

How Kevin O'Connor became our new TV host (page 74)

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THE RIGHT TRUCK.



SILVERADO  LIKE A ROCK

New Faces at This Old House

This Old House and *Ask This Old House* get a new TV host—
and two familiar faces launch a brand-new series

Kevin O'Connor



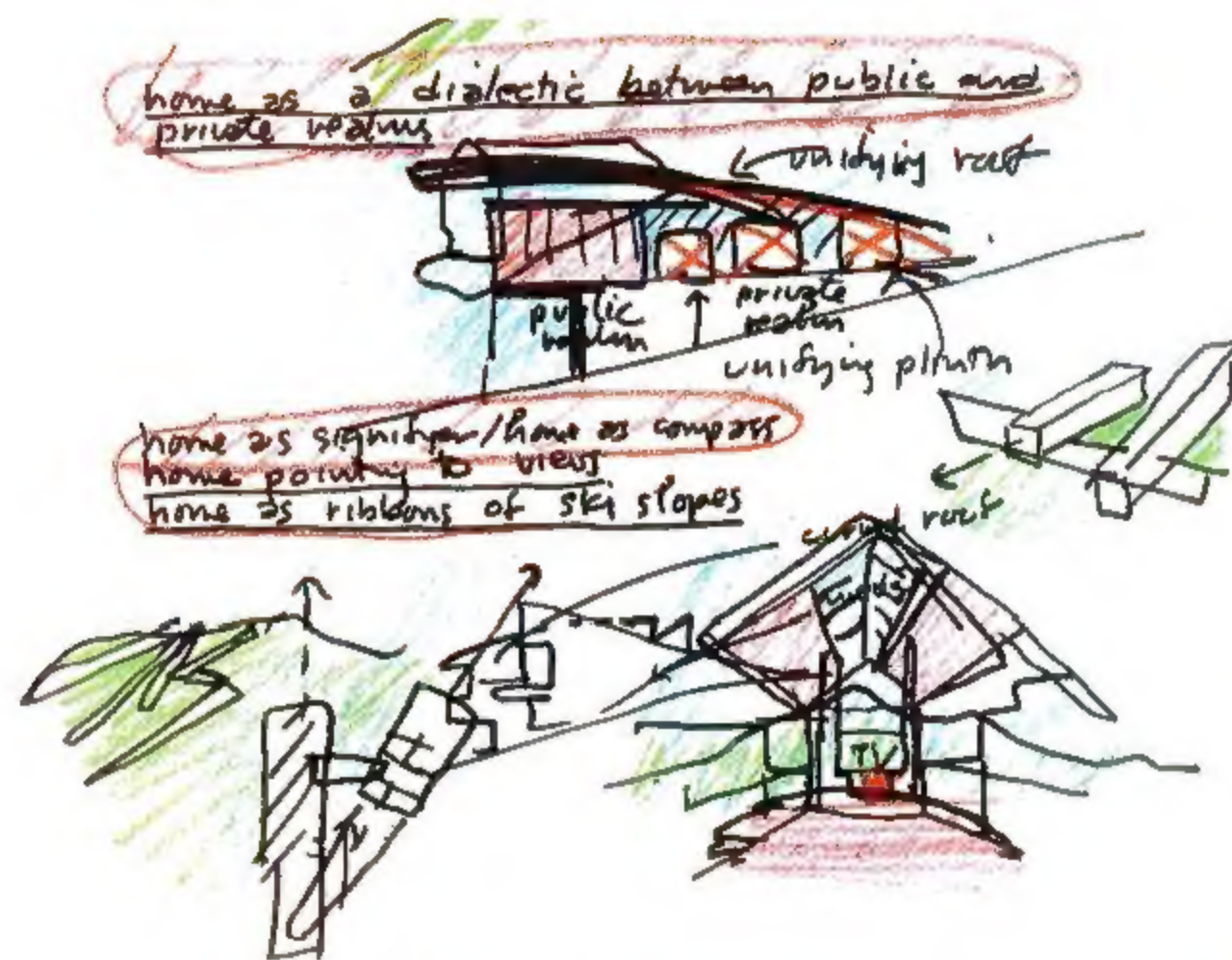
A new television season at *This Old House* means new projects and new discoveries—and this year, one of those discoveries is new host Kevin O'Connor. A lifelong fan of the show, Kevin was tapped for his dream job after appearing on a segment of *Ask This Old House* last season (for the complete story, see Letter From This Old House, page 74). He's an avid home enthusiast, and his passion and curiosity proved a perfect complement to the *TOH* team's expertise. Since he's a first-time homeowner and spends much of his free time working on his house, Kevin has the same kinds of questions and concerns as *TOH* viewers—a point of view that will prove indispensable in his role as host of both *This Old House* and *Ask This Old House*.

Check out Kevin's debut when the new *TOH* season premieres exclusively on PBS Thursday, October 9 in the first half of The New This Old House Hour at 8 p.m. Check local listings or go to www.thisoldhouse.com/tvprograms/tvschedule.

Leslie Keno and Leigh Keno

America's favorite antiques experts Leslie and Leigh Keno, familiar faces from PBS's popular *Antiques Roadshow*, also join the *TOH* family this month. In a new TV show called *Find!*, debuting the week of October 6 on PBS (check local listings), they'll cover the world of design, style, antiques, and furnishings, helping audiences furnish their homes just as *This Old House* helps them renovate and *Ask This Old House* helps them with maintenance. The high-energy twins will visit viewers' homes across the country searching for finds and will call upon experts in conservation, restoration, reproductions, and other fields to help viewers learn more about the objects around them. Leslie (at left in photo) and Leigh will also visit showhouses and private homes to identify emerging trends in interior design. This mixing of the old and the new will also find its way into the pages of *This Old House* magazine in the form of a regular column by the Keno brothers. (To read the first installment, turn to page 61.)





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showcase a
vision that
explores our
own creative
potential.

With **Windows** in MIND

A HOUSE SHELTERS. A HOME INSPIRES. INNOVATIVE WINDOWS AND DOORS THAT INTEGRATE INTO THE DESIGN WILL ENHANCE BOTH THE COMFORT AND BEAUTY OF YOUR HOME.



The planning of any home begins with a great deal of soul-searching. What do we need? What do we want? What are the realities and possibilities?

Our home is often our biggest financial investment. But it is also an emotional investment. We want our home to be comfortable and secure, an expression of who we are and how we live. We want to open our home to friends and family, yet at the same time we want a quiet refuge.

Windows provide homes with light, ventilation and views. Windows connect us, both literally and metaphorically, with the bigger world outside. Windows open wide for us to

see, to talk, to remember... and to dream. For 100 years the people at Andersen Windows have been asking what can a window be? Can it be more than just an opening in a wall? Can it offer more than light and ventilation?

What if a window could provide privacy at the touch of a button? What if a window could actually enhance the view? What if a window could become a multimedia screen that provides views not just of our immediate surroundings, but of the entire world? Right now, Andersen is turning these questions into answers. The Andersen® **inHOME** at Sundance Film Festival is under construction in Park City, Utah.

Throughout the Andersen® **inHOME**, windows open wide with ideas for you to make your own:

By integrating the windows into the home design, rather than treating them as mere openings on outside walls, the entire home becomes a place filled with light and views ... and ideas.

Extending almost 140 feet as it steps along a rocky ridge overlooking the 2002 Olympic ski jump venue, the Andersen **inHOME** will provide both views and privacy. A 4-foot-thick stone wall runs the length of the house, creating a central spine. The wall will serve both as an organizing element and as a screen from the street. Most of the rooms of the 5,000-plus square-foot house are arrayed along the opposite side of the stone wall. This "single-loaded" concept gives each room its own special view of the mountains to the west while the mass of the stone wall provides a counterpoint to the transparency of the windows.



OPEN WIDE FOR VIEWS. Use large expanses of glass to embrace the view. Large windows pulled to the corner of the room blur the distinction between indoors and out.

DESIGN WITH WINDOWS IN MIND. Use a combination of window sizes and shapes to express your own sense of style. While a typical house might have only one or two types of windows, the Andersen **inHOME** will utilize a wide range of window sizes and shapes. The interior elevation of each wall was as carefully considered as the floor plan. Each of these "wall plans" studied not only how the proportions and arrangements of windows look but also how they influence each room. Views out through the windows are composed from various locations within the room and from both seated and standing eye levels.

LIGHT AND PRIVACY. Yes, you can have both. On the street side of the **inHOME**, for example, small windows will assure privacy in the guest bedrooms while providing views of the golf course and distant mountains. A row of clerestory windows, tucked just below the roof, will wash the ceiling with light and make the roof appear to float. The glass around the



A row of clerestory windows, tucked just below the roof, will wash the ceiling with light.

entryway switches from clear to opaque as a visitor approaches. At the entrance, a solid mahogany door floats in a surround of Andersen® Art Glass. Adjacent to the front door, a two-story collage of windows rhythmically arranged rises to form a tower of light that will illuminate the stairway inside.

BRING WINDOWS INSIDE. Interior windows provide light and views to rooms that are not located on an outside wall. In the Andersen **inHOME** these interior windows will allow several of the bedrooms to share views and light with more public spaces while still maintaining privacy. In the upper-level master bedroom, for example, a pair of interior windows, aligned with windows placed high in the two-story great room, provides a view of the mountains from the bedroom and light to the great room below. Between the dining room and kitchen, an interior window provides a visual connection between the two spaces. This room divider also doubles as a media window, allowing access to recipes on the Internet or news on television.

WIN

a TRIP to the 2004 SUNDANCE FILM FESTIVAL

Does your home have an inspiring view? Do you look out and see the garden you planted with your children, the glittering lights of the city, or the farmland your family has worked for generations? We would like you to share it with us. From August 1, 2003 until October 31, 2003 Andersen Windows is searching the country for homes with inspiring views. We'd like to hear how the view from your home inspires you. You could win a two-day trip for two to the 2004 Sundance Film Festival (two nights) and dinner at the Andersen® inHOME in Park City, Utah. (APR \$4,000)

To enter, go to www.anderseninhome.com (AOL Keyword: Andersen inHome) to enter on-line and view complete official rules, which govern this contest. (Please read official rules prior to entering contest.) Or, print name, address, phone number(s) and E-mail address (optional) on entry form below or on plain paper. Attach a photo (no smaller than 4" x 6" or larger than 8" x 10") of a view through any of your home's windows along with an essay of 200 words or less on why the view inspires you. Mail all entry materials to: Andersen Inspiring View Search, P.O. Box 9202, Medford, NY 11763-9202. (Print name, address and phone on back of photo and essay.) Two Grand Prize winners will each receive a weekend for two (two nights deluxe accommodations, double occupancy) at the 2004 Sundance Film Festival along with dinner prepared by a celebrity chef at the Andersen® inHOME at Sundance Film Festival in Park City, Utah. Two Second Prize winners will each receive a Gift Certificate to The Home Depot®. Open to legal U.S. residents age 18 or older at time of entry. No purchase necessary. Begins 8/1/03 and ends 10/31/03. Void where prohibited. Judge's decisions are final. Sponsor: Andersen® Windows, Inc., 100 Fourth Ave. North, Bayport, MN 55003.

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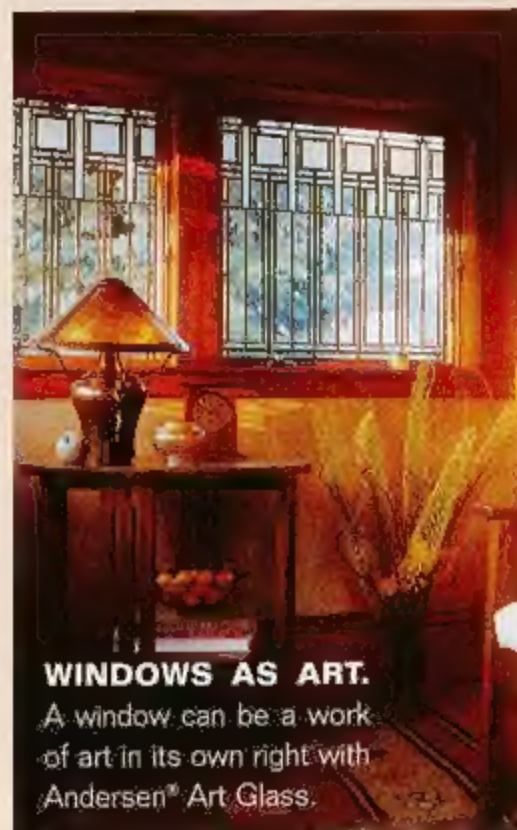


HIGH OR LOW? Windows placed high on a wall accentuate the ceiling height and the volume of the space. Others extend down low to light the floor and emphasize the connection between interior and exterior spaces.

BALANCE THE LIGHT. Throughout the home, balancing natural light is an important consideration. Having windows along only one wall of a room would have made one side of the room bright, the other dark. In the Andersen inHOME, windows on two or three sides of virtually every room will assure a more even light level. Skylights will also be used to bring light to interior spaces and balance light from the windows.

OPEN FOR AIR. This same balance and variety of windows also aids natural ventilation. With operable windows on opposite sides of a room, even the gentlest breeze provides effective cross-ventilation.

INSPIRATION: The Andersen inHOME was designed to show how windows can perform beyond traditional expectations and explore the possibilities that windows offer to enhance all aspects of our lives. Windows become the inspiration for a different and better way to view the home. ■



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Andersen® inHOME at Sundance Film Festival
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VISIT THIS OLD HOUSE ONLINE AT
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AOL Keyword: This Old House



Exposed timbers reassembled from a 250-year-old post-and-beam house nearby add character to an otherwise new family room/dining area. For more, see "A New Old House," page 82.

OCTOBER 2003

features

TV Project: A Cottage in Concord

Transforming a backyard barn into a home for Mom and Dad. BY MAX ALEXANDER

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A New Old House

The bones of a 250-year-old timber frame give shape to a new addition. BY RYAN ROBBINS

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A conservatory adds light-filled space—and a distinctive architectural element. BY MAX ALEXANDER

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Just One of the Guys

Our new TV host gets a grunt's-eye view of the trades at This Old House "boot camp." BY KEVIN O'CONNOR

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PHOTOS (CLOCKWISE FROM TOP): MATTHEW BENSON; TANGLEWOOD CONSERVATORIES; KINDRA CLINEFF; SUSIE CUSHNER



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JUST ONE OF THE GUYS, P. 114



UNDER GLASS, P. 104

cover

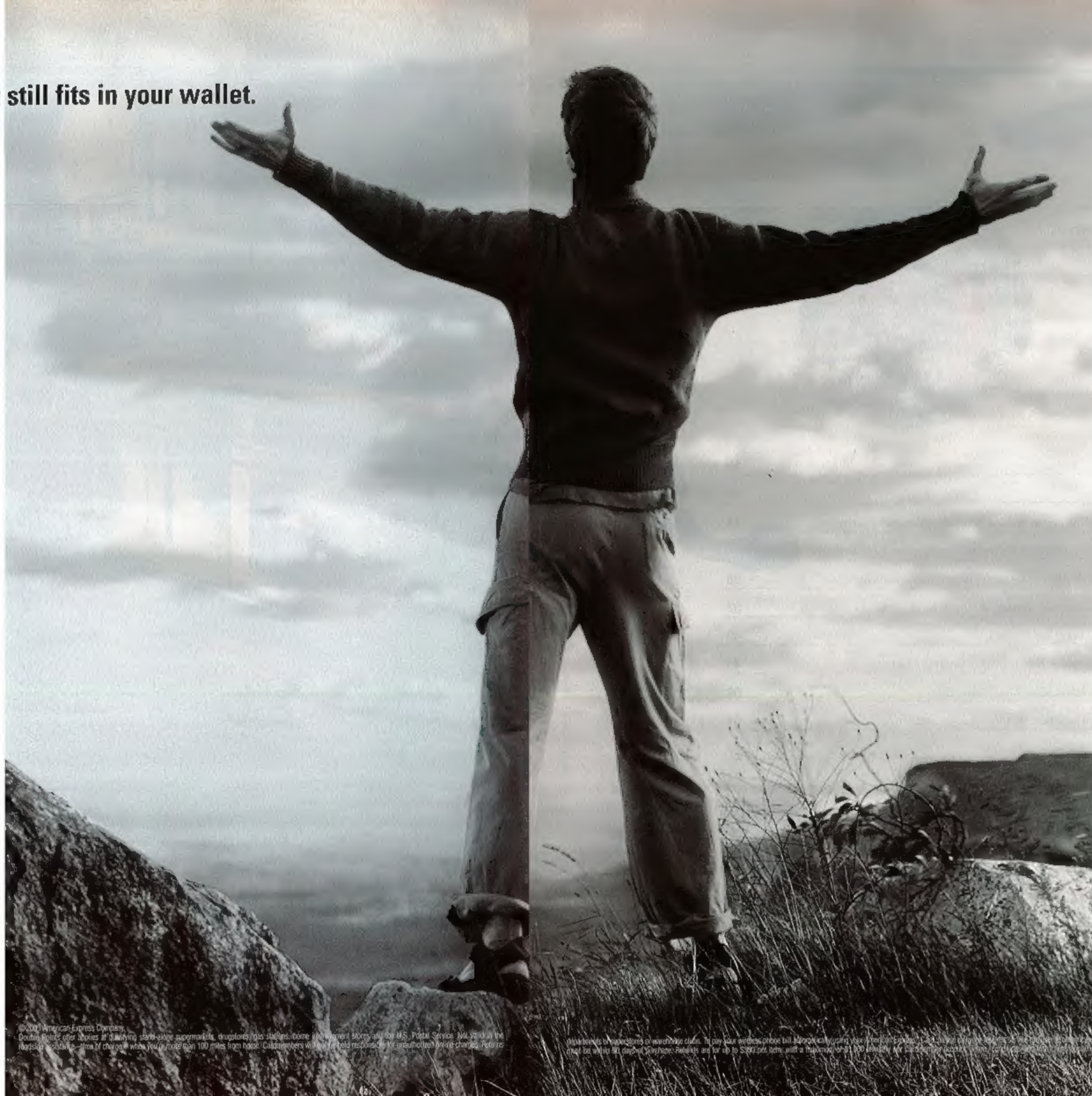
When a Connecticut couple wanted to enlarge their 1772 Colonial, they spotted and salvaged a nearby timber-framed house dating from the same era. The result: a new addition with the timeworn feel of the original. To see how they accomplished it, read "A New Old House," page 82. PHOTOGRAPH BY MATTHEW BENSON



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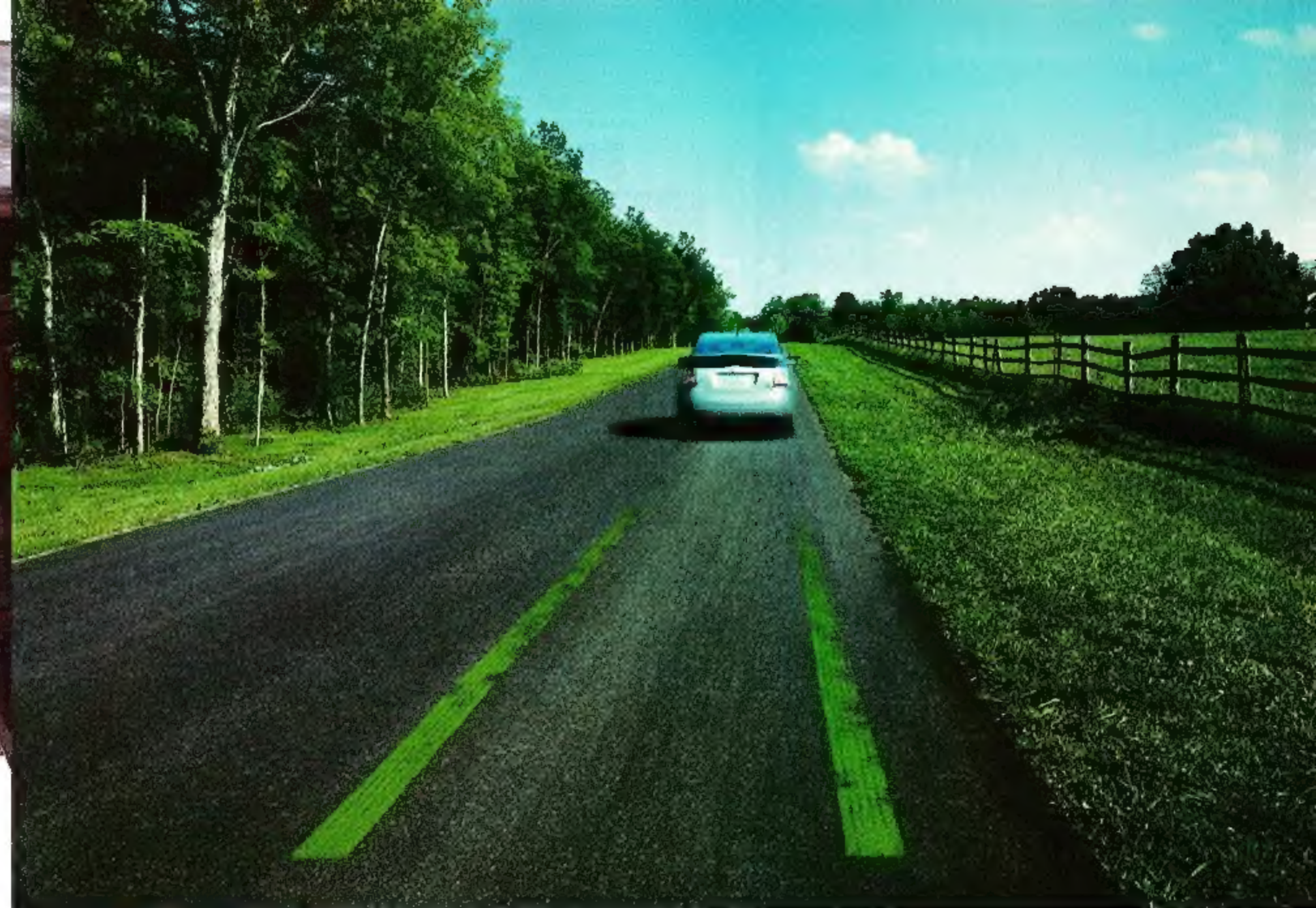
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PHOTOS (CLOCKWISE FROM TOP LEFT) PETER MERETSKY; WILLIAM A. BOYO JR.; JOSHUA MCHUGH; ILLUSTRATION: A.J. GARCES



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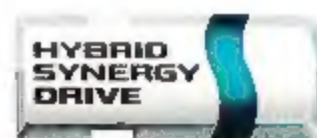
For example, Hybrid Synergy Drive will inject a V6 SUV with the power and torque of a V8. Remarkably, the SUV will also achieve the average fuel efficiency of a compact car with a fraction of conventional emissions.

This groundbreaking yet affordable technology will hit the roads this fall in the next generation Prius.

And after that, it will be available in more and more Toyota products - including SUVs.

One day, all cars may be quicker off the mark. And slower to leave a mark.

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TODAY

TOMORROW

TOYOTA

This Old House
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Find



TELEVISION PROGRAMS Introducing Our Newest TV Show

This month marks the launch of a new series from the producers of *This Old House*. *Find!*, hosted by Leigh and Leslie Keno, will explore the world of design, style, antiques, and furnishings. You'll find a link to its new Web site on thisoldhouse.com.

ONLINE STORE Grand Opening

Just in time for the holidays, shop online for This Old House shirts, caps, and other merchandise. It's secure, fast, and convenient—and it's open 24 hours a day.



TOP 10 LIST

HOMEOWNER KNOW-HOW Top 10 Home Repair Questions

From drywall nail pops to sagging floors, we can help you solve 10 of the most vexing homeowner problems. Find the answers in the Homeowner Know-how section.

New Homeowner's Guide

No matter when your home was built, if you just moved in it's new to you! Get the help you need in this new addition to the Special Features section.

Shortcuts: For links to these pages and more, go to www.thisoldhouse.com/shortcuts

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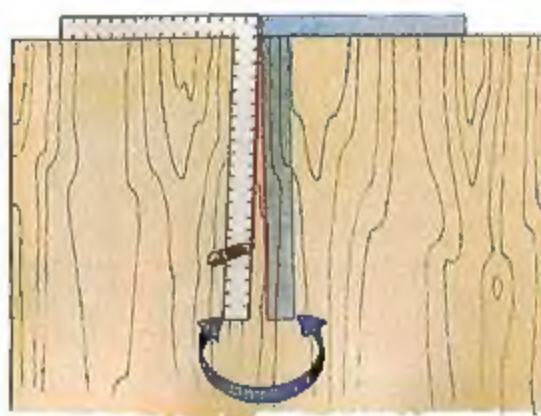
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L E T T E R S



Fixing a Square

Re Norm's Notebook, "Accuracy Check," in July/August 2003: When occasionally my square gets dropped, knocked off my bench, or thrown, I check it the way Norm describes [above]. [If it's out of square, it] can be fixed by laying it flat on a flat, hard surface and placing a small center punch at the outside corner if the square needs to be adjusted back to 90 degrees, or at the inside corner if it needs to be adjusted up; then give the punch a smack with a mallet [or ball peen hammer]. If needed, make a series of punch marks next to each other.

MATTHEW A. WHITE, FT. WAYNE, IND.

Norm Abram replies: *I've certainly seen this method used effectively, and I might use it for a valued tool that wasn't too far out of square. But for aluminum or another soft metal, I think there's a limit on how often you could do this without weakening the metal. And for most inexpensive squares, it's probably not worth the trouble.*

Shower With Care

While reading "Spray and Wash," July/August 2003, I had to wonder what water companies think about mandating 1.6-gallon toilets only to find that we now can build showers with six body jets and go through water at a rate of 30 gallons a minute. I am sure these showers are luxurious, but at the same time they are unbelievably wasteful. Clean, clear water is a precious commodity and should be used responsibly by us all.

STEVE JACKSON, PORT ORCHARD, WASH.

Oil Hazard

Thought I would share a somewhat scary incident. After rubbing linseed oil on some cupboard doors I'd made, without thinking I threw the oily rag into a plastic trash container and forgot about it. Some hours later we smelled plastic burning but could not find the source—that

is, until I went into the garage and found what once was a trash can reduced to a hunk of melted plastic. It is astonishing that the whole structure did not go up in flames.

NAME WITHHELD BY REQUEST

The editors reply: *Rags soaked with linseed oil, tung oil, and many oil-based finishes can spontaneously combust and start a fire. Place oily rags in a water-filled container and dispose of it outdoors—never inside a building.*

Cutting Screws

I used to do exactly what Norm suggests [Norm's Notebook, July/August 2003] when cutting a screw, and still do in a pinch. But as an electrician I have run across a tool that is a wire stripper, wire terminal crimper, and screw cutter. It will cut 4/40, 6/32, 8/32, 10/24, and 10/32 screws. After the screw is cut off, you unscrew it out of the tool so it does exactly what Norm was suggesting by using a nut.

RON AMOROSO, SAN MATEO, CALIF.

The editors reply: *Several companies make tools with this function, like Klein Tools's 1000 Multi-Purpose Six-in-One Tool; check www.kleintools.com for a distributor near you.*

Bat Fan

Re "Skeeter Beaters" [June 2003]: There's another option in battling mosquitoes: bats! Bats are amazing, beneficial creatures. At www.batmanagement.com learn how to build them a comfortable habitat near your home. Each bat will eat hundreds of insects every hour from dusk 'til dawn, free of charge!

RAMLAH LAURITSEN, PERKINSVILLE, VT.

punch list

definition: a list of items incorrectly done or remaining to be finished on a construction job

• The kitchen and breakfast nook in "A Welcoming Home" (May 2003) were designed by Valerie Wing of Wingate, Ltd., in Great Barrington, Mass.



Address mail to: Letters, *This Old House* magazine, 1185 Avenue of the Americas, New York, NY 10036, or e-mail us at TOH_letters@timeinc.com. Please include your full name, address, and daytime phone number. Published letters will be edited for clarity and length and may be used in other media.

PHOTOS: (TOP) HEATHER LAMBERT; (BOTTOM) KELLER & KELLER

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ON THE JOB AT THIS OLD HOUSE

BY DAN DICLERICO

popquiz:

Match the TV show guy to his first house

For answers, turn to page 18—and read about the guys' early adventures in homeownership



1. TOM SILVA
General Contractor



2. RICHARD TRETHEWEY
Plumbing and Heating Expert



3. NORM ABRAM
Master Carpenter



4. ROGER COOK
Landscape Contractor



5. KEVIN O'CONNOR
New Host



Hardwood in a Hurry

Straight-grained, good-looking, and durable, tropical hardwoods are a popular choice for a variety of interior uses, from flooring to fine furniture. Trouble is, many species take decades, or even centuries, before they're ready to harvest. But Lyptus, a hybrid of two eucalyptus species, gets there in just 15 years. And it has the even grain and texture of mahogany or cherry. Plus, while Lyptus prices are comparable to those of other tropical species, its toll on Mother Nature appears to be measurably less—it's certified to comply with the International Organization for

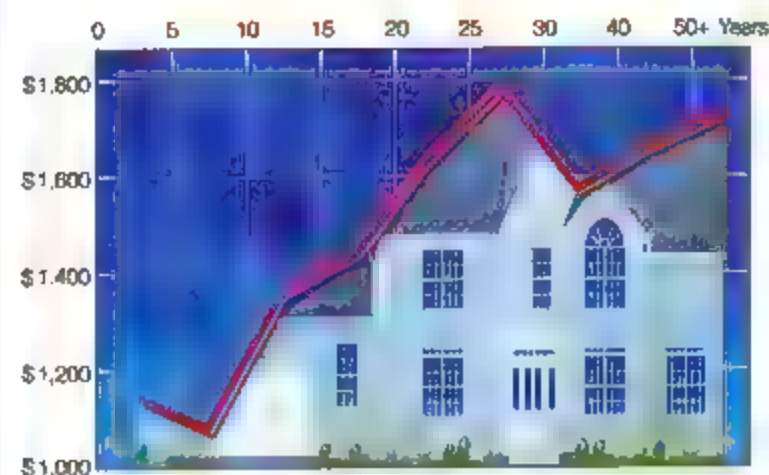


Standardization's guidelines for responsible environmental practice. To locate a supplier, visit www.weyerhaeuser.com.



