulky roof, have to go before Tom can add on a first floor library and bump up the second story. But the plan also calls for leaving much of the existing home intact, including nearly all of the exterior walls and one perfectly good kitchen.

Most renovations actually work the way Change some surface, save others. Very few are wholesale demolitions, so that's not possible to simply driving with a wrecking ball and leaving only

BUT SOMETIMES A WRECKING BALL ISN'T THE WAY TO GO. HERE'S HOW TO TAKE DOWN A ROOF OR A WALL WHEN THE REST OF THE HOUSE HAS TO STAY INTACT



"It requires a lot of demolition—handwork," says Tom. "You're trying to be gentle with the salvageable parts."

Even so, the demolition is not a simple matter of writing the walls without stopping to learn what they're made of. "They can end up removing structural elements or hitting pipes and wires," says Tom. "To be safe, walls and roofs should be systematically

dismantled in the reverse order of how they were built up.

So if your remodel requires taking down a wall or roof, it's not a roof—and you've got the nerve to do it yourself—then the page to learn how they do it right. Of course, to play it safe, you'll want to get the advice of an engineer. After all, old houses are not as sturdy as much as a whole new house.

PREPPING THE AREA



Before you begin: Always wear steel-toed boots, gloves, goggles, and a respirator (rated against lead paint dust) if your house was built before 1970. If you suspect you might have asbestos or lead, localized air testing is about as good as a contact or air-tester will specialized exhaust.

1. Isolate the work area: Using 6 mil plastic sheeting sealed with blue painter's tape.

2. Protect items against falling: Remove nails, paneled cover, bumper's power.

3. Order a Gumpster in advance: Make sure you have an area close by for it.

4. Shut down water and gas lines and

turn off the power to the room. Try to turn on the stove and lights to check them. Use an outage tester on outlets and switches.

5. Remove door trim and baseboards: If you're using trim carefully pull it off the wall with a pry bar. If you're using a hammer, use the back of the hammer. Remove nails by pulling them down the back. Store in a dry location.

6. Remove doors and hardware: Store doors in a dry place if using.

7. Remove windows: Pry off the sashes, using the pry bar. Take out the sashes. Pry out the framing members.

TAKING DOWN THE WALLS

1. Determine if a wall is load-bearing: All exterior walls are. Interior walls typically run perpendicular to joists (parallel to floorboards). Or look in the basement for support posts. When in doubt, consult a professional home builder or engineer.

2. Erect shoring around load-bearing walls: Build a row of 2x4 stud walls four feet to either side of the existing wall. (This is not necessary if you plan to remove the roof or floor slabs, which should come first.) Use bracing shoring walls on the floor and tie them up. Or you can build them in place, first nailing the top plates to the joists, then using a plank bolt to secure the bottom plates and nailing these down. Make sure wall is tied back to full. Raising it in position with a wedge or screw to remove the bracing the existing wall.

3. Cut plaster and wire tie with a circular saw: First with a diamond or carbide blade. (The more plaster used with wire, the more supporting saw blades.) Cut the depth to the next stud or stud. Make sure to keep the plaster attached to the "key" to the full. Watch out for sharp wire edges.

4. Cut through plaster and wood tie with a reciprocating saw: First with a 7 inch blade. Hold the saw at every angle. When you feel the blade penetrate through the tie, do not go any deeper as you may hit pipes, wires, or studs.

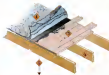
5. Pull out studs with a rocking saw or pry bar: This will also work for plaster and tie if you are comfortable using a saw.

6. Cut copper pipes with a pipe cutter: If they will remain in the wall, cap or remove them. If the pipes will be pulled out, use a pipe cutter or a PVC cut with a hacksaw or a reciprocating saw fitted with a bimetal blade. Recycle the copper.

7. Do not leave electrical wires hanging, even if they're dead: This violates the National Electrical Code (NEC). Either remove them back to the closest junction box or install a breaker.



TEARING OFF THE ROOF



1. Pulling shingles (or tar) and roofing paper with a shingle remover or shovel.

2. Drop roofing onto tarp or better yet directly into the Dumpster: Use a tarp to build a slide from the roof.

3. Dig out nails in plywood sheathing with a flat screw driver (FSD) or shovel: Pry up board sheathing. Consider using boards.

4. Remove shingles or other debris at the edge first: Chopping all the debris as you go. Or let it rest out away and remove posts.

or remove them to a different location and demolish them at a saw junction box. If a best to consult a licensed electrician if you plan to follow the wires in use.

6. Knock studs out from the lower end with a reciprocating saw: Or for a more delicate removal cut through wire at the ends of studs with a reciprocating saw.

7. Pry all top and bottom plates: For the best leverage, start at the ends and work toward the middle.

Enthusiastic amateurs get into trouble when they tear into walls without stopping to learn what they'll find inside them.

FLASTER WITH WOOD LATH



OFF-WALL



For more on shoring, the right tools and protecting your house against demolition, visit www.houzz.com/forums.

FROM CUT FLOWERS TO CUTTING 2x4s

How a talented guy quit his job and saved his family \$350,000 renovating their home himself

BY CROMVELL SCHUPP HOUSEOWNER

IT WAS OUR FIRST HOUSE. Kelly and I had just gotten engaged and we found this 3,200-square-foot bungalow in a part of Atlanta, that, well, my parents wouldn't have allowed me to go to as a child. It was built in 1890, which is really old for Atlanta. Two little old ladies lived there for years with a cow in the backyard. Guess that was before the city got tough with livestock ordinances.

We knew that the house was too small for us when we bought it—one floor with just two bedrooms—since we really wanted to start a family. But it was a great house with good schools.

I had just quit a job that I hated as the cut-flower import business, and I told Kelly I wanted to remodel the house myself. She was working as a marketing executive, so I figured it was worth a try. Besides, I had a nice secret side on the job—\$234,800 to \$290,000—but that was just not happening with our budget.

