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CHEVROLET



PANDEMIC DIY

MAKING THE BEST
OF DIFFICULT TIMES



Along with his daughters, a son and a son-in-law, George B. built a windmill, a real working one that pumps well water for his horses. It was a complete family project that stretched across long days. They seemed to smile through all the work, and George sent photos to prove it.

In our July/August issue, we posed a simple question on a corner of p. 8: Did you start a new project because you have more time at home? George did; he started and finished his windmill in 2020. He wasn't alone. Dozens of you started and completed DIY projects. Thanks for sharing your stories.

Like George, these readers and so many more of you used their newfound time to improve their home and build projects together:

LORI M. built benches to surround her new in-ground pool. She used our plans—see the Timber Bench at familyhandyman.com.

AMY S. of Georgia shared more than a dozen pics of indoor and outdoor projects that she and her husband finished together.

With fewer volunteer opportunities, **MARK D.** had free time to redo the stairs in his house.

RYAN T. sent photos of a “carport” covering his kids’ electric toy vehicles. He assembled it from 2x4s and recycled pallets.

FRANKLIN S. shared pics of his upgraded deck and new firepit.

MJ AND HER HUSBAND finished the most unique project we saw—they built their own rough-box caskets, adding the special touch of crosses made from a family member’s 100-year-old barn wood.



JAKE M. summed it up best when he described his projects: “The major part was transforming a dingy bedroom and bath. The projects added a ton of value, but the real gains came from the time working alongside my dad—weekends I will never forget.”

Well said, Jake, and I hope Dad reads this too.

GLENN HANSEN
DEPUTY EDITOR

LEFT: GEORGE B., RIGHT: JAKE M.

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IF YOU HAVE DIABETES— YOUR EYES NEED ATTENTION

If you have diabetes, excess blood sugar can damage the blood vessels inside your eyes—a condition known as **diabetic retinopathy**. Even if your vision seems fine and you don't notice it happening, there still may be damage that could lead to vision loss. Fortunately, an eye doctor may be able to help your eyes and protect against vision loss.

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August 2021 OPH.21.07.0012

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FIRE UP
FOR WINTER

How to dry firewood efficiently—plus, the best and worst woods to burn indoors.



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WHAT'S NEW?

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DIY SKILLS FOR ALL

"I think this is the most important work I've ever done," said Sandy Thistle, a Wisconsin carpenter who is building a future of opportunities for young women. In 2019, Thistle and Eliza Zimmerman launched CampBUILD, a summer camp where girls ages 6 through 18 learn skills such as tool safety, carpentry, electrical and welding.

In CampBUILD's first year, 116 Girl Scouts attended and built 49 toolboxes, 30 birdhouses and a picnic table while gaining skills with hammers, drills, squares, sanders and circular saws. The camp, held at Madison Area Technical College in Madison, Wis., did not meet for in-person learning in 2020 but did conduct classes in July 2021.

"The girls take their projects home," said Zimmerman, "and their parents are amazed at the work and the skills their daughters gained." She said older girls

gained exposure to professionals. "We had other tradeswomen come and help, and the kids got to ask questions."

Girls exploring a career in the construction trades? We're here for it!



DRILLING INTO HISTORIC TOOLS

"I recently unpacked these; what are they?" asked Mark Braun of Norridge, Ill. "My grandfather came here at the turn of the 20th century as an ornamental ironworker. Could they be his? Anything you know could answer a lifetime of wondering. Thanks."

Associate editor Jay Cork says "These are drills for boring holes in rock or masonry. One man would hold the bit while another would strike it with a sledge. After every strike, the bit would turn slightly, giving the teeth (you see them on the leading edge)

another bite into the stone. They were often used in quarries to bore holes for the dynamite. You have a little bit of history there, my friend."