Though Lyptus is listed as a blonde hardwood, it stains well, so it can take on the look of mahogany.

Hidden Costs



Homeowners' annual expenditures peak every 25 to 30 years, about the time major systems begin to need replacing. So if you're looking to buy a home built in the 1970s, for instance, know that you may be in store for some maintenance costs.

Source: The Harvard Joint Center for Housing Studies

PHOTOS (LEFT 1-5) KELLER & KELLER (RIGHT) MARK VIKER (ILLUSTRATION) ROLLIN MCGRATH INFOGRAPHIC (AN WOPPOLE

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SAMSUNG

popquiz:answers

First homes are usually good for a story or two. Here's what the *TOH* crew had to say about theirs

1. TOM SILVA



Tom's starter house is the same one he's lived in for the past 28 years—sort of. "It's got new wiring, new windows, new plumbing, a new roof, all new systems," says Tom. "And I cut half of it off and built a new two-story addition." Tom's done nearly all the work himself over the last three decades. "It's been the never-ending battle of the old house. I wouldn't want it any other way."

2. RICHARD TRETHEWEY



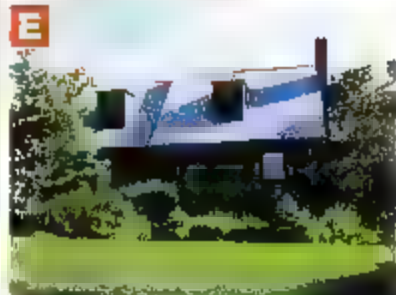
Rich bought this two-family home with his wife, Christine. Her father had grown up there, together with five brothers, though the house had since fallen into disrepair. Every night, after work, the young couple soldiered through the restoration. "It was a lot of work, but we made it," says Rich. "Afterward, we had a special family reunion. It was just a great feeling."

3. NORM ABRAM



Norm's first house was a four-bedroom garrison Colonial that renters had turned into something out of *Animal House*. "There was a pool table in the dining room, a bar in the living room, and a garage filled with trash." But over the next few years Norm transformed it. The garage never saw a car, however. "I was still a contractor then, so that's where I stored my equipment."

4. ROGER COOK



Roger bought this Cape 19 years ago, "and after all the work we've done, I'll never leave it." Naturally, a good deal of the improvements have been on the outside. "I call it the leftover landscape," Roger jokes. "Anything left over from my projects ends up in the yard. My wife does 99.9 percent of the work. Why do you think it looks so great?"

5. KEVIN O'CONNOR



The fixer-upper *TOH*'s new host and his wife bought last year got him the gig at *This Old House*—after the crew at *Ask This Old House* paid them a visit (see page 74 for the complete story). "Things are humming along," says Kevin of his renovation progress. "More so now that I have access to the best consultants in the business."

Did You Know...

Goldfinger, the infamous James Bond villain, was named after Erno Goldfinger, a Hungarian-born architect who designed and built modernist homes in the Hampstead section of London, England, in the 1930s? The buildings so offended Ian Fleming, author of the Bond books and a Hampstead resident, that he vilified the architect's name in fiction, though he changed the character's first name to Auric.

WORKSHOP ON WHEELS

Craftsman's 3-foot-high mobile workstation keeps your nuts and bolts in order and your power tools juiced with a built-in power strip. A trio of reversible work surfaces—MDF, galvanized metal, and nonslip rubber—suits all varieties of workshop tasks. There's plenty of storage space too: deep drawers for bulky items, holsters for hand tools, even slots for a 2-foot level and a framing square. Available from www.craftsman.com for \$259.99.

—Scott Schilling





BEFORE & AFTER

In Basking Ridge, New Jersey, historic homes are all too often razed to make way for new housing developments. This 1871 carriage house might have been just another statistic if not for the efforts of Bob Cramer, a lifelong resident of the Garden State. He bought the building in 1996 and spent the next seven years giving it new life as a home. Much of the structure was rotted beyond repair, though Cramer matched all new details to the original, from corbel to corner board.

Have you dramatically altered the look of your home? If so, send before and after snapshots plus a brief description of the project to: *This Old House* DD, 85 Avenue of the Americas, 27th Floor, New York, NY 10036

No-Nail Paneling



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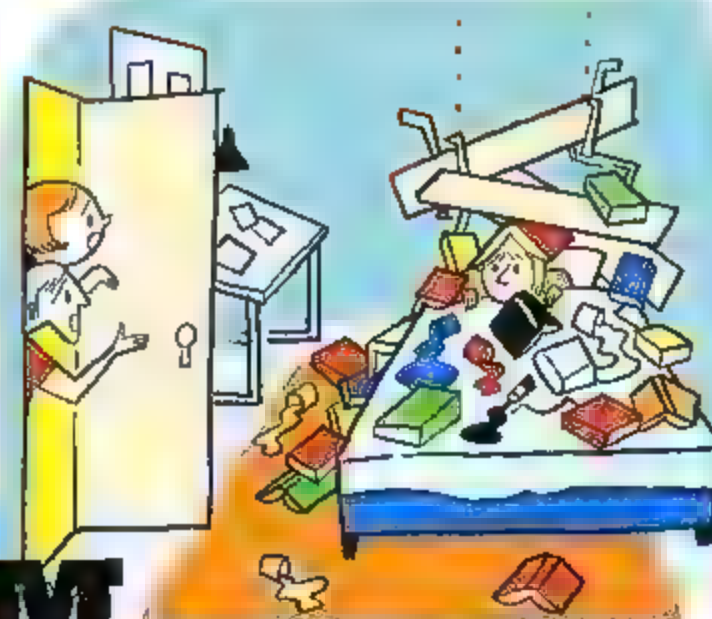
Somewhere, George de Mestral is smiling. The inventor of Velcro has seen it put to many uses, but none more elegant than this wood-paneling wall system from New England Classic. The prefab panels—available in oak, maple, and cherry veneers (1/4-inch thickness)—attach to virtually any wall surface with an industrial-grade “hook-and-loop” fastening system. Available in 27 standard sizes, the panels adapt to most situations. A 6-by-8-foot section costs about \$1,400 (much less than custom paneling). Dings and scratches in the veneer can be repaired just like wood—with putties and stain—though replacement parts can also be ordered. Available from www.newenglandclassic.com

OLD HOUSE WORKSHOP

The annual workshop of the Preservation Trade Network—an international organization of restoration tradespeople—will take place October 9–11 in Columbia, Maryland. Five hundred people from six countries are expected to attend. Pros and hobbyists will swap ideas from their respective fields, be it timber framing or window restoration. To register or to learn more about the PTN, visit its Web site at www.ptn.org.

Lesson Learned

BY CAROLINE BOWYER



MY FIRST YEAR OF ART SCHOOL I SHARED A TINY APARTMENT. The place was so small that the only available wall space for shelving was over the headboard in my bedroom. One day I headed to the hardware store, picked up some wood and L-brackets and screws, and worked late into the night hanging the shelves. And they looked terrific! I stored my books and art supplies on them and went to bed feeling satisfied.

In the middle of the night a tremendous crash woke the entire apartment. My roommates came running in to find me covered in books, boards, and splattered paint. The shelving had come crashing down around me. Next morning I had a bump on my head the size of an egg—and a pretty good lesson learned. When hanging shelves, always catch a stud with extra-long screws or use some variety of toggle bolt. Regular fasteners in drywall won't even get you through the night.

PHOTOS (BOTTOM LEFT) MARK VIKER (3); ILLUSTRATION: PAUL MARDEN

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HOUSE CALLS

SMART SOLUTIONS FOR KITCHENS AND BATHROOMS

Though new, the four-legged console sink looks like it was plucked from the past. So does the hexagonal floor tile—although the homeowners chose a taupe background with white accents as a soothing departure from the black-and-white patterns typically used in vintage bathrooms.



When empty nesters Lynn and Bill Kolbusz set out to redo what had been their kids' hall bath, they wanted a vintage inspired space that would complement their 1970s traditional brick house in Oak Brook, Illinois. "With the kids gone, it was our opportunity to create a luxurious guest bathroom," says Lynn, who couldn't wait to replace the dark and dated fixtures with a clawfoot tub and a console sink. But she also wanted modern amenities like a separate shower and plenty of storage. With the help of Chicago designer Christine Julian, the new bathroom not only fits right in with the rest of the house, it has a clean, inviting look. So much so that Lynn confesses, "Even though we designed it for guests, I use it all the time."

PHOTOGRAPHS BY CASEY SILLS

Old-style fixtures and floor tile create a vintage bathroom look for a traditional-style house

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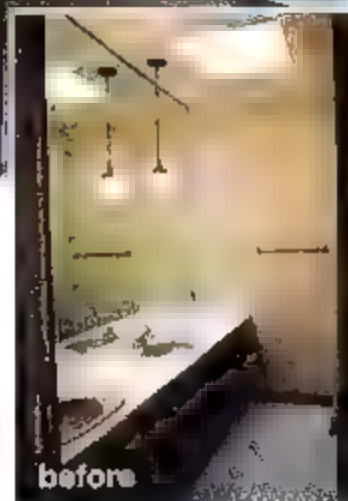
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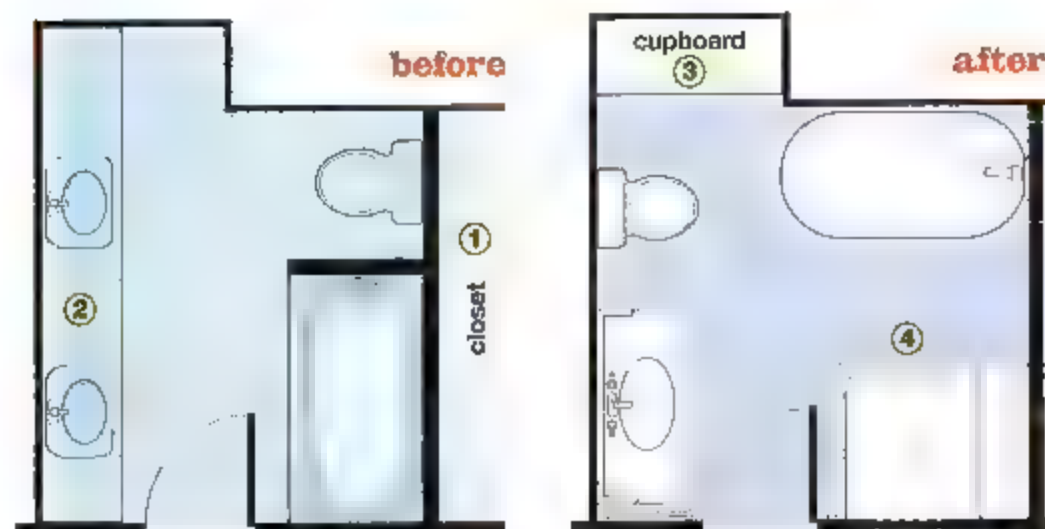


Despite the presence of a skylight, the old bath was dark and drab (INSET), with floral wallpaper, a walnut-stained vanity, and buckling floor tiles. The new room (ABOVE) is lighter and brighter, thanks to a neutral color scheme and vintage-style light fixtures. Two walls are wrapped in wainscot paneling, the others in rectangular subway tile. A reproduction claw-foot tub faces the shower (foreground).



WHAT THEY DID

- ① To make room for a separate tub and shower, the 8-by-10-foot bathroom was widened 2 feet by claiming space from an adjoining hallway closet.
- ② Removing the wall-to-wall vanity with double sinks allowed the rest of the fixtures to be repositioned. The toilet and a large, period-style console sink now occupy what was the vanity wall.
- ③ A 4-foot-wide-by-7-foot-high cupboard was built into an existing alcove, providing even more storage than the old 10-foot vanity.
- ④ The combination tub/shower was replaced by a stall shower. The new tub sits across from it, where the old toilet had been.



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HOUSE CALLS



THE DETAILS

Period fixtures and finishes team up to deliver 21st-century comfort.



For more bath design ideas, trends, and products Go to www.thisoldhouse.com or America Online Keyword: **This Old House** and select "Bath" in the Know-how section.



① A new storage cupboard was patterned after an old-fashioned built-in. The white-painted maple unit features glass-front doors above and solid doors below—the latter conceal two pull-out shelves for organizing toiletries. Glass knobs keep the vintage look consistent.

② Making clever use of wall space, a recessed tiled niche above the tub keeps towels and bath products close at hand. A frame of taupe decorative trim ties sets it off nicely against the white tiled wall.

③ The deck of the console sink is a roomy 44 inches wide, offering plenty of space for grooming items. The chrome faucet with porcelain handles adds to its period feel. A classic wood-framed medicine cabinet provides storage above the sink; it is flanked by reproduction sconces.

④ One clear glass wall and an open side help the shower—and the 10-by-10-foot room—seem larger. The ceiling-mounted rain head keeps the spray within the confines of the stall. A built-in tiled niche holds soap and shampoo, while a marble-top seat offers a perch for toweeling off.

⑤ The tub's cast-iron sides and feet are painted taupe to match the dominant floor tile color. The homeowner opted for a neutral tone to create a soft contrast to the mostly white fixtures.

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beneath the tub deck to remove that annoying "hiss." An optional EZ Install™ heater keeps your water hot for as long as you care to soak. Order one with your whirlpool or add the heater anytime after the tub is installed. On top of all that, we offer a virtually endless selection of coordinating products to make creating your dream bathroom easy and risk-free. You'll find Elite Whirlpools exclusively at The Home Depot® and EXPO® Design Center. To see the Elite Whirlpool collection, visit elitewhirlpools.com or call 1-800-524-9797, ext. 1579.



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ROGER COOK
LANDSCAPE CONTRACTOR



TOM SILVA
GENERAL CONTRACTOR



RICHARD TRETHEWEY
PLUMBING & HEATING EXPERT



NORM ABRAM
MASTER CARPENTER

WHEN TO PLANT GRASS SEED

What's the best time of year to plant grass seed? And should I seed and fertilize at the same time?

RICK BAKIES, SEYMOUR, CONN.

Roger Cook replies: In much of the country, grass seed is best planted before or after summer. That's primarily because it's almost impossible to keep new seed moist in the summer without nearly constant watering. The other problem with summer planting is that the soil prep work opens up the area to weed seeds, which readily germinate in the heat. (If you simply must plant in hot weather, mulch the planting area with a light layer of peat moss or similar material to prevent the seed from drying out.)

Where you live, and throughout much of the northern half of the U.S., early fall is the best time for sowing grass. The soil is warm, but daytime temperatures are moderate, making watering less of a problem, and the weeds won't grow. "I'll start seeding in the last week of August and will push into the first week of October if I have to. By the cool days of late October, the new grass should be fresh and thick and strong enough to survive the winter."

Apply a starter fertilizer when you sow the seeds, and then add more fertilizer three to four weeks later. That's necessary because as the watering you do to make the seeds sprout actually reaches the first application of fertilizer out of the top layer of soil, putting the rest beyond the reach of the young roots.

ASBESTOS FLOOR TILES

I'm told that the old vinyl floor tiles in the basement of our 1950 house contain asbestos and that I should not try to remove the tiles but cover them with wall-to-wall carpeting. Is this the best approach, and if so, should the flooring be sealed somehow before the carpet is installed?

LOR. LIZAK, NEWTOWN, CONN.

Tom Silva replies: The advice you received is correct. The best way to deal with old asbestos floor tiles is to cover them up. That's enough to prevent the damage and wear that can release fibers into the air; no sealer is needed. Carpeting and a suitable pad will do the trick. In a basement I'd suggest a rubber-based carpet pad rather than a fiber pad. You could also cover the tiles with new vinyl flooring, linoleum, or even ceramic tiles. However, as a favor to future



A bag of seed, a plot of earth, and before you know it this bare ground will be covered with a thick carpet of grass. TOH landscape contractor Roger Cook says that sowing in the fall is the best way to prevent weeds from gaining a foothold.

owners of your house, make some note of the fact that asbestos tiles are under the new flooring. That way, no one will be endangered years from now when they start to rip up the new flooring and find asbestos tiles beneath. (continued on p. 30)

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The constant wetness of a potted plant probably created the circular blemish on this concrete porch pier. TOH general contractor Tom Silva recommends a cover-up.

CONCRETE STAIN

After stripping off many layers of epoxy paint from the concrete porch of our 1914 Craftsman home, I can see why it was painted in the first place. Water damage from potted plants has marred the lovely patina of the old concrete. Is there any way to erase the stain and even out the color?

JOAN SWAYZE, PASADENA, CALIF.

Tom Silva replies: don't think you'll have much luck getting the stained areas to match the patina of the surrounding concrete. After all, patina is the result of decades of exposure to the weather. The other thing that makes me think you should leave well enough alone is the fact that the stained area is in a prominent location, and there's a risk of making the situation worse. So if simple scrubbing with a bristle brush and some soapy water doesn't do the trick, you could paint or stain the concrete,

or simply put another potted plant over the damaged area. This time, though, place a water-impervious saucer under the pot.

By the way, anyone who can do such a good job of removing epoxy paint definitely deserves a pat on the back.

FROZEN RADIANT

We've become interested in radiant floor heating, partly because of frequent mentions of the system on *This Old House*. But what happens if the power is off for several days in very cold weather? Is there any way to prevent the tubing from being damaged?

DON FESSLER, CROWNSVILLE, MD.

Richard Trethewey replies: Cross-linked polyethylene tubing performs better than copper in freezing weather. It can flex as much as twice its diameter as the water inside it turns to ice. But PEX is not indestructible. If an entire length of tubing were to freeze solid for 24 to 48 hours, it could split open, the same as copper. And if the tubes were embedded in concrete, it's possible that it could crack, too—water exerts a whopping 2,200 psi of pressure as it freezes. (By the way, freezing water can crack your boiler as well.)

How quickly the system freezes depends on how well insulated your house is, how cold the weather gets, and how long it stays below freezing. The location of the tubing is also a critical factor. If it's embedded in concrete, it will take a while to lose its heat—compared with tubing attached to the underside of a subfloor. The pipes most in peril are those in exterior walls, and in the vicinity of the boiler manifolds.

The best (though also most expensive) insurance against freezing is an automatic standby generator, one big enough to keep the boiler working. A cheaper solution would be to connect a small backup power supply to the

circulating pump; moving water doesn't freeze as readily as still water. But the cheapest fix is to add antifreeze—the kind made specifically for radiant systems, not automobiles. A 50-50 mix works well down to -28° F.

This protection does come at a price. For one thing, when the proportion of antifreeze rises above 40 percent, heating efficiency goes down. Also, antifreeze makes water more viscous, so you may need a more powerful circulator pump. And finally, fresh antifreeze has to be added periodically to keep the fluid from becoming too acidic. Neglecting this maintenance task risks corroding any metal in the system—especially the boiler's tank.

DECK STRATEGY

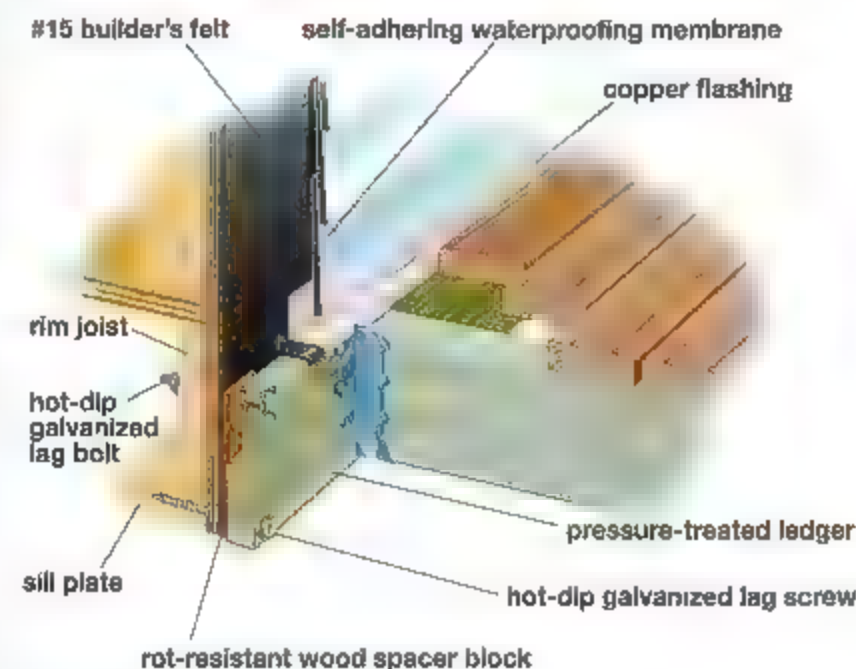
I'd like to build a deck adjacent to my family room, 18 to 24 inches above grade. Do I have to attach the deck to the house, or can it be entirely self-supporting? I'm a little concerned that if I attach the deck, it might encourage rot.

GERARD SULLIVAN, NORFOLK, MASS.

Tom Silva replies: There's no law that says decks have to be attached to a house, but there are a couple of good reasons for doing it that way. For one, it eliminates the need to dig a row of support piers alongside the house. It also lets you use the house to stabilize the deck and prevent it from wobbling.

If this were my project, I'd attach the deck to the house with a ledger board and use spacer blocks to hold it away from the house to allow air circulation. This way, you won't have to worry about rot.

Deck Attachment



VENTING A BUNGALOW

We own a late-1940s bungalow in Henry Ford's hometown. We'd like to insulate and drywall the 2x4 attic rafters, but I'm not sure how to provide air circulation through the areas where the

ILLUSTRATION: JAM WOPPOLE

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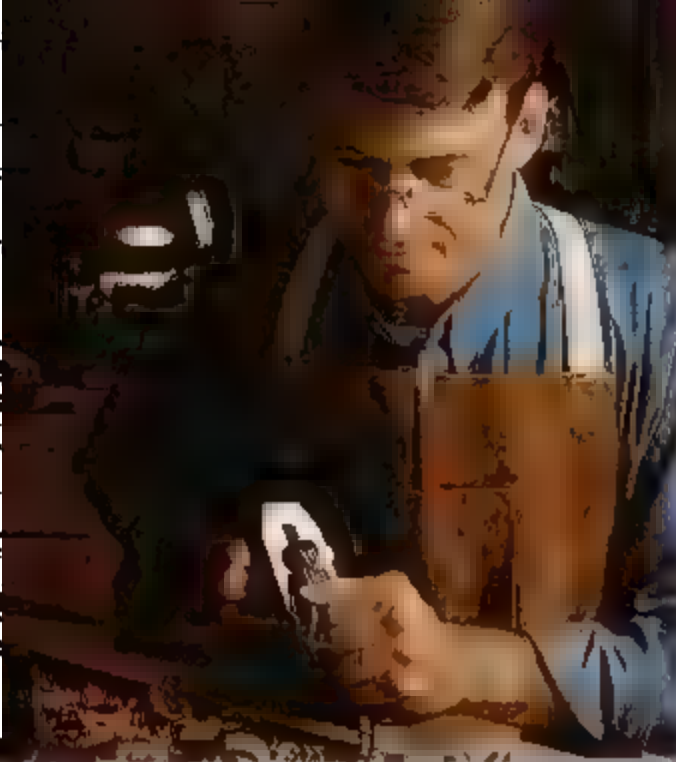
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ASK THE OLD HOUSE

rafters meet the roof valleys. Please help us with this head scratcher.

D. HUBBELL, DEARBORN, MICH.

Tom Silva replies: Normally, I'd suggest that you drill holes in the lower ends of the valley rafters to allow some air to flow through the rafter bays. However, I'm not sure I'd feel too comfortable drilling into 2x4 rafters because they don't have a lot of strength to spare. So I think the best solution is to spray the underside of the roof with an open-cell polyurethane foam. It doesn't require ventilation channels because it also acts as a vapor barrier. This work has to be done by professional applicators, however.

UNCLOGGING A TOILET

I've heard that it's better to use a plumbing "snake" to free a toilet clog than to use a plunger. Is that true?

LEONARD LYKENS, HARRISBURG, PA.

Richard Trethewey replies: Not really. Each has its place. But first, let's get straight on the terms. A snake is a long, flexible spring cable with a corkscrew-like tip that chews through and breaks up clogs when you turn the crank on the other end. They tend to be long—25 feet is common—and they're the tool of choice for unclogging sinks and tubs. But they have a nasty way of scratching the porcelain in a toilet bowl.

A funnel-cup plunger is the first thing to grab when a toilet clogs. Its soft rubber cup won't harm the porcelain. Just be sure to plunge it in a way that pulls the clog out. (Pushing the clog deeper into the pipe could make matters worse.) If plunging doesn't work, a closet auger—a not-a-snake—is the tool to turn to.

Like snakes, closet augers have a flexible metal cable with a corkscrew tip at one end and a crank at the other. But the exposed cable is only about 3 feet long and is fitted with a stiff metal shaft. It also has a soft, flexible sleeve at the bent end of the tube to protect the visible portion of the toilet's trapway and the bowl from scratches.

To use the auger, feed the tip gently into the drain opening. Push down and crank clockwise until the cable resists turning, then crank in the other direction. When the cable tightens up again, crank clockwise until it's as far down the drain as it will go and the auger's sleeve is sitting in the bottom of the bowl. Now pull the handle up as you continue cranking. If it jams, push gently, then pull again. When the drain is reopened, remove

Closet Auger at Work



the auger. Then use the plunger again and flush to ensure that the drain is running freely.

MIRROR, MIRROR OFF THE WALL

One wall in my house is covered floor to ceiling with five 2-by-8-foot mirrors. I'd like to remove them, but it appears that they have been adhered to the drywall. What's your advice on the best way to proceed?

PHIL LOGUE, ROSELLE, N.J.

Tom Silva replies: Very, very carefully. Given the size of the mirrors, I'm not surprised that they were adhered to the wall. Mastic adhesive, usually troweled on in fist-size areas, prevents large mirrors from rattling and eliminates the need for brackets and frames.

Brian Sullivan, the flat-glass manager at Plymouth Glass and Mirror, tells me your options are limited. One removal technique is to slip a piano wire behind the mirror and "saw" it back and forth through the adhesive. Another trick, says Sullivan, is to pull off the glass using a special suction cup device. (Some of the drywall's surface paper may come off in the process, but the damage can be repaired by skim-coating the drywall surface with joint compound.) But Sullivan says there are cases where the best way to remove a glued-on mirror is just to break it.

All of these methods are hazardous—glass can suddenly shatter, whether you intend it to or not. So rather than tackle this work on your own, let a professional from a glass company handle it. They have the specialized gear to protect themselves from razor-sharp shards of flying glass.

ILLUSTRATION: GILBERT GATES



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ASK THIS OLD HOUSE

REPLACING A DRIP CAP

I know that wood drip caps are often used where the siding meets the top of a window, door, or water table. This is a nice detail, but when it rots out, how do you replace it?

GEORGE SCOTTI, EAST GREENWICH, R.I.

Norm Abram replies: A drip cap helps direct water away from the top of a window or door. Another version, called a water table, does the same thing along the bottom course of siding. These caps should be made of a rot-resistant wood such as heart redwood or red cedar (primed on all sides before you install it) or a rotproof cellular PVC. But if one ever does fail, replacing it isn't that hard.

First, remove the course of siding above the window, pry out the old drip cap, and clear away any debris. Then seal above the window with a 4- to 5-inch strip of self-adhering waterproofing membrane trimmed flush with the top of the window casing.

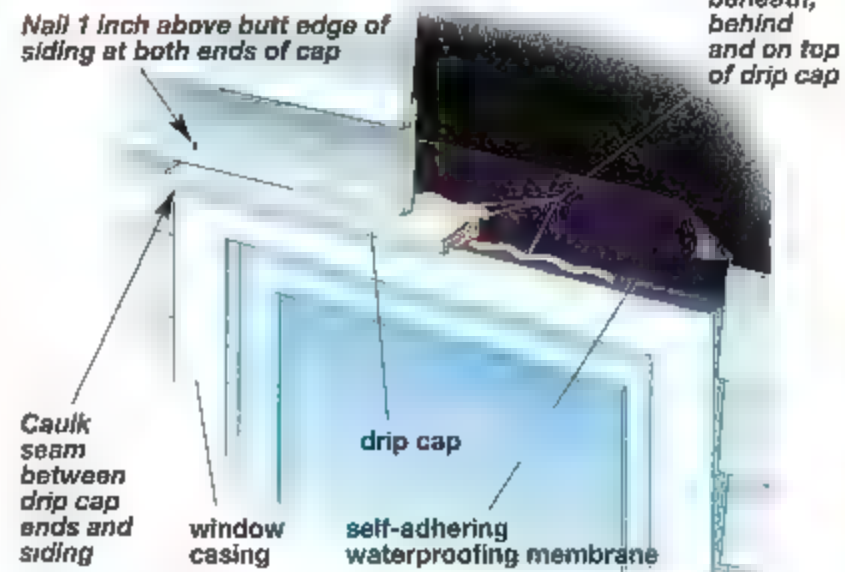
When you're ready to slip the new cap into place, run a generous bead of exterior-grade sealant along the joint where the top of the casing meets the membrane. Then put the drip cap in place and caulk along the joint where its top edge touches the membrane. Don't ever nail a drip cap to the wall; let the siding hold it in place. (Nails provide an avenue for water to reach the sheathing.)