My father is an architect, so he could help plan the addition. Growing up, he was always working around the house, so tools were always at my disposal. But all I ever built were shorkboard encaps. Before starting on my own house, I decided I should practice first on someone else's. Altered carpenter I knew, Jeff Conroy, had a few restoration projects and hired me as a helper. Working with Jeff, I learned how to frame, how to properly put trim together, how to make furniture cabinets work. . . . it wasn't long before the next project was our little bungalow.

I knew I was getting myself into some serious stuff here



It took nine months of 60-hour work weeks for Cromwell Schupp, ABOVE, partnered with wife Kelly and his parents to build an addition to the kitchen OPPOSITE, wood from a 100-year-old house was used for a new two-legged island and a 10-ft-tall two-story island cabinet shop, it transformed into a three-piece crown molding, which runs throughout the house.



attempting to merely triple our square footage. Instead, the plan was to raise the roof, going to a second floor with a bedroom, bath, and playroom, and to hang the first floor straight out of the back, ripping the kitchen and bath down to studs. There, we'd add a 12-by-12-foot kitchen, master suite, powder room, laundry closet, two dry rooms, and back porch. And yes, Jeff and I were going to do all the framing, sheathing—everything except plumbing, roofing, and the electrical.

While my father helped with the addition, all that happened in the old house was because I was done with my business, building built-in floor-to-ceiling bookcases when making a bedroom over into an office and so on, offering a station.

Of course, Jeff was there, too. I had hired him for the construction, and, ultimately, we ended up becoming partners in our own business, Cow House Design. Working on my house, I had realized that building and carpentry were what I wanted to do with my life, so I joined Jeff in his workshop, only down the street. There, I made all the chairs, tables, wood pens, bookends, and then hand-carved my own versions of Christmas decorations.

After staying with friends for six months during the construction, we were happy to be back home—and I really didn't mind all the finishing work. Anyone who lives in a house knows their work is never done—I'm still building them.

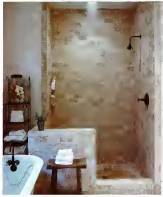
The truth is, there's nothing I would change about this house. Was it a lot of work? Yes, and now I'll never lay the claim, but it was worth it. The whole project cost me \$110,000—including wood and labor—a \$348,000 savings off the higher estimates.

Money well spent—and saved. We plan on staying awhile. ■



Scavenging Salvage
TOP LEFT: Jeff salvaged the checkerboard tile on the original heart pine floors before the entry bath, where the homeowners added a built-in shelf. When ripping out the floor between the dining room and the living room, the couple discovered the fireplace's belvedere under the stairs. They kept it as is, finishing it with a crown cornice. Bottom: Jeff's old chest dining set went to match the old wall-floor space. The homeowners designed several 3 by 5-foot panels. LEFT: Jeff's new up the first floor, cutting them into both kitchen walls.

By confining the remodel and using the same tongue and groove finished wood, RIGHT: The exterior's original look was maintained. Working a "wood-barnyard" second floor, CENTER: The homeowners used 200-year-old siding on the walls and hardwood as the ceiling. Tiling the master bath's 4-foot finished basement (shown right, 80,000) was the homeowners' last, best hope. Originally designed with a glass door, the family cut out of money and construction and didn't afford the glass. Turns out Jeff did it best.



WHAT WE DID

Remodeled and enlarged on 2,000-sq-ft lot, the homeowners used \$175,000, including wood built-in plumbing, roofing, and electrical. Two stories. Nine months' remodeling. Work with another 12 months. Where we saved: Did almost everything ourselves. Where we salvaged: Crapwood, siding, rip-off. Kitchen (like the old one) replaced. What we did differently: Finished out a close-recessed heart pine floor in the new build. Our biggest challenge: Finding the angles where multiple steps in the roof and getting everything to line up right. How we solved it: By being physically tough and mathematically correct...the rest was caring.

OUR FLOOR PLANS

BEFORE: The 1,200-square-foot original had a simple one-story layout. **AFTER:** Shaking out and up the 3,200-square-foot lot. Two new houses include an expanded kitchen, family room, office, playroom, second-floor four bedrooms and four and a half baths.



tell us your story

Did you remodel your house and do most of the work yourself? If so, we'd like to hear about your project. Please send copies of before and after photos, before and after plans, and a short story (no more than 500 words) about your project to:

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a warming trend

Vintage stoves have style and firepower to burn. Here's how to **find one**, **fix it up**, and **fit it into** your kitchen design

by AMYR HUGHES photographs by Susan Groll



STOVE 102



STOVE 101



STOVE 103



STOVE 104



FOR DARED TO UNDO IT BY JOHN FOLSE, culinary blues is something a cookbooks, dice, eggs, and a double guide on the 1950s O'Keefe & Merritt gas range for his at work. It's also something a chef in a red sweater pants over pizza in the oven. \$199 "dual-fuel," wood- and gas-fired American fireplace that's tucked into a brick-lined niche in his kitchen at home.

For someone who's owned more than 30 vintage ranges over the past decade, it's not surprising that choosing a vintage dual is almost as difficult as choosing a favorite appliance to cook it on.

The Louisiana restaurateur is an extreme example of *Americana*'s growing obsession with more cooking, which propels many dealers and sets as well as up modern professional-style wood-burner ranges—but with a style you won't find at the local appliance store. They come in a diverse color palette, with chrome-plated handles, and have built-in accessories, such as quenching sink and pepper shakers, cutters, and built-in broiler that can be raised or lowered with the pull of a lever.

"The American really loves old," Folse says of his collection, four Starnett O'Keefe & Merritt 36-Volt. As with most dual-burner ranges, an oil-burner is used in a glossy porcelain. This chrome-plated, high-gloss enamel is the light-blue finish of a '55 Thunderbolt, with a built-in clock, timer, light, and power outlet.

