

This Old House

JANUARY | FEBRUARY 2008

our top
10
tips to
cut energy
costs

The Upgrades You Want

The know-how you need

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- Countertops
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While one person battles kids,
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"Time out" ended seven minutes ago.

Radiant heating by Uponor makes your whole house comfy and cozy. It circulates heat under the floor, so it's warm all over, regardless of what corner you send her to.

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letter FROM THIS OLD HOUSE

With a Little Help From My Friends

THESE BUTTONS ARE LOCKED. You can't score there. "That's Pina from Peru, my IT/NC guy, riding me through the one tool for my new heating system. The house I grew up in had a coal fire in the basement, then one has a computer and enough wires and pipes to look like a set from *Star Trek*. The trade-off for all that convenience, Pete says, will be a heating 'infirmary' to support at only a couple hundred bucks in the color of wood—4, that is, I can figure out how to turn it all on. "Pay attention, son. If you push some buttons you shouldn't push, I'll have to come back to reprogram it all," he warned. Seem Pina was looking out for the both of us. "Which one," I asked, "between self-destruct mode?" He looked at me with an I'm definitely gonna be back when he presses some buttons for shouldn't press expression.

Seriously, though, set all those pipes I've got over there? This home-improving business is pretty complicated. Which is why it's always good to have some help from reasonably knowledgeable or experienced family members or previous magazine readers.

Last month, when I asked you to e-mail me with story ideas for my special reader-edited issue coming up in June, I figured I'd receive a handful of letters. What I got was more than I could ever respond to. Great stuff—reminiscing, before-and-after for our reader remodel contest from Ann and Jim Murray, requests from Carrie Gray and Jill Wright and away others to look back at what's become of the places we feature in *This Old House*; a suggestion from Heidi Schubert that we do a piece on how to maintain "great places" when it comes to working on home projects.

It's a good start for the issue, but I hope you'll continue to help us out, which you can now do through a web page set up just for our little project. The address is thisoldhouse.com/yourTOH. Drop off a tip, tell us your story, post some photos of your handiwork for the contest—and take some time to check out what other TOHers like you are up to. Oh, and then you'll have to help us vote on which stories we'll include come June. I hope you'll have a lot of fun. And, I've found planning the issue this way to be a very rewarding collaboration. Like I said, it's always good to have some help.

Scott Casperson

SCOTT CASPERSON
EDITOR



No, he's not our editor-in-chief. That's the editor-in-chief basement, with its ever-growing heating system.

Tell me how to do my job...
...and decide what should be in our
June issue. Share your tips, tell us
your stories, show us your projects.
And vote on the best remodels
done by readers just like you.
thisoldhouse.com/yourTOH

OWN the pride.



RENT the tools.

You want a gorgeous kitchen. But you don't want to buy a tile saw, finish roller, compressor and a lot of other expensive equipment. Relax. You can rent it all at an AAA member rental store, and own the pride of a wonderful remodel.

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toward your next DIY project!
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Reaching So smart, so easy



around the HOUSE

EDITED BY DEBORAH SHOOTMAN

RADIATORS TO SUIT ANY STYLE

Warm up to a host of new designs and materials

Think this thing will melt in just high end eye candy? Think again. The ornate cast-iron sculpture is actually a radiator designed by Dutchman Joris Leermaker. Its flared curves and serenos are not only attention-grabbing—they also maximize the radiator's surface area to give off heat efficiently.

Leermaker's creation fits many styles. Sculpting radiators make quite a statement in a room's focal point. This was the case back in the 1920s, when the very first cast-iron models for early central heating systems were developed. But these workaday devices lost their prominence as central heating became commonplace and new technologies made radiators cheaper (think baseboard heating). Whether your taste runs to contemporary traditional or eclectic, check out the models on these two pages, which make a room cozy and spark conversation all the while.

—SAL NOZICK



FACTORY
This cast-iron radiator sculpture is made of modular pieces that snap together. Joris Leermaker's sculpture, standing at 50 inches, is priced at \$1,000.

RADIATORS TO SUIT ANY STYLE

When you're ahead of new designs and materials



(K)

CLASSIC

These simpler and affordable radiators are favored with you-as fan-pipe-aluminum-ventilators. Radiant's Radiators, starting at \$140. www.radiant.com



(R)

OLD-FASHIONED

Available in 10 different finishes, this radiator features a classic design with a fan-pipe-aluminum-ventilator. Radiant's Radiators, starting at \$140. www.radiant.com

(S)

WALL ART

This eight radiators in the Art series have varying motifs, from animals to abstract designs. They're made of aluminum-ventilator. Radiant's Radiators, starting at \$140. www.radiant.com



(M)

MODERN

The sleek aluminum-ventilator gives this modern radiator a look that's as simple as it is elegant. Radiant's Radiators, starting at \$140. www.radiant.com

MILESTONES

Drills and Drivers



1946

▲ A few years after World War II, the Navy's first military drill instructor, Frank H. Drake, introduced a line of drills for mechanics.

1958

SAFARI introduced the first of its kind, a portable power drill. It was designed to be used in remote areas and had a built-in battery. The drill is now known as the Safari Drill and is still in use today.



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HEARTBURN ISN'T ONE OF THEM.

PriLOSEC OTC is the only over-the-counter heartburn medicine that works to provide 24-hour protection with one pill a day.* It blocks heartburn before it starts, by stopping acid at the source. So heartburn, unlike other annoying things in life, won't keep coming back.



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HEARTBURN BLOCKER™

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Now, you've got to get rid of that Market of yours as you were left on your hands as the way to the way but what can be another kind of injury: dropping up your driveway a surface. Check out our handy list for avoiding common sense and here — [HOW TO PREVENT](#)

Auswahl

Really concerned as traffic increased
A gentleman, describing as planning
on second-hand traffic, came this
all kinds of asphalt.

mineral through cracks and cavities in the steel reinforcement embedded in the concrete, because only reinforcement

Formas de trabalho

Power oracles that protrude from the delivery surface. They can be damaged by the type of normal occlusion or the clinical orthodontics or abuse.

Crushed stone or gravel

Adapt dressing image. When some guests see the waiter getting rid of the lady shirt without disturbing the streamer, he made her smile.

A LIGHTER CHAIRSAY THAT FEELS LESS—
NOW THAT'S A STRONG OF GENIUS.

The EPA has passed increasingly stringent emissions standards for two-stroke engines: the first banning models that power weed trimmers, blowers, and gas chainsaws. As a result, many manufacturers have switched to four-stroke engines, which cut down on the number of pollutants and improve efficiency. All sensitive areas—especially those in or near parks and wetlands—should be considered fully.

X-Force technology reduces the amount of uncut wood left in the exhaust, slashing emissions by 60 percent and fuel consumption 20 percent. It is featured in the company's flagship 455i Rancher saw, a 3.5-hp motor with 160 cc and a built-in 12 ft. fuel tank. The company plans to incorporate the technology in its smaller saws and other equipment, saving the farmer and his back—and staying under the plant's 3375-hp emissions cap.



10 01558

Everyone knows the lithium single lights adorn the fridge. What we didn't know is just how damn useful it is everywhere else in the house. —@kathrin@twinkl

Everyone knows the lithium single lights adorn the fridge. What we didn't know is just how damn useful it is everywhere else in the house. —@kathrin@twinkl

- **ADDUCE YOUR POINTS** Think a little piece of baking soda and vinegar will throw the acid into the air, thus making the soda pop. Their supervisor
- **PROVE THEM WRONG** Keep a bucket of baking soda on your workbench at all times to sprinkle on a line if a welder runs out.
- **STAY HONEST** Set out a shallow dish or bowl containing equal parts sugar and baking soda. Welders are attracted to the sugar, but the mixture is actually like lime.
- **STAY CLEAN & SAFE** Sprinkle baking soda on greasy spills and let it sit for about an hour. Soda gently washes a grease sponge or brush, then vacuum to remove any leftover grease.
- **ADD SOME HONESTY** Keep an open box of office soda for your lost cabinet to refill. It may mean that you'll need to use a few workpieces.

- 9. KEEP DRINKING COOL.** Once inside your car, all it takes is a dash of direct sunlight to cause a super-heated driver's skin to burn. It's time to keep your skin cool, too.
- 10. COOL IN A DRYER SPOT.** Four-point baking soda on a dryer sponge keeps the door and vents well-aired out.
- 11. UNCRUST YOUR BREAD.** Sprinkle baking soda directly on bread in an auto oven or grill. Let sit overnight, then slough off the crust with a stiff brush and water.
- 12. SLASH INSECTS.** Rubbing your hands with warm water and a palmful of baking soda will remove stubborn odors.
- 13. BANISH ROOD BODIES.** Soak rusty-smelling socks for a few weeks in a plastic bag with baking soda applied inside to eliminate

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The on/off switch for the Breco humidity sensing fan

Turn on your shower and the fan responds automatically, sending the vapour charge in humidity just as conveniently. It leaves when its work is done and politely turns itself off. Making it nearly effortless to maintain a moisture-free bathroom. All that's left for you to do is simply turn the shower handle. 

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QC3 headphones**

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QC2 headphones**

Bose began researching noise reduction technology 29 years ago. Since then, we've been leading the industry in advancing the category we created.

QuietComfort 3 headphones represent the latest achievement. They rest on your ears rather than surrounding them. And while they are smaller than our highly acclaimed

QuietComfort 2 headphones, there is no compromise in noise reduction, sound quality or comfortable fit. So now you have a choice: QC2 headphones for around-ear use, and QC3 headphones if you prefer an on-ear alternative.

Here the difference Bose technology makes. You will notice a dramatic decrease in engine roar on an airplane. The cabin becomes more peaceful. Connect your CD player, MP3 player, or listen to the in-flight movie. You'll hear detail you may have never experienced while flying. But our customers tell us that they use these headphones at home or at the office, too. Although the noise reduction will be more subtle than it is on planes, you should notice distractions fading softly into the background.

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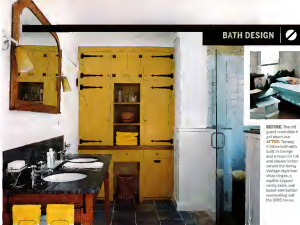
Two styles to choose from. Choose QC3 headphones for an on-ear fit, or QC2 headphones for an around-ear fit. Both QC2 and QC3 headphones offer the same total (active plus passive) noise reduction and the same acclaimed audio performance. Your choice should be made on whether you prefer around-ear or on-ear headphones.

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phone by January 31,
2005, and receive \$50
toward an additional
Bose product purchased
at the same time.*

BATH DESIGN



BEFORE. The old guest bathroom had just one sink and a toilet. **AFTER.** Turning it into a full bath with built-in shelving and a separate tub and shower center saved the family. **Designer:** Steven Kasper, Kasper Design, Inc. **Location:** New York City. **Style:** Modern. **Color:** White, gray, and blue.

Problem: The one upstairs bath was dark, dated, and cramped.

Solution: Turn an unused bedroom into a spacious bath for the whole family. Here's how.

BY NANCY BELES
PHOTOGRAPHS BY STEVE COVATTA

BEFORE. THE DAYS OF MASTER SUITES with private dressing and walking closets, most old houses had just one bath—and typically tiny—butrooms used by everyone on the main sleeping floor. So it was with Scarlet Fox and Donna Gold's 1905 house in Brooklyn, New York, where a small, dim bath served not only the couple but also their young son and their soon-to-be-born baby.

To help realize their vision of a new bath that would be both luxurious and an efficient bathing and grooming space for their growing family, the couple hired Evika Doring, a local designer. Doring devised a solution by converting an unused bedroom adjacent to the original bath into a new, larger shared space, creating extra square footage for a back-to-back, a separate walk-in shower, a two-sink vanity unit, and a wall of built-in storage. The original bathroom became a dressing area and a passageway that connects the master bedrooms to the new bath. There's another entry off the common hall.

Doring, who specializes in eco-friendly design, reassured the couple to use green materials, such as low-VOC paints, which don't off-gas. "We figured that as long as the paint didn't have lead, we were good," Scarlet says. "But Evika pointed out a few toxic choices. With a baby on the way, it was a no-brainer." Combined with recycled glass tile in the shower, floor slats made in the U.S. (rather than shipped from abroad), and additional windows to let in the most beneficial light, they put more than the family-friendly bath they requested. "It's a great bathroom," says Scarlet, "but it's also just a nice room to be in."



TOP LEFT This vintage-style woodwork such as the vanity, supports vanity table, adds to the time-rich personality of the early 1900s when the house was built. **TOP RIGHT** Two types of recycled glass, clear and blue, are used in the vanity. **MID** A large mirror and a large mirror are used in the vanity. **RIGHT** The vanity is a large mirror and a large mirror are used in the vanity. **RIGHT** The vanity is a large mirror and a large mirror are used in the vanity.

PHOTOGRAPHY BY JEFFREY M. HARRIS

The Plan

Turn an extra bedroom into a more comfortable bath for a growing family.

What They Did

- 1. CONVERTED A BEDROOM** Taking over an 8-by-14-foot room next to the existing bath allowed for a 6-foot tub, walk-in shower, and twin sinks. Relocating the entry to the adjacent closet's dressing area that led to the new bath to the master bedroom.
- 2. EXTENDED PLUMBING** The new bath's location next to the old one and above the kitchen made it easier to extend water and waste lines. Placing fixtures—tub and shower, vanity, sink, and toilet—opposite them—made running lines more efficient.
- 3. MAXIMIZED NATURAL LIGHT** Adding a window in the shower and turning a door to an unused balcony into a window over the toilet let in more daylight. Light reflecting recycled glass tile and a sunny paint color on the built-in amplified the effect.
- 4. FULL-LENGTH MIRROR** A custom floor-to-ceiling natural-finish bathroom vanity, allowing the view for above-the-counter medicine cabinet—also the potential for full-length vanity by 18th units.