If your walls are shingled, go ahead and install them; the job is done. If you're reinstalling clapboard, however, squeeze a final bead of caulk along the top of the cap, then bed the clapboard's bottom edge in it. Don't nail the clapboard in the area over the window; you'll split the siding. Instead, nail it on either side of the window, as shown in the illustration. ■

Drip Cap Installation

Nail 1 inch above butt edge of siding at both ends of cap

Caulk beneath, behind and on top of drip cap



To send a question to ASK THIS OLD HOUSE, go to www.thisoldhouse.com/asktoh or write to:

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This Old House magazine
1185 Avenue of the Americas, 27th floor
New York, NY 10036

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

ILLUSTRATION: IAN WOODCOCK



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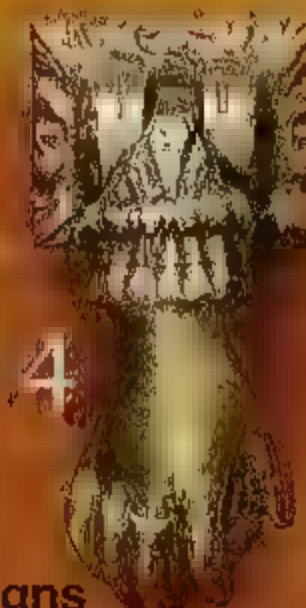


B Y D E S I G N

Knock, Knock

A distinctive knocker dresses up a front door

BY DOUG MacKAY PHOTOGRAPHS BY JOSHUA McHUGH



Antique and Vintage Designs

Door knockers have been used for centuries to greet visitors and give them a way to announce their arrival. A bronze lion's head knocker found in Olympia, Greece, dates to 400 B.C. Today a knocker that's seen some wear can authentically complete a period home's look. Salvage yards and flea markets are good places to track them down. "Just be sure to scrutinize all the moving parts before purchasing," says Robert Silva, of Liz's Antique Hardware, in Los Angeles, Calif. Vintage hardware sellers offer comprehensive Web sites to make shopping even easier to track out their return policies before ordering. But most old pieces need little more than a spray of lubricant on the hinges to keep them moving easily.

1. **RECTANGULAR IRON** knocker, circa 1900, \$225. The brass nameplate can be replaced.
2. **BRASS LION'S HEAD**, circa 1890-1930, \$195
3. **BRASS EAGLE**, a popular American motif since the 1800s; this one dates from the 1950s, \$175.
4. **BRASS WOMAN'S HAND**, circa 1850-1900, \$195 (Today this Victorian-era design is available in many reproduction models as well.)
5. **BRONZE ANCHOR** from the 1920s, \$125. Nautical themes such as this have been popular since the 19th century.

Antique knockers from www.eugenianantiquehardware.com



New Knockers With an Old Look

"Ideally, a period door should have period fittings," says antiques dealer Robert Silva. "But a good reproduction will serve just as well." Popular traditional motifs include the pineapple (a 18th-century symbol of welcome), elaborate Victorian styles, and simpler Arts and Crafts-inspired designs. As a knocker is often the principal decorative element on a front door, the motif it is made from should complement that of the rest of the door hardware. Specialty hardware stores have the best selection of reproduction door knockers and often offer them with matching or at least same-era doorknobs and hinges.

1. **ORNATE VICTORIAN BRASS** knocker with floral medallions and ring, \$39; www.antiquehardware.com.
2. **RENAISSANCE-STYLE RUST-FINISH BRASS** ring with dogs' heads, \$18; www.alishomewares.com.
3. **HAND-HAMMERED COPPER ARTS AND CRAFTS** knocker, \$179; www.craftsmenhardware.com.
4. **VICTORIAN GOTHIC** scrolled design in brass with antique finish, \$49; www.antiquehardware.com.
5. **COLONIAL WROUGHT-IRON** knocker, handmade by Vermont blacksmith Ian Eddy, \$50; www.historichousefitters.com.
6. **BRONZE PINEAPPLE** with green patina, \$78; www.natodesigns.com.



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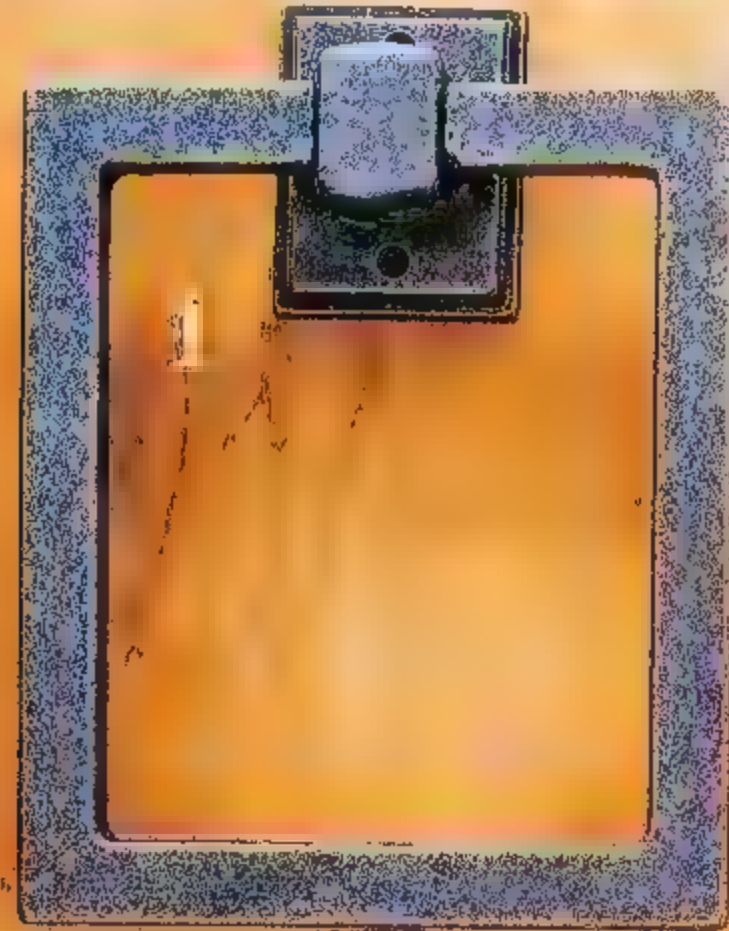


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Contemporary Designs

If a house has very simple, clean lines, a door knocker should follow suit, says Miami-based furniture and interior designer John Protomaster. Upscale hardware stores or shops specializing in metals and crafts are good places to look for suitable styles. And there is a wide range of contemporary motifs that work on traditional homes as well. These often reflect landscape elements—trees, leaves, flowers, animal or marine life—or a homeowner's personal passions, such as gardening, fishing, or boating.

1. **LARGE WHITE BRONZE SQUARE**, hand-crafted, \$335; www.rockymountainhardware.com.
2. **FLUTED BRASS OVAL**, \$20; www.vandykes.com.
3. **BRASS HORSESHOE CRAB** by artist Colby Smith (signed), \$120; www.doorknockers.info.
4. **BRONZE GARDEN TROWEL** with natural patina, \$78; www.matedesigns.com.
5. **BRASS PINECONE** by artist Colby Smith (signed), \$180; www.doorknockers.info.

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A Mighty Wind

Choosing and using leaf blowers

Leam blowers are versatile machines. They can take the raking out of autumn cleanup, and also double as driveway sweepers or snow clearers. Some models vacuum; others bag mulch, clean gutters, or spray trees.

Of course, the bigger the blower, the more noise it makes, which is why these tools have their detractors. Some towns restrict decibel levels and hours of operation, while others have banned them outright. (Manufacturers have come back with mufflers for gas-powered blowers, although you'll still need ear protection.) But all that power serves a purpose: Blowers are the easiest way to quickly gather big messes of leaves into manageable piles.

There's a type of blower to suit every yard, from small electric handhelds (\$40 to \$70) to beefier gas-powered

backpack models (\$200 to \$400) or powerful walk-behind machines (\$600 to \$1,000). Homeowners often err by buying an underpowered machine, says Roger Cook, *This Old House* landscape contractor. "It really takes a lot of energy to lift and move wet leaves," he says. "The little ones just can't handle the volume, and the ones that mulch could choke on a big pile."

Roger's strategy is to start near the house and blast beds and shrubs, collecting leaves into heaps or rows. But even the biggest blower will reach its limits if the leaves are just too heavy. So to move a big pile, don't wade into it head-on; start at the edge and back yourself into the bulk. Better yet, blow the leaves onto a tarp you can drag—quietly—to the compost pile. Your neighbors will thank you.

BY JOHN KELSEY PHOTOGRAPHS BY PETER MERETSKY

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Gas Blowers

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Handheld

BEST FOR: Small to medium yards where you need the power of a gas engine.

LOOK FOR: Air speeds higher than 150 mph and noise levels less than 70 decibels. (Check local ordinances: Some areas limit noise to less than 65 decibels.)

Backpack

BEST FOR: Large suburban yards and driveways.

LOOK FOR: Antivibration system and noise-squelching muffler to make carrying the engine bearable for long periods.

Walk-behind

BEST FOR: Very large yards.

LOOK FOR: Four-cycle engine for power and cleaner emissions, three wheels for easy steering.



Electric Blowers

Less powerful than gas, but lighter and quieter (you still need hearing protection)—and no exhaust fumes.

Handheld

BEST FOR: Walkways, patios, decks, small gardens.

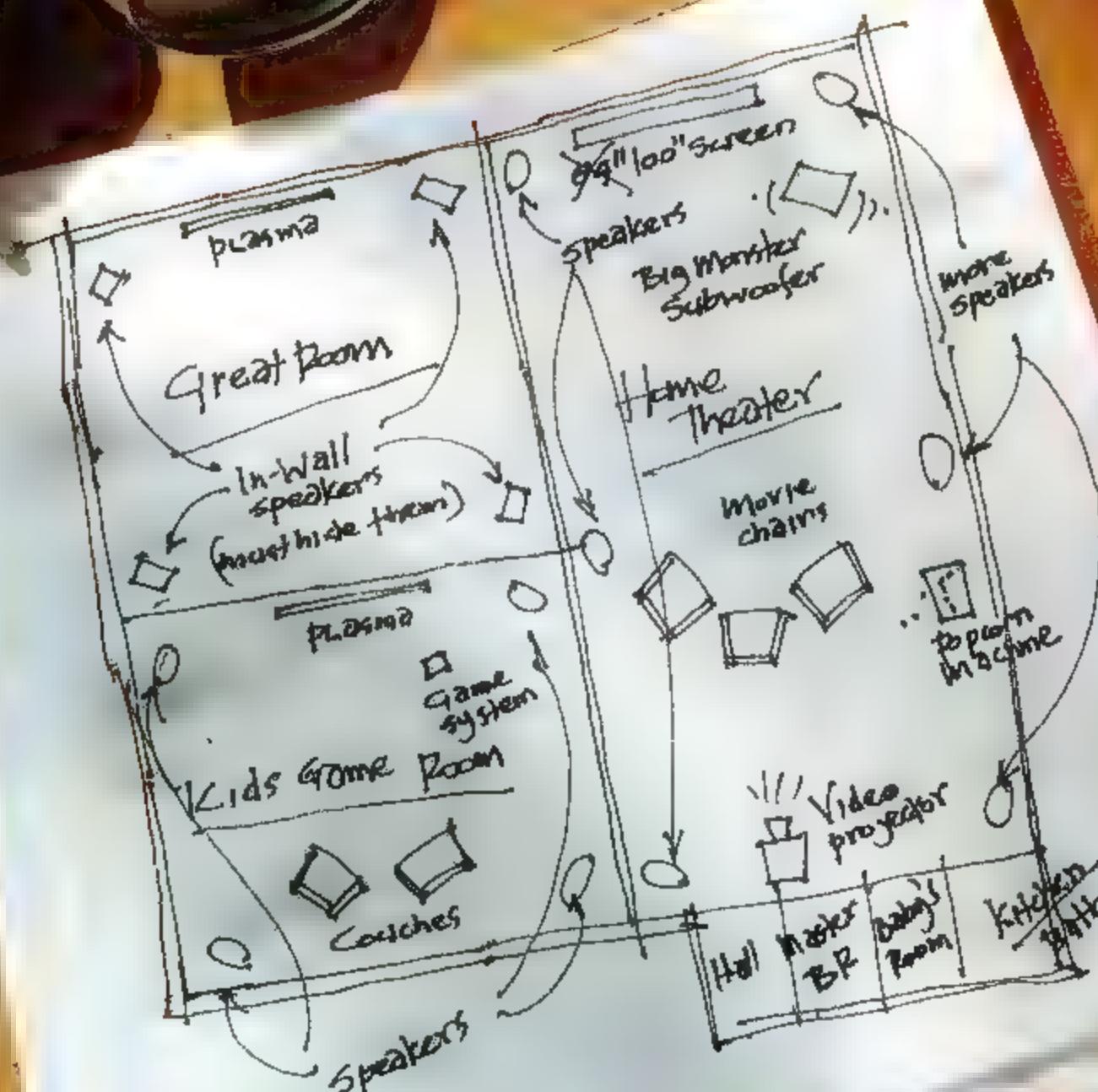
LOOK FOR: Flexible blower tube with handle mounted on it to reach into corners.

Combo blower/vacuum

BEST FOR: Small to medium lots where there's little room to pile leaves.

LOOK FOR: Variable speeds and built-in mulcher that reduces leaf volume by at least 12 to 1.

For guides to other lawn tools, from string trimmers to pruners Go to www.thisoldhouse.com or America Online Keyword: This Old House and select "Tools & Materials" in the Know-how section.



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Rain Gutter Rehab

Simple steps to keep gutters in proper working order

BY SCOTT H. SCHILLING

Let's face it: Gutters are easy to ignore. But the price of neglecting this important home plumbing system can be steep—peeling paint, rotting fascia and siding, and basements and crawl spaces that are perpetually wet and moldy. Simply by cleaning and checking gutters twice a year—once in the fall and again in the spring—you ensure their long life and, more important, the health of the rest of your home.

On the following pages, we'll show you how to clean and make basic improvements to a typical aluminum gutter system. Our expert is Chris Freeman, a gutter installer for over a decade and owner of Exterior Specialist, in Carpentersville, Illinois. And we'll show you how, once you get your gutters clean and fixed, to keep them that way.

If repairs are required, the only tools you'll need are a cordless drill, a hammer, and a small pry bar, plus a heat gun and a caulk gun. Freeman also recommends renting a pair of extension ladders and ladder brackets with a scaffolding plank. Working on a plank is a lot more efficient than being on a ladder—and safer than being on the roof.

Chris Freeman, exterior specialist, blasts and scrubs away the last bits of debris in this aluminum gutter.



This picture makes you wonder:

- ☐ a. Where's my mop?
- ☐ b. Where's the take-out menu?
- ☐ c. Where's my tool box?

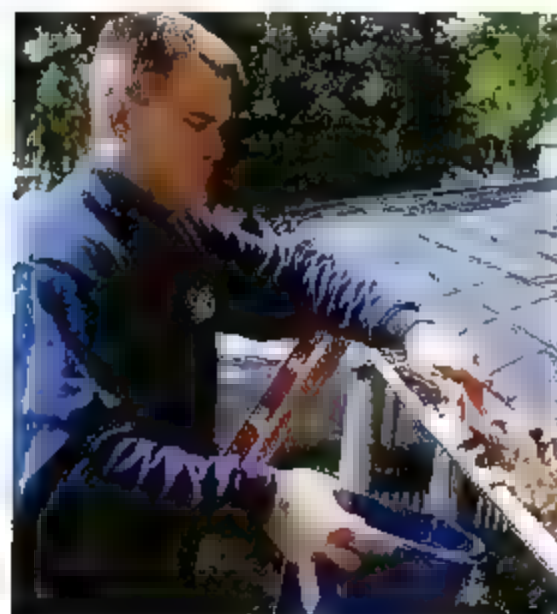
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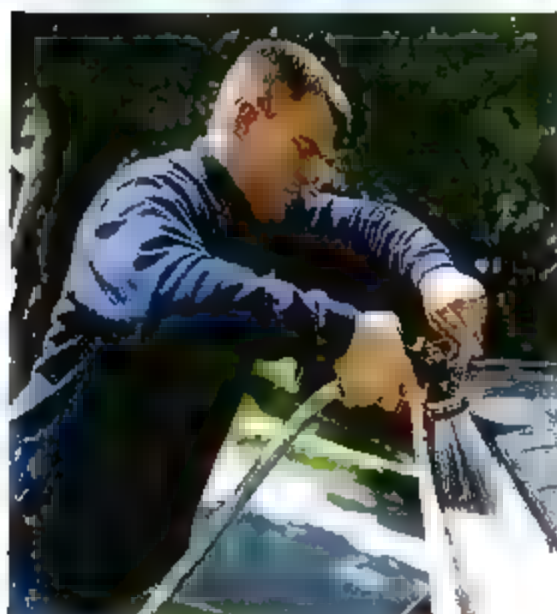
Cleaning Gutters and Downspouts



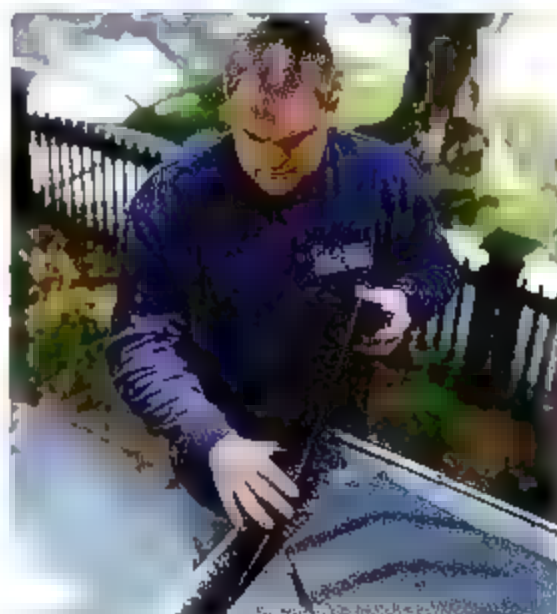
1. Remove any gutter screens or guards, then dig out any clumps of rotting foliage. A plastic scoop keeps your hands out of the muck (mostly) and away from sharp metal edges. Dump the debris into a bucket so it doesn't splash on the lawn or house.



2. Use a drill to remove the fasteners holding the elbow to the gutter and the downspout. Back out hex-head screws with a hex-head bit. Drill out rivets with a 1/8-inch twist bit. Remove the elbow and yank out any accumulated sludge, leaves, and sticks.



3. Flush out the gutter with a hose and scrub with a sturdy, stiff-bristle brush to remove any remaining dirt. Clean the exterior with car wash soap and a soft brush, then rinse.



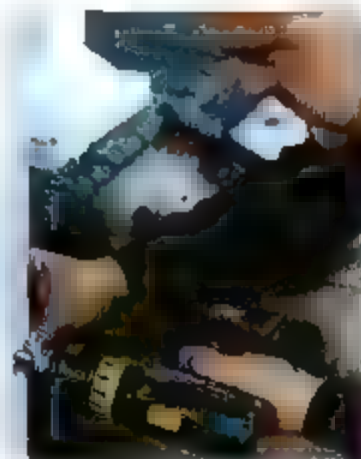
4. Insert or reattach the gutter's screens or guards. Here Freeman puts in a brushlike product designed to exclude leaves. Reattach the elbow with 1/8-inch hex-head sheet-metal screws (also called zip screws), even if it had been held in place with rivets.

Downspout Improvements

ADDING A STRAP



Downspouts need a metal strap at each end to hold them in an upright and locked position on a house. Freeman cuts his straps out of painted flashing and secures them with three screws: one to hold the middle of the strap to the house and two to hold the strap's overlapping ends tightly to the spout.



ADDING AN EXTENSION



To keep water away from the foundation, you need something more than an elbow at the bottom of a downspout. The best (and best-looking) insurance against a wet basement or crawl space is to add a 3- or 4-foot extension cut from a length of downspout. A splash block placed underneath the extension will convey water even farther from the foundation.



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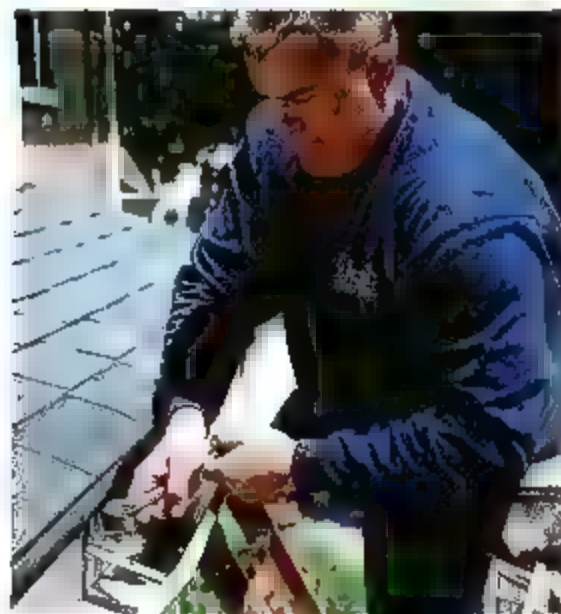
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Repairing Sags and Dents

FASCIA-MOUNTED GUTTERS

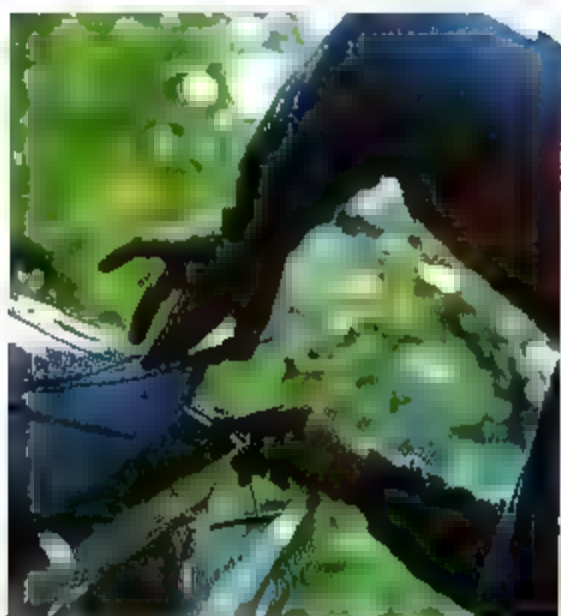


1. Wherever a gutter is sagging, nails have come loose. Use a small pry bar and a hammer to remove the nails and the clips they're attached to. Check for rot on the fascia and replace those portions if necessary.



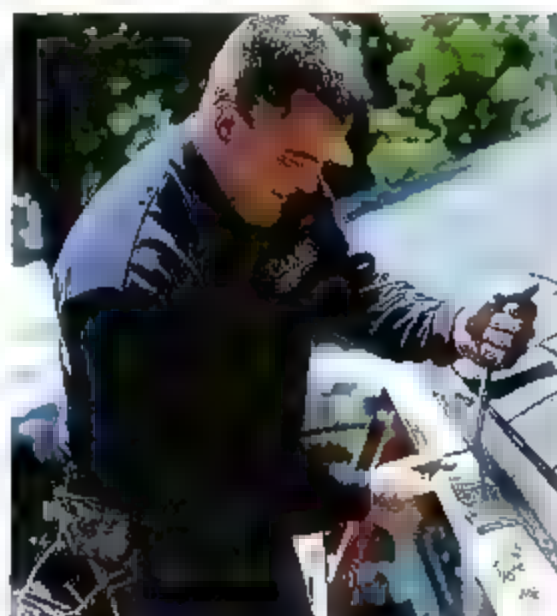
2. In the same spot, slide a one-piece clip (often called a hidden hanger) onto the back lip of the gutter, then hook it under the front lip. Push the gutter up slightly to stop any sagging, then drive the clip's screw into the fascia with a cordless drill and hex-head bit. Space clips about 24 inches apart.

ROOF-MOUNTED GUTTERS



Clip a new bar on the back lip and under the front lip of the gutter. Secure it to the back of the gutter with a small screw, then hook the strap onto the bar. Lift the nearest shingle and bend the strap underneath it until the gutter hangs level. Nail the strap to the roof with two roofing nails. Space straps 24 inches apart.

BENT GUTTERS



Straighten dents and bends using a small pry bar. Some dents are best straightened by hand, but wear leather gloves to protect against cuts. To keep gutters straight and dent-free, never lean a ladder against them. Use a ladder standoff or lean the ladder against the house, under the gutter.

FASCIA CLIP OR ROOF HANGER? IT MAKES A DIFFERENCE

On most houses these days gutters are mounted directly to the fascia board that covers the ends of the rafters. But on many older homes where the fascia isn't plumb, or has a strip of molding to dress it up, gutters are suspended from hangers attached to the roof.

When installing new roof hangers, Freeman always makes sure to fasten the straps under a shingle so the nail doesn't provide an avenue for water to reach the roof deck. "I can't tell you how often I see exposed straps nailed into the top of shingles," he says. "It drives me crazy!"

While all roof hangers are pretty much alike, there are at least four different types of hardware for mounting gutters to fascia. All of them do a good job, as long as they're held in place with screws, not nails, which can work loose and cause a gutter to sag. Freeman's favorite clip for fascia-mounted gutters (right; often called a hidden hanger) needs only one conveniently angled screw and is hidden from the view of anyone on the ground.



PHOTO: (BOTTOM) JOSEPH McHUGH

Online bonus: step-by-step instructions for adding a downspout
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Preventing Leaks

ADDING A DRIP EDGE



1. To prevent water from sneaking between the fascia and the gutter, slide a length of factory-bent aluminum drip edge under the roofing and over the gutter's back edge.



2. Gently lift a roof shingle and secure the drip edge to the roof with a galvanized roofing nail. Repeat every 24 inches.

SEALING JOINTS



1. Cracked caulk at corner seams or end caps has to be perfectly dry for new sealant to adhere. Use a professional heat gun (not a hair dryer) for this critical step.



2. Squeeze a generous amount of aluminum joint sealer over the seam and old caulk. Spread it around with the nozzle tip. Keep your hands and clothes away from the fresh sealant—it's sticky and very hard to get off.

TOOLS FOR KEEPING GUTTERS CLEAN

There are many products designed to prevent gutters from clogging, but according to Chris Freeman, none keeps out all roof debris. "You'll still have to clean your gutters," he says. So whichever option you choose, make sure it can be opened up or lifted out of the way—or if it's a gutter with an integral cap, comes with a no-clog guarantee.

1. Downspout strainer: Prevents the downspout from becoming plugged. This plastic cage design has a convenient lift-out handle. **2. Gutter with integral cap:** Curved cap pulls water (not leaves) into gutter. Professional installation is required after old gutters are removed. Can't be easily cleaned, but maker guarantees to clean it if it ever clogs. **3. Screen:** Snaps onto the front edge of existing gutters. Lets in water (and some small debris), but holds leaves at bay. **4. Add-on cap:** Slips under roof shingles and clips onto an existing gutter. Blocks leaves, but slits can trap pine needles and may be too small to handle a major downpour. **5. Gutter brush:** Fits up inside of gutter, blocking leaves (but not smaller debris); discourages birds from nesting. Removes easily for cleaning.



PHOTO (BOTTOM) SUSAN McWHINNEY



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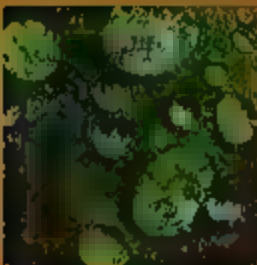
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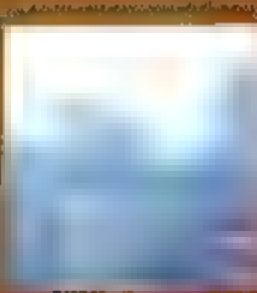
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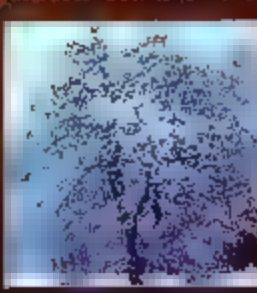
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Looking for Trouble

For buyers (and some sellers), a thorough house inspection is a must. Here's what you need to know

BY JEFFREY ROTHFEDER ILLUSTRATION BY A.J. GARGES

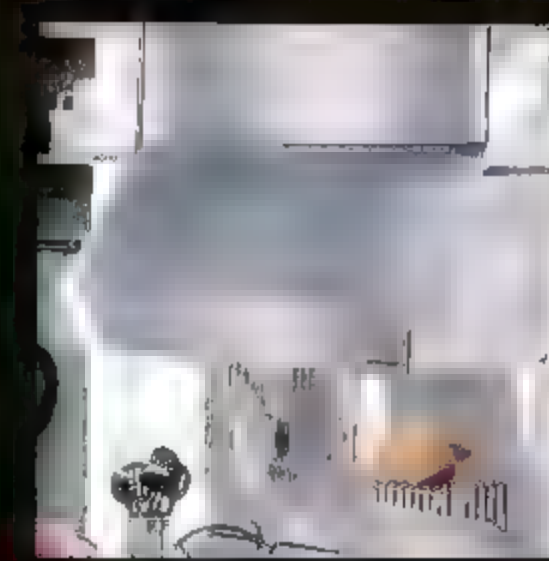
Charles Bellefontaine found out the hard way the value of a good home inspection. In 1991, Bellefontaine and his wife, Loretta, signed a contract to buy a three-bedroom, one-bath Georgian-style house in Elmhurst, Illinois. A framing carpenter, he figured he had enough experience to size up the property for potential shortcomings. So to save money, Bellefontaine skipped hiring an inspector and handled the task himself. He declared the house fit, and the couple completed the purchase.

Within a year, Bellefontaine found out how wrong he was: A leaky bathtub on the second floor damaged the kitchen ceiling below, an improperly sized circuit breaker posed a fire hazard, and the roof needed to be replaced. Buying the home had stretched the couple's finances so perilously that they had to borrow money from Loretta's



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mother to pay for the repairs.

"We hadn't been married that long, and you can imagine how that incident went over with the family," Bellefontaine says. "I may have known something about construction, but I did not know how to thoroughly inspect the property." Loretta puts it more succinctly: "He was a know-it-all, and we paid for it."

Fortunately, most people don't attempt their own home inspections. But even hiring a professional doesn't guarantee that a newly purchased house isn't harboring unpleasant surprises. By and large, home inspectors are poorly regulated, and the level of performance varies widely. Only 14 states require licenses, according to the American Society of Home Inspectors (ASHI), a trade group based in Des Plaines, Illinois. Among those that do, few follow the lead of New Jersey, where inspectors must pass a lengthy written test, perform as many as 400 inspections, and in some cases complete a training program at a state-approved school before being accredited. More common is the situation in Georgia and Tennessee, where home inspectors can be certified without evidence of any prior experience. Many states have no certification requirements at all.