There's even a mounted gasrange that drops down into the oven cavity so Folse can keep an eye on what's cooking without opening the door—a helpful feature since, like many vintage ranges, his doesn't have a glass panel in the door.

Range Rowing

More than two-dozen dealers across the country, from Lake County, Illinois, to the 1930s through the 1950s made by Chambers, Hotpoint, Major, Clark, Westwood, Roper, Whetstone, Hilly, and O'Keefe & Merritt. John Jewers, owner of AntiqueAppliances.com, has 30 for sale in his Clayton, Georgia, showroom. The majority will have restoration, which involves dismantling the range, cataloging and cleaning the parts, rewiring clocks, meters, and lights, and replacing insulation in side panels. He typically strips interior panels and grates of their old porcelain coatings and applies a new porcelain finish that's baked on in a 1,500-degree furnace. On the exterior, however, Jewers strives to maintain the original porcelain by doing spot repairs on chips and scratches. If the finish is totally shot and a customer wants a custom color to match a kitchen's decor, he'll sandblast the range and apply a new porcelain coating. Such color changes cost upwards of \$1,100, depending on the size of the range and the desired hue.

Restored ranges run between \$2,400 and \$35,000, depending on size, features, rarity, and features. Most like a 36-inch 1950 gas-fired Chambers with a working pilot, large capacity oven, and built-in natural-gas cabinet, cost \$5,000—about the same as a new, similar-size professional-style range from Viking, Wolf, or Thermador.

If you're lucky enough to inherit a vintage cooler from Grandma or with the old farmhouse you just bought, the only cost is what you'll pay to have a restored—on average, \$2,400 (plus shipping) for a four-burner, single-oven gas range. Just be prepared to wait on someone longer for a while. There's a waiting list of four months to custom electric range and two years for a gas one at *Forrest's* shop. Other dealers report similar delays due to high demand.

Classic range owners claim that it's well worth the wait and the expense, because overhauled models are as good or better than new. Made of cast iron or sheet steel, they were built to last. "The parts on ranges made before 1960 were meant to be served and repaired," says Jewers. "After that, appliance makers made replacement parts, most of which are no longer available. So once they break, the appliances are considered obsolete." If you've ever tried replacing the digital component on a modern range, you know what he means. It often makes sense to swap out the appliance than to get it fixed—unless, of course, you build the vintage to purchase that extended warranty from the dealer (ask who ever does!)

Kicking the Tires

While some vintage ranges sold through dealers came refurbished, those found in antique purveyors' shops, at estate sales, on eBay, and through The Old Appliance Club (see sidebar)

FIX-UP FUNDAMENTALS

1) A technician at AntiqueAppliances.com in Clayton, Georgia, corrects a chrome painted finish that's light to replace for the next painting. 2) Another technician rebuilds the valves that supply fuel to the burners on a gas range. 3) Vintage ranges are serviced and repaired with hand tools found in the vintage dealer's toolbox—and an old flashlight comes in handy for shining holes.



living technicians could often come "to us," with clipped porcelain, missing temperature knobs, and faulty chrome plating. These models might once have a bargain, but before you buy, it's important to do the research. If possible, look up the range and learn the true permanent controls as well as it works. If the knobs don't grip, or the gas valves they are attached to are likely covered with grime. Not only will the range not fire up, the dirty valves could leak gas. This problem can be fixed, however, by taking out the valves and cleaning and lubricating the trim—but it's a job that's best left to an appliance repair technician (see photo above). To be safe, also contact your local gas company to schedule an inspection before you start cooking. A representative will check the service hookup, pilot light, and

valves to make sure the range doesn't leak gas. Because many old ranges are built together with ovens, to a certain extent apart—often using just a straight-made oven and a separate burner—most have no number of repairs you can do yourself. Uneven heat caused by carbon buildup on the burners can be fixed by taking the black crust out of the holes with a wire wool hanger or wire brush. If side panels get too hot to touch, the fiberglass insulation probably needs to be replaced. And if you see the oven temperature at 150 degrees and it goes to 200 degrees, the thermostat typically can be adjusted by turning a screw in the control panel—a screw the gas company may even do for you. (See article on page 10)

CLASSIC COOKERS: A Time Line

The American range has gone through decades of transformation and reinvention. Here is a look back at the different looks, features, and styles offered in the 20th century.



REPAIR HOT SPOTS

We've mapped out the features on this 1945 D Kuerle & Son's range to help troubleshoot potential problem areas that might need attention.



Check

Burners and built-in wiring may need to be replaced.

Wipe control knob

These are often vintage or checked. Replacements are available. The knobs are attached to the control panel and should be cleaned and lubricated.

Reaming cleaner

The liner of the reaming should be cleaned and replaced if necessary. It's made of metal and needs to be more than clean.

Wipe down porcelain or enameled finishes

With a damp rag and a non-abrasive cleaner such as Bar Keepers Friend. Detergent Cleaner available at supermarkets.

Replace shelf

The shelves in the wiring area of a 1945 range are shelf-reinforcing. The porcelain-coated shelf plates to function as a warming shelf. If they're not down, you'll need to replace the shelves. They're getting pretty rare, but you can find them at a local hardware store.

Grates

Surface-mounting grates, typically used to be stripped of the original heavy chrome coating. An inexpensive replacement is available. It's polished on the sides and has a flat top. It's not as good as the original, but it's a good alternative.

Refrigerator

Both the refrigerator and the freezer compartments are made of steel. They're made of steel and have a steel lining. They're made of steel and have a steel lining.

Overhead light and electrical outlet

Old electrical wiring for these features—common on 1945 ranges—should be replaced.

Salt and pepper

It's common to find salt and pepper shakers on the range. They're made of metal and have a steel lining. They're made of metal and have a steel lining.

Open door

Refrigerator is typically built with springs and cables in the door and buffer doors. Check or replace. If the door is not working, it should be replaced.

Side panels

It's very common to find that the side panels in the refrigerator are made of metal and have a steel lining. They're made of metal and have a steel lining.