REDESIGN The original bed bath was too small for the homeowners and their children to share. **REDESIGN** Converting an adjacent bedroom into the new bath provided more space, while making the old bath into dressing area created the look of a private master suite. A full entry keeps the bath accessible to the kids.

PHOTOGRAPHY BY JEFFREY M. HARRIS



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creating better environments



LUXURIES



1 | BRIGHT KNOCK
The brass knock on the nearby 2. grand knockers, hand-finished along its curves and set into a bed of the solid brass, brass, brass through \$340, pauze.com

2 | ARTISAN KNOCK
Less complex than the knockers to the left—and a lighter on the wall—this Marmoleum knockers, made of solid brass with an engraved finish. \$30, marmoleum.com



Knock, Knock

» It's no joke—the right door ornament can make a knockout first impression

BY NATALIE RODRIGUEZ
PHOTOGRAPHS BY JONATHAN KANTOR

JUST AS THE COMPUTER hasn't completely kicked the handwritten note to the point of obsolescence, so too the doorbell hasn't BOO'd the knocker from everywhere everywhere. There's just something about grasping a hefty piece of metal and cupping it against a sturdy wood panel that says, "I have arrived." And, as the flip side, a well-chosen knocker can send a message about exactly what kind of home you've come to pay this, Mr. Please-Remember.

On the following pages, you'll find some truly knockout knockers, from simple, wrought-iron rings belonging a rustic cottage to intricately carved brass lion heads that would look right at home guarding the door of an Italianate villa. Traditional or modern, antique or reproduction, rustic or with a touch of whimsy—can-brass, Cthulhu-brass, anyone?—a knocker can say and afford to tell you all you want to know. And you can't knock that.



3 | BELL RING Though not knee-high like its early-20th-century inspiration, this brass puller brings subtle imperfections can't hide otherwise at merely \$33. magn.com

4 | BRIDLE RING With its medieval flavor and beaded ringed belt detail, this black iron knocker would be

right at home on a Spanish Mission-style house. \$200. www.ghisla.com

5 | THE CROWNED KNIGHT Stained-wood carvings, this knocker's arched ring features the work from Art Deco design. Approx. \$100. artdecohome.com

6 | TOWER RING The Gothic look

and cast-iron look of this design could have brought a medieval castle on a Tudor Revival home. \$85. lambertson.com

7 | TINY TAPPER While most door knockers are at least 3 1/2 inches high, this knocker is a miniature version that's 1 1/2 inches high. It's a small-scale knock that could work as a nice architectural feature for an

entryway door or a bathroom or powder room. \$40. lambertson.com

8 | PATTERNS PLATE Evoking the ornate, colorful style of the Victorian era, this metal plate knock is a small-scale knock that could work as a nice architectural feature for an

entryway door or a bathroom or powder room. \$40. lambertson.com

9 | GLOBE & GLOBE As delicate as a flower, this knocker is a small-scale knock that could work as a nice architectural feature for an

entryway door or a bathroom or powder room. \$40. lambertson.com

10 | GLOBE & GLOBE The animal head—a popular 19th-century door-knocker motif—appears in a 21st-century update in wood and brass. If you're not into

knockers, the knocker's design inspired the design of a 21st-century door-knocker. \$40. lambertson.com

11 | GLOBE & GLOBE The animal head—a popular 19th-century door-knocker motif—appears in a 21st-century update in wood and brass. If you're not into

knockers, the knocker's design inspired the design of a 21st-century door-knocker. \$40. lambertson.com

12 | VICTORIAN GLASS For a touch of Victorian style, this knocker is a small-scale knock that could work as a nice architectural feature for an



IN MY RACIDLY LIGHT-HEARTED DAYS—back when I was an apartment dweller—I didn't worry about how my house looked. It wasn't in focus, it was a mirror against a wall, and called a home. Most of my apartments were sublets. They came furnished, some even with dishes in the drawer. No one could rock an *eyebrow* at us because the realtors had dragged rapid-come-looking clients up from the street and "magnified it" them with their tape. My home was mine, a reflection of me.

All that changed when my husband decided we should build a post-and-beam cedar house in the country. Suddenly I had to make choices, sides, sinks, wood floors, all the knobs and switches. Now, every decision weighs heavily on me. Each element says something about my style, my sophistication, my general competence in the world—or lack thereof.

My main dream? Share my opinions. His attitude is, We finally got plumbing. Let's fire up the whetstone and knock out the champagne! It doesn't bother him that the garden whetstone is in question as it is so way calibrated to the human body. They chose water fountains randomly placed, plumbing set through another angle, while leaving key spots like the back unmodified. That's what we get for buying the cheapest model we could find. Every time David suggests relaxing in the tubs, I find my blood pressure rise.

Everyone knows home improvement cover-ups. That is especially true if you bring to the project no experience, a limited budget, and a general sense of awe who took another job before knowing yours. Every time I walk through the door, I notice the mistakes and jobs left undone. The carpet in the guest bathroom has a tacky, fake-stucco-like top that's too small for basic politeness. The granite worktops in the wind. The concrete foundation remains exposed. Sure, the guest room has a 17-foot-high wall of windows, but we ran out of money before we could landscape the huge field of dirt and blazed rock that dominates the view.

One morning this past spring, my husband and I sat on the back deck, sipping coffee. David was gazing up nostalgically at the wide-open view of the blue-gray Catalina Mountains in the distance. I was sitting down at the floor, growing increasingly irritated as the splintered holes where the concrete had used to and gas to scratch the post-and-beam boards.

"Look how beautiful the clouds are today," David said. "Why didn't we see them in hardwood for decades?" I responded, "Oh sure? And why didn't the contractor we hired use screws?"

"It will look like cedar once we stain it," David said. It would not look like cedar. It would look like cedar-

coating, applied shoddily, pressure-treated wood with a coat of stain. "This is one more example of a cost-cutting measure that is now a permanent flaw in our house," I said.

David looked at it as, "What's it called when you think you're fat but you're not?" he asked.

"What? Do you mean anorexia?"

"Yes, but not just that. You know, when you can't see your body accurately—when you see everything overly negatively."

I thought a moment. "Body Dysmorphic," I said. "Or Body Dysmorphic Disorder. When your body is perfectly normal, but you think you look obese, or too ugly to have the house. You view it all, psychologically."

"That's what you have," he said. "House Dysmorphic." "I do not have House Dysmorphic!" I said. "Just because your experience is so flawed does not mean I have a psychological problem."

If anyone had a psychological problem, David did. He had Obsessive Compulsive Syndrome, combined with inability to Notice His Own Design Decisions. Not only did he insist that two so famous who didn't even a hammer between them could build a gorgeous country estate in the middle of nowhere, but he also persisted in this belief despite all evidence to the contrary.

"I have exacting standards," I said, "which is a good thing. Besides, House Dysmorphic is not a real issue."

"You should check," David said, taking a sip of his coffee. "You have it."

After another month of learning, frustration with our excruciating slow pace of progress, I did check. An Internet search for "house dysmorphic" turned up nothing. I had, however, had plenty of information about the growing field of obsession disorders. Fighting about house improvement is common enough to have spawned an entire branch of psychology. I called Dr. Helen, Ph.D., the self-proclaimed founder of the field and the author of *Fixing the House That Won't Work: What Learning, Communication, or Personality Problems Underlie the Worst of Our Homes?*

It's very hard to get a therapist to reciprocally take your side. "Everyone walks into their project with this idea they are," Helen said. "If people look at their plans and measure personally and use them all to their advantage in a project, they can be in very good shape."

Helen suggested we each make our own house list—I could write down the flaws and incomplete items while David could focus on what was working. Then, we would put both lists in our "communication folders." We'd look at the positive list every day to help us both enjoy the house, and we'd look at the issue one thing at a time from my negative list, measure the real work making progress and help me feel less overwhelmed.



The deck would not look like cedar once we stained it. It would look like toxin-emitting, splinter-shedding, pressure-treated wood with a coat of stain.

We were supposed to have a communication folder? Obviously we should have called our house-improvement therapy class before building ground.

"The up-front project really went out perfectly, because we're anxious," Dr. Helen continued. "But as we accept the imperfections of the project—and ourselves and each other—that confidence and acceptance can also help strengthen our relationships."

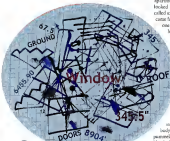
She'd hit the crux point's end on the head, our relationship wasn't perfect, a fact that this home building project highlighted every day. We had differing work styles and personalities, after opening words. This, I realized, is what had been bothering me all along. Each disagreement felt like something larger, a harbinger of more unacceptance to come.

I liked the idea that constant conflict could be the route to a more peaceful union. It didn't seem any more pleasant than constructing a house from scratch. I could see, all at the distance, how it might work. If going through each issue would help us learn more about ourselves and each other, improve our ability to negotiate and communicate, prove to us that we could find solutions to life's problems that would not go to hell.

Suddenly, our project took on new meaning. It's not really about building a house, it's about building a happier house life. A task I'd really let slip up to, just as soon as we replace that whetstone tub. ■

Stacy First first wrote about building her house in our April 2009 issue. She really only thought it would be finished by now.

Tell Your Story
Did you have a home improvement project that went wrong? Or a home improvement project that went right? Tell us your story. Email us at yourstory@thefirsthouse.com



Does This House Make Me Look Fat?

My new home is a reflection of me—and all I can see are its flaws and shortcomings

BY WENDY PARIS ILLUSTRATIONS BY SERGE BLOCH

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Carved Door Casings

» Use vintage moldings to embellish entrances, trim a tall mirror, or surround a plush headboard

BY AMY S. HUGHES PHOTOGRAPHS BY BOB DEWE

SALVAGE



AT THE RISK OF SOUNDING like a total old-house nut, I must confess that a couple of elegantly carved door casings helped clinch the deal on my New Orleans wedding house in 2001. My fiancé, Jan, and I had been looking for a local wedding house on our favorite vacation destination where we could gather our clan and get hitched. While touring the Claiborne Mansion, an 1850s Greek Revival house turned inn, I was struck by how gracefully the casings, with their delicate scrollwork details, framed the views of the interior spaces. Six months later, Jan and I walked through those well-dressed doorways as husband and wife.

I've stayed at Claiborne every year since, including twice while working on stories for *The Old Place* about post-Katrina rebuilding efforts. The restored house and its door casings look as gorgeous as ever, perhaps even more so considering they could have been lost.

So it was with a cargo of sadness that I discovered these great carved door casings propped against a wall (see photo, left) on a recent visit to my local salvage yard, Demolition Depot in New York City. I couldn't help but think of the fate of the houses they once ornamented. You can tell a lot about the architecture of a place by its door casings. And judging by the looks of these, the houses must have been great. The floor and its details in the background.

Claiborne casings (see photo) were typically reserved for public rooms, where homeowners entertained. Private areas, such as bedrooms, had simpler headings.

ornate tops are typically seen in the door surrounds of Victorian-era American houses from the late 1880s. Their height—about 12 feet—and ornate styling indicate that the ceilings were probably made in the *First Davis*, either in *parlor* or *left front* vestibules, where ceilings were likely and guests would be sure to see them as they entered the house.

By the turn of the 20th century, door casings, which were sold through mail-order millwork catalogs, began to reflect a less *Keep Arts and Crafts* aesthetic that emphasized the beauty of natural wood grain and clean lines over applied ornamentation and intricate carvings. The lower ceilings in Craftsman and Prairie bungalows likely left less room for door embellishments, which were made by stacking up to six individual molding profiles in form one by one.

The diversity of house styles popular around 1920, which ranged from classical Colonial Revival to eclectic Spanish Mission, caused a decline in the number of standard molding patterns and in the time car shops that sold them. Builders then turned to local carpenters and craftsmen to create complementary door casings.

Today, salvage yards offer another source for the moldings, which can be used in period restorations and in new houses to make drab doorways with their own character stand out more attractive. Or you can reuse one of these forgotten-looking casings and turn it into something completely different. I used just the top of a Quercus *Anne-style* casing, bought for \$200 as the crown for a tall mirror (see how at right). When I was building the house in the TOH office, a coworker remarked how great it would look around her living room fireplace. “I’ve never had a headboard in my bedroom,” she said. All I’d have to do was put a jaded mirror in the middle instead of mirror glass, and then cut it over to her house. “In your dreams,” I replied. I’d already painted a space for the reconfigured casing in my own apartment. Permitted in the front hall, the mirror was the last thing Jen said I’d see when we came home. And even though it’s a different style than the casings from New Orleans, it’ll make their elegance and trigger memories of our favorite place. ■



How I Put Together a New Mirror Using Old Door Trim

The entrance halls of Victorian-era houses were often decorated with large pair mirrors in front of which homeowners could peep on their way out for the day. My mom—a serial renovator—had a beautiful gilded mirror that she carted from one old-house project to the next, always propping it proudly against a foyer wall. For my DIY pair mirror, I used the antebellum of an old door casing for the top and preprimed pilasters from a lumberyard for the sides and bottom. While pasted on the old wood with the new. Here's the step-by-step.