Here's a list of steps you can take to ensure that you get the most from a home inspection.

1 Make sure the real estate contract includes an inspection clause. Typically, contracts allow home buyers 10 or so days after signing to have the property inspected. But that's not always the case, so it's important that the contract include

a home-inspection clause. The results of the inspection can be used to ask the seller to fix trouble spots, or to adjust the selling price to cover the cost of necessary repairs.

2 Get references. Because state laws regulating the licensing of inspectors are generally toothless, certification from trade associations is often a better barometer of an inspector's experience and skills. ASHI's Web site (www.ashi.org) maintains a list of certified inspectors, searchable by Zip code. Word of mouth is still the most common way to find an inspector. But even if the recommendation comes from a friend or real estate agent, it's a good idea to check for certification, call references, and consult the local Better Business Bureau to make sure previous jobs have been without incident.

3 Demand a thorough job. Only about half the states have laws stipulating exactly what must be covered during an inspection (for information about your state, see "Inspection Resources," below). A thorough job should include a complete assessment of the interior and exterior of the house, from roof to foundation, as well as a performance analysis of the heating, plumbing, and air-conditioning and electrical systems. Some crawl spaces may be too small or too dangerous for inspectors to wriggle into; expect to be told about any parts of the house that weren't examined.

For a three-bedroom, two-bath home on up to an acre of land, a complete inspection should last about three hours and cost between \$300 and \$500, depending on the region of the country and the size of the house and property. "Cost is a good indi-

cator of how comprehensive the inspection is going to be," says Bellefontaine, whose experience prompted him to give up carpentry and become a home inspector himself. "An inspector can't afford to do a good inspection for \$99." One key reason: expensive equipment. A diligent home inspector carries a toolbox that includes carbon monoxide and natural gas detectors, moisture meters, outlet testers, voltage meters, and an array of measuring devices. "The discount guys try to get away with not much more than a flashlight, ladder, and screwdriver. That's not enough," he says.

4 Get results in writing. The inspection report is an excellent gauge of how exhaustive the work is. Examine a sample copy before hiring an inspector. If it's little more than a checklist, it's insufficient. A complete report should be anywhere from 20 to even 100 pages long, describing in layman's terms what was observed and any problems that were uncovered. If there are serious structural issues, or any problems the inspector can't diagnose, the report should recommend further examination by a structural engineer or other specialist. Some inspectors include estimates of the cost of repairs—but it's illegal in most states (and considered a conflict of interest under ASHI and other trade-group rules) for inspectors to solicit repair business based on their findings. Make sure that the home inspector agrees to spend an hour or so with you to go over the details of the inspection and answer your questions.

5 Hold the inspector liable for missed problems. Inspection contracts tend to be minimalist documents, but they contain one critical piece of information: the inspector's liability if he fails to discover an existing problem with the house or property. In many cases, liability is limited to the cost of the inspection. So if you paid \$300 for the service, that's what the inspector is obliged to reimburse you, even if you turn up a \$3,000 problem the day after you move in.

Faced with this situation, you can protect yourself by hiring an inspector who carries insurance that covers not only damage to the property during the inspection but also losses

due to "errors and omissions." To lock in those protections, it's vital that the contract call for binding arbitration. With litigation so expensive—and, in the case of a small contractor like a home inspector, not likely to be particularly rewarding—arbitration is the best way to safeguard your interests.

6 Don't skip an inspection just because the house is new. New-home buyers are more likely to forgo an inspection than purchasers of existing houses, even though they may have more to gain. Because most new homes come with a one-year warranty, an inspection can unearth construction flaws covered under this agreement that might otherwise go unnoticed for a few years. "Municipal building inspectors, who generally do a 15-minute run-through, are not likely to find these problems," says John Ghent, a Connecticut home inspector and past president of ASHI.

7 Consider an inspection even if you're the seller. If you need to sell a house quickly—perhaps you're relocating for a job or have already purchased a new property—you may be able to save time by having the place inspected first. That way, you can find and fix any problems that might slow down the sale. "If a seller needs a smooth and fast transaction, they should do a home inspection before putting the property on the market," says Chris Ballard, owner of Century 21 Gold Medal Realty in Atlanta. "They'll know what issues they may have to address and be able to take care of them before they become an issue."

Home inspectors acknowledge that whether a house is new or old, there are certain potential trouble spots that can be nearly impossible to discern, such as water intrusion that has been plastered over, cracks in concrete slabs that are concealed by floor coverings, or damage to walls that is hidden behind a careful paint job. But they argue that flaws like these are rare. "What a good inspector is looking for, and what he binds his reputation on, is the things that will cost buyers \$10,000, \$20,000, \$30,000 when they move in," says Mike Casey, an instructor at Inspection Training Associates in Manassas, Virginia. "If an inspector is skilled, he finds those things." ■

Help yourself: For Tom Silva's tips on what you should look for in a house
Go to www.thisoldhouse.com/newhome or **America Online Keyword:**
This Old House and type "home inspection" in the search box.

Home-Inspection Resources

To learn more about what should be included in a home inspection, to locate an inspector, or to find out about individual state regulations, here are resources to consult.

TRADE GROUPS

American Society of Home Inspectors; www.ashi.com
Home Inspection Institute of America; www.inspecthomet.com
Housing Inspection Foundation; www.iaml.org/hif.cfm
National Association of Home Inspectors; www.nahi.org
National Institute of Building Inspectors; www.nibi.com

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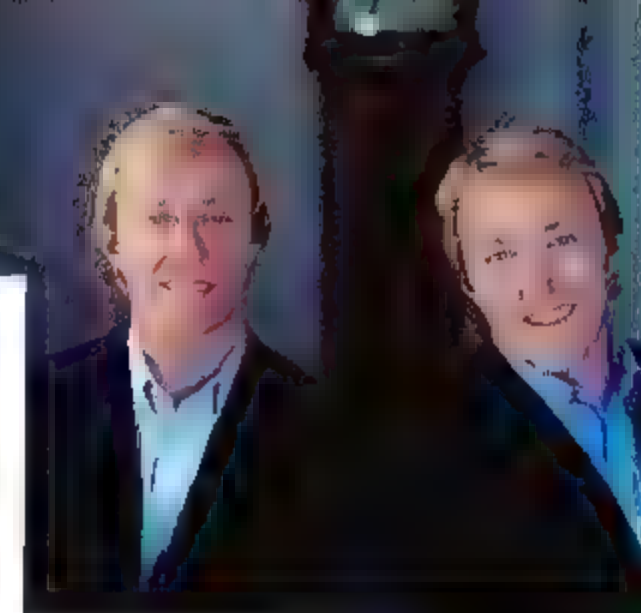
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BY LEIGH KENO AND LESLIE KENO



Tilt-Top Tea Tables

These 18th-century antiques never went out of style

As Leslie and I have learned from experience, you never know where you'll find a great piece. Nine years ago, I was visiting down in New Orleans, drinking mint juleps in the living room of a grand old home. It was hot. New Orleans hot. The shades were all drawn to keep out the sun, and the ceiling fan swooshed to beat off the heat. In a dark corner of the large Federal-style room I could make out a fine-looking tea table that stood out from the other antiques in the room.

Nine years later, an acquaintance phoned up to offer a furniture collection "from an old New Orleans family." When I went to investigate, I couldn't believe it; there was the very same table I'd seen in New Orleans—a mahogany tilt-top tea table from around 1770—a classic Philadelphia piece in the Queen Anne style. A real gem. I wasn't going to let it get away.

A POPULAR STYLE

This particular table is a great example of a popular type. When tea drinking caught on in England in the early 1700s, it didn't take long for the Colonial gentry to adopt the new custom, along with the teapots and tables that were part of the ritual. Tea tables—round, square, with tops that tilt or not—became all the rage, and furniture makers scrambled to meet the demand. Philadelphia produced some of the finest, but tea tables were made in other places as well, notably Massachusetts and Connecticut.

The round top on this table both tilts and turns. It is attached to two wooden cleats, connected to a wooden "bird-cage" device that turns freely on the



JUST THE FACTS

Philadelphia tilt-top tea table

STYLE: Queen Anne

DATE: Circa 1770

WOOD: Mahogany

VALUE: \$38,000

FEATURES: Top tilts and turns on "bird-cage" device. Turned column on "compressed ball" base. Dished top. Plain pad feet.

Antiques experts Leigh Keno and Leslie Keno are hosts of *Find!*, a new TV series on PBS celebrating the world of design, style, antiques and furnishings (for more, see www.find-tv.com). Leigh (right in photo) operates his own gallery of American furniture in Manhattan. Leslie is head of the American furniture department at auction house Sotheby's.

PHOTOS (FROM TOP) PETER RIOS; WILLIAM A. BOYD JR.

Find



Tea tables weren't just for tea parties. Here, William Ferguson and his friends celebrate with something stronger in this English painting, entitled "The Ferguson Group," dated 1781, by painter John Zoffany.

columnar base. By means of this mechanism the top turns, so the host can pour, rotate the table, and serve guests, and it also tilts up, so the table can be stored against the wall to take up less space when it isn't being used. Ingenious. Not all tea tables tilt and turn but this dual function is quite common on Philadelphia tables of the period.

WHAT TO LOOK FOR

VALUE Prices for similar antique tea tables start at \$2,000. Condition, carving, and the proportions of the piece all play a part in determining value. These tables were expensive when new, and anything that added work added cost. Carving on the legs and feet, a carved "scallop'd" edge on the top, or a fluted column will also add value today. Tables with carved ball-and-claw feet—a hallmark of the Chippendale style—are generally worth more than those with plain "pad" feet, like the Queen Anne-style table shown here. A ball-and-claw foot is much more desirable for today's collector.

PLEASING LINES AND PROPORTIONS All the parts need to work in harmony to create a unified and balanced whole, as Leslie points out. Look for an aesthetically pleasing balance between the proportion of the top and the base. A table can have a beautiful top but a clunky column and base. The table shown here has a well-proportioned column on a "compressed ball base"—a common design for Philadelphia tea tables.

Leslie says I have a good eye for legs. They need to be the right length and have a perfect S-shaped line. The best ones have this energy about them. You get the feeling that the three legs are muscularly supporting the top above them. The transition between the leg and the foot should be slender and graceful.

CONDITION As with any antique, condition counts for a lot. A piece that's intact, with all parts, is worth more than a similar one with pieces that are missing or have been replaced. A refinished piece is also worth less than a piece with even part of its original finish (usually shellac) remaining.



THE PHILADELPHIA CONNECTION

Some of the finest American furniture was made in Philadelphia. In the second half of the 18th century, this port city was a center of commerce, government, and culture, with a wealthy aristocracy keen to keep up with the latest new styles from across the Atlantic. To meet this demand, joiners, carvers, finishers, turners, and upholsterers—many of whom learned their trade in England—set up their shops. Working from popular pattern books such as London-based cabinetmaker Thomas Chippendale's, *The Gentleman & Cabinet-maker's Directory* (published in 1754), they supplied the Colonial gentry with the fine high-style furniture that's still prized by collectors today.

In today's homes, Leslie and I often see a tea table—antique or reproduction—used nicely as an end table, side table, or a stand for a lamp. Of course, it's also ideal for its original function—just enough room for two or three friends to sit back and enjoy a nice cup of tea (or perhaps something with a bit more kick).

For more information on the Kenos' new show Go to www.thisoldhouse.com or America Online Keyword: **This Old House** and select "Find!" on the home page.

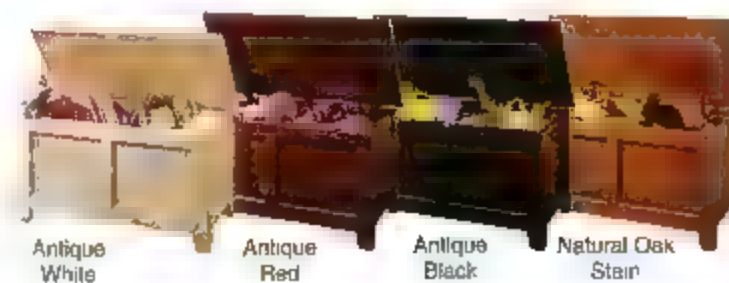
PHOTOS (CLOCKWISE FROM TOP LEFT) COURTESY FAIRFAX HOUSE, YORK, ENGLAND; WILLIAM A. BOYD, JR., (2)

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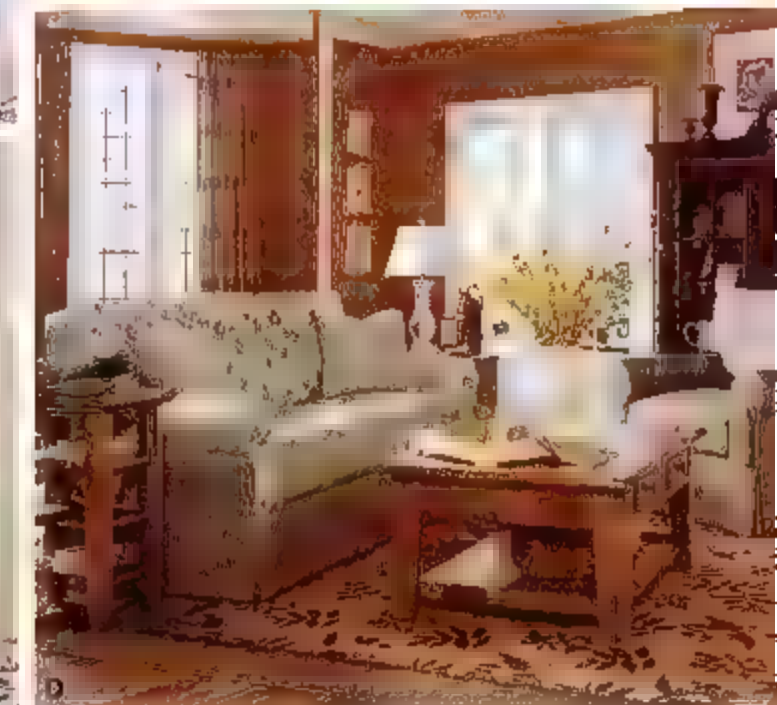
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Questions & Answers

IRON STOVE PLATE

I found this ornate cast-iron plate at an antiques shop in New Jersey. It's 21 inches tall, 11 inches wide, dated 1738, and is very heavy. The dealer told me it was a fireplace back that was acquired in Germany. What is a fireplace back and how can I learn more about where this one was made?

MINNIE POOLEWOOD,
LONG BEACH, CALIF.

LEIGH & LESLIE KENO REPLY: A "fireback" is an iron plate placed at the rear of a fireplace to reflect heat and protect the bricks from the flames. Most firebacks from the 18th century have an arched or shaped top. Since yours is

rectangular, it's probably a stove plate. The early, 1738 date hints at European origin, since few American foundries were casting stove plates before 1740. The horse was a common motif in German decorative arts at the time and was just as popular with the Germans who emigrated to Pennsylvania in the 1700s. Your stove plate would sell for about \$1,500.

MODERN CHAIR CARE

A friend gave me this great-looking chair. It's made of walnut, and the label under the seat reads, "Made for Knoll International by Johannes Hansen, Denmark. Designed by Hans Wegner." It appears to have the original upholstery, but the fabric is badly worn at the front. I'd like to re-cover the seat, but I don't want to destroy the chair's value if it's worth anything. What should I do?

MICHAEL LAMBERT, BELLINGHAM, WASH.

MICHAEL GLATFELTER REPLIES: Danish furniture designer Hans Wegner (b. 1914) designed this chair in 1949 and by 1950 it had made him famous. Known as "The Round Chair," or simply, "The Chair," it's a classic example of Danish Modern design. In 1950, *Interiors* magazine featured it on the cover, heralding it as "the world's most beautiful chair" and in 1960, "The Chair" was seen on TV during the Kennedy-Nixon debates. As your label attests, the chairs were made by Johannes Hansen in Denmark and sold in the U.S. by Knoll International until 1980. "The Chair" is still in production today by Brayton International (www.brayton.com).

Originals from the '50s and '60s were made in several woods with either woven rush seats or upholstered seats. Value is all about condition, ranging from \$450 to \$800. Blonde wood ones are a bit more rare and worth more, and a rosewood chair with rush could bring as much as \$1,200.

These are factory-made chairs, produced by the thousands, so they don't have the same historical value as a hand-made 18th-century piece. For that



reason, if the original fabric is in bad shape, replacing it won't affect the chair's value, as it would with a rare antique. Knoll sold these chairs with a variety of fabrics from subtle to wild, so there's no rule for what material to use. You could choose a tasteful hopsack from Knoll or dress up the chair with a fabric to match your decor. Even leather might look good.

Michael Glatfelter is co-owner of *Mode Moderne*, a gallery of 20th-century modern furniture and furnishings in Philadelphia.



VICTORIAN SIDEBOARD

My parents bought this walnut marble-topped piece in the 1950s, and it's been used in our home as a sideboard ever since. When I moved it recently to clean, I noticed some marks and holes on the back where something—perhaps a mirror—was once attached. Can you tell me anything about this piece and what might be missing?

FIONA GRAINGER, BALTIMORE, MD

LESLIE & LEIGH KENO REPLY: Your walnut sideboard was made between 1865 and 1880. It was probably part of a bedroom set. The narrow splashboard at the rear looks like a replacement, so it had either a larger splashboard at one time or possibly a mirror with shelves—which explains the marks you found on the back. This style of furniture is very common, which makes it a bargain for young homeowners on a budget. You could expect to pay about \$500 to \$700 for a similar piece in good condition with the original marble top.

SEND US YOUR FINDS!

To submit a question on furniture, furnishings, style, and design, or for an opinion on a find from your home, go to www.find-it.com or write to:

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New York, NY 10036

Include a complete address and daytime telephone number. If you're submitting a photo of an object, please shoot it on a plain white background. Published questions will be edited for clarity and length and may be used in other media. Photos and any other materials submitted will not be returned. We regret that due to the volume of mail received, we're not able to reply to unpublished questions.



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HOMEOWNER'S HANDBOOK

STEP-BY-STEP PROJECT SERIES



This new phone jack, mounted to the baseboard, provides a connection for a second telephone line. It's linked to a cable that runs through the wall to an existing jack located down the hall.

Adding a Phone Line

BY JOSEPH TRUINI PHOTOGRAPHS BY MATTHEW BENSON

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2. GIVE THEM TO LOVED ONES WHOSE NAMES YOU'VE FORGOTTEN.

Hello

my name is

Hello

my name is

Hello

my name is

Hello

my name is

Hello

my name is

Hello

my name is

Hello

my name is

Hello

my name is

Hello

my name is

Hello

my name is

Hello

my name is

Hello

my name is

⚠ If your loved ones seem hurt, remind them that you're "on your way to Ace Hardware" and "things will be better soon."

Overview

Adding a phone line

ILLUSTRATIONS BY GREGORY NEMEC

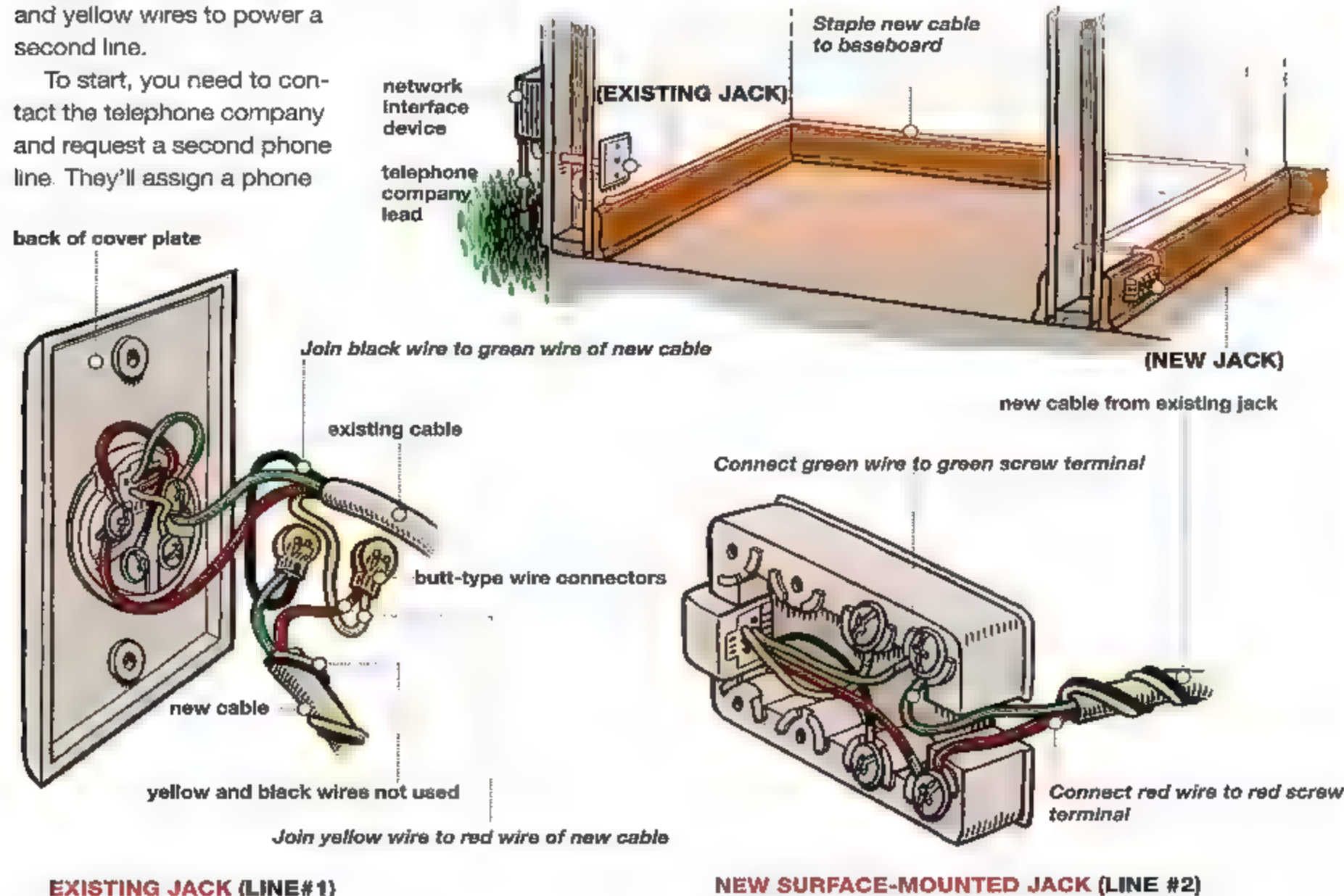
Adding a second telephone line to accommodate a dial-up modem, a fax machine, a new home business, or a chatty teenager can cost you as little as \$60 or upward of \$160. The difference is whether you have the phone company run the wires inside your house or do it yourself. This task is not difficult, requires only a few basic tools, and doesn't involve high-voltage electrical current.

Although it's best to run new wire from your network interface device (a junction box usually mounted on the outside of your home), when there isn't a clear pathway to the room where you want a new line, you can use the wiring already in place in your home. That's because all telephone cable contains at least four wires: red, green, black, and yellow. But only two of them—the red and green ones—are typically used to connect your primary phone. This leaves the black and yellow wires to power a second line.

To start, you need to contact the telephone company and request a second phone line. They'll assign a phone

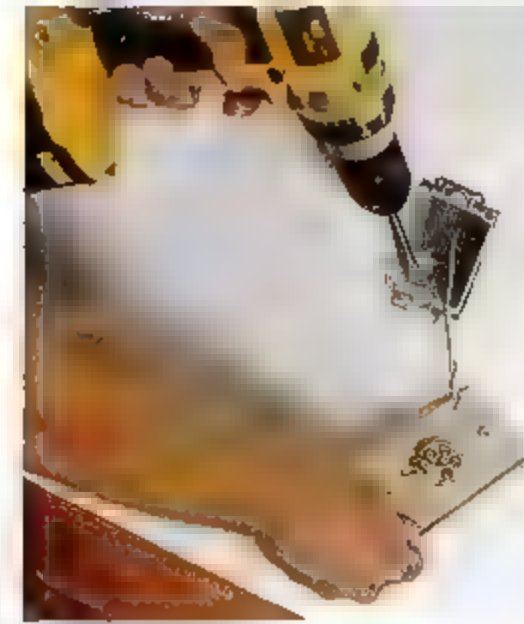
number and send out a technician to bring the new dial tone to the network interface for a \$50 to \$75 fee. (If you have an outdated interface, the telephone company will install a new one for free.) Tell them you'll be doing the inside wiring yourself.

For our project, we tapped into an existing phone jack that's set flush in the wall. We then connected the unused black and yellow wires from the cable that runs to this jack with two of the wires from a new length of quad-wire cable—sometimes called station wire—and ran it along the top of the baseboard, through the wall, and into an adjacent bedroom. There, we connected the new cable to a new, surface-mounted phone jack. Once you make a final connection at the network interface, you're ready to receive calls or dial out on your new line.



Step by Step

1

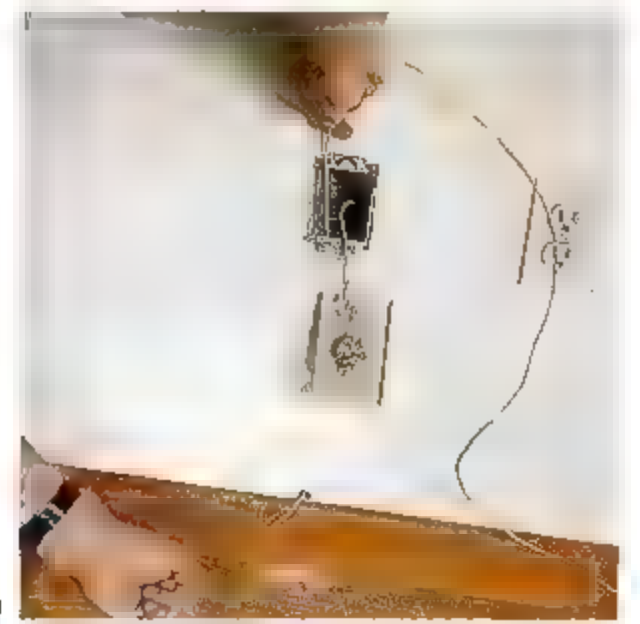


Drill an access hole

- Even though phone wires carry very little electricity, play it safe and disconnect the line you're working on by taking the phone off the hook.
- Unscrew the cover plate from the existing flush-mounted phone jack, but don't disconnect any wires.
- Using a 1/2-inch-diameter spade bit and a cordless drill/driver, carefully bore a hole down through the bottom of the jack box (above).

TIP: Don't work on phone lines during an electrical storm.

2



Run the cable behind the drywall

- Bore a 3/8-inch-diameter hole through the wall directly below the jack and just above the baseboard.
- Cut and straighten a wire clothes hanger with pliers, then bend a narrow hook on one end.
- Feed a length of quad-wire telephone cable down through the hole in the jack box.
- Push the hooked end of the wire through the hole in the wall, grab the cable, and pull it into the room (above).

5



Bring the cable into the room

- Walk around to the adjoining room and slowly pull the cable through the wall (above).
- Staple the cable to the baseboard close to the wall and cut it off, leaving 4 inches protruding from the hole.
- Carefully trim 1 inch of the outer sheathing from the cable, then strip 3/8 inch of insulation from the red and green wires. Don't strip the yellow and black wires.

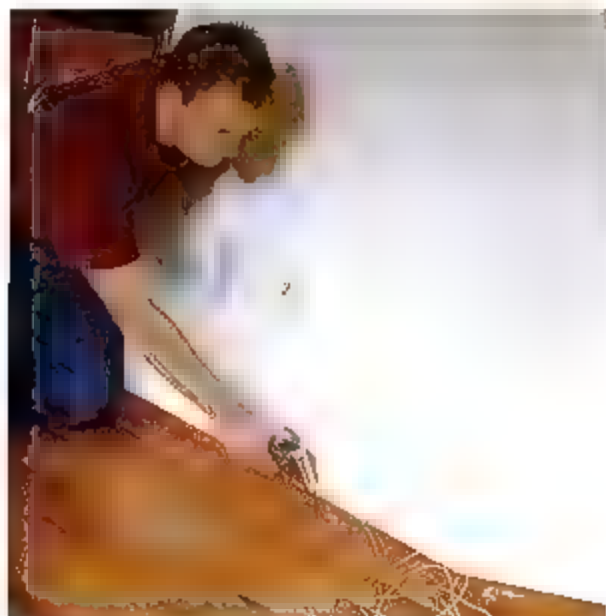
6



Install a surface-mounted jack

- Attach a new, surface-mounted jack to the baseboard right next to where the cable protrudes from the wall. If the jack has an adhesive back, simply peel off the paper liner and stick it to the baseboard (above). If it's a screw-mounted jack, fasten the base plate to the baseboard with the screws provided.
- Pry the cover off the jack using a screwdriver.

3



Staple the phone cable in place

- Run the cable along the baseboard to the point in the room where it will go through the wall.
- Using a staple gun that has a cable-stapling nose-piece big enough to fit around the whole wire, attach the cable to the top of the baseboard (ABOVE), spacing the staples about 10 to 12 inches apart.
- If the room has carpeting, you can hide the cable underneath, stapling the cable down alongside the wood tack strip.

4



Drill a hole into the adjoining room

- Finish stapling the cable at a point on the wall that lines up with the spot in the adjoining room where the new jack will go.
- Drill a $\frac{3}{8}$ -inch-diameter hole completely through the wall, just above the baseboard, with a 18-inch-long phone installer's bit (ABOVE).
- Feed the straight end of the wire hanger through the wall.
- Wrap the end of the quad-wire phone cable around the hanger's hook several times.