TIP



Gas burner grates

These are often made of a stamped metal grate and are typically made of metal. They're made of metal and have a steel lining.

Cooking tray

These are often made of a stamped metal grate and are typically made of metal. They're made of metal and have a steel lining.

TIP

To remove grease from shelves, use a non-abrasive auto-cleaning spray such as Bar Keepers Friend. It's made of metal and has a steel lining.

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WHERE TO FIND THEM

- **AntiqueAppliances.com**, Clayton, GA, 706-767-3232; antiqueappliances.com
SPECIALTY Restores and sells ranges from the 1890s to the 1950s.
- **Hugh's Place**, Fort Allen, LA, 225-234-1433
Specializes in SPECIALTY Restored stoves, and sells gas ranges from the late 1800s to the 1950s.
- **Brunelle Enterprises Inc.**, Wrentham, MA, 413-215-7336; brunelle.com
SPECIALTY Restores, services, and sells wood-burning stoves from 1800 up to 1950.
- **Good Time Stoves Co.**, Groton, MA, 413-858-2637; goodtimestoves.com
SPECIALTY Restores, refinishes and sells cast-iron-cum-enameled ranges from 1850 up to 1950.
- **Antique Stove Hospital**, Little Compton, RI, 401-835-4596; stovehospital.com
SPECIALTY Restores and sells pre-1950 wood and coal-burners and pre-1950 gas-burned stoves.
- **Antique Stoves**, Teller, ME, 207-276-5234; antiquestoves.com
SPECIALTY Restores and sells ranges from the 1700s to the 1900s.
- **Vintage Stoves**, Hutchinson, KS, 877-850-1266
vintagestoves.com; SPECIALTY Restores and sells gas ranges from the 1940s and 1950s.
- **Mary's Classic Stoves**, Houston, TX, 713-545-0044; marysclassicstoves.com
SPECIALTY Restores and sells ranges and parts from the 1800s to the 1900s.
- **Antique Classic Stoves**, Longfellow, ME, 207-298-5544; antiqueclassicstoves.com
SPECIALTY Restores and sells Dixie and Merritt ranges from the 1840s and 1900s.
- **Antique Gas Stoves**, Mendocino, CA, 709-445-0303; antiquegasstoves.com
SPECIALTY Restores and sells gas ranges as well as parts and service manuals from the 1840s and 1950s.
- **Antique Stoves**, Culver City, CA, 310-257-1810; antiquestoves.com
SPECIALTY Restores, repairs, and sells ranges as well as parts and service manuals for Dixie and Merritt and Wood-burning ranges.
- **Smith's Stove Works**, Long Beach, CA, 562-432-6758; smithsstoveworks.com
SPECIALTY Restores and sells ranges from the 1800s to the 1900s.
- **Buckeye Appliances**, Modesto, CA, 209-424-3640; buckeyeappliances.com
SPECIALTY Restores and sells gas and coal-burning gas, and wood-burning ranges from the 1800s to the 1950s.
- **Guy's Holyoke Appliances**, South Gate, CA, 862-438-4202; guysholyoke.com
SPECIALTY Restores, services and sells mangle and parts from the 1850s.

For tips on finding a restoration team, see www.ahfa.org.

If the temperature is off by more than a 75 degrees, however, you've got what's called a "run away," and you will likely need to hire a technician to rebuild the thermocouple. Missing parts and supplies for CRT repairs—including handles, burner grates, oven door springs, metal rolls of insulation—can be found online from various dealers (see "Where to Find Them," left).

Some jobs—refinishing the porcelain body, replacing the ceramic or metal trim—require you to strip your range to a metal. There are also safety and code issues that could arise, too. For instance, in most states you can't even hook up a vintage range unless it has a safety switch on the pilot light that automatically shuts off the gas fluid to prevent leaks if the pilot is extinguished. "Given that many old stoves were never designed to have this safety feature in the first place, you have to retrofit it," says Jowers. "The device often has to be customized to fit in a place that's easily accessible for the user, but it's so hidden you don't distract from the look of the appliance."

Ranges made after 1940 often have factory-installed safety systems. An easy way to check whether a range has one is to look on the control panel for the controls "CR," which stands for Certified Refrigeration, says Tom Smith, co-owner of Antique Gas Stoves in Moorpark, California. It's the mid-century equivalent of a "UL," or Underwriters' Laboratories, listing. "Retrofit is so tedious for getting the certification on the backings," says Smith. "It was previously displayed in consumers would know they were getting the newest in safety technology."



BLENDING NEW AND OLD

An oversized cast-iron hood from Wood & Wood helps bring the late-1950s Dixie & Merritt into a modern-day kitchen. The range is lighted and griddle details are also echoed in the tile cabinet and drawer pulls.

Like those all-new pre-war ranges, the burners can leak off a lot of heat, requiring overhead ventilation. But the modern styling of most ranges hardly is out of sync with the look of a period range. Here, more cabinets look, kitchen designers often place the range was made and hide the vent behind a decorative element that looks much like a fireplace mantel. A few companies also offer retro look simulated vent hoods.

Many homeowners prefer fridges, ovens, and dishwashers so that their modern appliances blend in with cabinets and don't distract from the look of the range. Diamond vintage refrigerators as well as new ones with retro styling are available in a variety of "retro" colors and make good companions to the mid-century ranges. The Chiffi line fridges, for instance, come in 10 colors, including Buttercup Yellow and Julie Green, and the Nordberg model from Riverside Stove Works comes in four shades. There are even custom paint a fridge if you can't find a match among their offerings. For a taste in wood- or gas-fired ranges from the early 1900s, check out the mid-century modern from Moorpark Appliances' Classics Collection.