1. Lay the mirror on a plywood backer board, and dry-fit the frame around it. Use plumb blocks for the bottom joints and a 2x4 at the top over-sink to steady the antebellum.
2. Join the pilasters to the planks by driving in screws on the disposal along the backs of the wood members. Use a pocket hole jig—sold at woodworker supply shops—to bore the holes. Then join the 2x4 top vertically to the pilaster's ends in the same manner.
3. Apply construction adhesive to the frame and attach the plywood backer board.
4. Flip the frame savings, and use the construction adhesive to affix the decorative antebellum to the 2x4 top. Secure with clamps. Then, flip the frame face-down again, and drive 1-inch-thick screws through the back of the 2x4 to reinforce the joint between the lumber and antebellum.
5. Paint the frame with an oil-based enamel to give the piece a lacquerlike finish.
6. Adhere the mirror to the backer board using a special glue called mirror mastic (sold at hardware stores). Cover mirror edges with bead molding affixed to the inner edges of the frame with construction adhesive.
7. Stand the mirror in a place of pride and primp away. —A.J.H.



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GREEN HOUSE



Spend a Little, Save a Lot

» Or spend a whole bunch and save even more. Here are 10 ways to shave your energy bills this winter.

BY KEITH PANDOLFI PHOTO ILLUSTRATIONS BY WYETON KIDEN



"THIS DRAFTY OLD BRICK OF A PLACE? Why do we have to live here?" George Smiley asks his wife after their daughter Zacha catches cold in it's a *Wonderful Life*. "We love you, George. A lot!" So ask the same questions come wintertime, when our houses seem to turn against us in comfort levels, plummet and heating costs rise. Flipping alone accounts for a lower half of the average American household's utility bills each year. No need to get angry about it, though. There are plenty of measures you can take. But first you'll need to consider which ones fit your budget and which ones have the greatest payback. Here are 10 suggestions to make life in your own drafty old house a little more wonderful.

1 | CHOOSE YOUR CHIMNEY

Sure, it's energy-intensive and all, but when it comes down to it, your fireplace is really—make that laugh-ably—inefficient. According to the Department of Energy, a 1-cubic-foot fireplace sucks about 24,000 cubic feet of furnace-heated air up your chimney each hour. Bummer. It's replaced by cold air that comes in the opposite direction through the same opening, causing your furnace to work extra hard to keep your house cozy. Still, we love gathering round the hearth so much in the next year. Just remember to cover the thermostat down a little when you use it. Also, crack a window in the room where the fireplace is located and then close the door, so it doesn't suck too much warm air from the rest of the house. And remember to close your damper when it's not in use.

COST: Free

REMARKS: A tightly closed damper prevents up to 1 percent of furnace-heated air from going up the chimney. **PAIDBACK TIME:** Immediate.

2 | SEAL AIR LEAKS

Add up all those overlooked cracks, gaps, and openings around your windows, doors, plumbing, and wiring, and you may find your house has a hole the size of a Mack





Your Ideas

How do you save money and conserve resources? Send us your best tip for us to share with readers. \$250 cash prize. Send to: ideas@time.com (year 2014)

track. Seal gaps, and you'll save more than 10 percent on your heating bills. Start by caulking or weatherstripping around windows. For added cost free, pick up a product such as the LM Insulate Window Kit at the hardware store. Reassembling Storm wrap, the plastic sheet costs about \$10 and can be directly attached over windows using double-sided tape, blow-dried for a tight fit, and peeled off come springtime. It can increase a single-pane window's R-value by up to 90 percent. It'll also create around-door foam with caulk, and while you're at it, install a screw-on or adhesive-backed door sweep. The expanding-foam sealants to fill in larger gaps around plumbing and electrical work, especially where pipes enter your house through exterior walls. Tackle energy suckers on overhead lights, too—like exterior wall scones and switches. You can block them up using foam insulation caps. Just remove the switch plates and pop the caps into place. **COST:** \$30 to \$30 for materials.

REPAY: Save 10 percent or more—\$50 to \$170 a year—on heating bills.

PAIDBACK PERIOD: Six months to one year.

3] SHOW YOUR HEATING SYSTEM SOME LOVE

Start building, dusty or poorly lubricated fans, flickering pilot lights, and loose fan belts can add hundreds to your heating costs each year. Getting your furnace tuned up regularly by a heating contractor can do wonders for both your wallet and your overall comfort. Natural-gas-powered systems should be serviced every two to three years, while oil-fired units need a tune-up every year, since they burn diesel. To make your system even more efficient, prevent heat loss by sealing leaks, using air-flow caps, or adding a new thermostat with smart set-back or setback features.

price-on material—or foil-backed tape. Doing so will reduce your home's air leakage and could save you a bundle on heating and cooling bills.

COST: \$75 to \$100 for the tune-up. A gallon of mastic duct sealant costs \$35, foil-backed tape runs about \$7 a roll. **REPAY:** Furnace tune-ups save up to 10 percent on more on heating bills, sealing ductwork reduces air leakage by 10 percent and heating bills from 3 to 10 percent.

PAIDBACK PERIOD: One heating season.

4] GIVE IN TO ENERGY STAR

We spend 38 percent of our electricity bills running our appliances. But we can shrink that number dramatically by replacing them with fridges, clothes washers, and dishwashers that qualify for the Energy Star. Energy Star fridges, available from major manufacturers such as GE and Frigidaire, use half as much energy as those manufactured 15 years ago and 15 percent less than new non-Energy Star models. Rated dishwashers exceed current federal energy standards by 41 percent, while Energy Star clothes washers use 40 percent more efficient than conventional models.

COST: Energy Star fridges start at around \$299 for a top-mount and \$499 for a side-by-side. Clothes washers cost \$600 and up, dishwashers start at around \$250.

REPAY: Save \$80 per year in energy costs for the fridge, \$110 annually on utility costs for the clothes washer, and \$110 a year on utilities for the dishwasher.

PAIDBACK PERIOD: About five years for the fridge, seven to eight years for the clothes washer, and eight years for the dishwasher.

5] MAKE YOUR ATTIC MORE COZY

The Department of Energy calls it you can reduce your heating and cooling costs by 30 percent just by adding a few hundred bucks' worth of new insulation. This is especially true if your house is more than 15 years old, from the time before building codes became more mindful of energy efficiency, and you haven't added any new items yet. We need to focus on the attic, but it's also worth to see how much insulation you have in your walls, ceilings, basement walls, and second-floor lighting. Insulation that makes sure those fixtures are designed for direct insulation contact. Check that your R-value is right for the climate where you live. In general, R-values should run between R-22 and R-49 in the attic, less in other areas. (To learn how to measure R-values and to find out the right amount of insulation for your area, go to checkhouse.com/basics.)

COST: About \$180 for added insulation.

REPAY: Save 30 percent on energy bills.

PAIDBACK PERIOD: Three to five years.

6] EMBRACE THE PELLET STOVE

Using pellets as a cheaper heat source for your house with a lot of heat pellets—well, that's another story. Clean-burning pellet stoves are much more efficient than your home heating costs. They look

like wood-burning stoves but are fueled by small pellets made from compressed sawdust. Put them into the stove's hopper, and they'll feed automatically into a burn chamber a foot below the box as into your house. They are framed by an insulating wall, fireplace, stove, which heat through a stainless-steel tank that runs up your chimney. (For more information on pellet stoves, visit doenergy.com/pelletstoves.)

COST: A Stax Model 100 pellet stove costs about \$2,000. Pellets \$5 for a 40-pound bag.

REPAY: 30 percent or more off heating bills.

PAIDBACK PERIOD: Three to five years.

7] TAKE CHEAPER SHOWERS

Next time you take a shower, remember this: Heating water accounts for up to 11 percent of our utility bills. If your water heater is more than a decade old, that number could be even greater. Switching it out for a new, more efficient electric storage model could save you a 10 to 20 percent on heating bills. You might also think about gas and tankless units, which save 30 and 40 percent on water heating, respectively. And let's not forget solar water heaters. At \$1,500 to \$4,500 installed, they're more expensive than conventional heaters, but they have longer lives (about 20 years) and pay for themselves in energy savings in about half that time. If you're not ready to buy a new water heater just yet, rather up your existing unit's efficiency with a water heater blanket. It costs just 45 bucks and will save you between 4 and 9 percent on your heating bills.

COST: An energy-efficient electric water heater runs around \$750 installed.

REPAY: Save up to 20 percent on water heating bills.

PAIDBACK PERIOD: Three to four years.

8] FIND SOME PERFECT STORMS

Did you know that 10 to 25 percent of your heating and cooling costs could be flying right out your windows? If you're not quite ready to fork out the \$12,000 or more you'll need to put in new, high-efficiency ones, then installing some window-weathering bars might be a good idea. Triple-track windows—they hold together with one screw that slide up and down on separate tracks—from Larson Manufacturing cost about \$100 each and can reduce heat loss through your existing windows by 21 percent (even more if fitted over efficient single-pane windows). They may not be as pretty as replacement windows, but sometimes it's better to feel good than look good. **COST:** \$1,200 for a dozen.

REPAY: Reduce heat loss by 35 percent or more. Easy to install, and cheaper than replacement windows.

PAIDBACK PERIOD: 2 to 3 years.

9] ADDRESS THE BEAST IN THE BASEMENT

If you've tried all of the energy-saving measures mentioned above but still find your bills are too high and inefficient, then maybe—just maybe—it's time to consider replacing your

furnace. The average life span for a gas or oil-fired unit is between 15 and 20 years. Along with fridges and dishwashers, Energy Star appliances far outpace their counterparts in fridges, cars, and York, among many others. Most are at least 1.7 percent more efficient than standard models and can save you up to 20 percent on heating costs.

Not sure if it's worth the money? Add up your fuel bills for five years, then multiply that sum by 20 percent. Divide the result into the cost of buying and installing the new system, about \$1,000 or so, and you'll see how many years it will take to recoup your investment.

COST: \$1,000 to \$1,500.

REPAY: Increased energy savings and a quieter, more comfortable home.

PAIDBACK PERIOD: Two to five years.

10] SELL YOUR HOUSE

That is, as long as any new paid-up buy is certified by Energy Star. These newly constructed homes meet the performance standards established by the EPA and Department of Energy, consuming 30 percent less energy than standard homes, thanks to features such as enhanced insulation levels, high-performance windows, air sealing and ventilation, and high-efficiency heating and cooling equipment. If you already have a building plan worked out for your new home, then nothing else you need for Energy Star certification costs just 1 to 3 percent more but pays for itself immediately. According to Energy Star, these upgrades add just \$10 to \$15 per month to your mortgage payment but save you around \$25 to \$45 per month on your utility bills.

COST: 1 to 3 percent more on construction costs.

REPAY: The more energy-efficient home on your block.

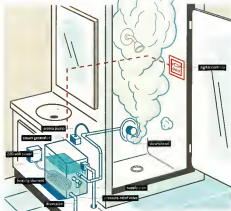
PAIDBACK PERIOD: Immediate.

Next time you take a shower, remember that heating water eats up 11 percent of your household utility bills.





HOW IT WORKS



Steam Shower

» With one of these, it's no sweat to get a luxurious steam bath at home

IMAGINE THIS: IT'S THE END OF A LONG DAY. You're tired, or why, or just want to chase away the winter chill. So you push a button in the shower stall, plop yourself down on a bench, and relax into a soothing cloud of each-lyste-scanned steam. Twenty minutes later, you emerge feeling relaxed, renewed, totally dupe.

That kind of indulgence used to require a trip to a health spa—but more and more homeowners are opting to recreate the experience at home by swapping their ordinary shower stalls into warm, vaporous havens called steam showers. Along with the benefits to your skin and sinuses, there's no standing around waiting for a hot-tub tub to fill or a sauna to heat up—and when you're done sweating, you just turn on the shower for a refreshing rinse.

What it is

A moisture-sealed shower enclosure equipped to deliver clouds of steam before, during, or after your shower.

How it works

Condenser pumps into a drain pan and is heated to the boiling point and then sends fresh steam to an aperture in the shower stall. Digital controls inside the shower let the user adjust the steam temperature and duration and can even add music, aromas, lighting, and music.

What to look for

- Delivery speed: Better models take less than 10 minutes to build up a head of steam.
- Remote controls: That way you don't have to get up from your bench to adjust steam time or temperature.
- Audio: Built-in speakers.
- Features: Some models have a built-in heater and even a built-in heater.

What it costs

A steam generator runs about \$2,500, but for the full spa experience—music, lighting, a stereo MP3 dock, and a pump for aromatherapy—expect to pay another \$1,000. An add-on steam generator is extra.

Where to find one

Look for local dealers in the sections of major manufacturers, including American Microclimate, SteamShower, and ThermaShower. For more information, see Directory page 223.

To remove stress, you simply let the digital controls in the shower stall. This triggers an electric valve to fill the broadband water generator with about a gallon of cold water. Then, just like a plug in a toaster, the generator's electric element brings the water to a boil. A pipe channels the hot vapor to the steam head, or dispenser, which fills the stall with tropical moisture that never gets above a safe 118 degrees Fahrenheit.

Luxurious as long as you wait. Steaming for 20 minutes consumes about 2 gallons of water. By that reckoning, steam is a "green" way to bubble. (Even a water-saving showerhead sprays about 50 gallons of water under one period.) Your choice of stall is based on its size, features, and what it's built with. A typical 4-by-5-by-8-foot stall (160 cubic feet) covered with concrete tile requires at least a 7-horsepower generator. For a stall tiled in stone, you'll need over a much more powerful capacity.