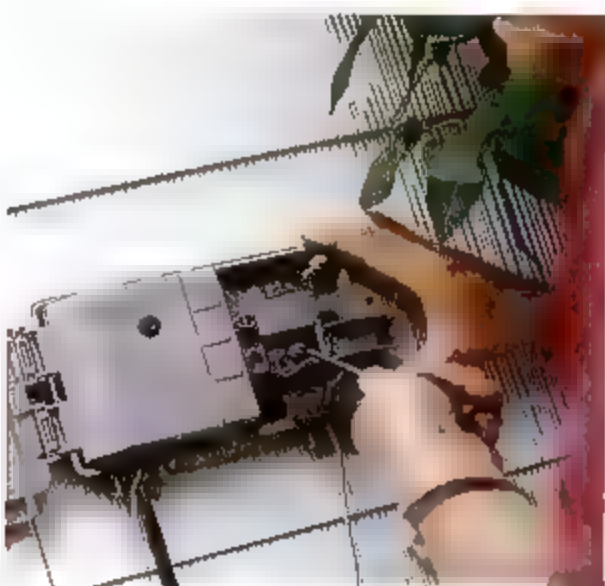
7



Make the connections

- Connect the cable's red wire to the red screw terminal on the new jack (see "Overview," LEFT). Connect the green wire to the green terminal (ABOVE). Don't connect the yellow or black wire.
- Snap the cover plate onto the jack.
- Now go back to the existing flush-mounted jack and find the unused (black and yellow) wires from the existing phone cable. Using wire connectors, join the yellow wire from the existing cable to the red wire of the new quad cable. Join the black wire to the new cable's green wire.
- Replace the cover plate on the flush-mounted jack.

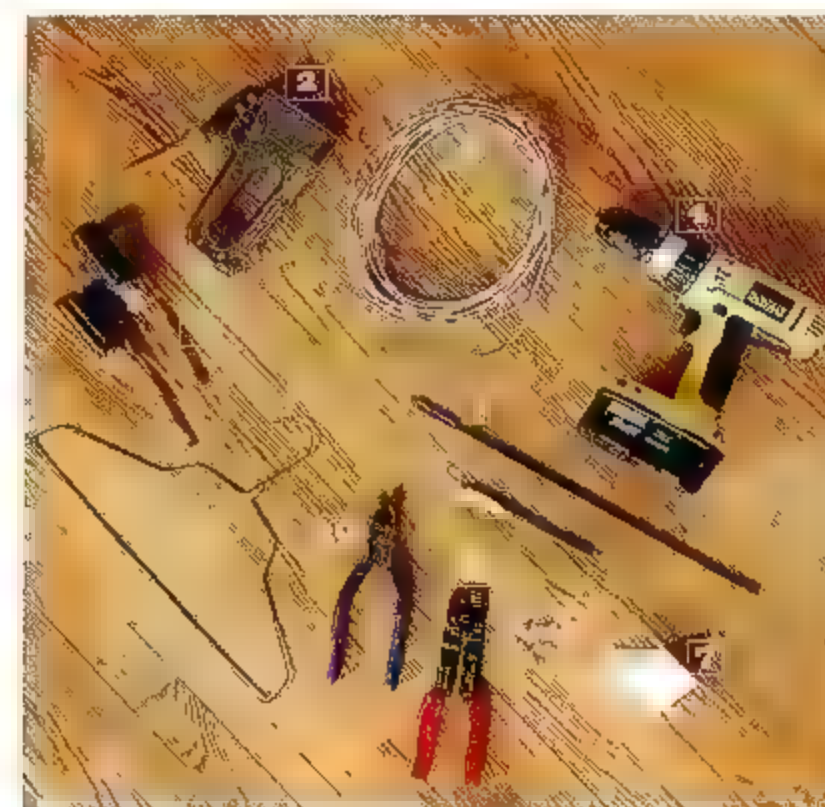
8



Secure the wires at the interface

- Open the door of the network interface device on the outside of your home. Look for two small flaps labeled with the old and new phone numbers, or with Line 1 and Line 2. Open the flap marked Line 2 (or with the new phone number) to reveal two screw terminals.
- Locate the cable that enters the interface from inside the house. Its yellow and black wires won't be connected. Connect the yellow wire to the red screw terminal and the black wire to the green terminal (ABOVE).
- Close the flap, then shut and latch the outer door.
- Hang up the phone on Line 1, then plug a phone into the new surface-mounted jack to test your new number.

Tools



1. Straight-bit and Phillips-head screwdrivers
2. Cable stapler with $\frac{1}{8}$ -inch staples
3. Quad-wire telephone cable
4. Cordless drill/driver
5. $\frac{3}{8}$ -inch-diameter phone installer's bit
6. $\frac{1}{2}$ -inch-diameter spade bit
7. Surface-mounted phone jack
8. Self-stripping butt-type wire connectors
9. Wire strippers
10. Lineman's pliers
11. Wire clothes hanger

OPTIONAL:

Caulking gun and adhesive caulk
(for sealing holes drilled in walls)

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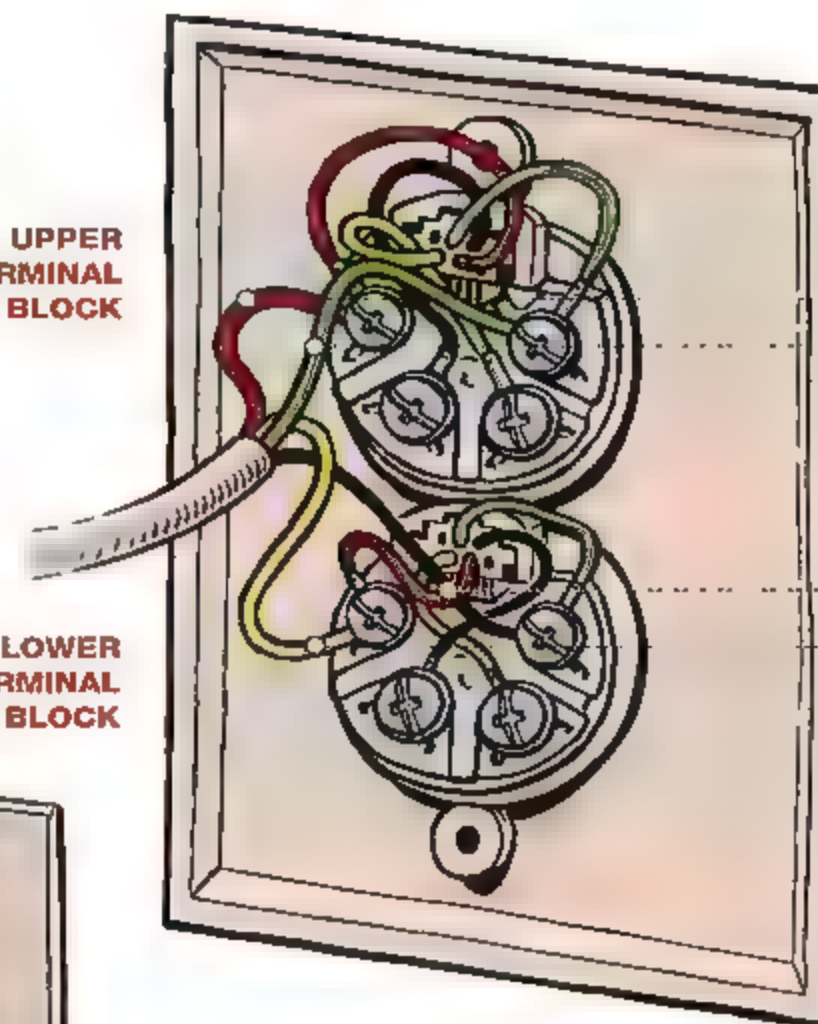
Technique

Duplex Jack—when you want two lines in one room

When adding a second line, quite often you'll want both of your phone lines available in the same location—a voice line and a dedicated line for a dial-up modem, for instance. This setup is made simple by a duplex jack. Wire it like the one here, and make sure to request a second number from your phone company and make the connection at your interface network (see Step 8, left).

UPPER
TERMINAL
BLOCK

LOWER
TERMINAL
BLOCK



line #1

- Connect red wire to red screw
- Connect green wire to green screw

line #2

- Connect black wire to green screw
- Connect yellow wire to red screw

LETTER FROM THIS OLD HOUSE

Meet the New Guy

BY KEVIN O'CONNOR

Right now I'm sure a lot of *This Old House* fans are saying to themselves, "How did this guy get to be the new host?" To tell you the truth, I've asked myself the same question. I'm a banker, not a television personality—I'm the last person you'd expect to see hanging out with the likes of Norm, Tommy, Rich, and Roger. I've held the other end of the board for countless buddies fixing up their houses, I've made a few pieces of furniture, and now I spend every spare moment working on my own renovation. But I'm no pro, just an avid amateur.

Turns out that's exactly why I got the job. Last fall, Tom Silva and painting contractor Jim Clark came to our house to do an *Ask This Old House* segment on removing wallpaper with me and my wife, Kathleen. When Tommy walked in, I was excited, as any TOH fan would be. I thought to myself, "Wow! This is the guy who knows everything there is to know about renovation, and he's right in my own home." Kathleen and I had owned our 1894 Queen Anne for only a few months at that point, and the house needed everything: a new kitchen, new bathrooms, and new bedrooms. Since we were doing all the work ourselves (except for the plumbing and electric), naturally I had a lot of questions. So I hounded Tom on every break we had. He didn't even get a chance to eat his lunch because I was busy being a curious homeowner.

Somehow it must have stuck with the TOH crew that day that I was doing what all of us homeowners are trying to do when we tune in each week: get advice on how to fix up our own house. A couple of months later, when the TOH staff started their search for a new host, they called and asked me if I might be interested.

One day soon after that when Russ Morash, the executive producer, officially offered me the job, he sat me down and laid it on the line. "Listen," he said, "I don't need any more experts. I have the best damn contractor in the country, and I have one of the world's best carpenters. I have the best plumber, and I have the best landscape guy. What I need is someone who will ask lots of questions. So whatever you do, stay curious."

For me, that part will be easy. ★



Kevin O'Connor, the new host of This Old House, hopes that by being himself—a curious homeowner—he'll help other homeowners watching the show get their questions answered as well.

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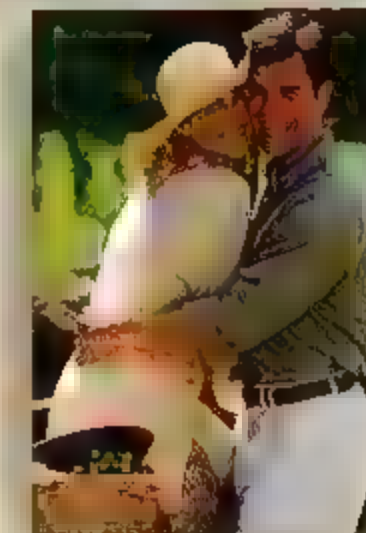
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TOH





A Cottage in Concord

Transforming a backyard barn
into a home for Mom and Dad

BY MAX ALEXANDER

ILLUSTRATIONS BY TIMOTHY SLATTERY



Architect Holly Cratsley (second from left) reviews the plans for the barn cottage with (from left) homeowners Janet and Jeff Bernard; Janet's mother, Jaqueline Buckley; and TOH general contractor Tom Silva.

When Janet and Jeff Bernard bought the 1894 Shingle-style house near the historic center of Concord, Massachusetts, the small, unheated barn tucked in the backyard was nothing more than a playhouse for the neighborhood kids. Eleven years later, it's getting a new life, as a real house for Janet's parents, Jacqueline and Len Buckley. When the Buckleys decided to sell their own nearby home and move into something smaller, the old barn suddenly loomed large. Converting the space into an "in-law cottage" gives the retirees a manageable place of their own within earshot of their daughter, son-in-law, and 12-year-old grandson, Andrew.

The project is a novelty for *This Old House*, which has never tackled anything so small. Even with a 12-foot-square

Go behind the scenes at the Concord Cottage Watch the work on live Web cams, meet the homeowners and contractors, and get the inside story on the products used. Go to www.thisoldhouse.com or **America Online Keyword: This Old House.**



Before



This Old House will convert a backyard barn (LEFT) into a compact "in-law cottage" for the parents of one of the homeowners. The architect's concept (ABOVE) retains the original building's rustic charm. A dormer and living room addition will add space inside. The original barn door will remain as a nonfunctional decorative element.

PHOTOS: KIMBRA C. JEFF

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WINDOWS & DOORS

addition off the back, the two-story cottage will measure just under 1,200 square feet, smaller than many apartments. The task of creating practical living arrangements in an unusually tight space has fallen to local architect Holly Cratsley, who has the one advantage of working with a clean slate. Because the barn is open space, she can lay out the rooms from scratch, much like a new home. On the exterior, the challenge will be adding charm without losing the barn's basic character. "We don't want it to look like a house behind a house," says Cratsley. "It's important that it look like a barn."

Even though it's a small project, the five-month renovation has a house-size budget of \$325,000 (including \$45,000 for land-

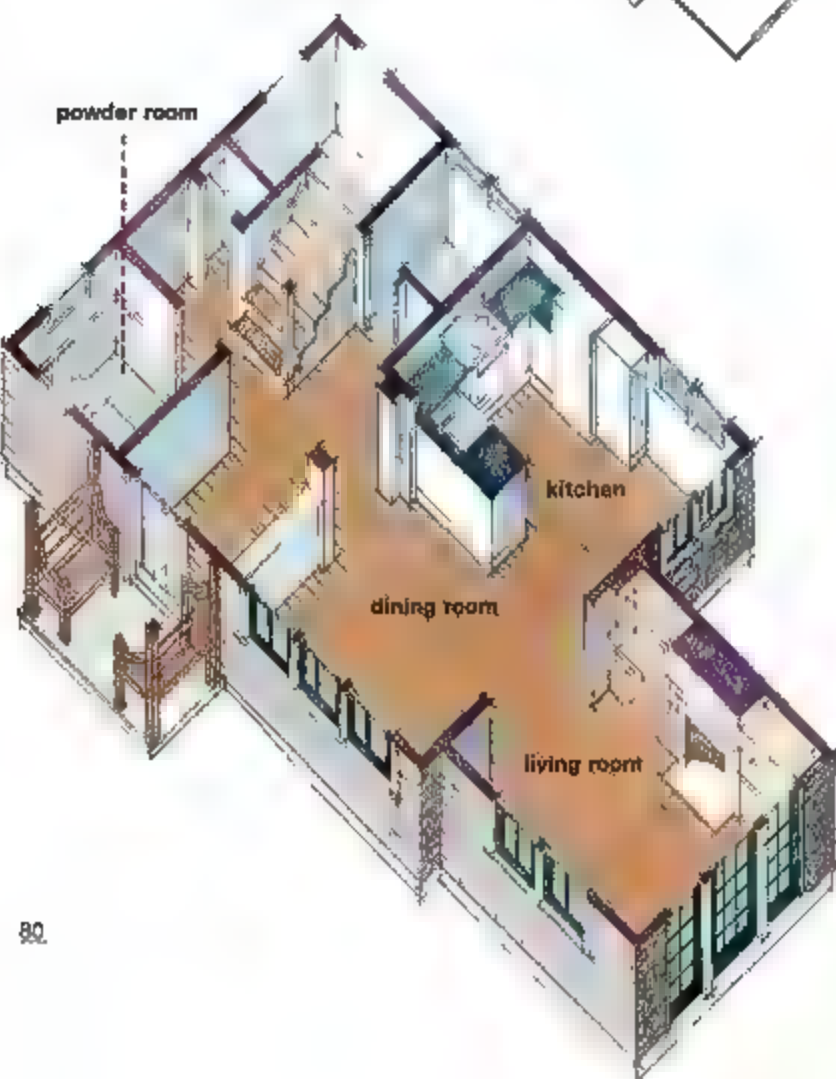
scaping)—that's about \$233 per square foot. Chalk that up to the high cost of labor and materials in suburban Boston. (Cratsley says the same project might cost one third less in parts of the Midwest or the South.) And TOH general contractor Tom Silva points out that adapting this old barn will cost more than building it new, an option prohibited in this case by zoning laws. "When you're working inside an existing envelope, there are always lots of problems to solve." Nothing new to Janet, who jokingly calls home renovation her hobby. "We're always under construction," she says. With Cratsley's plans ready to go, she can expect that to be the case for months to come. ■

First Floor

Architect Cratsley's ground floor plan divides the existing barn into two equal parts: The front half contains an entry foyer and coat closet, half bath, and furnace room, plus a stairwell that is relocated to the other side of the structure. Squeezing all those small but necessary elements into one end allowed Cratsley to leave the back half wide open, where a 234-square-foot kitchen and dining room will make the cottage feel much roomier. Extending out from the dining area is the 12-foot-square living-room addition (zoning rules prohibit increasing the barn's square footage by more than 20 percent of the existing structure), which will handily double as a second bedroom.

AFTER

BEFORE

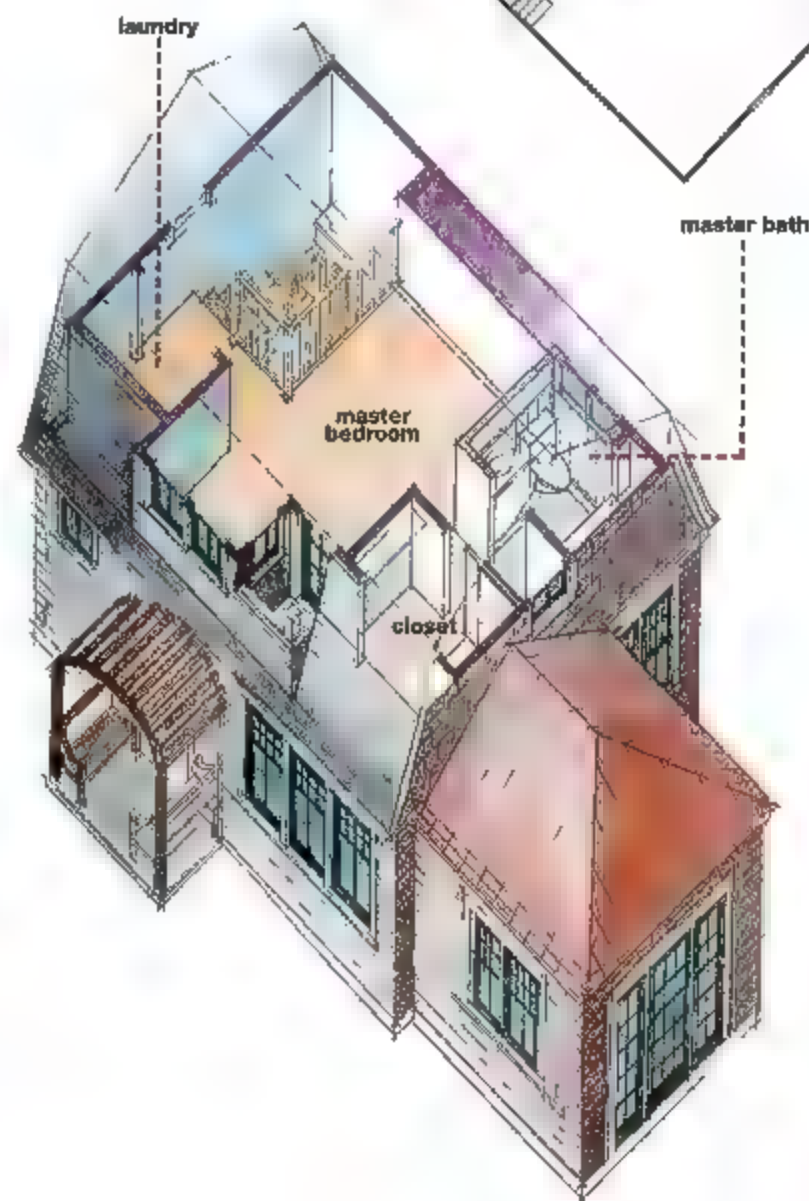


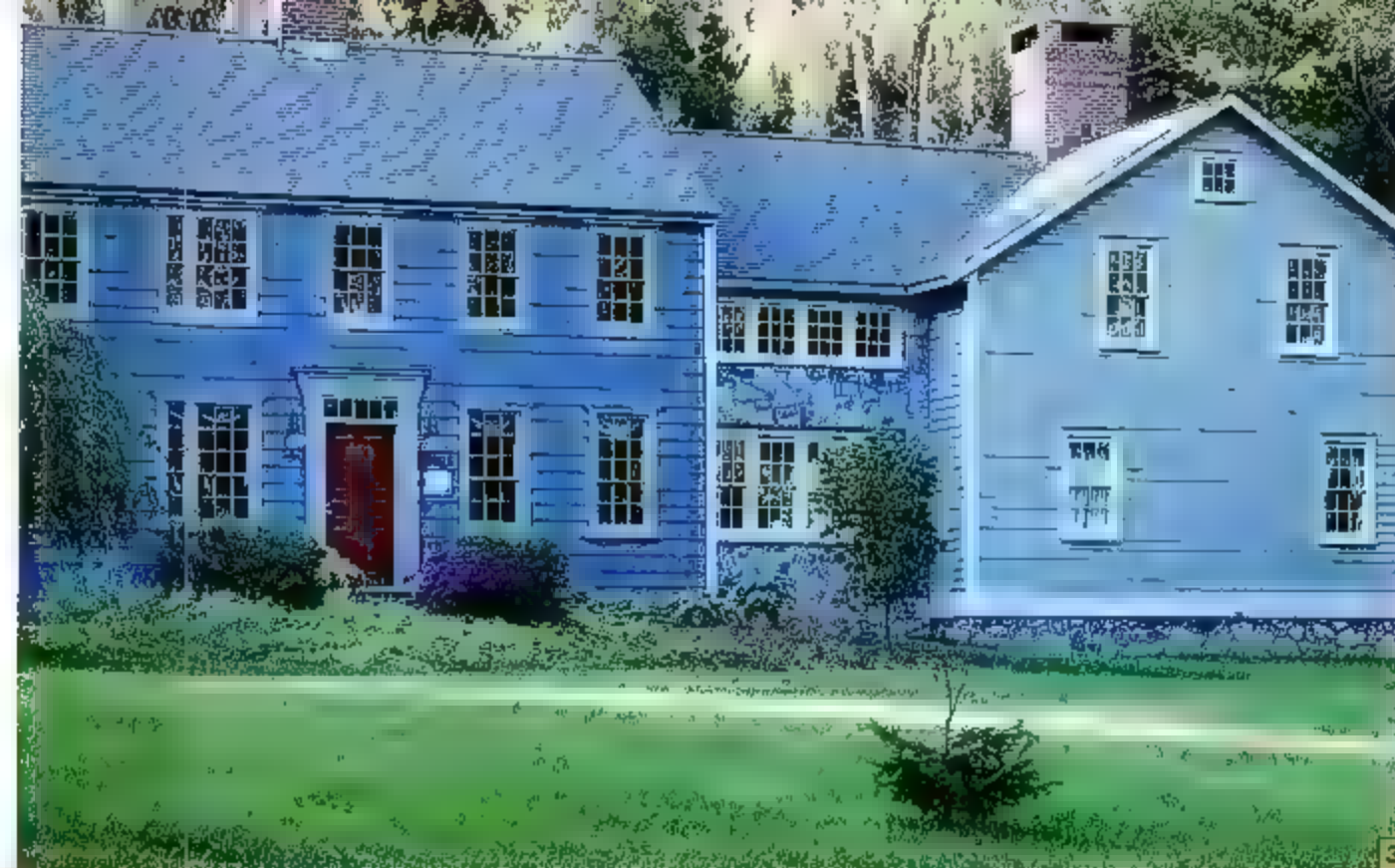
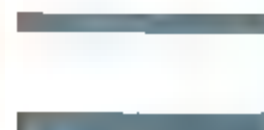
Second Floor

The second floor will be a model of economy. In this master bedroom suite, Cratsley opted for a small full bathroom in order to fit in a walk-in closet, which, she explains, the Buckleys preferred to a spacious lavatory. In another corner, she slotted in a laundry area. The entire sloped-ceilinged space will gain headroom—in order to meet code—with a lowered floor and two new dormers, one with a walk-out terrace.

AFTER

BEFORE





The Wulffleffs' 1772 Colonial (1) was combined with another 18th-century house (2), moved from a few miles away, to create a spacious home (3) that respects the past but meets the needs of a modern family.

1 old house + 1 old house = a new old house

The bones of a 250-year-old timber frame give shape to a new addition

A few years ago, when the McMansion wave was steadily rolling through the Northeast, the town of Wilton, Connecticut, decided to do something to slow it down. They created a Demolition Delay Ordinance, which requires any developer hoping to clear a lot by razing a historic building to publicly post their intentions and then wait 90 days. Among the first buildings protected by the rule was a timber-framed 1750 farmhouse located on Hurlbutt Street, one of Wilton's oldest thoroughfares.

On the other side of town, Marian Wulffleff and her husband, Doug, were talking with local architect Rob Sanders about adding on to their cramped 1772 Colonial. Though they loved the historical character of the three-bedroom house, the couple longed for a large, open kitchen and a

BELOW: Exposed timbers salvaged from a 250-year-old post-and-beam house nearby add charm and a sense of history to an otherwise brand-new family room and dining area.



great room in which the family could gather. And while they'd spent 17 years and raised four kids in the house—the youngest was still at home—they'd never had a master suite with a private bath. But they were determined not to build a bland new addition that was incompatible with their existing house.

So when Marian stumbled across an editorial in the local paper that described the Harbutt Street house's plight, it was, as she describes it now, "the sledgehammer" that launched their project. "We just had to figure out how to add the house to our own," she

says. She immediately phoned architect Sanders, then jumped in the car to meet him over at the rundown house.

"As soon as Marian saw the house she fell head-over-heels in love," says Sanders. Not only did the structure date to the same period as the Wulfleffs' house, but it had a massive stone fireplace, a feature their home lacked. And although the structure's roof and clapboard siding were in disrepair, the chestnut framing underneath was still solid. They had little time to weigh their options, though. The house was scheduled to be demolished in a matter of weeks. So Sanders and

New Life for an Old Timber Frame

The 18th-century structure that the Wulfleffs salvaged for their addition was mere weeks away from meeting the wrecking ball when they acquired it. The prize of their efforts was the building's centuries-old chestnut post-and-beam framing, which they re-erected and used as the addition's structural skeleton.



(1) The first step in the dismantling process was to strip off the structure's failing roof. Then siding, windows, and doors were removed to expose the timber framing.

(2) The dismantled chestnut posts and beams were transported to a barn on the Wulfleffs' property and stored there.

(3) The Wulfleffs' son Jim helped reframe the structure, often using an oversize mallet known to timber framers as a "persuader" to drive the mortise-and-tenon joints together.

(4) The addition was connected to the Wulfleffs' home at a 90-degree angle. All of the original timbers were reused for the wall framing, though new lumber was required for the roof.

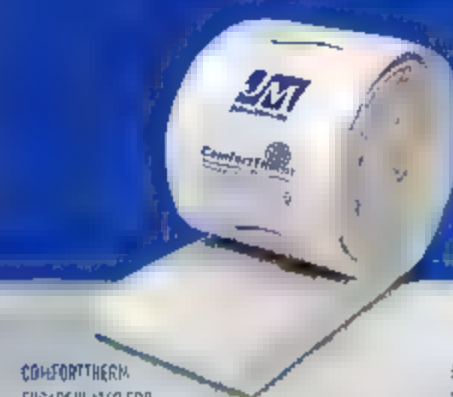
(5) Keeping the addition's front door intact helps preserve the distinct identities of the two merged structures.



PHOTOS: ROB SANDERS; © NATE JAWISENO



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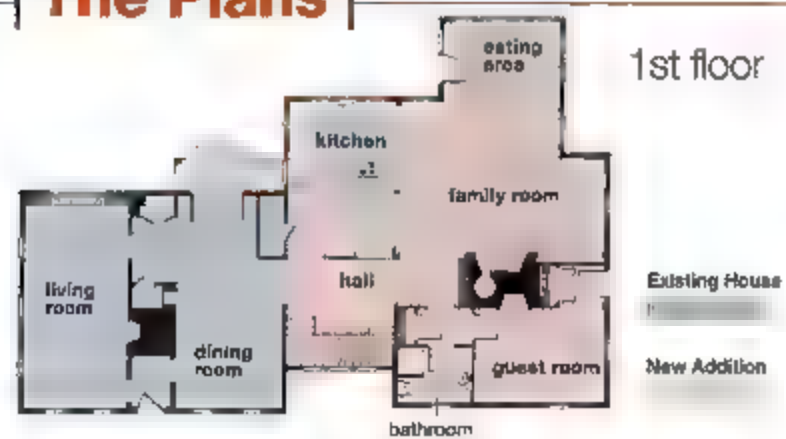


Smart Ideas. Better Insulation.





The Plans



The two structures are linked by a hallway, which also contains a staircase leading to the second floor and basement. The guest room and bathroom were designed as a self-contained suite.



The upstairs of the addition is taken up entirely by the master bedroom, bathroom, and a walk-in-closet. One of the existing house's bathrooms was converted into a laundry room.

the Wulffleffs paid a visit to the property's owner. "He was happy to have someone take the house off his hands," says Sanders. "He even loaned us heavy equipment to speed things up."

TURNING TWO HOUSES INTO ONE

Sanders went back and took some quick measurements, then sketched out a floor plan. Connecting the Hurlbutt Street house to the Wulffleffs' would maintain the historical integrity of both 18th-century homes, and leaving the rebuilt chestnut timber framing exposed would lend the modernized spaces a time-worn feel. By orienting the addition at a 90-degree angle to the existing house, the Hurlbutt Street house's central stone fireplace could be more easily integrated into an open-plan kitchen and family room on the first floor, and there would still be enough space for a guest room and a bathroom. The second floor would be reserved for the master suite.