Whatever design scheme you choose, a vintage range should suit your cooking needs and help create an atmosphere that's warm to you and your guests. "I hear to see a top-of-the-line kitchen with beautiful cabinets and counter tops and a vintage range put in the back," says Polak, who believes the range should be the centerpiece of a kitchen, a place around which people congregate. "The range was the heart of the home at the time of the writing," he adds. "And it should remain our today." ■



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Poisonous Picnic Table?

The new set-and-plate table in our backyard are made from CCA-pressure-treated wood. The boys told it's unsafe to let children play on or sit on these structures. Is that true?

D.P. Rosen Deloitte Inc.

Kevie O'Geare replies: I did some digging and found that the Environmental Protection Agency has been conducting tests to figure out the best ways to eliminate or reduce the risks of exposure to wood treated with CCA, a preservative made of copper, chromium, and arsenic. CCA was banned from residential use in 2004, primarily because of its arsenic content.

The EPA issued a preliminary report in May suggesting that you can reduce the risk of arsenic exposure by applying a penetrating stain or sealant at least once a year. It also corrects this warning: "Always wash hands thoroughly after contact with treated wood, especially prior to eating and drinking, and ensure that food does not come into direct contact with any treated wood." The report goes on to say these aren't any reason to remove or replace CCA-treated wood, including decks and playground equipment.

To see the preliminary report, go to the EPA's website, epa.gov, and search "arsenic updates." The final report should be out by January 2006.

Choosing the Right Saw Blade

I know that some blades for circular saws and table saws are best for crosscutting and others are best for ripping, but what kind of blade is the best to use when cutting across the wood at an angle?

Barclay.com Chipping, Ontario

Nora Brown replies: A crosscut blade is best for cutting across the grain, whereas most rip angle a chipper is likely to find. It will also rip—cut to line with the grain—but not as quickly or as smoothly as a blade designed specifically for ripping.

If you're doing a mix of rip cuts and cross cuts and changing the blades is getting to be a hassle, then try a combination blade. It's a compromise between a crosscut blade and a ripping blade and will give you good results



CCA-treated woods loaded with arsenic, so don't fallow them in areas left to rot with it and always wash hands after touching it.

with the grain, across it, or at any angle in between. You can probably won't be a good choice made with a crosscut blade, but you won't need to swap out blades every time you cut change direction. That's pretty fair compromise, I think.

Regulating Laminate Countertops

The laminate on our kitchen countertops is coming loose at the edges and in the middle of some large areas. Is there any way to refinish this stuff?

Janet Monroe, Killeen, Texas

Tim Skelton replies: The loose edges were probably caused by moisture seeping into the joint over time and causing the glue to weaken, which is underneath most quarter-sawn laminates, so seal it and fix it. So try this. Lift up an edge



Don't fallow them in areas left to rot with it and always wash hands after touching it.



Don't fallow them in areas left to rot with it and always wash hands after touching it.



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Don't fallow them in areas left to rot with it and always wash hands after touching it.

Q. MARK HITT

- A. Splice-egg lipstick container
- B. Plastic cowboy hat
- C. Master-joint smoother
- D. Di...

© ILLUSTRATION: BOB FROST LLC

slightly and wash some polyurethane glue in there. A large paper clip or a fishing reel makes a good glue spreader. Be careful, though, the laminator will crack if you lift it too far. Push the seam down and immediately use a finger smeared with mineral spirits to wipe off any glue that seeps out. Then put a piece of waxed paper over the area and weigh it or clamp the edge until the adhesive dries completely.

The bubble areas in the center of the counter were probably caused by heat from, say, a hot pan that melted the adhesive. The solution, add as it seeps, is to heat the adhesive again, then press the bubble back in place. You can use a hair dryer, a heat gun, or a clothes iron with a lightweight towel to raise the temperature to 140 or 150 degrees. Again, you need to be careful, too much heat can char the business. Wipe the laminator and the glue are hot, immediately push the bubble into place with a rolling pin and weight it heavily for 24 hours.

If that doesn't work, I'm afraid you'll have to live with it or replace the countertops.

Annoying Downspout Extensions

I'm getting tired of tripping over the extensions for my downspouts. And who ever I know the guys have to take them off and then replace them. There must be a better way.

Joanne Smith, Ledyard, Ind.

Roger Cook replies: The extensions that empty onto the lawn can be removed fairly easily by connecting the downspout to a buried drain pipe that leads away from the house. If you're lucky, you'll be able to lead the pipe to daylight.

If not, connect the end of the pipe to a drywell—basically a plastic barrel with holes in its sides—buried 10 to 20 feet from the house. Before setting it in place, wrap the drywell with a landscaping or filter fabric to prevent soil from clogging the well over time. Fill around it with clean dirt or pea stone, and cover it with plenty with soil. It's also a good idea to run a piece of pipe from the drywell up to leave level and cover it with an overflow cap. This allows excess water to flow up and out of the well in the event of a large downpour.

If all that seems like too much work, check out those plastic expansion coils that roll out when warm water runs out the downspout. They can back up when the water stops flowing. I've never tried one, but you might want to see if it works for you before you start digging.

Cleaning Baseboard Heaters

More than 30 years ago, I had hot water baseboard units installed in my house. How do they clean? I provide enough heat. Should I replace them with radiators?

Charles Marshall, Cedar Hill

Richard Telford replies: I wouldn't replace them just yet. You can probably fix the problem yourself for a lot less than what it will cost to put in new baseboards.

A baseboard unit works by convection, and air enters the bottom, gets heated by the copper tubing and aluminum fin—the heating element—then exits out the top, as warm air. Anything that blocks or restricts airflow through the unit reduces its heating ability.

Inside a Baseboard Heater



Loose or poorly installed carpet is a common culprit. Sometimes the damper in the top of the baseboard has been accidentally closed. But with older units like yours, it's often the accumulation of dust and dirt on the heating element that reduces heating output. After 30 years, there's no telling how many paper clips, coins, and balls of dirt have ended up on there.