Installing one of these at home requires the services of a few pros. First, you'll need a plumber you can liaise locally through the website of major steam-generator makers, such as Mic Steam, Sessom, and ThermaShower. The dealer will find the best spot to hide the generator, which needs to be within 24 in. or so from the shower stall. (A basement or walk-in closet will do nicely, as long as the equipment is easily accessible for maintenance.) Then you'll need a wiring contractor and a plumber to install a building permit to build your steam-pool enclosure (see "A Stall for Steam," below). When done, the dealer can bring in a plumber to connect all the pipes and an electrician to hook up the generator's 120-volt electric cable and digital controls. All told, the system should run you a hot \$2,500, installed, plus the cost of the new stall and door. Or, for about \$4,000 to \$6,000, you can go semi-luxury, a more modest enclosure that just needs to have the wiring and plumbing hooked up, though the open-capsule look of such an attempt is a bit out of place in your decent master bath.

Steam-shower makers are betting their products will eventually edge out the tub—claw-foot, jetted, or otherwise—as the preferred place to bathe in the American bathroom. There's some evidence to support the claim: A 2004 survey by the National Association of Home Builders found that more than 60 percent wanted separate shower enclosures with temperature controls and multiple showerheads than whirlpool tubs. At that rate, it may not be long before steam takes to the top. ■

A Stall for Steam

The moisture that a steam generator will do a number on your shower stall, not to mention your whole bathroom, unless it's built properly from the start. Here's how to make a stall steam-proof.

1. Slope the ceiling slightly. If you don't, any steam that condenses there will drip down onto your shoulders.
2. Protect the framing with plastic. Use 6-mil plastic sheathed over studs, joists, and rafters. Overlap all edges by at least a foot.
3. Seal the spaces between the studs in backer board panels (which are unaffected by moisture) with mesh tape and then seal.
4. Cover every inch of backer board with a self-adhesive membrane. Use either two coats of a roll-on liquid polymer such as Laticrete Hydro-Bond, which dries into a seamless, rubbery skin, or embed sheets of beaded polyethylene, like the Bead membrane made by Teflon Systems, in wet mortar.
5. The end product is useful. If using stone, apply an impregnate to seal the stone. You'll need to repeat this treatment every two years.
6. Seal around any fixtures that penetrate the tile—including shower and drain heads, digital controls, and valves—with the gaskets or O-rings supplied by the manufacturer.

Build Enclosure

Plumber can be hired to install the steam generator and plumbing. The electrician can be hired to install the wiring and controls.





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» It's loud, it's scary. But get to know it, and it may become your new favorite tool.

BY HARRY BARTYER PHOTOGRAPHY BY JONATHAN KAMICKE

YOU'RE FORGIVEN for being a little intimidated by routers. Their powerful motors whir! more than 100 times a second, and not too quietly, either. The old ones looked like bats when you switched them on and exposed two wrenches to create him in and out of the collar. Even so, woodworkers revered them as the most versatile power tool in the shop, capable of planing out perfect dados and dovetails—see it tomorrow, today, and today—fasten them you can say outside-type business too.

You don't have to be building a Queen Anne sideboard

to appreciate a router. It'll also cut grooves for weatherstripping windows, create decorative moldings, or smooth over a rough deck rail. Many new routers, like the ones in this roundup, have reduced the scary factor with shoulder-free starting, one-wrench bit changes, and adjustable speeds to avoid burning or tearing the work. And where you once had to choose between fixed-base models (perfect for edge work) and ones that "plunge" (great for mortising), combine them after one more and both types of bases. So fear your finger grabs both handles, and go for it. You'll be glad you did.

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ENERGY SAVINGS



FROM THE TOY TV JOB SITE

Old Windows Out, New Windows In

► Ready-to-install replacement units give you high performance and good looks with a minimum of fuss

BY JOSEPH TRUW
PHOTOGRAPHS BY RUSSELL KANE



WHEN MADDYMAUS and her husband, Paul Friedberg, first laid eyes on their 1957 Single-style home, they fell in love with its handcrafted turn-of-the-century construction, wide front porch, and massive entry-hall staircase. They were also delighted to find that many of the original architectural details were still intact, including wood paneling, aquamarine ceilings, stained-glass windows, and an ornate cast-iron fireplace.

The windows were another story. The originals had been swapped out a decade earlier for low-quality sash that they were drafty, ugly, and completely inappropriate for the graceful Victorian-era home, *The Old House* TV's current project in Newton, Massachusetts. The solution: Call in TUDH general contractor Tom Sive and his crew to install energy-efficient replacements.

Because the existing window frames were sound and square, Tom could use insert replacement units—in this case, Andersen's Woodwright Insert Replacement Windows, vinyl clad wood units lined with energy-saving, low-e coated glass. These fully assembled, ready-to-install windows slip right into the existing openings. When the job was done, the house had beautiful new double-hung that looked right, worked smoothly, and gave Maddy and Paul one more thing to love about their old home. Here's a look at how Tom made the switch, with tips for choosing and installing replacement windows.

WOODWORK, MOULDING, STAIRS, AND PORCHES were in good shape, so these were a breeze to replace. Old and drafty, cast-iron windows were gone when installing the superior vinyl-clad double-hung at a price.

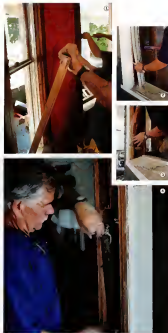
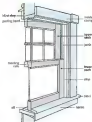
1) TAKE OUT THE SASH The first step is to remove the sash from its window frame. In most cases, you'll need to pry off or unscrew the interior wooden stops to remove the lower sash. If you're planning to install the sash, do this job carefully: they break easily. Just time out the parting beads to free the upper sash. If your windows, like these, were previously fitted with sash replacement kits, there won't be any beads. Simply press on the jamb liners and pull the top of the sash forward. Then pull one side of the sash against its face of from the parting beads.

2) PRY OFF THE JAMB LINERS If the window frame was fitted with vinyl or aluminum parting liners, use a flat bar to pry them free in the case of an original window. In most any remaining wooden stops from the window frame. Leave the interior and exterior cranks intact.

3) PREP THE FRAME Go over all loose and damaged paint and patch any holes or cracks with an exterior-grade wood putty such as the one from Elmer's or Minwax. Then sand the joints smooth and prime and paint the surfaces.

4) REMOVE THE OLD SASH WEIGHTS If the original sash weights are still in place, take this opportunity to remove them from their pockets and install behind the window frame. Unscrew the access panel on each side jamb and pull out the weights.

Parts of a Window



watch
online

Tightening a screw into the sash weight access panel. See the video at thisoldhouse.com/tutorials



5) PREP FOR INSULATION Turn the polyurethane foam. Because it's more effective at blocking air than blocking moisture, Minicore foam only low-pressure extrusion expanding foam intended for windows and doors. Anything else will bow the frames and keep the sash from working. First, pull out any existing fiberglass in the weight pockets. Then bore 3/8-inch diameter holes one near each end and one in the center down through the sill and up through the head jamb.

6) SPRAY IN THE FOAM Shoot the expanding foam into the holes until it begins to foam out. (There is no escape commercial system, but you can do the same job with foam from a can, like Dow's Great Stuff.) Also spray foam into the sash weight pockets in the side jamb. Allow the foam to harden for at least 6 hours, then break or cut it off flush before replacing the sash weight pocket panels.

7) CAULK THE OPENING In preparation for installing the window, apply an elastomeric caulk to the exposed inner face of the exterior casing or to the blind stops on the top and sides of the frame. Also apply two continuous beads of caulk along the window sill.



Replacement Players

Little full-frame windows, which are designed for new construction replacement windows are made to fit into existing window openings. They're available in dozens of standard sizes, from as narrow as 12 1/2 inches to as wide as 60 inches, and come in wood, vinyl, fiberglass, vinyl-clad wood, and aluminum-clad wood.

There are three basic types of replacement windows: casement, double-hung, and full-frame. Each has its own set of replacement styles that fit into the existing opening and

have their own set of replacement parts. Including jamb liners and sash. The liners are fastened to the side jamb of the window opening, then the sash is inserted between the frame and the jamb. The sash weight is then inserted into the jamb and secured.

An insert replacement window consists of a fully assembled window in a ready-to-install secondary frame. Sometimes called a pocket window, an insert replacement slips into the existing opening and is

then fastened to the old side jamb. Because you're adding new jamb and liners, the glass area will be slightly smaller than it was before.

Full-frame replacement windows are similar to insert windows, but they have complete frames that include headjamb, sidejamb, and jamb. These are the only option when the old window frame is rotted or missing. To install these, you must strip the window opening down to its rough framing studs and out.



HOUSEWORK SKILL
Learn how to measure the space of a window for a replacement window. Workshop p. 100

8 | INITIAL THE WINDOW Starting from inside the room, set the bottom of the insert replacement onto the sill, then flip it up into the opening. Press the window tight against the exterior casings or blind stops.

9 | FASTEN IT LOOSELY Hold the window in place with one 2-inch screw driven loosely through the upper side jamb and into the framing. The screw should be tight, but enough to allow the window to operate. Close and lock the unit.

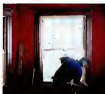
10 | SHIM AS NECESSARY Adjust the unit by inserting shims under the sill and behind the side jambs until it is centered in the space and opens, closes, and locks smoothly. Measure the window diagonally from corner to corner; the measurements should be the same. When the window is square, screw in place through the predrilled holes. To avoid bowing the frame, slip a shim behind the jamb at each corner, then screw through the shims. Trim the shims flush with a utility knife.

11 | CAULK, PRIME, AND PAINT From the outside, measure the gap between the window frame and the casing. Fill gaps less than 1/2 inch wide with elastomeric caulk. Anything wider must first be stuffed with foam rubber backing rod. On the inside, fill any gaps around the window with minimally expanding foam. Finish up by reinstalling the stops or adding new ones. Then prime and paint or stain the interior of the window sash and frame.

Measuring for Replacements

The most important step in the window replacement process happens long before installation day: It's when you measure the dimensions of the existing window frame to make sure you order a replacement unit that's the right size. Here's how to do it:

- Start by measuring the inside width of the old window frame joints to joints at three places, across the top, middle, and bottom. Write down the smallest of the three measurements.
- Next, measure the frame's height from the top of the sill to the underside of the headjamb at three places: at the left jamb, in the middle, and at the right. Again, record the smallest measurement.
- Check the squareness of the frame by measuring the diagonals from corner to corner. The two dimensions should be the same. If the frame is out of square by 1/2 inch or so, that means the replacement can be shimmied to fit, but if it's more, you may require adjustments to the frame. If the frame is so out of whack that a square replacement wouldn't look right, you'll need a full frame replacement.
- Finally, use a square tool to determine the slope of the sill, since replacement windows come with a standard sill angle. (To learn how to do this with a ruler and square, turn to Workshop p. 100.) ■



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STEP-BY-STEP
WEEKEND
PROJECT SERIES



Laminating a Countertop

BY BARBARA SAWYERS PHOTOGRAPHS BY KELLEN SMITH

OUR PEOPLE give us a little room to work here. Because we'd like to fold the laundry without having the detergent drip all the detergent into the clean laundry, and we can't find a place to lay out the pants of those "some assembly required" projects. Please, we beg of you, give us a proper countertop.

We're not kidding out for grumpy-sore that for the dream kitchen. All we really need is some sturdy, clean, handsome, a surface that can serve its purpose simply and with style. Laminates is inexpensive, comes in hundreds of designs (even to mimic that out-of-the-budget granite), and when glued onto particleboard makes a super-convenient work surface. At The Old House technical editor Mark Pomeroy shows us the following pages, it's easy to learn what you need to get a countertop, cabinets, or appliances in a kitchen or workroom in one quick weekend. With that kind of savings, we'd really be able to spend our money on something else.

Or call for more laminates by Wilsonart. It's per square foot, wilsonart.com. Cabinet from Orange County through John Window Corp., johnwindow.com.

COST:
\$275 to \$300

TIME:
4 hours

DIFFICULTY:
Moderately easy. Though
gluing laminates to keep
them from separating
requires attention,
and working with a
router requires practice.

countertop overview

ALUMINUM COUNTERTOP INSTALLATION is basically a grade-school cut-and-paste project with large "You build the substrate, cut out the laminate, and glue the two together with contact cement."

Starting with the proper substrate creates a good foundation for the countertop. Porcelainboard has a uniform, clear surface perfect for accepting the contact cement and allowing a smooth finish. Unlike a solid, it doesn't come any thicker than 1/4 inch, which isn't enough for a countertop. You'll need to double up at the edges to create a 1/2-inch-thick end and raise the counter higher.

The CMH has precast stainless-steel disks prefit to porcelainboard to MDF, which is less susceptible to expansion and contraction from water. However, it makes sure to paint the underside of any count or that will sit over a dishwasher, washing machine, or dryer with a thick coat of primer to protect against moisture.

Finishing the laminate to the porcelainboard is the trickiest part of building a counter. Two surfaces coated with contact cement bond the moment they touch. "You have to have both parts lined up perfectly," says Tom. "Because once it sticks, it's stuck." Separating the two surfaces with a roller will give you the chance to line everything up before you achieve the parts.

There's a sequence to the way you laminate any counter in order to hide visible edges. The side edges go on first, then the front edge, and finally the top. Each piece of laminate should be cut longer than the surface and trimmed flush with a small router and file before the next piece goes on, ensuring a tight seam at all corners.