Of course, putting two houses together on paper is one thing; actually pulling it off is quite another. Sanders turned this challenge over to contractor Don Frank, who, coincidentally, had begun his career as a timber framer after watching Norm Abram

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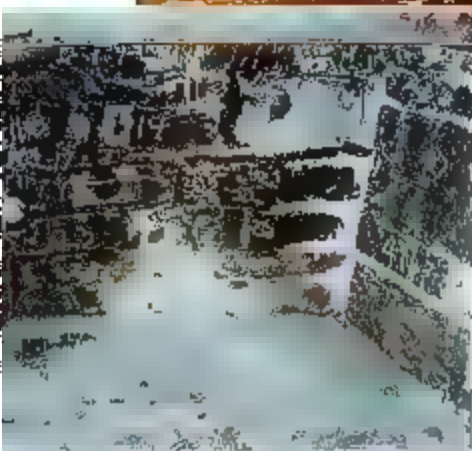
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ABOVE: The heart of the family room is a fireplace rebuilt with some of the original stones. The mouth of a brick-lined beehive oven, used for baking, can be seen at the back of the firebox. Stairs lead to the second floor, and a hallway connects to the original house. **LEFT:** The old firebox before it was disassembled.



and the *This Old House* gang raise a post-and-beam barn in Concord, Massachusetts (see *This Old House Classics*, page 136), more than a dozen years ago.

It took Frank three weeks to peel away the Hurlbutt Street house's siding and plaster, pop out windows and doors, pull up floorboards, and ultimately uncover the frame. He tagged and numbered each timber, then dismantled the frame and drove the pieces over to the Wulfleff property. Taking the structure apart and moving it cost only \$7,000—less than what it would have cost to purchase similar materials from an antique-lumber dealer or to have new timbers cut.

Before the two old houses could be joined, the Wulfleff house's existing single-story kitchen addition had to be demolished. To help with the demolition work, Frank hired Jim, an eager 27-year-old who

was fresh out of law school—and is one of the Wulfleffs' three sons. "I'd always been mechanically inclined, and the job market was slow, so this was a chance to do something different," says Jim.

He began as a laborer, carting shingles and plaster to the trash as the crew tore down the old addition. "The other guys got a kick out of seeing a lawyer walking around inside a Dumpster, compacting the trash," he says. A few weeks into the demo work, Frank gave Jim a book on post-and-beam construction, and pretty soon Jim was helping him reframe the Hurlbutt Street house.

RAISING THE ADDITION

Although the majority of the frame was in good condition, a few of the centuries-old posts had water damage at the base. Frank and Jim replaced the rotted wood with oak, which they scarfed in place and stained to match the chestnut. To replace the frame's lone missing post (a casualty of a previous remodel), Frank purchased a massive oak timber at a nearby salvage yard and turned it over to Jim to cut and mortise.

Once all of the timbers had been reassembled on the ground, Frank's crew raised the frame and the Hurlbutt Street house was reborn as the Wulfleffs' "new" addition. To make room for an informal eating area off of the family room, they bumped out the rear of the addition using the frame of the torn-down kitchen, which they

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GRAB LIFE BY THE HORNS



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had salvaged during the demolition process. "It was a building block approach," says Sanders of piecing the various frames together. The entire addition wound up doubling the house's living space, to 4,600 square feet.

While Frank and his crew built 2x6 stud walls between the timber posts, sheathed the whole frame with plywood, and installed new six-over-six windows, masons filled in the transition between the two houses. The space is essentially a light-filled hall and starwell sheathed in a fieldstone veneer. "We wanted to connect the Wulffleff and Hurlbutt Street houses together without losing sight of the fact that they were, historically, two distinct buildings," says Sanders. "The stone helps differentiate the two."

Equally impressive is the family room fireplace, which the masons rebuilt using a combination of salvaged stones and ones collected from the Wulffleffs' property, including a rough-hewn 6 foot-long lintel uncovered in the woods.

The last batts of insulation went in on the snowy Christmas Eve morning of 2002. "We threw two sheets of plywood on top of some sawhorses, put a few pine boughs in the center, and had dinner in front of a roaring fire," says Marian. "It was magical."

FINISHING THE INTERIOR

After New Year's, Frank turned to the interior. Because Marian wanted the kitchen to have views of the backyard, she decided to forgo upper cabinets in favor of windows. To provide needed storage and play off of the addition's timeworn exposed framing, the kitchen was designed around three freestanding pieces of vintage furniture: a large, glass-fronted cherry china cabinet; a general-store counter outfitted with oversize drawers, and a cherry butcher's table. "I made big cardboard cutouts of each piece," says Marian. "I moved them around on the floor until I got it just right." Custom Shaker-style lower cabinets with honed granite countertops fill in the gaps between the pieces. There was just enough old chestnut flooring to outfit the guest room, the kitchen and the rest of the addition have new pine flooring, which Marian and Doug had stained to match the weathered pine in the existing portion of the house.

The second floor of the addition is taken up by a back-to-back master bedroom and bath, and a big walk-in closet. To meet code and make room for insulation, Frank framed the roof as a cathedral ceiling, using modern techniques and materials. But he left the mortise-pocked wall timbers exposed to visually tie the rooms to the rest of the structure.



ABOVE: The master bedroom's old timbers were left exposed for effect but are capped by a cathedral ceiling framed with modern materials.

RIGHT: After raising four children, the Wulffleffs finally got the private master bathroom they had always wanted.

For everyone involved, the project reinforced just how much reusing old materials—and preserving two-and-a-half-centuries worth of history in the process—was the right thing to do. With new construction, the Wulffleffs admit, they could have gotten twice the space for the same price. "Instead," says Marian, "we opted for a million times the charm." ■

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This Old House's team of experts tells you how to get what you want without losing your mind

BY JOSH GASKOF

PHOTOGRAPHS BY WILLIAM A. BOYD JR.

Few things in life are as stressful as a remodeling project. Not only are you shelling out tens of thousands of dollars, you're also inviting a crew of strangers to tear apart your house. Sometimes the process feels like a game of chance. Spin the wheel to find out whether the contractor will stick to the schedule, or if he'll rip off the roof and then disappear for two weeks. Spin the wheel to find out whether the "generous" allowance in the contract will really cover the cost of the glass mosaic tile you want for the bathroom. Spin the wheel and hope that your job gets finished on time, on budget, and without an excess of aggravation.

It doesn't have to be that way. Successful home improvement is a lot more about careful preparation and sound strategy than it is about luck. Invest the time up front, and you'll be able to head off the inevitable problems—or at least make them less painful.

On the following pages, the *This Old House* team, with more than 100 collective years of front-line professional remodeling experience, tells you how to navigate a renovation project, from choosing a contractor to dealing with the fine print and keeping tabs on the day-to-day progress. There are always going to be pitfalls on the way from wish list to punch list, but the chance of success is a lot greater when you have a solid game plan.



PHASE 1: PLANNING

You have a vision of how wonderful your house can be. You have the savings or the home equity line of credit to make it happen. You need three more things before you commit to a large construction project:

CLEAR IDEAS Most people begin the initial meeting with an architect or designer by describing the changes they have in mind. That's appropriate, but it doesn't go far enough. A concise written summary of your home-related dissatisfactions and desires will give the professionals a chance to come up with their own, possibly better solutions to your needs. "Good pros like to solve people's problems. Make it easier for them to do that, and you'll elicit their creativity," says Bruce Irving, who as *This Old House* senior producer has reviewed dozens of homeowner wish lists. A scrapbook of magazine clippings, photographs, and brochures is another excellent way of communicating your ideas.

REALISTIC EXPECTATIONS Talk to friends and neighbors who've lived through a renovation. Ask them how they dealt with work crews traipsing through their home every day, doing all of their cooking in a microwave, or having a layer of super-fine construction dust on every piece of clothing in their closets. "Nobody wants to hear about this," Bruce says. "It's not sexy, but it is the truth." Be prepared—mentally and physically—to have your life turned upside down for a few months.

MARKET PERSPECTIVE Talk to a local real estate agent (the one who sold you the house is ideal), explain what you're planning, and ask how much of the investment you're likely to get back when you eventually sell. "You could be putting way too much firepower into the wrong thing," Bruce says. "Putting in a pool is a classic example. You may love having it, but in some markets it turns out you'll never see a penny of return on the cost, and it might even be a stumbling block when you go to sell your home."

ouch!
Beware the per-square-foot price. "Some contractors will ballpark a quote this way, but it's not very useful," says Tom. "One guy might say \$80 and another guy might say \$210, but what are you getting for that?" One contractor may use 2x4 construction, while the other uses 2x6. You need a detail-driven price based on the specifics of your project.

A WORD TO THE WISE

"Whatever your budget, take at least 10 percent off the top and forget about it. Make it happen without those dollars. That way, if there's a problem later, or you decide to go for that bathtub you really love, you'll have a cushion to fall back on."

—TOM SILVA, *THIS OLD HOUSE*
GENERAL CONTRACTOR

BONUS
POINTS

The Perils of Allowances

Before you even think about putting a job out for bid, you need drawings and specifications that itemize every detail, from the dimensions of the framing lumber to the finish on the faucets. Otherwise, each contractor will make

his own assumptions about what you want, and the bids will be apples-to-oranges comparisons.

Any details that you don't nail down up front are typically handled with an allowance, a dollar amount meant to cover, say, the cost of the light fixtures you haven't selected yet. But allowances can be budget busters. "Ninety-eight percent of the time, they're too low," says *This Old House* general contractor Tom Silva. To avoid compromises later, he says, at least ballpark any items you aren't ready to choose. "Go to the lighting store, and even if you can't pick the fixtures, get a realistic sense of the price range you're in." Other common allowance traps: kitchen appliances and cabinets, bath fixtures, and hardware.

Putting Together Your Team

Here's what you can expect from the three types of professionals you're most likely to need to help turn your vision into reality:

• **A licensed architect** will develop plans and detailed construction drawings. For an additional fee, they'll also manage the project, including hiring and supervising the contractor. If you're doing a complex addition, historic restoration, or other high-end project, you should consider an architect trained in aesthetic, functional, and engineering issues.

• **A contractor** is responsible for building what the architect designs. The contractor is the day-to-day project manager, hiring and supervising the subcontractors and interacting with the homeowner. Some contractors offer design as well as construction services. Most contractors have a specialty: new construction, remodeling, or historic restoration. It makes good sense to take advantage of this experience and expertise.

• **A designer** can also draw up plans and specs, although designers don't have the same level of formal training as architects. (They're also not as expensive.) Designers often specialize in a particular area, such as kitchen, bath, or lighting. They may work independently, with a retail outlet that sells renovation products and materials, or in collaboration with an architect or design/build

PHOTO: (OPPOSITE PAGE) KELLER & KELLER; ILLUSTRATION: A. J. GARCES

PHASE 2: HIRING A CONTRACTOR

No one is more critical to the success of a remodeling job than the contractor. Hire the wrong person, and you're headed for a home-improvement

nightmare. Choose wisely, and any problems you do have will be resolved more easily. Unfortunately, there are no shortcuts to finding out who's good and who's not. References from a reliable source are essential, of course, as is a face-to-face meeting. The contractor should provide proof that he is licensed and bonded in accordance with local standards; you may also want to check with the Better Business Bureau to make sure no complaints have been lodged against him. Once you've found three reputable prospects, give each a copy of your plans and specs and ask for a bid on the job. But before you hire anyone, take some advice from *This Old House* master carpenter Norm Abram:

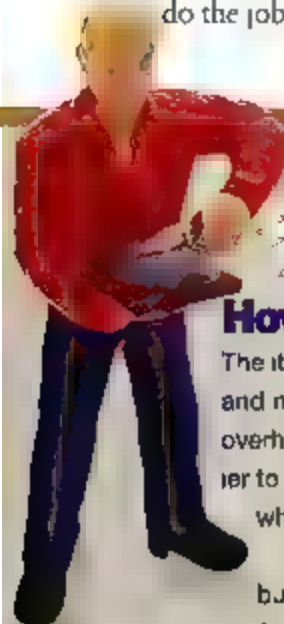
- Hire someone who has been working locally for at least five years. "The new kid on the block may be great," Norm says, "but your best shot is someone who has been around for a long time. They've lasted for a reason—because they do the job right."
- Ask the contractor who will be managing your project on a daily basis. If the contractor is out drumming up new business, he may assign your job to a foreman. Request a meeting with the foreman and make sure you're comfortable with him, too.
- Visit a job in progress. "What you see will tell you a lot about how well the contractor's business is organized," Norm says. "Look at the condition of the power equipment, the trucks, the job site. A site that's disorganized doesn't lead to quality work."
- If you can't get the contractor you want, ask who he'd recommend. "A top-notch contractor may simply be too busy to tackle your project," Norm says. "Leave him a message saying, 'I'd really like you to do the job, but if you can't, could you give me a reference?'"



A WORD TO THE WISE

"You want a contractor who has one or maybe two subs in each trade that he has used for some time. If he has gone through 20 plumbers in the last 10 years, he's probably squeezing them for the lowest price or not paying them."

—RICHARD TRETHEWEY,
THIS OLD HOUSE PLUMBING AND HEATING EXPERT



BONUS POINTS

How Contractors Bill

The itemized bid should show the cost for labor, materials, products, and markup (the contractor's 20- to 25-percent fee, which pays his overhead and his salary) for each phase of the job. That makes it easier to find places to trim costs if necessary; for instance, you'll know what you will save by doing the demolition yourself.

Such **fixed-price** bids have long been the industry standard, but some established contractors, including Tom Silva, prefer to work on a **time and materials** basis. Instead of a set price, they charge as they go for the cost of labor and supplies, plus a markup. "There are so many unknowns on the jobs that we do," Tom says. "Working 'time and materials, you don't need a change order when you uncover a surprise. That means the contractor is not under stress, and the homeowner knows that whatever comes up is going to be handled cor-

rectly and not rushed through or covered up."

Still, a "time and materials" contract can be used to "kill the job" by an unscrupulous contractor who moves slowly in order to pad his pockets. So never sign a T&M contract unless it has a price cap (sometimes known as a "T&M, not-to-exceed" contract). "The cap is basically a bid," Tom says, "I set it higher than I think the total cost will run to cover the unknowns. If the job comes in at the cap, there's no surprise, and if it comes in under that, the homeowner saves some money."

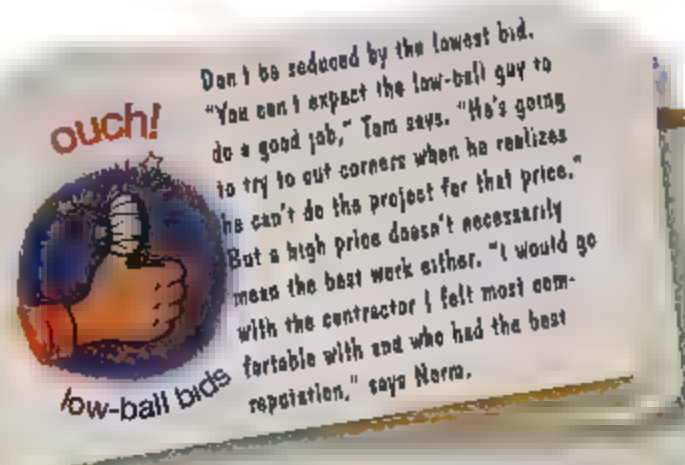


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PHASE 3: DOLLARS & SENSE

The project is planned, the contractor is chosen—now it's time to sign on the dotted line. The boilerplate document often presented by contractors isn't good enough. You need a contract that clearly lays out

all of your expectations and understandings about the job. It need not be written in legalese, though your attorney should review it. At minimum, the contract should include the scope of work, as detailed in the attached specs and plans; project start and end dates; the itemized bid; a one-year warranty for materials and workmanship; a list of subcontractors with contact information, proof of insurance; and any agreements you've made as to when the workday starts, for example, or who is responsible for getting necessary permits. Pay special attention to the following three areas.

PAYMENT SCHEDULE Never let the dollars get ahead of the work. The down payment should be no more than 30 percent of the total price—some states, like California, limit down payments to 10 percent. After that, the contract should call for progress payments—that is, installments made when certain predetermined parts of the job (framing, mechanicals, wallboard) have been completed to your satisfaction. "That way if a guy is falling behind, you're not paying out money for work that hasn't been done," says Norm. "And if he's ahead of the game, he's not getting the short end of the stick either." The final payment should be at least 10 to 15 percent of the total cost.

CHANGE ORDERS No job is set in stone. Sometimes unexpected problems crop up. Or you may decide you want to add built-in bookshelves to the family room. In either case, the contractor will expect to be paid for the additional work, and the contract should establish the procedure for handling change orders. It should also require that change orders be made in writing and include the scope of work and a price cap, to be signed by the homeowner and contractor before the work begins.

ouch! Don't fall victim to project delays. Keep your contractor on schedule by assessing him late fees. "Write into the contract that you'll deduct so much money—maybe \$1,000—for every week or every day or every hour that the job goes over the agreed-upon end date," says Tom, "unless the slowdowns are caused by unforeseen or extras."

"There needs to be a paper trail of changes," says *This Old House* landscape contractor Roger Cook. "Or else, at the end of the project, it becomes a case of 'he said, she said.'"

BINDING ARBITRATION CLAUSE In most states, binding arbitration is an alternative to suing the contractor in the event things go horribly wrong. The arbitrator's decision is final and generally cannot be appealed in court. Still, because the process avoids the expense and delay of a trial, it can benefit both sides in a dispute.

A WORD TO THE WISE



"Put money away and save it for the landscaping. Don't use it for the chandelier or the granite counters. It's a shame to do an 'A' renovation and in the end have an 'F' landscape because you don't have the money to do it right."

—ROGER COOK,
THIS OLD HOUSE LANDSCAPE
CONTRACTOR

BONUS
POINTS

Sweat Equity

Participating in the job is one way to save money and gain a sense of ownership over the transformation that's taking place. Demolition, insulating, site cleanup, and painting are ideal for handy homeowners. But working alongside the crew can slow them down or run afoul of the contractor's insurance policy. "You're better off going in on weekends or nights, when you're out of their way," Tom says. If you plan to contribute sweat equity, make sure the contract specifies the jobs you'll be doing and includes a reduction in price accordingly.

Homeowners with more skills—and more time—can, of course, skip the general contractor altogether and manage the

project themselves. But it's not a task to be undertaken lightly. "General contractors are going to get a faster response time from tradesmen because they're a regular source of work," says Tom. "And they're also going to know if the job is being done correctly. As a homeowner, how do you know if someone is using the right number of joist hangers, the right length nail, or the right wallpaper glue?"

If you've got the patience and the confidence, "go ahead and try it," says Tom. "But for the amount of money that you're going to save, you're better off working some overtime. You're going to have a lot less stress, and you're going to be a happier homeowner."

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PHASE 4: MANAGING THE PROJECT TO COMPLETION

The general contractor's job is to manage all of the labor and materials and permits and inspections; the homeowners' job is to manage the general contractor.

ESTABLISH THE GROUND RULES Before work begins, walk the job with the contractor (and the foreman if there is one) and review all the details of the project. Work out plans for everything from where the Dumpster will go to whether workers can smoke inside the house. Set a schedule for regular meetings. "The most important thing is communication between the contractor and the homeowner," Roger says.

KEEP AN EYE ON PROGRESS If you're not living in the house, make sure you or another member of the household visits the project every day during work hours, even if it's just for 10 minutes. "Say hi to the workers," says Norm. "If something looks good, compliment the work. If you're not happy about something, speak directly to

the contractor or foreman." Go back after hours to make a closer inspection. Check the progress against the plans to make sure walls and rough openings are placed correctly; inspect cartons to see that the right appliances have been delivered. If something seems amiss, raise it immediately. "You have to be the eyes on the job," says Tom. "If you see anything that doesn't seem right, let the contractor know sooner rather than later."

THINK FAST As work progresses, questions will arise, and you'll need to have ready answers. Decision-making is a priority so you don't slow down the job. Ideally, the contractor will tell you how soon he needs an answer. If he doesn't, ask for a deadline.

For more of Tom Silva's advice Go to www.thisoldhouse.com or America Online Keyword: This Old House and type "how to hire a contractor" in the search box.

A WORD TO THE WISE

"If something seems amiss, ask why. Give the guy the benefit of the doubt and see if you get what appears to be a legitimate explanation. Often it's just a minor misunderstanding."

—NORM ABRAM, THIS OLD HOUSE MASTER CARPENTER

ouch!



It's while you're at it changes that most often cause costs to swell out of control. "A change that's \$50 or \$200 doesn't seem like a lot," says Tom, "but those add up quickly. Pretty soon you've got \$10,000 in changes." Use the written change orders to keep tabs on the budget. Every time you get one, add the fee to your project ledger or computer spreadsheet so you know how far things have gone.

BONUS POINTS

When Problems Arise

It's every homeowner's nightmare: Work is shoddy—or stops altogether—or the crew is disregarding your needs. You want to stand up to the contractor but you fear that if you do, he'll walk. What can you do when you see trouble brewing?

• "Try to nip problems in the bud," says Tom Silva. "From the beginning, make sure workers are on time and doing what they said

they were going to do. If things start to slow down, then you can say to the contractor, 'Gee, I hope this isn't screwing up your end schedule because I really want to get this done on time.'"

• Keep a project journal where you record questions and thoughts for each meeting with the contractor. "Specifics are a lot more constructive than generalizations," says Bruce Irving. "Saying 'You never listen to me' is not good enough. Say, 'Here are several times where I said this and you agreed, and it didn't happen.'"

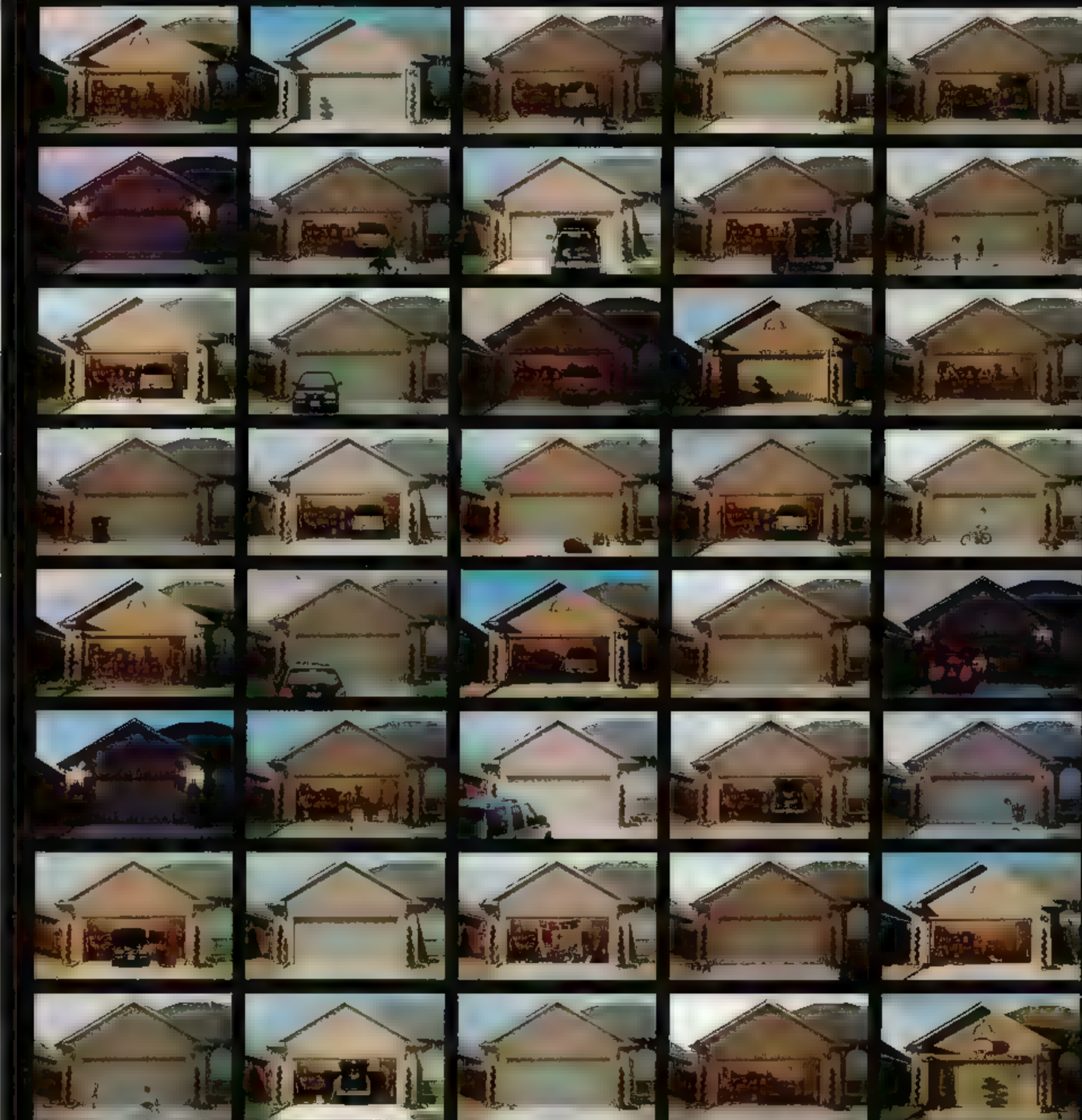
• If the contractor has indeed made an error, it's his responsibility to fix it free of charge. "Contractors are human," Tom says. "They make mistakes. They should correct them, too."

It Ain't Over Till It's Over

You're sure to get more attention from a contractor if you still owe him money. So always hold the final payment until you are satisfied that the punch list—a tally of the last odds and ends of the job—has been addressed, and then for an agreed-upon grace period while you make sure everything works. Also, don't make the final payment until the contractor provides you with signed lien waivers from all the subcontractors and materials suppliers for the job. These serve as proof that everyone has been paid, protecting you from legal claims later. Finally, make sure you get all of the product manuals, warranty certificates, and keys before handing over the check. "Problems with workmanship—the wrong tile adhesive or a beam that wasn't put in—are going to show up within the first year and are covered by warranty," says Tom. After that year is up, you should still call the contractor if you have a problem. "At this point it's caused by wear and tear, but the homeowner should expect it to be fixed for a reasonable price."

WHERE TO FIND IT — SEE DIRECTORY — PAGE 131

PHOTO: PORTNAT; KELLER & KELLER ILLUSTRATION: A.J. GARGES



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Under Glass

A conservatory adds light-filled space—and a distinctive architectural element

BY MAX ALEXANDER



GOthic BEAUTY. Built to bring in more light and take advantage of breathtaking hilltop views, this conservatory sitting room makes a dramatic addition to a stone house. The custom-built, decorative brackets, 12-pane windows, and stone knee wall all echo elements of the existing house. Gothic arches on the transom windows and the ridge cresting on the roof take the design further. To bring in fresh breezes, two doors open onto the surrounding patio, and half of the windows open, awning style.

Glassed-in on several sides—including the roof—a conservatory blurs the line between indoors and out. As an addition to a house, it not only adds square footage, it floods the room with light and wraps it with 180-degree views of the surrounding landscape. “A conservatory is surprising and delightful,” says Manhattan-based architect Judy Gerrard. “It’s a special, transparent space where you’re surrounded by nature from almost every angle—even the roof offers unhampered views of the sky.” It’s like being in a private crystal palace.



GABLED GARDEN ROOM

This custom conservatory, designed for avid gardeners, provides a place for potting and wintering-over plants, as well as an all-weather place to relax. The floral stained-glass medallion on the front gable and artichoke-shaped finials add personality to the exterior. Bluestone paving inside the conservatory and out on the patio blur the distinction between the two. A mix of operable skylights, French doors, and windows lets in fresh air.



FROM VICTORIAN TIMES TO TODAY

Conservatories differ from all-glass sunroom enclosures mainly in the refinement of their design—they typically feature Victorian and other period elements, like elaborate windows, ridge cresting, decorative finials, even lantern roofs and stained glass. Such historic details reflect the heyday of conservatories in 19th-century England, when the writings of

Charles Darwin spurred interest in the natural world. Once that country's Industrial Revolution made it possible to mass-produce thin iron frames strong enough to hold large pieces of glass, the conservatory boom was born. Adding one to a house and filling it with rare specimen plants was a way for upper-class gentry to distinguish their homes.

Today, however, the conservatory is a ver-

satile living space designed primarily for people (though plants do well in them, too). "A conservatory can be anything you want—a dining room, family room, playroom," says Chris Edwards, of Classic Conservatories in Union, New Jersey. He has also built conservatory cigar rooms, fitness rooms, bars, home offices, and in one notable case, a pet monkey house. *(continued on p. 110)*

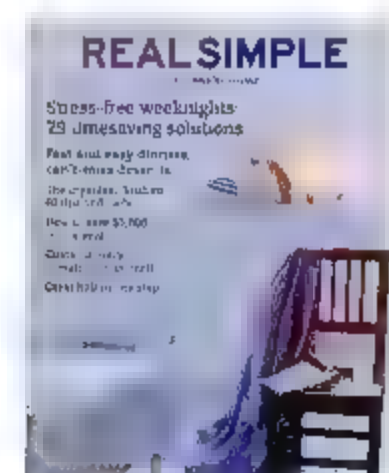
PHOTOS: OAK LEAF CONSERVATORIES



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SOARING SUNSPACE Palladian windows and an 18-foot octagonal ceiling grace this conservatory breakfast room that adjoins a large country kitchen. The windows are an exact match with those used throughout the English-style home. Inside, a quarry-tile floor and the green-painted mahogany frame echo the color scheme of the kitchen.

BUILT FOR COMFORT

The following elements are key to making a conservatory a year-round pleasure.

- **CAREFUL SITING** Siting will make a big difference in the comfort level of your glass room. An east-facing conservatory is considered ideal because it receives morning sun but is shaded from intense afternoon rays. A northern exposure will be delightful in summer but expensive to heat in winter. If you must have a south-facing conservatory, it will need a large-capacity, dedicated air-conditioning system. To reduce solar heat gain even further, many manufacturers offer the option of integrating some sections of solid roof (frequently copper) into an otherwise glass structure.