The loose carpeting and closed damper are easily fixed. To clean the fins, however, you'll need to take off the metal housing that covers the heating element. Pry the metal end caps off the housing, open the metal damper, and pop the front panel off its hinges. Now you can remove any debris you find and use a brush attachment to gently vacuum the element's fins. Once they're clean, use needle-nosed pliers to gently straighten any that are crooked or touching their neighbors, then snap the panel back on. I bet your heat will work as good as new.

Looking for Garage Access

My house has no attached garage, but there is no door between it and the house. There is room in one of the adjoining bedrooms to put a door in that way?

Robert Ford, Chino, Calif.

Tom Silva replies: No, it's not. Safety concerns about fire and carbon monoxide buildup in garages mean that the building inspectors

trust.

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Ask This Old House

ASK MASTER DENTY

D Temporary door latch

Fitting this device into the hole, intended for a door's lock set, allows you to latch the door until it's time to install the hardware. To open it, just squeeze the piece in the hole.



broken on any bedroom garage connections. The 2000 International Residential Code says: "Openings from a private garage directly into a room used for sleeping purposes shall not be permitted." That doesn't leave much room for argument. Check your local codes, but I'd be surprised if they were much different.

Save My Pine

We have a bright pine in the middle of our asphalt driveway. The tree is about 250 years old and in good health, but its roots are cracking the pavement that completely surrounds it. We'd like a smooth driveway, but my wife and I are willing to do just about anything to save our tree.

—David Wright, Southern Pines, NC

Kyle Conroy replies: A 250-year-old Douglas fir is definitely worth saving, especially one big enough to have surrounded the construction of your house and a blanket of asphalt being dropped all around it.

First of all, you don't want to remove trees

from the room. All the machinery needed to do the work would square them, and a tree that old probably won't bounce back. It's no square as quickly as a young tree. Start by covering the asphalt by hand—it should fall easily if you start in the area where it's cracked.

You could cover your driveway with a loose pea stone, which makes a reasonably good driving surface as clean as and wear as to the one now. The stone does make new removal difficult, but that wouldn't seem to be too much of a problem where you live. You'll need some kind of driveway edging to keep the stone in place, and just figure on adding a bit more every year to replace the stone that "disappears." This will be more of a problem on the sloped part of your drive. Make sure the tracks delivering the stone keep out of the area inside the tree's drip line, directly below the outermost part of the tree's branches.

So did you want to go to great effort to save this tree, so let me suggest something that will help it more than anything. After



Laying a blanket of asphalt over a tree's roots is bad enough, so bring over the tree now. Don't let it go. It's managed to survive and make up the pavement.

you tear up your driveway, connect your garage to living space and park your own semiothermic. Perhaps there's room to build a new garage on the other side of your house. It's an extreme solution, I admit, but if you want to do what's best for your tree, you should keep driving over its roots.

Repairing Cracks in Textured Ceilings

How can I repair cracks in ceilings that are covered with textured drywall? My past tape-and-compound repairs are just making things look worse.

—Mark Winkler, Powell, Ohio

Tom Silva replies: That depends somewhat on the age of your house. Textured ceilings installed before 1979 or so may contain asbestos, a substance you don't want to mess with. So if your house is more than 25 years old, have the ceiling tested. If a test comes back positive, you can forget about the cracks because you'll probably be getting a new ceiling. A licensed asbestos abatement contractor will be able to tell you what your options are.

If the ceiling tests negative for asbestos or your house is less than 25 years old, here's how to proceed. First, remove your earlier repairs. Blasting a texture is tricky enough, and having to peel and compound in the way makes it even more so. Use a stiff putty knife to scrape all the ceiling texture right down to the drywall's paper surface. Then clear a space about 3 inches wide on each side of the crack. Fill the exposed crack with a jointable caulk and coat the repair area with latex primer.

Next, place the texture. Get one of the second-spray-texture repair kits sold at home centers. They come in several varieties to match various ceiling textures, including stippled, orange peel, knock down, and acoustic, also known as "popcorn." Follow the instructions, and practice your technique before you tackle the ceiling. I can't guarantee that the repair will be invisible, but your ceiling should be much improved. ■

To send a question to Ask This Old House, go to Research.houzz.com/askthisoldhouse or write to:

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This Old House magazine
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New York, NY 10020

Include a complete address and daytime phone number. Please allow 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're not able to reply to unpublished questions.

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THIS OLD HOUSE



Your house is full of clues to its past. The faded ceiling of a walk-in closet. An old glass chimney in the attic. Original photos behind heavy drapes.

Perhaps that technology class will come in handy after all.

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handrails

MISSOURI homeowner Laurens Platt needed handrails in his stairways, but was puzzled by how to put them in. He tried old ASK Your Old House and Tom Silver showed up to lend an expert hand.



irrigation

Outside of Los Angeles, Roger Cook used specialist Rob Galbreath help homeowner Sherry Steele reduce water to her slice of too-high desert.

sinks

Minnesota homeowner Anna McCandless tried to fix her rusty bathroom sink stopper with a poppers stick. Richard Trethewey provided a more professional solution.



closets

California couple Braden and Marlene Gaultier's sliding closet doors were stuck. They emailed Ask Your Old House, and before long Tom Silver put them back on track.

what's your problem?

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Visit www.thisoldhouse.com/techcheck to find out when shows are on in your area.

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Skill Building



Button Up Those Windows, Quick!

RELATED STORY: IS Making Windows Drafttight

Run out of time to weatherstrip? Here's temporary fixes for stopping the drafts the winter.

1. WRAP THE WINDOW

Cover the inside of the window opening with special plastic flexfilm comes in a roll and is held in place with double-sided tape. A hair dryer shrinks the clear plastic to form a airtight liner. Tapes are light as they go on. The downside is that you can't open the window and that the tape can be messy to remove.

2. "FRAM" THE GAPS

Stuff lengths of foam backer rod—used for filling gaps before they're caulked—into gaps that are 1/2 inch or wider. They're virtually invisible when it's all gap-out when the window is opened and can be reused next season.