Matching laminate edges is a very difficult, which is why you should plan for a new seam as possible if it is unnecessary (a without a shaped surface, like the one shown here), your best bet is to laminate two pieces separately, then join them. You can also choose to make a backplash piece, which attaches to the back of the counter before you round the whole thing to the cabinets or the wall.

tools

- > CIRCULAR SAW
- > CABLE GUIN
- > DRILL/DRIVER
- > SPRING CLAMPS
- > TERN ROSTER (like a wedge-cutting bit with a ball-bearing guide wheel)
- > CHISEL
- > PAINT ROLLER with 1/4-inch nap roller cover
- > FLAT SINGLE-EDGED MILL FILE to shear laminate edges
- > 3-INCH RUBBER J ROLLER



shopping list

LAMINATE Shop at home centers or through kitchen designers (allow two weeks for delivery). Laminate ranges from about \$2 to \$5 per square foot, but they come in 4 by 8 or 5 by 12-foot sheets. Because you want as few seams as possible, choose a size that will yield the longest seamless length possible. Laminate is resistant to moisture, but the contact cement will require the surface of the counter to be dry and the laminate to be well.

1/4-INCH PARTICULATE BOARD is the base of the substrate on which you will glue the laminate. A 4 by 8-foot sheet should be enough to create all the pieces needed for one cabinet. 25-mil-thick countertop acrylic and backplash vinyl sheeting.

WATER-RESISTANT WOOD GLUE to glue together pieces of the substrate. Look for PVA woodglue rated Type II.

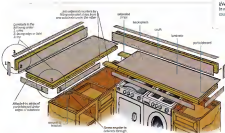
PRIMER to protect the porcelainboard from moisture.

NEOPRENE CONTACT CEMENT Look for a water-based latex VSC product. After this is applied, wait one week before dry-laying the laminate. It will bond to a wet substrate. The glue will cover about 250 to 300 square feet.

1/4-INCH DOWELS to locate laminate off the porcelainboard substrate. Place one 1/4 inch long dowel for every 12 inches of countertop. Cover compressed with a seal.

CLEAR LATEX CAULK to seal and waterproof seams between the countertop pieces and to seal gaps where the counter top meets a wall.

1/4-INCH and 1/2-INCH BECK SIZES are suitable for the substrate and will attach the countertop to the cabinets.



FOR STEP-BY-STEP INSTRUCTIONS, TURN THE PAGE

ILLUSTRATION BY GREGORY HENRIC

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step by step

Build the substrate
Use a circular saw to cut a sheet of particleboard to fit your countertop, adding a 1-inch overhang to edges that don't sit on walls. Cut 4-inch strips of particleboard to line the underside of each edge. Glue and screw the strips to the sheet with 2½-inch screws (#8x11). Make sure the edges are perfectly flush.

If you will be connecting two countertop sections, use and arrange the steps on one piece to locate/beyond the end of the sheet and under the adjacent piece (see Assembly). Use shorter strips on the other piece to accept the extensions.

Dry-fit the countertop sections before laminating them and make sure you can easily apply sand the seams with 200-grit paper to correct any misalignments.

TIP To make visually tight seams between two particleboard/places, back-cut the end of one piece by killing your circular saw blade to 45 degrees.

BUILD YOUR SINK
Laminated sink material will not work when using laminated material. Use a sink made of solid material. See page 100 for more info.



Get the laminates

Carefully unroll the laminate and lay it on a flat surface. Measure the length and width of the counter and mark these dimensions on the face. Using the sheet to a straight length of lumber at each end. Lay the counter up with the edge of the laminate.

Use a fine router fitted with a laminate cutting bit to cut the sheet along the mark. Use the router as a guide for the router bit. Always use laminate good side facing up. Leave the side strips—1½ inches wide and an inch longer than the side—flush to the existing joints. Cut these strips, leaving being glue to the laminate (#8x11). Place the laminate to each end of the edge (to account for the router bit's width).

TIP When using a router cut from left to right as you face the edge (and the tool supports), to keep the bit from pulling.

Adhere the side pieces
Using a chip brush, apply contact cement to the back of the laminate strips for the counter's short sides and also for substrate sides. Wait 24 minutes, then seal the sides again.

Allow the contact cement on both parts to dry to the touch. Take a strip and position it over the side without letting it touch. Make sure it is evenly aligned all around. Working from one end to the other, stick the laminate to the substrate, smoothing it as you go (#8x11). Press the laminate firmly with several pieces of a roller (or compressed air) to remove the edges, which could trap the laminate.

Using the router turned on its side, cut off the overhanging edges of laminate, running the bit counterclockwise around the edges (#8x11). Touch-up uneven edges with a file or sandpaper, rounding the flat top of the particleboard and pushing away from the face state.

With the sides done, glue and trim the front edge.

TIP Don't let the router linger in one spot or it will burn the laminate. Keep the bit free of obstructions by occasionally unplugging the router and setting the bit to rest.



Create a backplash

To make a backplash, cut a piece of laminate 3/4 inch thick and as long as the counter. Don't double up the wood. Laminate this piece, adhering first the short sides, then the wide face and finally the top.

Using a cork block, run a bead of clear caulk along the bottom part of the base of the backplash. Align with the back side of the countertop surface, making sure the bottom edges are flush. Using a cork block, run a bead of clear caulk along the top edge of the countertop every 6 to 8 inches. Drive 1½-inch screws through the particleboard (#8x11). With a wet finger, smooth any caulk that oozes out.



Laminate the top

Turn the laminate into a flat surface. First, contact cement onto the backside, using a paint roller, spread the adhesive over the entire sheet. Roll the excess over the substrate. Pour more contact cement onto the substrate and using the roller spread it out until it is fully covered (#8x11). Allow the contact cement to dry to the touch on both sides.

Lay wood strips or dowels across the substrate every 12 inches or so. If by the time the adhesive is flowing, roll down and seal the underside of the sheet without allowing it to dry.

Starting in the middle, remove a strip and press the laminate down. Working out from the center, continue removing strips and pressing the sheet into place (#8x11). Until the whole sheet is covered. Roll over the counter with the J roller, using firm strokes.

Using the fine router, cut off the excess around the perimeter. Then use a router bevel with a bit held the file at a constant 45-degree angle to the edge, and carefully push it away from you along the entire perimeter without changing the angle.



Attach the counter to the cabinet

Dry-fit the countertop pieces. First lay down the piece with the extended strips, then fit the second piece on top (#8x11).

Remove the counter. Run a bead of caulk along the tops of the cabinets and the backs of the counter where the two pieces will meet. Lay the counter on a piece and then install the cabinet. Drive 1½-inch screws up through the mounting blocks in the cabinet doors and into the counter (#8x11). Drive 1½-inch screws through the extended strips to fasten the two sections together.

Wipe away the caulk that squeezed out at the seam with a wet finger to create a smooth seal between the two pieces of laminate. Then caulk around the countertop directly meets the wall and smooth that bead for a finished look.

ONLINE
BOOKS

Watch a video of laminating a countertop and step-by-step video instructions for creating a sink at [thisoldhouse.com/reference](http://www.thisoldhouse.com/reference)

buying guide

One aside: the most attractive feature of choosing a laminate countertop is the sheer volume of colors and designs available. Fake stone to wood grain, glossy to matte, the hundreds of patterns and finishes will surely inspire the visionaries through all the shops to choose a few of our favorites.



Faux Metal

Imitation Chromium Metallic (28) \$2.37* veneer.com; Quilted Copper Powder (38) Brushed (38) all \$2 formica.com; Powder Brush \$2 wilton.com



Faux Stone

Eco Stone, Talcum Classic Rock \$2.26 \$2.50 \$2.26 veneer.com; Santa Fe Stone \$2 formica.com; Decade Mineral and Copper Black \$3 and \$2 wilton.com



Decorative Designs

Wayback 100 Seeds both \$2.26 veneer.com; Design Core Boomerang Black, Plaid, and Hardwood Blue all \$2 formica.com

Organic Patterns

Painted Woodlands Oak Star both \$3.26 veneer.com; Karibou (38) \$2 wilton.com; Caribou (38) \$2 formica.com; Extreme Green Bamboo Blue Mountain Earthlight Grains Series (38) all \$2.26 veneer.com



Faux Wood

Latex Wood Natural Core both \$2 formica.com; Great Minggong (38) both \$2.26 veneer.com; Little Walnut Ruffian Core both \$2 formica.com

*All prices per square foot



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Cinnamon Surge Gum

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In fine detail

The 1910 house had strong,
simple moldings and millwork.
A remodel turned it into a full-blown
Arts and Crafts beauty

By Joseph D'Agnese
Photographs by Nathan Kurlman
Produced by Colette Scanlon
Styling by Megan Clarkin

OLD MEETS NEW

Quartz countertops and cabinets were modernized, with matching panels to crown the 10-foot Dutch Door bridge. Stained glass, distressed panels on the island, and 40-year-old hanging lamps—made and handcrafted.



The urge to feature one's nest is a basic human instinct. But while many people choose to go green when it comes to owning a home, it helps to remember that some are cozy and small. Regine Solp knows that well. A few years ago, one month pregnant with her third child in three years, she and her husband, Sam, a commercial florist in Chicago, were living in eight quarters with three two children. The couple knew they needed to buy a bigger place, where they and their growing brood could spread their wings, or at least the kids' legs. But Regine's nervous moving just seemed like too much of a hassle at that point.

Inexplicably perhaps, the perfect up-size moment at work when here and there peered with pleasure at a house her husband was looking at that very weekend at East Wille street, the gracious North Side neighborhood where the couple grew up. Sam had taken the exception with his employer's place. Regine, who works for a real-estate development firm, scurried through the pictures of a circa-1930 American Four-square with a dark-stained exterior. Inside, everything of hers seemed to be covered with rich, wall-to-wall carpet. Dark 1970s paneling covered the dining room walls. The galley kitchen was a jewel, and much of the original oak trim had been buried under coats of paint. Still, there were touches of grandeur that whetted her. Regine knew some of the country-style and character on adobe finished windows. A staircase that, beneath layers of grime, displayed the light grain of a half-dozen of fine-quartered oak. Regine's husband had heard her words. "Buy it."

Her decision may have seemed preposterous, but her feelings didn't change when she saw the house in person. Sure, it needed work, but there was so much to work with! One of the best parts to the house's lineage was located above their heads in the dining room, once the most ornate room in the place. Where the ceiling was so faded, which lost the room a feeling of warmth and elegance. With her long history in the real estate business, Regine had developed an instinct about houses. This one, she felt, was crying out to be a full-fledged Craftsman, which delighted her. A major fan of the style, she had, over the years, amassed a sizable collection of signed Shiloh furniture. The Solps knew enough about ornate or antique designs to know that, as Regine put it, "nobody does 'nasty' anymore." Many people feel that too much wood can overheat a house, making it seem too dark, too claustrophobic, too...woody. Regine scoffed at the idea. Chippy painting was one thing, quarters oak was another. In the dining room at least, they would have closely to the American Four-square's stylized room. "We couldn't have done anything else," Regine says now. "I feel strongly that you have to design for the house."

But to take the house's voice to heart, they had to step away from the obvious. And to make room for their growing family, they needed to figure out a way to greatly assist an additional 900-square feet into the 2,000-square-foot house. Over the course of a year, with the helpful leadership of Mary Beth Shonkster and Todd L. Arneson and contractor Marlon Pines, a Toledo-born woodworker with



TOP: The dining room is colored using out the full-scale Craftsman-style woodwork and trim. The windows align the surrounding rooms.

ABOVE: The new entry porch has stained hardwood flooring and the deep blue center of the porch. The rest of the porch is painted in a light gray.



FOR 100% The highest level of craftsmanship is shown in the detail of the quarter-round woodwork. The quarter-round is a replica of the original. The quarter-round is a replica of the original. The quarter-round is a replica of the original.

FOR 100% The highest level of craftsmanship is shown in the detail of the quarter-round woodwork. The quarter-round is a replica of the original. The quarter-round is a replica of the original. The quarter-round is a replica of the original.

FOR 100% The highest level of craftsmanship is shown in the detail of the quarter-round woodwork. The quarter-round is a replica of the original. The quarter-round is a replica of the original. The quarter-round is a replica of the original.



"Nobody does 'oaky' anymore, but you couldn't have done anything else. I feel strongly that you have to design for the house."

—JESSIE STEIN, HOMEOWNER

a 100-year-old home renovation, the Sclips transformed the plain, paneled palace into an authentic early 20th-century house that celebrates the glory of old wood.

Technically, the Sclips' architect was Graham Anderson Probst and White, an architectural firm that was a successor to Burnham & Root, which designed many historic structures in Chicago, including the Wrigley Building. But since the Sclips were old hands at renovation—they had previously rehabbed an 1880s house in the Ravenswood section of Chicago—they did much of the design themselves, using hand-drawn sketches and design software. The architects polished up the Sclips' work and rendered the official construction drawings.

The first project the couple tackled was re-creating a gracious front entryway. The original entry porch had long ago been enclosed, blocking sunlight to the interior and robbing the home of its most lovely facade. The new porch, created by Pless and his workers, includes a stained beechwood ceiling, sturdy wooden posts clad with tile, and a stucco finish that mirrors the new entry to the rest of the house.

The balance of the job would be far more complex. The Sclips bought the just a bit more space at the rear of the house. They wanted to expand the 10-by-10 foot kitchen, insert a breakfast nook, simplify the staircases with a mudroom, and add a more spacious family room that could accommodate a large-screen TV. Upstairs, the couple had their sights set on a true master suite, complete with a walk-in closet in the bedroom and a double vanity and separate shower and tub in the bath. The only way to pull all that off was to demolish a family-room addition that had been tacked on the back of the kitchen and build a two-story, 900-square-foot basement that would square off the rear of the house. That meant digging a new partial foundation. The architect gave them plenty of room for the massive work, but the kitchen called for some tough decision making.