- **HIGH-PERFORMANCE WINDOWS** Most conservatories use gas-filled double-glazed panels that are tightly weatherstripped to reduce condensation and heat loss. In most climates, low-emission, or low-E, coatings—nearly invisible metallic layers in the glass that reflect household heat back into the room (think winter) and help limit solar heat gain (think summer)—are available for four-season enjoyment. Choose low-E coating and glazing (single, double, or triple) options that fit your intended use, climate, and budget. The greater the insulating qualities

of the glazing, generally, the more it will cost. One way to compare the effectiveness of these glass panels is by looking at the R-value, which quantifies the ability to restrict heat flow. Insulated panes should have an R-value of at least 4. The higher the R-value the better. Another number to consider relates to solar heat gain. Here, the lower the better.

- **COMFORT-CONTROL FEATURES** At least half of the windows should open fully for ventilation. Most conservatories feature crank-out casement windows and skylights. Some models come with window screens that roll right into the framework when not in use. For sunny exposures, seriously consider sun-blocking shades, which can be manually or electronically operated. However, these can add up to as much as 20 percent of the total building cost.

- **HEATING AND COOLING CONSIDERATIONS** Heat can be of any type—forced-air, radiant floor, or baseboard. More important, says James Ruppel of Long Island, New York-based Four Seasons Sunrooms, is that the conservatory have its own zone on the household system since it's a different kind of construction from the rest of the home. If the existing home system can't handle the extra load—often the case—the conservatory should have a dedicated system.

PHOTOS: TANGLEWOOD CONSERVATORIES

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Early conservatory designs had their pitfalls. They could be cold and drafty in the winter or sweltering hot in the summer. But today, advances in conservatory construction and window insulation ensure year-round comfort (see "Built for Comfort," page 108).

In addition, nonferrous framing materials reduce maintenance. From-the-ground up custom frames are usually fashioned of naturally rot-resistant wood, such as red cedar or mahogany, and need painting or staining no more often than a house does. In factory-made conservatories, extruded aluminum framing with a painted finish is the least expensive, and essentially maintenance-free. Such framing should have a "thermal break"—an insulated core that prevents the metal from conducting heat inside or out. The next step up is either a combination of metal (often aluminum, steel, or carbon fiber) with vinyl exterior cladding, or wood frames with aluminum exterior cladding.

DESIGN CONSIDERATIONS

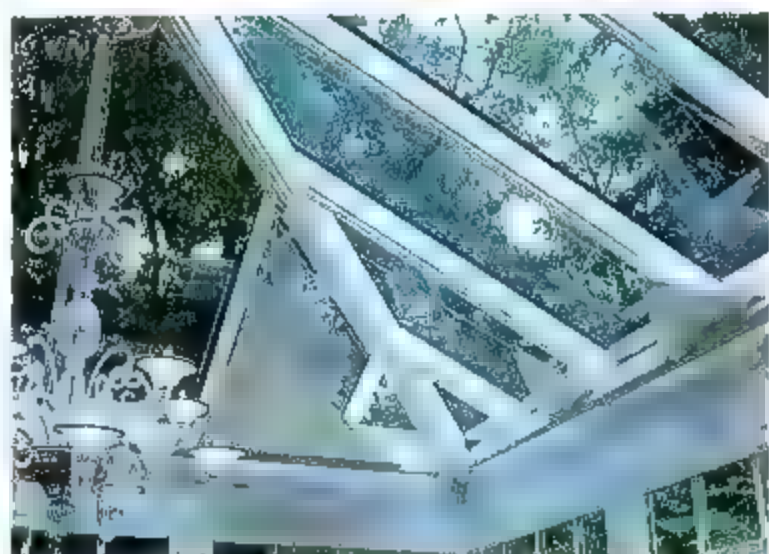
If you're thinking of adding a conservatory to your house, approach it like any other addition. "Think about where you need space, why, and what for," says Gerrard. Conservatories are often built off dining or living rooms, where they serve as informal extensions. Another popular option is a conservatory off the kitchen.

Of course, privacy concerns, views, and sun exposure will also factor into where you put a conservatory. And you should consider how it's going to look on your house. Styles range from "bump-outs" with simple lean-to roofs to soaring atriums with elaborate window and roof details. Some companies offer prefabricated units in basic styles and sizes—you can choose arched or square windows, for example, or extra French doors—while others specialize in custom conservatories from your architect's plans. (The Internet is a great way to find manufacturers of either type.)

So that your conservatory looks like it's always been a part of your home, Gerrard suggests picking unique design elements of your house—columns, brackets, windows—and reinterpreting them in the conservatory design. Choosing similar building materials also helps, says Alan Stein, director of architecture and founder of Tanglewood Conservatories, in Denton, Maryland. This can be accomplished by building the conservatory's perimeter knee wall in the same wood, brick, or stone as your home.



A ROOM APART Built in an ell formed by the kitchen and the living room of a classic Connecticut Colonial, this square conservatory is an all-glass structure connected to the main house by two copper-roofed passageways. It is used as an informal dining area off the kitchen by day. By night, it turns into a spectacular entertaining space, complete with a built-in bar. A slate floor hides radiant heat, and custom-made JY-blocking window shades, operated by pull cords, reduce glare and heat buildup.



PHOTOS: MICHAEL LUPPINO; STYLIST: GERRI K. VALJAMIS



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GRACEFUL CURVES Two faceted conservatories add light-filled square footage to this 1960s ranch. A large grassed-in room (BOTTOM) is where the family likes to hang out and watch TV. The smaller breakfast room (RIGHT) extended the kitchen. Both conservatories (BELOW) are prefab models made of aluminum-clad wood inside. Oak floors seamlessly blend the rooms with the rest of the house.



GETTING ONE BUILT

Conservatory manufacturers work with local contractors on foundations, as well as on heating and cooling systems. The prefabricated units arrive at the site in sections. The manufacturer's crew erects the frame, which is bolted onto the foundation and to the home's structural framing, then flashed and caulked for a watertight seal. Subcontractors install the HVAC and electrical systems. The glass panels go in last; the whole process takes about a week.

If all this sounds expensive, it is. A basic, 200-square-foot prefab model costs around \$40,000 (including foundation and heating and cooling systems), or roughly \$200 per square foot. Prices escalate with custom design and details.

But for one Connecticut homeowner and her husband, who dine in a custom conservatory designed by Gerrard (shown on page 110), the expansive feeling of their 16-by-16-foot space is priceless. "You feel like you're part of the outdoors," she says. "It's wonderful whether it's snowing or the sun is shining." Their neighbors couldn't agree more: After the conservatory was finished, they built one of their own. ■

For more information, including details on low-E glazing, go to www.thisoldhouse.com or America Online Keyword: This Old House and type "sunspace" in the search box.

PHOTOS: TONY WALSH; STYLIST: JAN NICKUM

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Week 1

Fetching



Hauling



Bonding

Our new TV host, Kevin O'Connor, gets a grunt's-eye view of the trades at *This Old House* "boot camp"



Week 2

Crashing



Packing It In

Just one of the guys

Kevin O'Connor, the new TV host of *This Old House* and *Ask This Old House*, sure has a lot to learn. We decided that the best way to teach him was to send him to *This Old House* "boot camp"—two weeks of intensive on-the-job training working shoulder-to-shoulder with Norm, Tom, Roger, and Richard. Carpentry, landscaping, plumbing—he'd get a grunt's-eye view of each trade and come back with a feel for the everyday challenges our crew finds on the job. We're happy to report that the guy is a trouper and passed with flying colors. Here are his notes from the trenches.

BY KEVIN O'CONNOR PHOTOGRAPHS BY KINDRA CLINEFF

Week 1: Tom (How Much Dirt Is in a Hole?)

BOSS: TOM SILVA
TOH general contractor

LOCATION: Seas de house in Salem, Mass., where Tom and crew are building an addition

JOB: Build a concrete slab to support the staircase for a new porch



"My first day of boot camp and they hand me a shovel. Fitting. Was I thinking I'd be doing high-end finish work?"

Am I really doing this? Working with Tom Silva and becoming the new host of *This Old House*? Surreal. Reality sets in. My first day of boot camp and they hand me a shovel. Fitting. Was I thinking I'd be doing high-end finish work? Whoever suggested a hole has no dirt in it has never dug one with Tom Silva. This thing is endless. Any chance he's pulling my leg and making me dig for his enjoyment? He has it in him.

Tom is a madman. He has a broken heel, which puts him on crutches, and he has an able-bodied laborer in me. Yet still he's crawling around in this hole getting dirty, making sure it's perfect. No prima donna here.

Hot. Blisters. So much shoveling. Dirt out, concrete in.

At lunch the homeowner talks about Tom and his crew with reverence. She had tried other contractors but had terrible experiences. Now she feels like she has the best, and I suspect she does.

Two trips to Home Depot to get concrete. Made the wrong calculation the first time and had to go back. Even Tom Silva makes a mistake now and again. There's hope.

LESSONS LEARNED:

- How to calculate the run for a set of stairs.
- How to mix concrete and screed a slab.
- Have respect for the details. Measure twice and then twice more. It doesn't matter that the slab will never be seen. Get it right.

TOP: New TOH host Kevin O'Connor gets shoveling on his first day of boot camp with Tom Silva. **RIGHT:** His right foot hampered by a broken heel, Tom supervises as Kevin toils.



Follow along with Kevin's progress on our Fall 2003 project. Go to www.thisoldhouse.com or America Online Keyword: **This Old House** and select "Current Project" from the TV Programs section.



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When
Installed
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Week 1: Tom (The Usual Suspects)

BOSS: TOM SILVA

LOCATION: A renovation in Beverly, Mass.

JOB: Delicately remove and save built-in bookshelves and a window seat, preserving ornate details and moldings



"Tom won't quit. Crutches and all, he's still crawling around on the floor, working away."

RIGHT: Kevin gets some tips from Tom on using a miter saw.

ABOVE: By day's end, everyone is getting along just fine.



When I ask who is working on this project I hear a lot of familiar names: Roger Cook on landscaping, Jim Clark on painting, Allan Gallant on electrical, Brian Bilo on plumbing. Tommy doesn't just work with these guys on TV. He recommends them to homeowners because he knows they're the best. They are on TV because they are the best.

Tom sees things. A little water damage on the windowsill and he predicts there will be rot below. When we get the window seat out, my foot almost falls through the rotted floor. Right again.

This leads to a lesson about the evils of water. The window seat was installed improperly, and the resulting leak went unattended for years. Now the fix is fairly complex: new joist, new floor boards. Water kills houses. Sloppy work encourages water.

Tom is a master with every tool. A few pry bars and a good

understanding of fulcrums and leverage and we have the 15 foot-long bookshelves out in no time, with moldings intact and walls left in good shape.

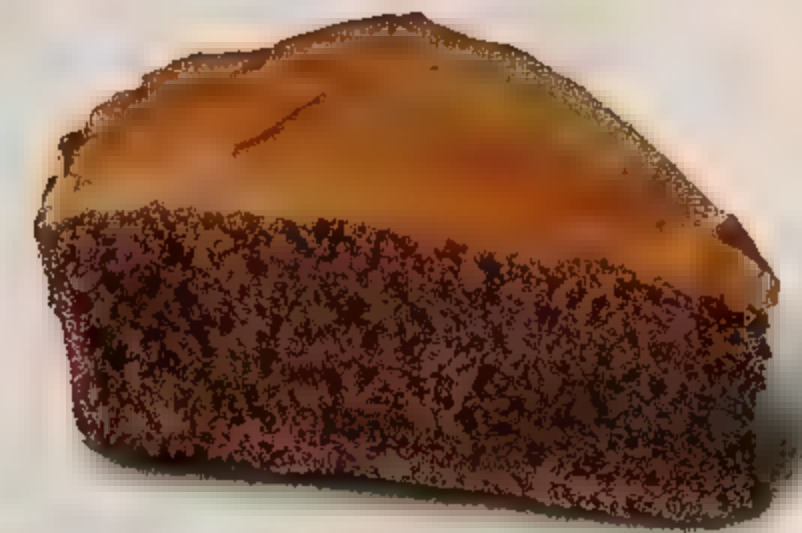
Tom goes off outside to look at the house and to think. After 20 minutes he's back with a dozen ideas for the homeowner: rearrange rooms, move trees, relocate bedrooms, fix the foundation, change a bulkhead. He sees things.

He won't quit. Crutches and all, he's still crawling around on the floor, working away.

LESSONS LEARNED:

- The pros work with pros.
- Water kills a house.
- A vacant house dies a quick death. Houses need upkeep like babies need milk.
- You pay twice for sloppy work.

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Week 1: Roger (The Stone Man)

BOSS: ROGER COOK
TOH landscape contractor

LOCATION: Salem again

JOB: Grade the yard and lay a blue stone patio



We start early. Roger is all business. This guy moves fast and is all about getting the job done. First thing, he hands me a shovel (not again!) so I can mix the stone pack for base.

Again, preparation is key. Roger is fastidious about getting the grade right. It should be enough to run rainwater away from the house, but not so much that a summer cocktail would tip.

Roger is a big guy who can look intimidating. But he's all heart, and he's a natural teacher. He knows just when to chime in and just how far to let you go to figure something out on your own. He lets me fuss with a knot for about 3 minutes before he shows me a better way (about 2 minutes and 59 seconds after he wanted to, I'm sure). I'm struck by Roger's vast knowledge of so many things—stone, plants, trees, machinery, grading, landscaping, running a business. Impressive. Once again, I'm in the company of a real pro.

As we lay the stone, he patiently teaches me each step: grade, lay, check level, tap, check level again, re-tap, next stone. The work moves fairly quickly—not half as fast as Roger would do it himself, he tells me, but progress is evident just the same—and is very rewarding.

Time to cut the stone. Again the ever-patient teacher, Roger explains, then demonstrates, then offers me the saw. He watches as I cut, then politely but firmly offers a tip or two. "Make a deep score, tap lightly, the stone will break cleanly." I score, tap, and—damn! The whole corner breaks off. Roger lets out a big laugh. "Now you've done it!" he bellows. "That'll be \$85," he jokes. "Don't do it again." Whew, I think, good thing this big bear of a man is all heart.

When I head off to lunch, Roger goes to his truck to eat the sandwich he brought from home and make business calls. These guys never stop.

LESSONS LEARNED:

- Proper patio grade is $\frac{1}{8}$ inch per foot.
- How to use a laser level
- How to use a diamond-tooth cutter and a BIG wet saw.
- Preparation is everything.
- Water kills a house.



"The whole corner breaks off." Roger lets out a big laugh. "Now you've done it!"

ABOVE: Ever the patient teacher, Roger stands back while Kevin tries his hand at scoring a stone. **BELOW:** "You see, kid, it goes in like this."



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Week 2: Rich (This Stinks)

BOSS: RICHARD TRETHEWEY
TOH plumbing and heating expert

LOCATION: A Lynn, Mass., renovation where master plumber Ronnie Coldwell and the Trethewey Brothers crew are upgrading the plumbing

JOB: Install basement sink, washer, and dryer



Again it's a family affair. Richard and Ronnie not only work together, but they're cousins. Ronnie is full of energy. He never stops working or talking.

Ronnie and his assistant, Mike, have spent the past week fixing someone else's mistakes. A previous plumber hacked through floor joists and walls. They've been diverting the pipes around joists instead of through them, patching other joists to strengthen them, and generally cleaning up somebody else's mess.

The only working toilet backs up. The drain in the basement floor backs up. We head to the main sewer line to check the trap.

Oh, [expletive]! The line is clogged and we have to open it. We are in a dank hole in a dark basement, and the cap is stuck. Ronnie has to chisel it off. Phew! The line is backed up, all right, and the smell is awful! Ronnie sucks on a strong cough drop just to keep from puking.

Richard shows up. "What is Ronnie, my beloved aging cousin, doing in that hole?" he asks. "Get Kevin in there right now." In I go. Richard is enjoying this.

I help get the cap off the pipe but break it at the threads. Sewage oozes out. This is no good. The broken threads have cost us an hour or more. Sorry, Ronnie.

We unclog the pipe, finally. That's enough stink for one day. Richard starts telling stories. I'm in hysterics. This guy is funny.

LESSONS LEARNED:

- The purpose behind traps is to prevent sewer gases from escaping, not to re-cover lost rings.
- Plumbing is an art, not a science—a complicated series of rules that require a real craftsman to sort through and apply with finesse. The devil is in the details.
- A bad plumber can ruin your house.
- Richard has a gift. He can explain complex things with the simplest examples and make it funny to boot. This guy ought to be on TV.



"What is my beloved aging cousin doing in that hole?" asks Richard. "Get Kevin in there right now."

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IN THE MEANTIME:

1. CUT OUT COURTESY PAPER TOWEL ABOVE.
2. USE IT TO MOP UP DAMPENED AREA.

For leaks larger than three or four drops, the courtesy paper towel is not an adequate solution.

ACE
The helpful place.

Week 2: Norm (The Master)

BOSS: NORM ABRAM
TOH master carpenter

LOCATION: The Abram family's New England lakeside cottage

JOB: Strip off clapboards, remove an exterior windowsill and replace it, resheath the house where needed



In the car, Norm is chatty, telling me his life story. I just listen. Usually, he seems like a private guy. Yet I get his whole story on the first morning. Curious. Over lunch I comment on this, and after a little reflection Norm says I

would have found everything out anyway, so why not just tell me?

Once we arrive, Norm is all about prep. We take all the materials out of the car and basement and lay them out. Spend 30 minutes setting up scaffolding that we won't even use this day. Level, secure, and level again.

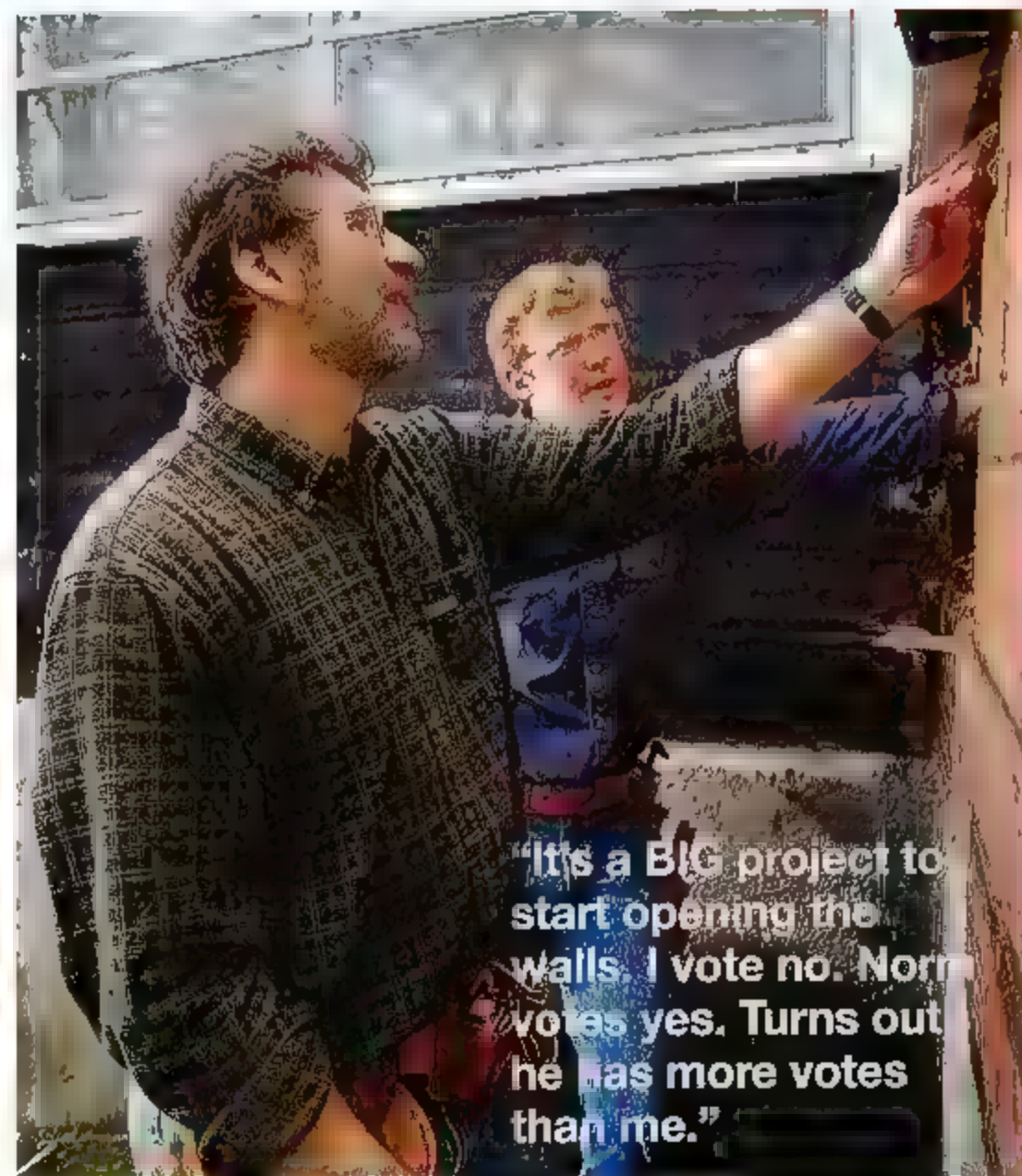
Norm jumps right in, stripping siding. He gives me jobs. As he moves in one direction I move in the other. We dance. I sense he does not want to dote on me.

As we peel away the bad sheathing we notice that some of the rot on the corner of the house may continue into the sun porch. We vote on whether to work on the inside. I vote no. Wouldn't be much rot, if any, and a BIG project to start opening the walls. Norm votes yes. Turns out he has more votes than me.

We pull off paneling, find the rot, repair it. It costs us about an hour. I thought it would be two or three, and we'd tear the walls apart. But we hardly damaged the inside finish work. Norm wins.

Lunch. We fire up the grill. Not only am I working with the Master, but now we are barbecuing lakeside, shooting the breeze. His warm ways continue. Movies, family, books, the guys, the show—we talk about it all.

Back to work. We fix the rest of the rot and button up the place fairly quickly.



"It's a BIG project to start opening the walls. I vote no. Norm votes yes. Turns out he has more votes than me."

ABOVE LEFT: "There's nothing like the feel of fiberglass in the morning!" **ABOVE:** Norm schools Kevin in the dangers of water and rot.

LESSONS LEARNED:

- Things are not as they appear. The quiet guy opened up during hour one.
- Fix the problem, no shortcuts. The damage inside was minimal but would have gotten worse.
- Skill is not just a steady hand or a precise cut. It's a keen eye, it's understanding the problem, it's knowing how to fix it, it's having the wisdom and confidence to do it right the first time. It's experience.

★ ★ ★ ★ ★ ★ ★ ★

IN THE END, IT TURNED OUT BOOT CAMP WAS LESS ABOUT learning the trades and more about getting to know the guys. Two weeks is too short a time to pick up much about plumbing, landscaping, or carpentry. But it's just enough time to befriend four guys and to let them share their good nature and generosity.

I think I'm really going to like this. ■

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Norm's Notebook



Extension-Ladder Caps

Some years ago, when I was painting my house, I noticed that my extension ladder was scratching the siding as I worked. I didn't have one of those rubber-tipped ladder stand-offs that painters use, and didn't want to stop work long enough to go out shopping for one.

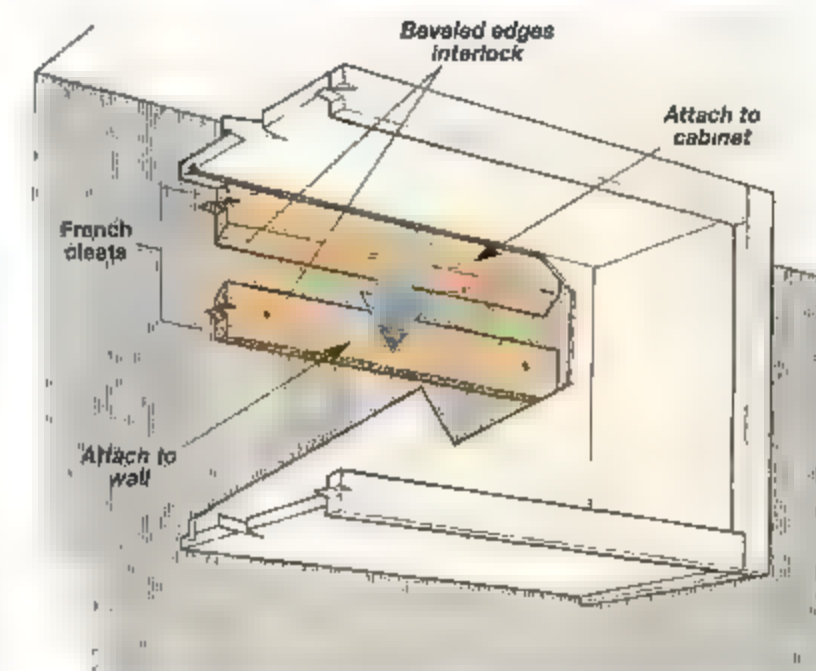
But I did have some old washcloths that I'd been using for paint rags, so I just draped them over the end of each ladder rail and secured them with several turns of duct tape. I meant them to be temporary, but they did the job so well that the rags are still there, though I've had to replace the tape once or twice.

Cabinet Hang-up

When you're working solo hanging upper cabinets on a wall, you need some assistance to make the task manageable. That's the role of French cleats, which are nothing more than two lengths of wood with beveled edges that interlock. One length is screwed to the wall studs, bevel up, and the other is screwed to the upper cabinet, bevel down. Once the cabinet is lifted into place, the bevels engage and gravity does the rest. And they let you slide the cabinet back and forth to position it precisely.

I make the cleats out of $\frac{3}{4}$ -inch plywood—it doesn't twist or warp as solid wood can—and I attach them with countersunk deck or wood screws, which are much stronger than drywall screws. It's an incredibly strong setup: I've hung heavy tool chests this way, and I know someone who cleat-mounted a slab of fossil stone on his wall.

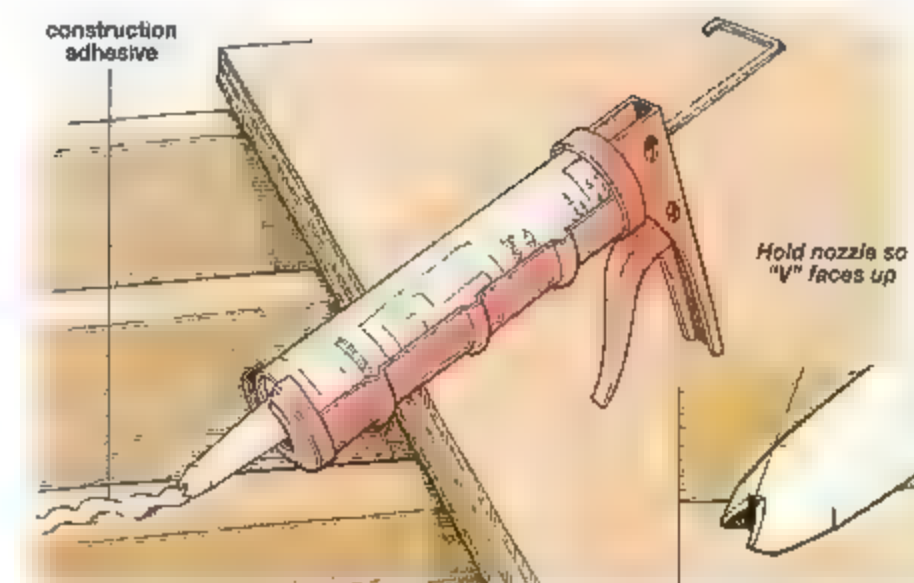
French cleats are easy to incorporate if your cabinets are made with a back pane that's inset slightly from the sides (as shown). On many factory-built cabinets, however, the cleats hold the cabinet off



the wall by $\frac{3}{4}$ inch, you have to plumb it by shimming out the bottom, and then cover the gap with trim.

Big Beads for Better Adhesive

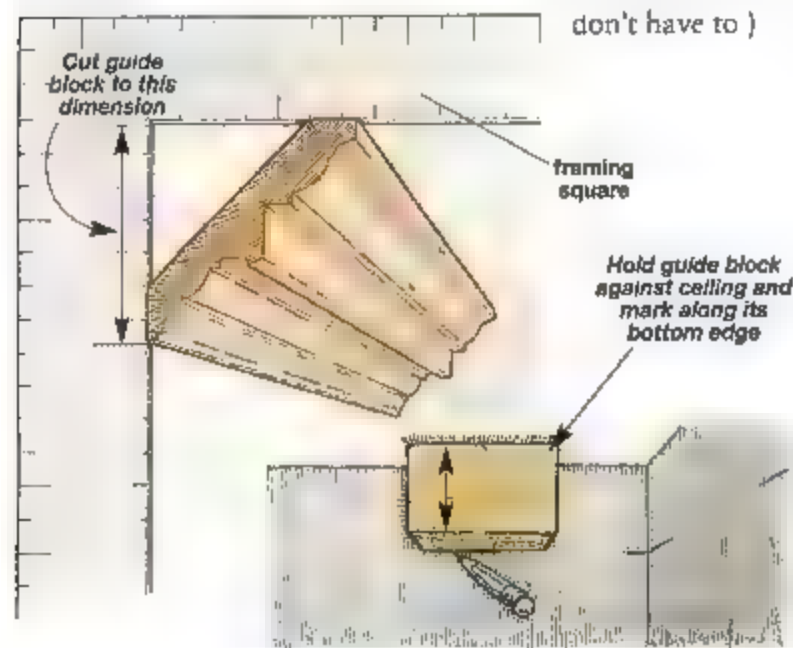
Caulking joints calls for finesse, and it's usually best to work with the smallest bead you can lay down. But with construction adhesives, finesse isn't the issue. You need to lay down a big enough adhesive bead to bed the material in, whether you're sticking sheet paneling to a wall or glue-nailing a plywood subfloor to the joists. I've found that cutting into both sides of the tube's nozzle at a 45-degree angle (see inset) works great whenever a fat bead is what you need. Then don't be shy with the trigger.



Hanging Crown to a Line

Hanging crown molding is one of those jobs where the preparation is as important as installation itself. It helps, for example, to have a layout line near the top of the wall for aligning the bottom of the crown. But this line needs to be dead parallel with the ceiling.