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HANDS ON



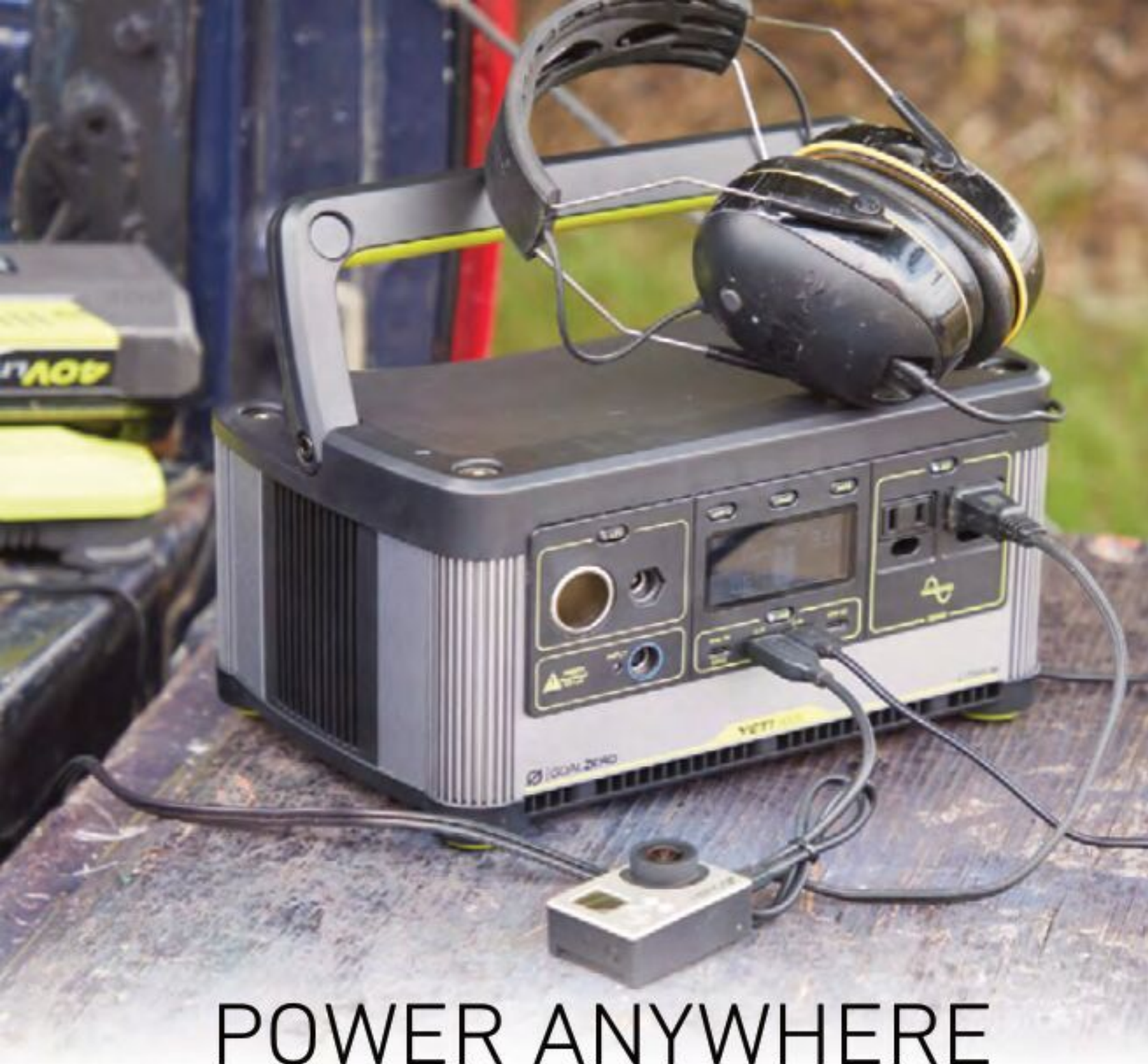
TOOLS, GADGETS + GEAR WE RECOMMEND

FIREWOOD THE “EASY” WAY

Splitting firewood by hand is satisfying and fun. But if you’re heating your house or garage with wood (or stockpiling it for a fire pit), splitting by hand can become a part-time job. If you have access to cuttable trees on your lot, a gas-powered log splitter is the way to go.