TOP RIGHT: The door to the front porch opened down original light-colored oak to the new family room. **BOTTOM RIGHT:** Access to the dining room, set up as a reading nook, showcases the new mantelpiece and built-in bookshelves. The new mantelpiece and built-in bookshelves are original. A few original items were kept. **OPPOSITE:** The new breakfast room featuring a built-in breakfast table and a family room addition built on a new foundation.



No matter how they sliced it, the kitchen was going to be long and narrow—especially if they retained an island in the middle of it. The Sells contended doing away with the staircase between the kitchen and the family room as they gave space, but simply couldn't do it. "The house would no longer be a foursquare if we did that," says Regan. The decision was crucial. A back entrance, leading up from the mudroom, actually improved traffic flow between it, and they'd be left with a great room—a combined kitchen and family room—as the star. Some people would have cheered at the notion, but Regan, making peace with her Regan cold, "I hate the idea of having someone putting away the dishes while I'm watching TV with the kids," she says. So the staircase stayed. The kitchen designers would have to work their magic to make the place feel larger.

"It was a challenge," recalls Chicago designer Todd Adams of reconfiguring the kitchen. "We had to fit in an island, a breakfast room, and appliances—and new, modern appliances take up a lot of space. The staircase was right where I might have placed cabinets." Building a simple pantry at the end under the staircase helped greatly.

When the Sells first bought the place, they expected to salvage a lot of materials. Though the seller had removed every original detail, such as pocket doors, floor trim, and hardware, they had tucked them away upstairs. But when the Sells took possession on closing day, they were greeted by an empty attic. "The owner thought he was doing us a favor by clearing out all the 'junk,'" she says with laugh. Despite the initial setback, the couple persevered. One pair of pocket doors survived the purge, and Plewa's crew took their cues from the home's surviving woodwork, staining, cutting, and crafting needed trim-on-site. A little web surfing and scripping helped Regan sound out the details. They selected fixtures, paint colors, fabrics, and hardware to complement the architecture. The resulting house is far from dark and drab, happily because Regan chose a color palette that ate off the wood nicely. Moss-green runs up the staircase, rich blue cascades over the chair rail in the living room, and gold adds life to the family room.

The kitchen spaces where Queen's Secretary, a leading force in the American Arts and Crafts movement, meant by her rooms. "By the owner and hand do all things manual." Selling custom-made white oak cabinets are enhanced by a hand-carved oak table, antique mirrors, hand-painted copper light, and dark slabs of green granite.

Overall, the addition doesn't seem to have altered the house's proportions as it did. The three Sells children are now happily at home in a nest that seems built with them in mind. With the exception of modern appliances, the house looks much as it might have in its heyday. "It's one of the warmest houses I've ever been in," Regan says of the final result. "We certainly got what we wanted: a comfortable place with great little nooks. It's not just a house, it's a home." ■

STRETCHING A FOURSQUARE

The original 1920 house ended along the living room front wall, a peninsula addition wrapped around the kitchen back wall area. The new two-story 182-square-foot bump-out allowed for plenty more armchairs and a large kitchen island, plus a smaller table space. A side wing not of stone blocks helped the house retain a traditional foursquare layout with two rooms front and back. The beauty porch was also new.



▲ ABOVE Intersecting nooks allowed heights above the new addition into the mudroom. Dining area is reminiscent of the new

back deck steps down to a brick paver patio surrounded by a new stone wall—perfect spot for dining outdoors with family and friends.



▲ LEFT The bump-out over the new mudroom back porch allows for strong ceiling and gives added height and interest. **TOP AND ABOVE** The master features a Japanese Craftsman look, with a picture-making bed that has a prominent box spring. Kitchen table is new and modern.



Our website tells you how to enter the contest at www.houzz.com. Enter today!



CROWN JEWELS

INSTALLING MOLDING WHERE WALLS MEET CEILING ADDS CHARACTER AND VALUE TO YOUR HOME. BUT THE VARIETY OF MATERIALS CROWN MOLDING COMES IN CAN BE DAUNTING. HERE'S HELP SORTING OUT WHAT WORKS WHERE.

THE ARCHITECTS CERTAINLY may not have been the first to decorate their interior walls and curved walls (that was probably the Egyptians), but they did make a lasting impression. Their classical molding profiles and proportions—inspired by the parts of a temple column—are still in use today, with crown playing the lead role at the top of the wall.

In the modern age, the classic look endures but has been tweaked, but today the design kit crown has never been stronger. Installing it is the most varied architectural upgrade, means to give plain walls depth and formality. "I see it on so many jobs I do," says Tim Olf House

general contractor Tim Olf. "Crown molding changes the whole look and feel of a room."

But homeowners choosing their own crown are often cramped when faced with the variety of materials available, from traditional plaster to high-tech flexible polymers. On the following pages, we'll break down the crown and explain which type is right for your room. Then, when it comes time to shop, your most difficult decision will be whether you prefer the soft curves of an S-shaped sign or the heavy shadows of toothlike dentil as the perfect finishing touch.

BY JENNIFER STIMPSON • PHOTOGRAPHS BY VICTOR SCHNIGER

plaster

Best for: A grand interior, typically with plaster walls and a budget to match its high style. • Pros: Cast into elaborate profiles—some of which can't be rolled out of wood—this lightweight material can create intricate shadows. Plus, it won't shrink or warp. • Cons: There's no such thing as off the wall here. All plaster crown is made to order and costly. It's also very heavy and easily cracked. And needs to be buffered on the back with fresh plaster for installation—not a DIY-friendly job. • From left: Grapes, no. \$65* (over-size quarter-round vinyl, \$23); insulated bulk up \$22; rope dentil, \$7; toothy dentil, \$5; athletic-style Pink, type-park.com.

*All prices per linear foot.



solid wood

Best for: Most moldings
Pros: Like plaster, natural wood is an additional material that is hard to imitate. Solid wood mites and curves into crisp edges, and hand-applied oils and waxes bring a beautiful, lustrous and grainy patina. Solid wood is a heavy, wood comes in angled, simple stock profiles, more creative details can also be achieved by embossing wood components and applying wax.

Cons: Cutting and installing wood molding can test even the most skilled carpenter and the material can warp and swell with changes in the weather.
Price left: [1] Crown molding, \$5 (www.millworkings.com)
[2] Molding, \$10 (www.millworkings.com)
[3] Hand-carved wood molding, \$10 (www.millworkings.com)
[4] Crown molding, \$10 (www.millworkings.com)
[5] Crown molding, \$10 (www.millworkings.com)
[6] Crown molding, \$10 (www.millworkings.com)
[7] Solid corner, \$10 (www.millworkings.com)
[8] Crown molding, \$10 (www.millworkings.com)
[9] Crown molding, \$10 (www.millworkings.com)
[10] Crown molding, \$10 (www.millworkings.com)

mdf

Best for: Rooms where brands need to be consistent
Pros: As a synthetic material made from dust and resin, straight medium-density fiberboard (MDF) is a stable and low-cost alternative to solid wood. It comes in wide ranges of stock profiles, some with natural wood-grain suitable for staining. **Cons:** Without veneers, MDF must be painted. Cutting and installing poses the same challenges as solid wood plus straight MDF resists to dent or scratch.
Price left: [1] Crown molding, \$10 (www.millworkings.com)
[2] Crown molding, \$10 (www.millworkings.com)
[3] Crown molding, \$10 (www.millworkings.com)
[4] Crown molding, \$10 (www.millworkings.com)
[5] Crown molding, \$10 (www.millworkings.com)
[6] Crown molding, \$10 (www.millworkings.com)
[7] Crown molding, \$10 (www.millworkings.com)
[8] Crown molding, \$10 (www.millworkings.com)
[9] Crown molding, \$10 (www.millworkings.com)
[10] Crown molding, \$10 (www.millworkings.com)

PARTS MAKE A WHOLE

Unlike plastic or polyurethane, the new 31-hour wood crown profiles can allow carpenters to create out of a single board. By using high-style crown, the installation is easier to create a smooth, less noticeable transition to the crown in the top. The crown can include fluting, cove, and a flat top and is used in the decoration. Support blocks and a sliding hinge lock behind and between the molding pieces to tie it all together. Shown: Crown Reveal from White Birch Hardwoods, \$34, white oak case.

A MATTER OF PROPORTION

In crown molding, it is not so much the width of the crown as the height, a crown has a negative effect. "A molding that is too small can make the room feel too heavy," says John Johnson, owner of White Birch Hardwoods, a molding manufacturer, "whereas a molding that is too large can bring the ceiling down and make the room feel closed in." The general rule of the crown (the distance from the ceiling to the edge of the crown's lower flange) for various wall heights are as follows: For 8-foot ceilings, the crown's drop should be 2 to 5 inches; for 9-foot ceilings, 3 to 10 inches; for 10-foot ceilings, 4 to 12 inches; for 11-foot ceilings, 5 to 15 inches.

WILD CARD
Crown molding can be used to add a touch of drama to any room. **Workshop**, page 103

[illegible][illegible][illegible]

Be it for bathrooms, exteriors or anywhere else where moisture is a concern and a simple profile is appropriate. • Price: The plastic polymer (vinyl) product won't warp or rot; no matter how wet it gets. • Colors: The way PVC is made limits color options and precludes creative design choices. Its slick surface is difficult to pattern but it lends itself to a desire to cover the plastic sheet. • A Few Facts [6] Some manufacturers claim up to 80 years of service life. Others say 70 years.



ONLINE
BONUS

For more on matching building profiles to the style of your house, and to see a simply ring set how to select crown like ours, go to thelibrary.com/interiors.

SAVE

Easy ways to cut costs, not corners, on some of the most high-end home-improvement projects

WHILE YOU

By Josh Gerschlager
Illustrations by Adam McCauley

SPLURGE

You probably won't hear it from your landscaper or tractor, stone countertop installer, or home-theater designer, but there's almost always a less expensive way to get what they're selling. And we're not talking about settling for something that looks cheaper, or trading off one thing you want so you can get something else you want even more. To prove our point, the editors of *This Old House* asked the pros to share their money-saving secrets for getting top-shelf looks without spending top dollar on some of the most popular—and notoriously expensive—home-improvement projects. With these 11 tips, you can have your granite and actually afford to eat off it, too.



1 The Splurge: Pro-Style Appliances

The Save: Look for lower prices recycling centers in well-heeled آپارات. A growing number of these are such garbly used-high appliances from the likes of Viking and Sub-Zero. "When a multifamilyer buys a house, he or she includes the kitchen, and that usually means replacing the perfectly good appliances that the previous owner provided at a few years' cost," says Steve Pellegrini, president of the nonprofit salvager Green Demolition, which has stores in Newark, Connecticut; Barbet, New York; and Haverdale, Pennsylvania. He has hundreds of ranges, cooktops, wine fridges, vent hoods, and warming drawers that have been donated by homeowners or dealers. Donors get a tax write-off, and you get a deep discount on the resale. Just keep in mind that these appliances come without warranties, so have them checked out—and possibly tuned up—by a repair pro. Still, if you're getting a mostly new Viking range for thousands less than usual, you'll come out very ahead.

You Pocket: (50% to 75%)

2 The Splurge: Stone Countertops

The Save: Knock \$150 or more off the \$2,500 average installed price of a granite countertop simply by choosing a square-edge version of a bullnose or other curved detail. "The owner replaces the profile, the more grinding and polishing we have to do, sometimes by hand," says Rick Herten, of Herten Marble Design in the Los Angeles area. A heavy Roman edge could run \$15 per linear foot more than a square, he says. Also avoid rare blue colors, which come up to three times more than grays, whites, blacks, and earthy tones. For small jobs, such as a kitchen island or bathroom vanity, proceed directly to the nearest trim or your local stone yard. Scraps left over or repurposed from big jobs also sell for half of what it would cost to clear the same-size section out of a virgin slab, including fabrication and installation, says Kirk Lytle, owner of StoneChang Granite in Adams. "Using a remnant piece, we can get granite in a powder room for about the same price as limestone," he says. Just be sure to factor in standard cabinet depths—lengths can vary, but don't get anything shallower than 25½ inches (top kitchen cabinets, or 21½ inches for vanities).

You Pocket: (20% to 50%)

Knock \$500 off the cost of a \$2,500 granite countertop simply by choosing a square edge instead of a curved detail.



3 The Splurge: Paneled Watercoloring

The Save: Custom wood-paneled watercoloring in an average-size 11-by-13-foot dining room could easily cost \$6,000 or more. But a skilled carpenter can create much the same look for about \$1,200 with some well-placed rock moldings from a lumberyard. Use clear red-oak trim the top of the windows, mirror picture rail molding in the middle to mimic round panels, and keep your ceiling broadboards, says architect Carol Karch of Redford, New York. "Then paint the clear rail and the wall and molding below it in the same color of ammonia, and it'll look like woodwork."

You Pocket: (50% to 75%)

4 The Splurge: Plantings for Privacy

The Save: If you're shopping for plantings to screen an unsightly air-conditioning compressor or to shield you from your next-door neighbor, you can prune the cost of trees and shrubs by buying container-grown specimens instead of single by seller—but much price-buffed and bushier plants. A 3-foot oak leaf hydrangea that's been grown in the ground, for instance, costs about \$75, while a 3-gallon in a container is about \$30. "The container plant will be fuller and bushier than the one that's had the root ball dug up and wrapped in burlap—and will usually outgrow it," says Chicago landscape architect Douglas Floetz. The savings multiply if the shrubs are professionally placed, since many landscapers base their fees on the cost of the plants.