You can't hold a scrap of molding against the corner and scribe that line accurately—it's too easy for the scrap to shift around. Instead, I position a scrap of crown in a framing square, as if it were the ceiling-wall intersection, to see where the bottom edge ends up. Then I cut a small block to this exact dimension and use it as a marking guide on the wall. (I hate to measure when I don't have to.)

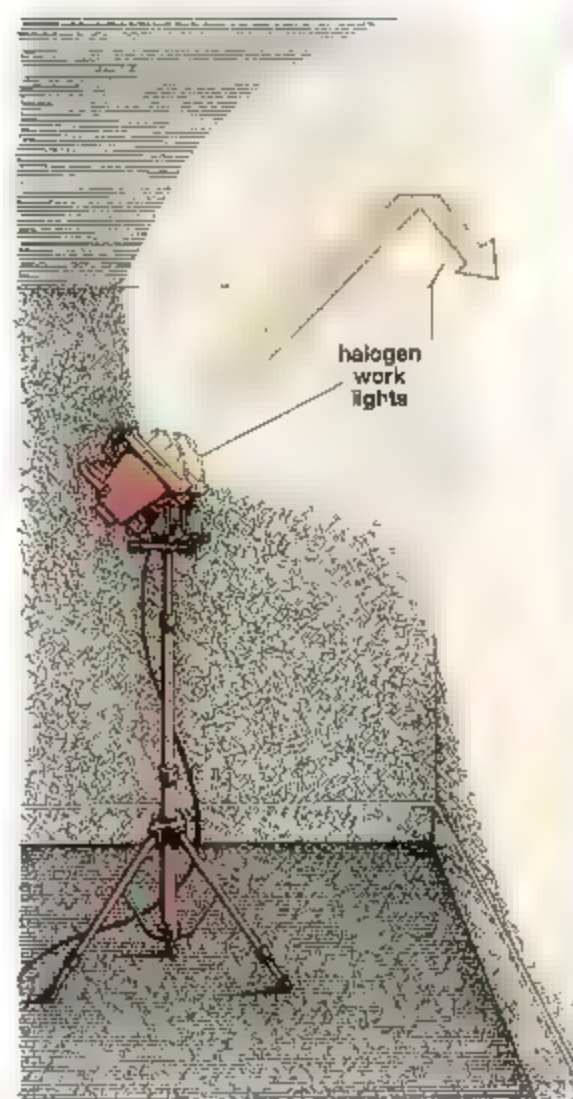


Shadow Play

To do most things well, you have to be able to see what you're doing. That's why work lights are an essential part of any craftsman's tool kit.

I'm not talking about those inexpensive hardware-store work lights, the ones with the aluminum shade and spring-clamp base. When I really need light, I plug in a pair of halogen lamps mounted on a telescoping stand. You can't beat the tremendous amount of bright white light they throw out. Unfortunately, they also generate a lot of heat and harsh shadows.

The best way I've found around those drawbacks is to aim the lights toward the ceiling. Not only does the "bounced" light cover a wider area, it softens shadows and keeps me from baking.



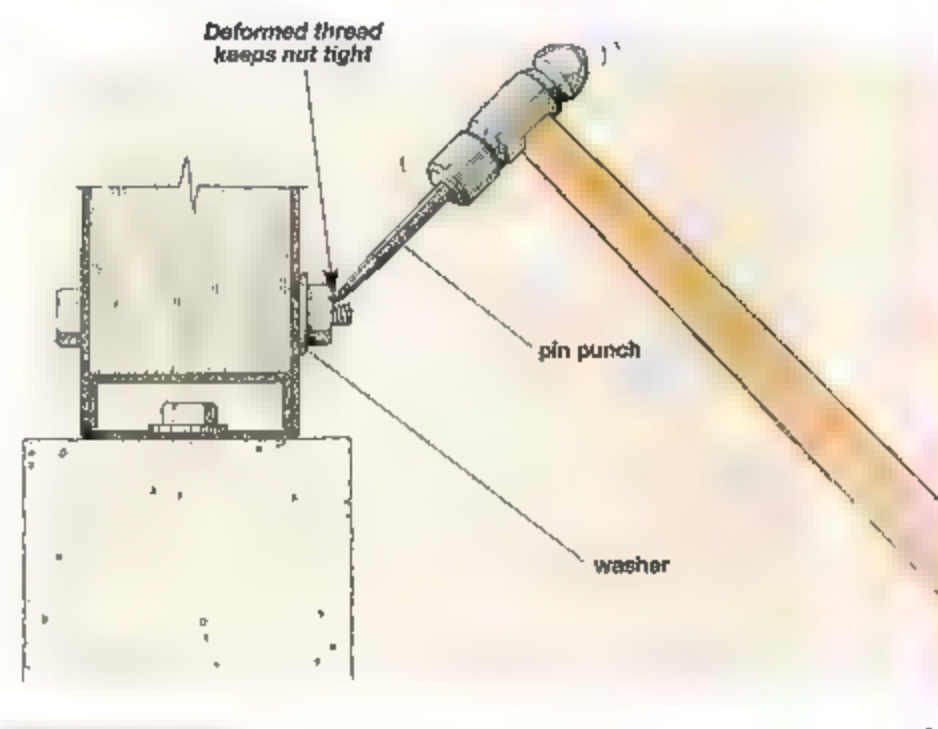
Stay-Tight Nuts

Nuts and bolts are the best way to fasten metal parts together, but nuts have a way of working loose due to vibration—this can happen on a swingset, a mower, a wheelbarrow, or even on the stand for a table saw.

Lock washers work fine to keep nuts tight, although the toothed kind don't always last long outdoors. I know of at least four other rust-free ways to keep nuts tight without preventing them from being removed later. One is thread-locking compound (a special type of fast-setting adhesive), which is available at any automotive supply store.

Another approach is to replace a standard nut with one that has a nylon insert, particularly where it's awkward to maneuver a nut and washer into place. You can find these at hardware stores. Tightening a second nut against the first one is also effective.

The method my father showed me (right) works pretty well on bolts $\frac{3}{8}$ -inch diameter and larger. Once the nut is on and tightened against the washer, rest the tip of a pin punch on the crack between nut and bolt and give the punch a sharp tap. This deforms the threads slightly to keep the nut from working loose, but doesn't prevent it from being removed later.



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DIRECTORY

WHERE TO FIND IT, PAGE 132 • TV CLASSICS, PAGE 136 • ON TELEVISION, PAGE 137



PHOTOGRAPH BY ROBERT ATKINSON

What You Should Know About Smoke and Fire Alarm Sensing Technologies

While all smoke alarms are designed to detect smoke, certain sensing technologies react differently to certain types of fires.



Photoelectric Sensing Technology is generally more sensitive than Ionization Sensing Technology at detecting large particles, which tend to be produced in greater amounts by smoldering fires which may smolder for hours before bursting into flame.



Ionization Sensing Technology is generally more sensitive than Photoelectric Sensing Technology at detecting small particles, which tend to be produced in greater amounts by flaming fires which consume combustible materials rapidly and spread quickly.

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WHERE TO FIND IT

ON THE JOB pp. 16-20

Lyptus: Weyerhaeuser, 877 235-6873; www.weyerhaeuser.com.

Hidden Cost: Joint Center for Housing Studies, Harvard University, Cambridge, MA; 617 495-7908; www.jchs.harvard.edu.

Mobile Workstation: Craftsman 4-Drawer Power Recharge Station, Model #59497; Sears, Roebuck and Co., 800-549-4505; www.craftsman.com.
Trade Workshop: Preservation Trade Network, Rockville, MD; 866-853-9335; www.ptn.org.

No-Nail Paneling: New England Classics, South Portland, ME; 207 799-5936; www.newenglandclassics.com.

HOUSE CALLS pp. 22-26

Bathroom designer: Christine Julian, Julian Kitchen Design, Chicago, IL; 312 575-0070.

Interior designer: Lynn Aseltine Kolbusz, ASID, Room Service, Ltd., Glen Ellyn, IL; 630-790-9188.

General contractor: Edward Liceaga, Falcon Construction and Remodeling, Inc., Orland Park, IL; 708-349-8308.

Sink: Sonnet Console by Porcher for American Standard, Piscataway, NJ; 800-442-1902; www.americanstandard-us.com.

Tub: Epoque by Porcher for American Standard.
Toilet: CaJa by Porcher for American Standard.
Faucet: Hampton Wide-spread by American Standard.
Shower valve: Ceratherm Thermostat and Volume Control by American Standard.

Rain showerhead and tub spout: Harrington Brass Works, Allendale, NJ; 201-818-1300; www.harringtonbrassworks.com.

Floor tiles: American Olean, Dallas, TX; 888-268-8453; www.americanolean.com.

Wall tiles: Walker Zanger, Sylmar, CA; 818 252-4040; www.walkerzanger.com.

Cabinetry: Superior Wood Products, Warsaw, IN; 574-267-5879; www.swpcabinetry.com.

Sconces: Brass Light Gallery, Milwaukee, WI; 800-243-9595.

ASK THIS OLD HOUSE pp. 28-34

Concrete stain: H&C Concrete Care Products, Cleveland, OH; 800 867 8246; www.concretestain.com.

Antifreeze for hydronic systems: Dow Frost Heat Transfer Fluids, The Dow Chemical Co., Midland, MI; 800-447-4369; www.dow.com.

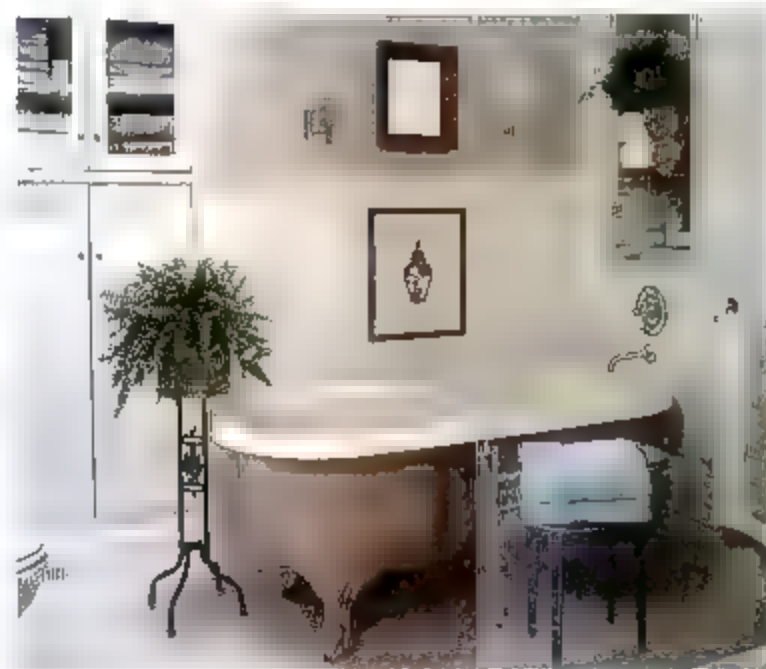
Polyurethane foam insulation: Icynene, Mississauga, Ontario, Canada; 800-758 7325; www.icynene.com.

Closet auger: Cobra Products, Inc., Bridgeport, NJ; 856 241 7700; www.mascomosa.com.

Our thanks to: Brian Sullivan, flat-glass manager, Plymouth Glass and Mirror, Inc., Thomaston, CT; 860 283-0276.

BY DESIGN: KNOCK, KNOCK pp. 37-40

Page 37—Eugenia's Antique Hardware, Chamblee, GA; 770 458 1677.



House Calls, p. 22. Widened and brightened, this bathroom got old-style fixtures to create a vintage look for a traditional-style house.

PHOTO: CASEY SILLIS


By Design, p. 37: A vintage knocker, like this brass woman's hand, can dress up a front door.

Brewster, NY; 800-247-4111 (Call for updated prices.) 6) Mato Designs, Santa Ana, CA; 888-313-6286.

Page 39—1) Rocky Mountain Hardware, Hailey, ID; 888-788-2013.
2) Van Dyke's Restorers, Woonsocket, SD; 605 796 4425 3) Colby Smith Door Knockers, Swansea, MA; 508-675-5775 4) Mato Designs. 5) Colby Smith Door Knockers.

Our thanks to: Liz's Antique Hardware, Los Angeles, CA; 323-939-4403; www.lahardware.com.

TALKING SHOP: CHOOSING AND USING LEAF BLOWERS pp. 42-44

Hand-held electric blower: #FT1000 Flex Tube blower/sweeper by Black & Decker, 800 544 6986; www.blackanddecker.com.



Talking Shop, p. 42. Leaf blowers come in a variety of models with different features; learn how to choose the right one for your lawn.

PHOTOS: (FROM TOP) JOSHUA MCILHUGH, PETER MERETSKY

WHERE TO FIND IT

blackanddecker.com

Hand-held gasoline blower: Echo PB-24LN Low Noise provided by Timberland Machines, Lancaster, NH; 800-258-8996.

Back pack gas blower: #BR340L low-noise by Stihl; 800-467 8445; www.stihlusa.com.

Walk-behind blower: Mighty Mac by MacKissic; 800 348 1117; www.mackissic.com.

Combo blower-vac: Sears Craftsman #07179940; 800 549-4505;

www.craftsman.com.

UPKEEP: RAIN GUTTER REHAB pp. 46-54

Gutter expert: Chris Freeman, Exterior Specialist, Carpentersville, IL; 847-836-7785.

Gutter Guards—

Downspout strainer: The Wedge from GuttersDirect.com; 800-989-8802; www.guttersdirect.com.

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Gutter with integral cap: LeafGuard by Engert Inc., Perth Amboy, NJ, 800-532-3482, www.leafguard.com.

Screen. Lock On from www.guttersdirect.com.

Add-on cap: LeafProof from www.guttersdirect.com. For another version, check www.gutterhe.net.

Brush/bristles: GutterPiller, Orland Park, IL; 708-460-6363, www.gutterpiller.com.

FINANCES: LOOKING FOR TROUBLE pp. 56-59

Find an inspector, or for more information on home inspection. American Society of Home Inspectors, Des Plaines, IL, 800-743-2744, www.ashi.com.

Inspectors: Charles Bellefontaine, Chicagoland Home & Building Inspections, Elmhurst, IL, 800-777-0855; www.thehomeinspectors.com John Ghent, Goldring Inspections Inc.,

CT; 203-261-9781 www.goldringhome.com. Mike Casey, Inspection Training Associates, Manassas, VA; 703-753-4937

FIND! p. 61

Our thanks to: Plaza Flowers, Connie Plaisay, New York, NY; 212-472-7565

HOMEOWNER'S HANDBOOK: ADDING A PHONE LINE pp. 67-73

Phone technician: Darren Freer, Superior Telephone Systems, Sa.t Point, NY, 845-677-2000, www.superior-telephone.com.

A COTTAGE IN CONCORD pp. 76-80

Architect: Holly Cratsley, AIA, principal, Nashawtuc Architects, Inc., Concord, MA; www.nasharch.com
Landscape architect: Stephanie Hubbard, RLA, Halverson Design Partnership, Boston, MA; 617-536-0380, www.halvorsondesign.com.

A NEW OLD HOUSE pp. 82-90

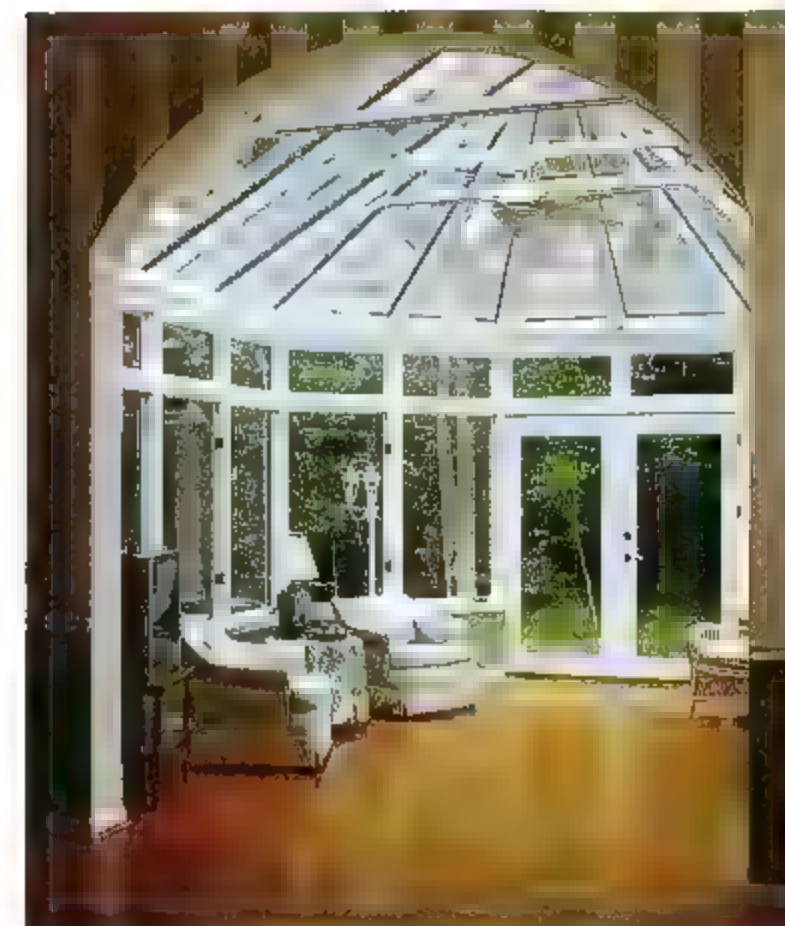
Architect: Rob Sanders, Sanders Architects, Wilton, CT; 203-834-2724.

Cabinetmaker: Paris Design, Georgetown, CT, 203-544-9414; www.parisdesign.net.



"A New Old House," p. 82: A fireplace rebuilt with some of the original stones is the heart of a vintage addition to a 1772 Colonial.

PHOTO: MATTHEW BENSON



"Under Glass," p. 104: This faceted conservatory, made of prefabricated aluminum-clad wood, adds light-filled space to a ranch.

General contractor: Don Frank, DFF Construction, Wilton, CT
Stonemason: Clifford Ritter, foreman, Paul J. Lang Mason Contractors, Roxbury, CT, 860-354-7798

For further reading on timber framing: *Timber Frame Construction: All About Post-and-Beam Building*, by Jack Sobon and Roger Schroeder, published by Storey Books, 800-441-5700; www.storeybooks.com.

Page 83—Basket and quilt: Dovecote, Westport, CT; 203-222-7500. Page 88—Pillow on rocking chair: Dovecote. Page 90—Table lamps: Lillian August, Westport, CT; 203-454-1775.

WINNING AT THE REMODELING GAME pp. 92-100

For more information: *National Association of the Remodeling Industry's Homeowner's Guide* at www.nar.org/level2/homeowners/.

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UNDER GLASS pp. 104-112

Opening—Tanglewood Conservatories, Denton, MD; 800-229-2925; www.tanglewoodliving.com.

Page 106—Oak Leaf Conservatories, Atlanta, GA, 800-360-6283.

Page 108—Tanglewood Conservatories.

Page 110—Architect: Judy Gerrard, Gerard + Tan Architects, New York, NY, 212-255-6300; www.gerrardtan.com.

General contractor: Bower Builders, Danbury, CT; 203-778-8985

Linen tablecloth, napkins, plates, and

pitcher: Crate and Barrel; 800-996-9960. Shades: Design Forrest, Jeffrey Snyder (U.S. representative for UK based Appeal Conservatory Blinds), Hyattsville, MD; 866-277-3255; www.appealconservatoryblinds.com.

Page 112—Four Seasons Sunrooms, Holbrook, NY; 800-368-7732; www.fourseasonssunrooms.com

More conservatory builders: Quality Sunroom Systems, West Chester, OH; 513-759-9900. Classic Conservatories, Union, NJ; 800-435-1188; www.classicconservatories.com.

NORM'S NOTEBOOK pp. 127-128

Thread-locking compound: Loctite, Henkel Loctite Corp., Rocky Hill, CT; 860-571-5100; www.loctite.com/indexna.html

SAVE THIS OLD HOUSE p. 152

Our thanks to: Pam Lange at the Bureau County (Illinois) Historical Society.

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ABOVE: The original barn was deemed beyond saving for the homeowners' plans to convert it to a residence.
RIGHT: Crew, students, and volunteers raise the timber frame of a new structure that will preserve the impression of a traditional barn.
BELOW RIGHT: The timbers were first measured and drawn by computer and cut with power saws, then finished by hand by student timber framers.



A TOH barn raising in Concord, Mass., 1989

Episode 4 (of 26) (airs October 4-5)

- Homeowners Lynn and Barbara Wickwire working with architect, designer Jock Gifford have settled on a plan for the new barn.
- A great room with 35-foot ceilings will front the street, preserving the impression of a traditional New England barn. To the rear, large windows will give the couple views of their beloved pond.
- TOH plumbing and heating contractor Richard Trethewey oversees the installation of the septic system and drilling for a well.
- TOH master carpenter Norm Abram and TOH general contractor Tom Silva ready the foundation for the post-and-beam structure.

Episode 5 (airs October 11-12)

- TOH host Steve Thomas visits Benson Wood working, in Asteed, New Hampshire, where the timbers for the new barn are taking shape.
- Computers calculate complex measurements and power saws make precision cuts, but every mortise-and-tenon is finished by hand.
- The timbers are chamfered, beaded, and rubbed with tung oil before being shipped to Concord where student timber framers from around the country will gather to build the Wickwires' home.

Episode 6 (airs October 18-19)

- Surrounded by stacks of unassembled pine posts and beams, students get their instructions from master timber framer Tedd Benson.

- The gang of volunteers—including a dancer, a clothing retailer, and an electrical engineer—prepare to spend the next week building the frame.

Episode 7 (airs October 25-26)

- The timbers are stacked; reporters are on the scene—the barn raising is about to begin.
- The frame goes up piece by piece, with shouts and cheers from the volunteers.
- By day's end, workers have hammered in the last of the pegs and braces that lock the structure together.
- Lynn Wickwire brings the project to a symbolic close by driving in a pair of pegs salvaged from the original barn.



PHOTOS (TOP TO BOTTOM) PETER ROSS, KELLER & KELLER, DAVID CARMACK

On Television Find

Look for a new series from the Emmy-winning team behind *This Old House* and *Ask This Old House*. Premiering the week of October 6 on PBS (check local listings or visit thisoldhouse.com), Leigh and Leslie Keno, America's celebrated antiques experts and stars of the PBS favorite *Antiques Roadshow*, will introduce *Find!* to viewers across the country.

Each episode features the Kenos scouting houses for valuable surprises. Is it a piece of furniture inherited from a grandparent or a lamp from a flea market? Whatever it might be, Leigh and Leslie will find it and, with noted experts, teach homeowners what to do and what not to do to preserve and/or restore it. The twins will also tour showhouses and private homes for design ideas, showing viewers how to mix the classic with the contemporary.

Underwriter of *Find!*



This Old House

In its new season, America's favorite home improvement team will transform a turn-of-the-century backyard barn in Concord, Massachusetts, into a cozy in-law cottage for homeowner Janet Bernard's 72-year-old parents. The conversion of the 20-by-26-foot gambrel-roof barn, now a tired, dingy home for shovels and bicycles, into a later-in-life retreat that is just steps from the main house and family will be led by TOH master carpenter Norm Abram, general contractor Tom Silva, plumbing and heating expert Richard Trethewey, and landscape contractor Roger Cook.

This will also be the debut of new *This Old House* (and *Ask This Old House*) host Kevin O'Connor. (For more on Kevin, turn to page 74 and page 114.) The season premieres in prime time exclusively on PBS October 9, as the first half of *The New This Old House Hour* at 8 p.m. EDT (check local listings or visit thisoldhouse.com).

Underwriters of *This Old House*

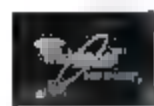


Ask This Old House

Ask This Old House hits the road for a second smash season with even more house-call destinations. With first-time TOH host Kevin O'Connor joining general contractor Tom Silva, plumbing and heating expert Richard Trethewey, and landscape contractor Roger Cook on the road this year, homeowners across the country can look forward to learning the tricks of the trades from America's favorite home-improvement team.

Ask This Old House premieres exclusively on PBS October 9, in the second half of *The New This Old House Hour* at 8 p.m. EDT (check local listings or visit thisoldhouse.com).

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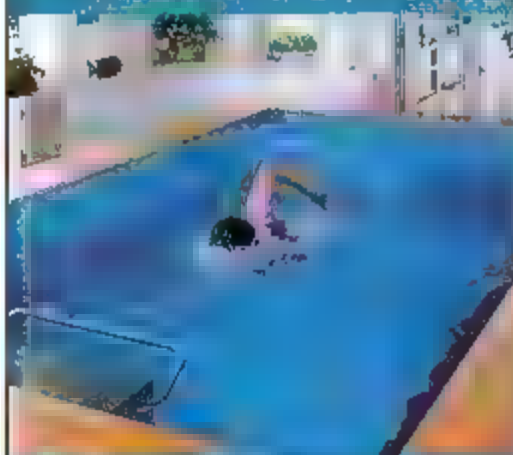
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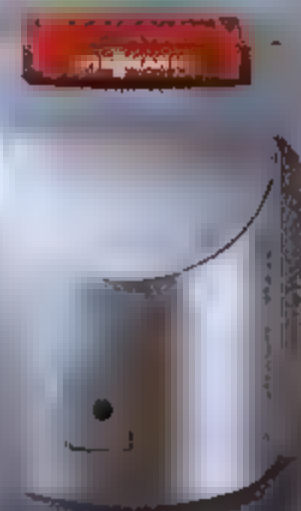
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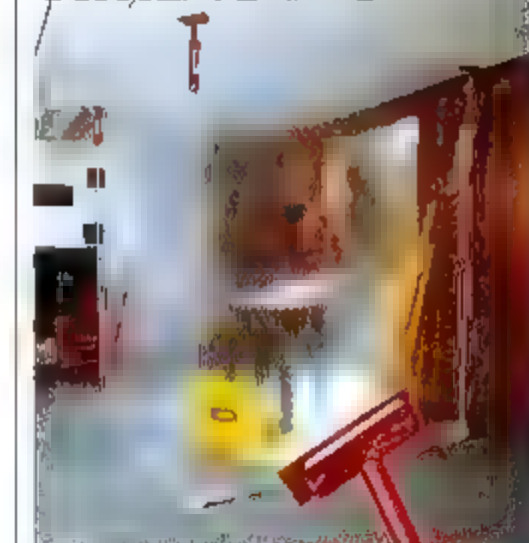
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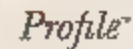
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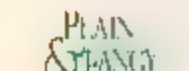
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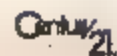


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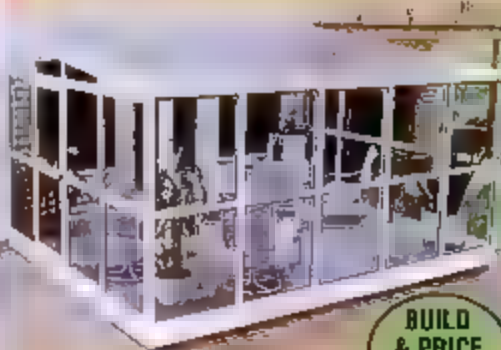
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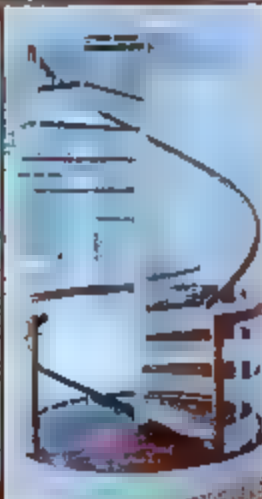
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Dr. Paddock died several years after the now historic dinner while serving in the Civil War, but his widow, Angelica, and their family continued to live in the brick house for nearly a century, adding a framed extension in the 1880s and moving the entire structure back from the road in 1903. In 1944 the house was sold to the Puttcamps, who occupied it for the next 57 years. It has been vacant since next-door neighbor Carol Mc Gee purchased it in 2001.

In addition to the dining room (since converted into a parlor), the first floor contains a sitting room, a study, servants' quarters, a kitchen, a pantry, and a large bathroom (with claw-foot tub), plus porches on three sides. Four dormers house skylights for the kitchen and new dining room. Upstairs are two bedrooms. All told, there is 1,600 square feet of living space, not including a large partially finished basement.

Although the house is structurally sound and features the original pine flooring and trim, the kitchen, bath, furnace, and second-floor wiring must be updated.

The one-third-acre lot includes a detached one-car garage and flower beds planted with irises, violets, and daylilies.



TOP: This Gothic Revival house was completed in 1850 for the newly wedded Solomon and Angelica Paddock. **ABOVE LEFT:** With the exception of a 1903 porch addition, completed soon after this photo was taken, the home hasn't been significantly altered in more than 100 years. **ABOVE RIGHT:** Paneled double doors lead from the study to the old dining room, where Abraham Lincoln once sat down to dinner. **LEFT:** This rare portrait of Lincoln was made only a few hours after that meal.

CONTACT

Carol Mc Gee
815-875-8491

If you know of a house that should be saved, please write to: Save This Old House, 1185 Avenue of the Americas, 27th floor, New York, NY 10036.

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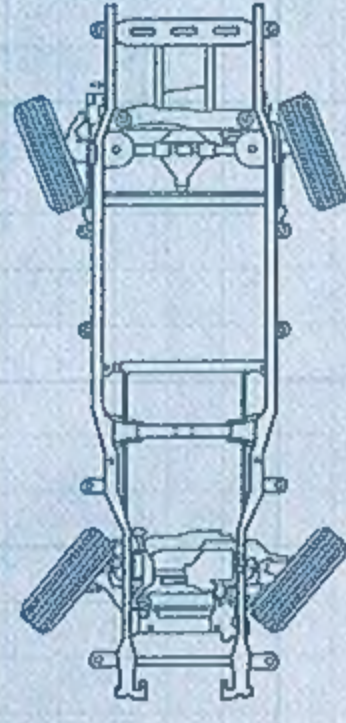


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