3. PLUG THE PULLEYS

If your window has sash cords, stop or buttons around the pulleys with foam carpet padding cut into 1/2-inch strips. Plug the sash cord out about 1/2 inches, stop one end of the strip between the cord and the pulley, and let it sit on the cord. The cord will pull the padding in and around the pulley, sealing it until spring. To remove the stop just pull the cord.

4. CAULK THE CRACKS

Narrow gaps (1/2 inch or less) around the sash can be sealed with inexpensive adhesion caulk. During the winter it sticks to drafts. When you want to open the sash in the spring, you can pull out the caulk with a flat bar or pulling off the paint.

5. TIGHTEN THE STOPS

Double-hung windows that have stops held in place by screws and buttons allow you to make adjustments that reduce or leak around the lower sash and keep it from rattle. Just loosen the screws slightly, push out stops, tighten the sash and tighten the screws. Loosen the stops in spring when you want to move your sash.

If the stops don't have buttons, adding them is easy. Just pry off the stops, pull out the nails, and drill two or three evenly spaced 1/8-inch diameter holes through the part of the stop next to the lower sash and one through the top end of the stop. Pop the buttons into the holes, replace the stops, and drive the screws through them and into the jamb. —JOHN KRAJCIK

ILLUSTRATIONS BY HEATH BATES



Skill Building



Spray-Painting Louvered Shutters

RELATED STORY p. 32
"Painting Tips for Shutter"

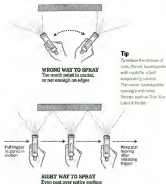
Color the shutters and get a custom finish—fast.

You can use a brush to paint louvered shutters (and many other items with hard-to-reach surfaces), but you'll be done much sooner and have smoother finish if you spray-paint them. Not with conventional spray paint, which binds color pigments and water to your finger, but with a gun the way the pros do.

For shutters, the best way to spray is with HLP (high-volume, low-pressure) equipment. It's designed to apply sunbath paint without clouds of paint misting everywhere. Instead of the paint that comes out of the nozzle ends up on the surface where you want it. A decent HLP sprayer starts at about \$120, or you can find less-expensive gear.

Follow these seven basic steps to a flawless finish.

1. **Get the shutters ready.** If all surfaces evenly with 120-grit paper, then vacuum thoroughly. Pre-primed wood. Screw spacer of cup hooks into each end of the shutter to act as lugs and to give you something to grab. (You can dislodge shutters from the hooks while the paint dries.) If the louvers are adjustable, partially close them so they don't touch each other.
2. **Prep the work area.** Plug the shutters in a clean, well-ventilated space, against a wall or table draped in newspapers, which absorb overspray.
3. **Test paint viscosity.** To determine whether paint is thin enough to flow through the gun, take a viscosity cup, which comes with the sprayer, and dip it into the paint. Then lower the cup so the paint is empty. A dash in the sprayer manual lists the recommended times for different types of coatings. If the paint is necessary with more than a dash.



Tip

To reduce the chance of runs, throat, backdrops with multiple, a fast evaporating solvent. The water-based paint sprays with latex. Sherwin-Williams' True X-100 Latex X-100.

4. **Filter the paint.** Pour the thinned paint into the sprayer's paint cup through a paint strainer to remove particles.
5. **Practice your strokes.** Before turning on the sprayer, practice making the nozzle parallel to the shutter surface with each pass, so that the paint is applied evenly (see illustration). Also practice keeping the gun in motion before you pull the trigger and after you let go of it at the end of each pass. A stationary gun creates a heavy paint buildup.
6. **Protect yourself.** Wear a respirator, gloves, and safety goggles. Full-body "suits" will keep paint off skin and clothes.
7. **Make adjustments.** Turn the sprayer on and practice your technique on a piece of wood or cardboard. Rotate the air caps to adjust the shape of the spray pattern. Turn the flow control knob to regulate how much paint is being sprayed. Hold the gun about 18 inches away from the shutter. Too close and the paint will run; too far and it won't coat evenly. Light coats make the difference.
8. **Spray in segments.** Begin on the back side. Coat all the edges of the shutter's frame first, inside and out, then spray the face. Repaint inside panels before the face being painted. Repeat on louvers to ensure an even finish. Apply two coats.
9. **Clean the gun.** After you're finished, put a small amount of solvent or water into the cup, swirl it around, then spray it through the gun into a 5-gallon bucket. Repeat once or twice to ensure that the paint doesn't dry inside the gun and clog things up. —KAREN PETERSON

Tip

Use an exterior acrylic latex paint on shutters that will be outside. For latex or shutters, an oil-based paint is best.

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How to Smooth Inside Corners

RELATED TO THIS: When you're in a corner, test your sand with a fine-toothed edge.

Traditionally, joint compound—applied in three successive layers—smooths out seams. But today's drywall is so smooth that sanding is often all that's needed. To smooth a corner, use a sanding block. It's a simple tool, but many people don't use it. Here's how to make a sanding block.



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3. **Smooth the inside** (It's best to cover the inside in mud, scrape down the half inch and be first from the corner. Keep the mud back on the walls only when you want to check on the wall.)

2. **Smooth it.** Don't worry too much about the tape on the first pass, just get mud on the wall. But after the first pass, the tape must be pulled to the wall. The sanding strokes, after taping the tape down, go the handle up your index finger and down the handle. Place the side of the handle in the corner and angle the handle so it will be mud with the corner. Smooth it and away from the corner. Hold the handle at a low angle with your knuckles nearly touching the wall and bend your wrist outward to corner-brake the pressure on the side away from the corner. This action forces the mud to the corner and begins to feather it out on the wall.

Repeat this step for the other side of the corner. 3. **Feather the edge** (This is a must. Be sure about half a foot in and away from the corner. Then go the other side. Bend your wrist as in Step 2, and slide the compound in a perfect feather line that disappears seamlessly into the wall. Fine sand the angle of the handle and how much bend you apply is well knowing, and don't mud, but if you need the corner. After the first coat, dry up the mud and trim coat the same way, using less mud, but this time allow one side of the corner to dry before mudding the other side.)