You Pocket: (50% to 50%)

5 The Splurge: Copper Roofing

The Save: A copper roof is perhaps the ultimate luxury—especially new, when copper sheds up to as much as \$3 per square foot. Capping a new bay window in copper typically runs \$1,500 to \$1,800. But you can knock up to \$1,000 off that by using a pre-finish roof. Order them through window installers and online at decorconline and proforma.com. You get the same 16-ounce material in with a custom job, but the savings are in the labor, because a pre-finish system can be installed by a general contractor or a window installer in about an hour. It could take a specialty installer or metal smith more than a day to shape, cut, and hammer individual copper sheets or shingles into place.

You Pocket: (25% to 40%)

6 The Splurge: Showpiece Tub

The Save: You can save about \$1,000 on a new tub that's better a gorgeous focal point for your master bath if you forgo the jet, says Lou Beach, California, kitchen and bathroom designer Dawn Jones. "A few years ago, everyone had to have a whirlpool, but now people realize that a simple soaking tub is preferable, because it's so much easier to keep maintained." (Even if you don't use them, jets must be routinely flushed with bleach to keep them clean.) The same 6-foot drop-in soaker tub from Kohler, for instance, costs \$1,285 without jets, compared with \$1,285 for the whirlpool model. Pretend to look for a cleaned bath for refilling and an overflow valve at least 16 inches above



For a custom picture window at half the price, gang together stock double-hungs.

the only floor in the house will cover your losses. Both are hallmarks of the original student design for all. Tack up a vintage one, refinish and ready to install, for \$1,200 or less as a salvage yard price you.

You Pocket: (50%)

7 The Splurge: Marble Subway Tile

The Save: Typically the smaller the tile, the bigger the pricing when you buy by the square foot. But you can cut the expense of a subway-tile backsplash or bathroom wainscoting by as much as half if you get 12-by-12-inch tiles and cut them down yourself, says Trumbull, Connecticut, tile contractor George Bortone. Joistone's inventory room is about \$10 a day, so Bortone doesn't cut, so he prays to the dimension you want, and find the tile through the where Carver marble, that 12-by-12 will cost you about \$12, compared with \$17 per square foot for the smaller 3-by-6 inch double-dup tiles. A horizontal running bond pattern is the traditional layout for subway tiles, but for more of the movement and high-end look, consider these vertically stacked.

You Pocket: (50%)

8 The Splurge: Picture Window

The Save: Before the cutting of just about any window replacement and you have all sorts of goop, ready-to-order picture windows for \$4,000 and up. But you can achieve much the same results for about \$1,000 by simply glazing together two double-hungs, which come in large as 4 by 7 feet and are offered in an array of double-light configurations to match your home's existing windows. "You'll get the same view and the same natural light," says New York City architect Denise Wadell. "Plus, you'll be able to replace the double-hung to get back in," he points out, which you can't do with the nonreplaceable units in most picture windows.

You Pocket: (50%)

9 The Splurge: Dramatic Hardwood Floors

The Save: A bar stool in floating right now in dark woods. "They look sophisticated and create contrast against painted trim, carpets, and furniture," says architect Carol Karch. But naturally rich-looking woods like mahogany and walnut can be prohibitively expensive. Karch recommends buying an inexpensive oak stained and paying the installer an additional 25 cents per square foot to apply an ebony stain. You can buy lower-grade flooring (Nair for 2) instead of the first floor, and save another \$1 or more per square foot in materials. Just be sure to order slightly more than the standard 90 percent overlap in case any of the boards are warped or have other surface defects that could be accompanied by the darker stain.

You Pocket: (50%)

10 The Splurge: Closet Organization System

The Save: Having a closet company install a walk-in closet can easily run \$5,000 to \$10,000. But with clever planning, you can knock \$1,000 to \$1,000 off the job. For instance, most pane-grade wood or MDF systems consist of floor-to-ceiling modules with shelves, racks, cubbies, or drawers. Two-foot-wide modules provide the greatest variety of storage configurations, but if you go with 3-footers, you'll get away with one less component overall. That saves you costs, but not your storage capacity, says Mike Carson, president of Closet Works, a custom shop in Elmhurst, Illinois. If you install your own system from a kit, you can save another \$1,000 to \$1,000. The trick is to work with a well-board dealer with high-quality materials and good customer service. Diagram at eye-level, and, for example, will create a plan for you based on your closet's measurements and your specific storage needs.

You Pocket: (20% to 50%)

11 The Splurge: Built-in Media Center

The Save: You want to get all that fancy home-theater equipment the showman's dream, but you could easily cut your electronics spending by a large amount. In a whole room about \$12,000 if made of cherry or maple. A double door is an assembly of two thick kitchen cabinets. An 8-foot-long, solid-wood media center runs about \$6,000 to \$8,000, even with professional installation. Most configurations have a mix of standard 24-inch deep wall cabinets, open shelves, and vanity drawer boxes in the center, and double pantry cabinets on either side. From the start with matching crown moldings, filler strips, and base trim doors make a look like custom furniture. Better still, since you're putting the side room in a niche instead of hanging it on the wall, you'll be able to afford a big screen that even meets Super Bowl-worthy. A 30-inch-diagonal rear-projection TV is about 14 inches deep, but set into a built-in, nobody will know it's not a 4-inch glasser. Specify a built-in with a LCD built, because they don't need to be replaced like other rear-projection bulbs, says Steve Saravay, vice president for system design and engineering at Towner in Boston.

You Pocket: (50% to 50%)

On the Money
Consider these ways to save a remodel that isn't too much, and we have found the best way to save your money.



OPPOSITE: To refurbish the dining room fireplace, which had been stripped of its details (lower left), homeowners Ron Tanner and architect Richard Suckale removed the fireplace's surround, salvaged the mantel, and replaced it with a new surround (lower right). After the couple repainted the bedroom's walls (upper right), all created a lovely, period-appropriate haven by installing paint from cans returned to their local Home Depot store.



FROM ANIMAL HOUSE TO OUR HOUSE

A rowdy fraternity had totally trashed the 1897 brick row house. Then a pair of professors bought it and set about restoring its architectural integrity.

BY RON TANNER, HOMEOWNER / PHOTOGRAPHS BY TIMOTHY BELL / STYLING BY COLLEEN SODLEY

"THIS HOUSE WILL EAT YOU ALIVE."

That was the warning uttered by the real-estate agent I bought the roughed-up 1897 row house from—he also happens to be a licensed contractor. That was back in December 1999. The empty, three-story house, located on a corner lot in the Charles Village historic district of Baltimore, had suffered a decade's worth of abuse at the hands of a steady stream of out-of-control tenants who had stolen and fled lawsuits against it. Before that, the tough Queen Anne had managed to survive in its owners' and a century's worth of wear and tear while retaining some breezy charm. But the kids didn't really have any appreciation of that, taking a hit to the structure's bones and using the doors for dirt practice. The basement's cedar closet was ripped to pieces and thrown about with other remains of the last's destruction: torn-off shingles, ripped-out door hardware, and shards of broken casings.

Considering my complete lack of rehab experience, I had grave doubts about taking on the project. But I had gone house-hunting with my new girlfriend, Jill—we were both writing professors at nearby Loyola College. Drawn together by our love of learning, a sitcom, and old houses, Jill and I had gone Dumpster diving and flea-marketing together for when she said she had her own mother and could help. I thought, "Gee, this could be fun." We would end up getting married in this house, but not before seriously testing our relationship over missing tools, lead poisoning, and scuffed-up projects. My Bunko example: I had no idea what we were in for.

I bought the house in March 2000 "as is" because it looked as if it was essentially the 4,100-square-foot house was structurally solid and in a good neighborhood close to the university. I didn't want to lose out to other prospective buyers. "As is," though, meant inheriting a walk-in-closet full of illicit teen papers, three refrigerators full of leftovers, 16 empty beer kegs, a 20-foot bag, and far too many unfished and clogged toilets. And oh, did I mention the room full of garbage? To-the-calling-it-rage.

It took a month just to clean out the house, filling 79 large garbage bags and clearing 10-yard Dumpsters. Since it was a historic house, I was able to get a six credit from the city to help me bring it back. I thought that would be enough to hire all the contractors we would need, but a few galling people in so-called the floors, put in new windows, and against the plumbing and utility lines, I quickly started running out of money and, within six months' deadline to get the place up to code, time. Of course, I wouldn't find out a real match later that you can get contractors for those kinds of loan requirements, as Jill and I ran ourselves into the ground during the first few months trying to get everything to pass inspection.

Since it was off for the summer, I moved in once school finished up in May and started working 14-hour days, replacing the crumbling walls, stripping five layers of paint from the home's trim, and making yards of electricity lines to save light fixtures. I bought 10 how-to books and started up on the basics. The rest was just a matter of learning through trial and error—like the first time I missed places of pipes, and it happened before I could get it out of the bucket. Luckily, our Bunko-shed-connection slash friend Nicholas Green wanted to look out for us, so he let us pay him to come by and teach us how to do things like replacing porch joists and screwing a roller.

DISPOSABLE TOP LEFT

A salvaged stained-glass transom window over the front door is probably the only one left.

DISPOSABLE TOP RIGHT

The house's original glass transom window over the front door is probably the only one left.

DISPOSABLE BOTTOM LEFT

The house's original glass transom window over the front door is probably the only one left.

DISPOSABLE BOTTOM RIGHT

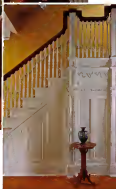
The house's original glass transom window over the front door is probably the only one left.

DISPOSABLE BOTTOM LEFT

The house's original glass transom window over the front door is probably the only one left.



The home's exterior features a mix of red brick and white trim, with a prominent corner tower.



Learn how to hire a professional engineer for your home's structural needs.



WHAT WE DID

Initiated in 2017, the house today is completely a new identity.

REMODELING COST: \$250,000

TIME FRAME: 1 year and counting

WHY WE HATED: Deteriorating walls, old plumbing, and old wiring. The house was in bad shape and we knew we had to start from scratch. We wanted to create a modern, open-plan living space with a clean, minimalist aesthetic.

WHERE WE SPUNGLING: Buying some really nice vintage-style lights and a late-20th-century hallway table.

WHAT WE'D DO DIFFERENT: Salvage all of the original woodwork and use it on the three-story porch. We would also have some modern lighting in the master bath, which has another window in its future now that we can do better thing.

BIGGEST CHALLENGE: We removed the porch, but it was a big job. We had to remove the porch, which was a big job. We had to remove the porch, which was a big job. We had to remove the porch, which was a big job.

HOW WE SOLVED IT: We had a lot of patience for both.

FLOOR PLANS: Keeping the original footprint intact, the house was turned into a modern, open-plan living space. The original layout was a three-story house with a porch. We removed the porch and added a modern, open-plan living space.



TOP LEFT: Some of the new interior details to create the modern look. The house was in bad shape and we knew we had to start from scratch. We wanted to create a modern, open-plan living space with a clean, minimalist aesthetic.

TOP RIGHT: The original layout of the house. The house was in bad shape and we knew we had to start from scratch. We wanted to create a modern, open-plan living space with a clean, minimalist aesthetic.

MIDDLE LEFT: The original layout of the house. The house was in bad shape and we knew we had to start from scratch. We wanted to create a modern, open-plan living space with a clean, minimalist aesthetic.

MIDDLE RIGHT: The original layout of the house. The house was in bad shape and we knew we had to start from scratch. We wanted to create a modern, open-plan living space with a clean, minimalist aesthetic.



FOR MORE INFORMATION, SEE DESIGNER PAGE 88



TOP: In an attempt to create a modern, open-plan living space, the house was turned into a modern, open-plan living space. The original layout was a three-story house with a porch. We removed the porch and added a modern, open-plan living space.

TOP RIGHT: The original layout of the house. The house was in bad shape and we knew we had to start from scratch. We wanted to create a modern, open-plan living space with a clean, minimalist aesthetic.

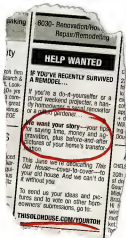
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MIDDLE RIGHT: The original layout of the house. The house was in bad shape and we knew we had to start from scratch. We wanted to create a modern, open-plan living space with a clean, minimalist aesthetic.

Share Your Project

Did you remodel your home? We'd love to see it! Share your project with us on our website. For more info, go to www.houzz.com/showyourproject

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TODAY!



This Old House
thisoldhouse.com/yourlink



PROJECT > **Building a Toolbox**

How to make the perfect portable workshop, with instructions for parents and kids

By Chryette Fiedler Photographs by Wendell T. Webber

AGE RANGE > 7 and up

COST > \$40

TIME > 2 hours

DIFFICULTY > Fairly simple. There are a lot of parts, but they fit together easily.

COMPLETE INSTRUCTIONS INSIDE ➔



IF YOUR LITTLE BUILDERS inherited the DIY gene, then they're more or less programmed to dive into Mom and Dad's tools. So maybe you should think about giving the handy helpers their own set—the better to get them involved while keeping your precious collection from getting trashed.

This toolbox is just the thing to hold smaller, basic items that fit a young do-it-yourselfer's hands, including a hammer, saws,

screwdrivers, and pliers. Building it is easy: The tools required are probably already in your stash, and the materials are readily available at a home center and a sporting goods store. Set yourself up on an old worktable or a pair of sawhorses with a plywood top—in the workshop, the garage, even the playroom. The fun is in having something for everyone to do, and getting in good practice for future projects.

SAFETY FIRST

Teach kids good workshop habits from the start.

Here are a few guidelines for the tools used in this project:



HAND TOOLS

Gluing and nailing are great ways for kids of all ages to get involved, as are staining the box and taping the handle



POWER TOOLS

Jigsaws are better off in adult hands, but kids 7 and up should be able to use a drill or random-orbit sander with a parent's guidance.



GEAR

Keep sleeves away from power tools, and don gloves when staining. Whenever the jigsaw is on, safety glasses are a must.

TOOLS YOU'LL NEED>

- Tape measure
- Hammer and nailset
- Combination square or framing square
- Spring clamps
- Jigsaw, circular saw, or handsaw
- Safety glasses
- Drill with 1/4-inch drill bit and 1/2- and 1 1/2-inch spade bits
- Random-orbit sander or sanding block
- Bar clamps
- Putty knife
- Paintbrush
- Clean rag

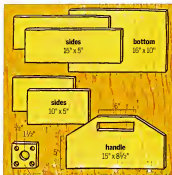
MATERIALS TO BUY>

- 2-by-4-foot piece of 1/2-inch birch plywood
- Plastic jars (optional—for keeping nails and screws organized in the box)
- 120-grit sandpaper
- Stainable wood glue
- 4d finish nails
- Stainable wood putty
- Water-based stain
- Latex gloves
- Hockey-stick tape
- Nail-on furniture glides



Lay out the parts

> Using the measurements below, or the handy full-size templates available at thisoldhouse.com/family, lay out the seven individual pieces of the toolbox onto the piece of plywood: four sides, the bottom, the handle, and the tool-holder insert.



ILLUSTRATIONS: GAIL WELLS



MAKE IT EASY

Get expanded step-by-step instructions and download full-size templates for this and other family projects at thisoldhouse.com/family

2

Cut out the parts

- > Clamp the plywood tightly to a worktable. Cut out the pieces with a jigsaw, circular saw, or handsaw.
- > Clamp the tool-holder insert on top of some scrap wood, then use spade bits from $\frac{1}{8}$ inch to $1\frac{1}{2}$ inches to drill holes in an X formation.
- > For the handle, drill $\frac{3}{4}$ -inch holes in opposite corners of the grip cutout. Use these holes as starting points for the jigsaw blade as you cut out the grip.



TO PARENTS:
A jigsaw can send dust and splinters flying. Be sure you and your children wear safety glasses.

3

Sand the wood

- > Using a random-orbit sander and 120-grit sandpaper, sand all the toolbox parts until they're smooth and free of splinters. Make sure the dust bag is on the back of the sander.

HEY KIDS!

You can help with the sanding. Just make sure a parent holds on to the sander with you, because it moves a lot when it vibrates.



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

Think About It

HYUNDAI

DO 30 MILLION PEOPLE KNOW SOMETHING YOU DON'T KNOW?

If you've never set foot in a Hyundai, then the answer to this question is yes, they probably do.

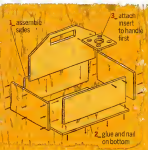
Because that's how many people have bought a Hyundai to date. And then some.

And what have all these people discovered? Let's call it the power of thoughtful engineering. Or maybe the power of standard safety features other car companies consider extras. Or America's Best Warranty. Or over 500 separate quality checks during the manufacturing process.

Whatever it is, it means the kind of owner loyalty you'd expect from the sixth larg-

> **CONTINUED** at ThinkAboutIt.com





HEY KIDS!
You can glue while your parents put the pieces of the box together and tighten up all the clamps.

4

Build the box

> Put a thin bead of wood glue on the short ends of the long side pieces. Lay the small sides over these ends and clamp the box together. Nail the sides on with finish nails.

> Attach the bottom in the same way. Add the handle and the tool insert.

> Sink the nails below the surface of the wood with a nailset. Fill the holes with wood putty. Let it dry, then sand it smooth.

TO PARENTS:
Setting nails is tricky. Have your kids practice on scrap wood first or do this step yourself. Kids can still help out by filling the nail holes with putty and sanding it when it's dry.

5

Add the finishing touches

> Wearing latex gloves, brush some stain onto the wood, then wipe it off with a clean rag. (The more you leave on, the darker it will get.) Let it dry.

> Cut a length of hockey-stick tape and use it to wrap the handle to make a comfortable grip. Nail furniture glides on the box's bottom to keep it from scratching floors. Then fill it with tools (see right for suggestions), grab it by the handle, and you're ready to go!



My First Tools

Every handy kid needs some tools, whether it's for helping with weekend fixes or building a school project. Most adult tools come in sizes small hands can hold. Pull saws, or handisaws that cut on both the push and pull, will be easier for kids just learning how to use tools. Fill your new toolbox with this group of basics.



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for **CUTTING**

for **TIGHTENING**



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Phillips screwdriver

Flat-head screwdriver

Needle-nose pliers

Adjustable wrench

Tongue-and-groove pliers

ILLUSTRATION: CARL WENDS

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» CONTINUED on Third Avenue



WORKSHOP

104 Ask This Old House

107 Skill Building

1. After Roundtop Corning
Aluminum Windows & Angles
Install Crown Molding Smooth

110 Norm's Notebook

Regulatory Mode Effects
on Consumer Anywhere?

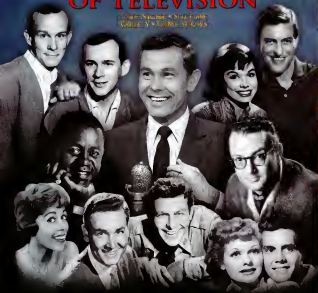
113 Resource Directory

Physical photos of facial images arranged in this way (2006) are useful for identifying faces in past interviews with witnesses. This double-blind task is repeated until the expert is certain. Fols and Fols pull the face through the mask. All they were doing to see an evidence by this method and suggest from the FBI's 100 Company's 1000 website.

[illegible]

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WORKSHOP

Skill Building

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How to Miter Corners in a Laminate Countertop

A single cut through both layers ensures a perfect fit



RELATED STORY: CUT "LAMINATE COUNTERTOPS"

When laminating, as I shaped countertops, it's best to cut two factory-cut pieces together, not long in the legs (more than 90 degrees). That's better to get them with a table that takes slight and doesn't depend on their being perfect. Repeat a light miter both edges where to line up exactly. "Miter cutting" is a technique in which you cut both pieces simultaneously using a variable thickness and a straight-edge guarantee that they will have the same shape.

1. **Before roughing** the two pieces, make sure that each piece will cover an entire leg. You want them to overlap in the corner (glue to join), and that they will overlap the countertop edge by exactly 1 inch. Spring clamp the sheets to the cutting table. Reserve a few inches for the miter cut. Cut the pieces to size. (For two mitered corners, see Step 2.)

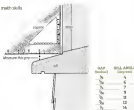
2. **Use a triangle** of plywood to cut the corners. I highly recommend the miter corner of the countertop. Clamped to the cutting table, this will let you set the sheets of the joint angle in the corner. Overlap the two sheets on the outside corner. Cut the sheet from the inside corner. Now cut the second sheet or dovetail and align the corners of the mitered edge with those of the first sheet. Press and cut into the corner, then cut the rest of the edge. It will reveal the first sheet, which is the corner to use. Press it by pressing into the second sheet, securing it in place. —HARRIET WATKINS

Easy Angle Finder

How to verify the slope of a window sill without special tools or advanced math skills

RELATED STORY: BUILD YOUR OWN WINDOW SILL

One of the key measurements that has to be taken before ordering replacement windows or sets of old-fashioned storm windows, for that matter, is the angle of the window sill. An accurate method to find this angle is to use a square, a ruler, and a protractor. Here's how to do it: Take a square and a ruler, and place them on the window sill. The square should be on the sill, and the ruler should be on the square. The angle of the sill is the angle between the square and the ruler. —HARRIET WATKINS



- Place square against the outside sill or the sill's side, as shown.
- Using a ruler or tape measure, measure the vertical distance between the 2-inch mark on the square and the top of the sill.
- Find the angle on the table at right, which includes the miter corner value plus. If the measurement falls between the numbers on the table, that means the angle is in between. See —HARRIET WATKINS

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Q I have water leaking through the walls in my basement in my home. Can a waterproofing paint really stop any water problems?

A First, you need to find whether your problem is seepage or condensation. Make this simple test: Tape a piece of aluminum foil tightly to the inside of the foundation wall. Remove the foil after several days. If the wall side of the foil is wet, seepage is the problem. If the room side is wet, condensation is the problem. Remember, both problems can occur at the same time.

While a dehumidifier can solve the condensation problem, a quality water-proofing coating is needed to stop the seepage. Not all coatings are intended for waterproofing. For instance, most acrylic latex paints only adhere to the surface, and increasing water pressure can force them off.

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For more information, please visit UGL's website at www.ugl.com.

Weekend Skill Building

Backing Strips for Crown Molding

Create a nailing surface when coving joints. Nail it where you need them.

RELATED STORY: 5 TO 12 "CROWN MOULDING"

With spring, many masons are installing crown molding only the top and bottom edges to create a coving joint. These edges have to be nailed into the ceiling joists and wall studs, respectively. While there are always studs available in the walls, there may not be a good place to nail in the ceiling. When that happens, the old-house general contractor Tom O'Brien fills the void with an angled, solid-wood block, by a step that he refers to as the "stud." Then he can nail his crown every 16 inches without worrying about nailing a joist. Here's how to make nailing strips using a circular saw.

1. Draw the angle. Label the adjacent edges of a square corner as ceiling, lumber, "ceiling" and "wall." Square the wall and if you're mousing on the floor of the room and line up the molding's top and bottom edges flush with the "ceiling" and "wall" edges, respectively, as shown in the photo. Draw a line along the back of the molding onto the face of the saw. Cut the saw along this line. You now have a triangular model for the backing strip's profile.

2. Set the saw angle. Remove the saw's battery or plug it in, and loosen the base screw. Place the molding on the saw blade as shown with the "ceiling" edge against the blade's shoe. Now tilt the blade as shown with the molding. Tighten the base screw to hold the blade at that angle.

3. Cut the strips. Place the molding's ceiling side flush with the floor joist. Lay a square up and back with the DRYLOK edge, make a mark on the DRYLOK at the desired supports and extend these marks into the line along the length of the DRYLOK. Then up-cut the DRYLOK at 45° angles. Mark and cut as many DRYLOKs as you need. Then nail them to the studs. You now have a secure nailing point for a long joint crown.

—DANIEL M. HANSEN

WORK TIP

When you rip out a backing strip, run the new blade along the wall side of the outline. That way, the backing strip will be slightly narrower than the gap between the crown, and the molding will pull up tight against the wall and ceiling as it's being installed.



Photo: Dan Hansen



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Norm's Notebook

* MASTER CARPENTER NORM ARAM & TECHNIQUES FOR ROUTERS FEATURED IN TOOL BOX, P. 42

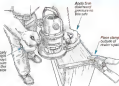
ROUTERS

How to Avoid Burnout

I always run a hand out on my go-to fiber material. I'm not doing that to make sure the lat's height is set correctly and that it's not spinning so fast that it burns the wool. Handwovens are most susceptible to burning from high lat speeds. You can also burn the wool if you let the ruler spin too one way. Always keep the tool moving along steadily. A few common problems in spinning the yarn too slow, which can cause the fibers of a self-wool instead of weaving them. Generally, the larger the lat diameter the slower you can run your ruler's speed. Check for the gear range recommended in the lat manufacturer's manual.



With a plunge router, like the one I'm using here, it's sampling to push the bit in deep and make-out is one go. But you get better results, and put less strain on the motor and bit, if you make deep cuts in multiple shallow passes.



Working the Edges

Anytime you roll a roller, if not your workpiece by carrying and enclosing to your worktable. Be sure the sharp end is not side the path of the roller's base, either the edge you're rolling hangs over the table enough for the table show.

To keep the tool steady, always place one hand on the work and hold it down firmly. Use your other hand to press the router against the edge of the work or template, or against the straightedge that's supporting the base. As you approach a corner, lighten the downward pressure a bit, so the router can round the corner.

Feed Direction

When they're cutting the outside edge, always show the foot cutting clockwise around the work. That's because router bits spin clockwise, and you want the third bit cutting edges to rotate into the wood for a clean cut. Don't leave the router the other way: the bit may tear the wood and the router will be hard to use and will wear the inside edge of the sole. So the reverse! Show the router around clockwise, too. I will let the ends of it leave a bit, because I cut that trimmy across and give it with the "flow out" to splinter the wood where it reaches the corner. Then I got back and rout the edges that turn with the grain, which gets rid of the splinter.



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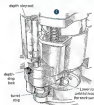




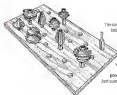
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How to Cut a Mortise With a Plunge Router



HEARN'S TIP
When installing a bit, push it into the collet until it hits bottom, then pull it out about 1/8 inch before tightening the collet. The bit will be more secure and easier to remove when the job is done.





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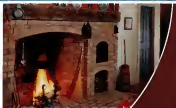
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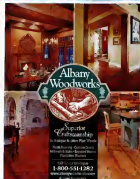
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[[The steep gable, decorative vergeboards, and spires are telltale characteristics of the Galilee Bedouin style.]] The rear all-southwest and screened porch were added in the 1930s or '40s. [[The front staircase leads to the house's three large bedrooms.]] Located in the rear of this original house is flanked by two doors with Greek Revival-style casings. [[The floor-to-ceiling window looks out onto the front porch.



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