Sand your work. When the compound is dry, smooth it with a corner sanding sponge. If your knife work is good, there will be much sanding to do. —[DIY.COM](http://www.diy.com)

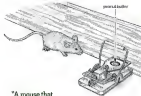
Tip

Sharp knives on a cardboard can be used to sand paper tape or leave grooves in the put compound. Round them off slightly with a flat, double cut file.

1. When applying compound, scrape the knife down and the edges of the handle or mud pan after every stroke.

2. When you're done, scrub off the mud with a stiff brush and water. Dry it with immediately apply a layer of mud and sand paper compound.

3. Don't use taping knives for corner and long joints. For corners, pencil tapping cuts or spreading putty will run a Miter's edge. —H.S.



"A mouse that both but one hole is quickly taken."

—GEORGE HERBERT
1900-1933

Snap-Trap Strategies for Mice

Related Story — www.diy.com — www.diy.com — www.diy.com

Snap traps are cheap and easy to use, but they're also slow. Here are some ways to get the most out of yours.

Don't skip. Set one in each room where you suspect activity—I've been the person who skips the kitchen. Remember: If you give mice a chance, they work fast. So within 48 to 72 hours you'll have a mouse. Offer tasty bait. Try a mixture of peanut butter (I've had that) and hydrogenated fat. A bit of bacon also works, because it smells like mouse food. Smaller is better; you don't want the mouse to only nibble and get away.

Think like a mouse. Mice prefer to keep their traps as close to the wall as they can. They'll take a trap under a chair in the middle of the room. You'll have better luck placing traps perpendicular to the wall, with the baited side to the wall and the door at the end.

Use bait like bait. Don't use traps without setting them. You'll be in the kitchen, but traps are useless food sources. On Sundays, when I'm out of town, I'll set traps and leave them in the kitchen. There's a lot of food there, but set and place them as described.

Give them a break. Check the traps every day. If you have a mouse, set a trap before setting them out again. Mice will learn to avoid traps, so give them a break. —[DIY.COM](http://www.diy.com)

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Norm's Notebook



"There's nothing worse than having to put down my tools and head out to the hardware store just to get a few screws or a bolt to finish off a project. That's why whenever I take stuff apart or end up with a few leftover fasteners, I toss the extras in some metal coffee cans in a cabinet that belonged to my grandfather. This collection spans two lifetimes—my father started it years ago, so it's got just about everything: lag screws, round-head screws, stove bolts, you name it. I can't tell you how much time it's saved me."

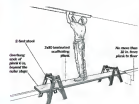
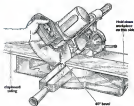
—NORM HENSON, 70th OLD HOUSE MASTERS COMPETITOR

How to Bevel Clapboard Siding

To keep water from getting past the nail joints between lengths of clapboard siding, I always cut 45-degree bevels in the ends so that they overlap. Then there's no chance of the joint opening up in the weather and sucking water in the seasons. I use a compound miter saw through a good motor box with bevel stops and a sharp backsaw with just fine if you only have to replace a few courses.

The trick to getting accurate joints is to be consistent. Make sure the same edge of the clapboards always against the saw fence and hold the exposed faces always down. Cutting angle also affects the installation. If you tilt your saw to the left, for example, you'll have to start on the left side and work right. Tilting the saw to the right means you'll have to work from right to left. Choose one side and stick to it.

Once a clapboard is on the wall, square a line of acrylic latex caulk on the cut edge that faces out—it's good insurance against leaks—then put the overlapping board into place. Scrape off any caulk that has squeezed out after you nail the siding.



Reaching for the Ceiling

I don't like working from a ladder when I'm talking or painting crown molding, taping a drywall joint, or repairing ceiling cracks. Moving it around is really time-consuming and inconvenient with my concentration. And when the slope isn't ideal, I have to move the ladder out. It's much easier—and better—to work on a long, wide plank set to a comfortable working height. Eighteen inches or so is usually all the height I need. Anytime that's that and I'd need a step stool to get up and down the plank safely.

You can purchase new work platforms at home centers, but I'd just rent a 10-foot-long 2x6 scaffolding plank between a pair of sturdy 2-foot-tall step stools and secure it to the studs with clamps. Make sure the plank you use is graded for use as scaffolding and a full 2 inches thick, or is laminated. They're stronger and safer than open framing lumber.

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KITCHEN RENOV

Antique White Case Tumbling Down
pg. 41-44



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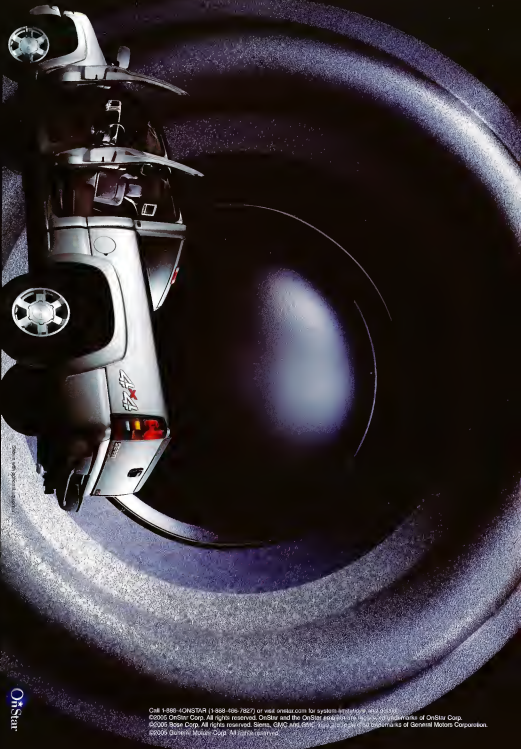


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