A smaller machine may suffice for splitting dry logs. But freshly cut hardwoods up to 16 in. in diameter, like the oaks we felled on our Getaway site, require a 16-ton machine or larger. The tonnage is the amount of force the wedge applies to the log. This 30-ton NorthStar splitter (\$1,900) from Northern Tool made easy work of green red-oak logs up to about 18 in. in diameter. It has a smooth-running 200-cc Honda motor and a ball hitch for easy transport. Because it comes unassembled, you’ll need a few hours to put it together.

BRAD HOLDEN SENIOR EDITOR



POWER ANYWHERE

We all like to go “off the grid” sometimes. But let’s face it—in most cases, you’re going to want to power up a thing or two. If you’re an avid camper or hunter or you regularly travel to remote places where there’s no power, the Goal Zero Yeti 500X is the perfect solution. It has two AC outlets, two USB ports and a 12-volt port. It’ll keep your family’s devices charged and power everything from a Wi-Fi router to a refrigerator, pellet grill or TV.

When you have power and the Yeti 500X is not in use, plug the station into a wall outlet to charge its battery pack before venturing out. If you’re off the grid for a long stretch, you can buy a Goal Zero solar charger to power up your Yeti again. The 500X is relatively compact, but at about 12 lbs., it’s not for a minimalist backpacker. With a price tag of \$700, the 500X is for serious off-grid-with-amenities adventurers. You can get the Yeti 500X as well as its full line of products at goalzero.com.

NICK GRZECHOWIAK CHIEF CONTENT OFFICER



SHOULDERING YOUR SHOP APRON

Recently I’ve spent more time wearing a shop apron and less time wearing my usual job-site tool belt. At the end of a day in the shop, I often have quite an assortment of tools in my shop apron. My old apron with its single neck-strap design was literally a pain in my neck from all that weight. I got this Broad Shoulder Shop Apron at Rockler, and now my neck is feeling fine. The comfort and convenience are worth the \$25 price tag. You can find one at rockler.com or one of its local stores.

BILL BERGMANN ASSOCIATE EDITOR

CHEATER SAFETY GLASSES

Having trouble reading your tape measure? Does the fine print on the back of a paint can test your vision? It’s no fun switching between reader specs and safety glasses. And your eyes are your most important tool.

These 3M Nuvo Reader Safety Glasses are the most comfortable safety eyewear I’ve ever worn. The cheater lenses come in 1.5-, 2.0- and 2.5-diopter strengths, and the temple lengths are adjustable for a stay-put fit. After months of use, my lenses have yet to show any scratches, and they rarely fog up when I wear a dust mask. Find the glasses for about \$13 online and at contractor or safety supply stores.

JAY CORK ASSOCIATE EDITOR



VINTAGE
MODELNEW STANLEY
SWEETHEART

HARDWORKING POCKET PLANE

In my years as a cabinetmaker and furniture builder, my old Stanley No. 60-1/2 low-angle block plane was never out of reach. I used it to quickly and accurately adjust a miter, shave end grain, and create small chamfers and round-over profiles. Unless I was doing production work, a few quick swipes with a well-tuned plane were faster than setting up a machine. An added benefit: A plane makes no noise and no dust.

A used, vintage version like mine costs about \$30 on auction sites or at flea markets. Stanley's new SweetHeart low-angle block plane will set you back about \$90. I've used both, and both have advantages. My vintage plane is about 1/2 in. narrower, and at 1 lb. 2 oz, is almost a pound lighter than the 2-lb. SweetHeart. It's perfect for carrying in a shop apron and a joy to hold. However, the SweetHeart's satisfying heft does help for shaving end grain. The other difference is that the SweetHeart's cutter-depth adjustment knob also provides lateral blade adjustment, something my vintage plane doesn't have. Both are equipped with an adjustable mouth, easing super-fine cuts.

BRAD HOLDEN SENIOR EDITOR



SAFE & HAPPY FEET

Through our summer of Getaway house projects, I spent countless hours testing the Keen Vista Energy shoes. These work sneakers are the most comfortable safety-toe work shoes I've ever worn. I seldom sit down on the job site, and with ample cushioning through the sole, the Keen shoes help save my back. The nylon shoe breathes, too, and that keeps my feet cooler and reduces end-of-day swelling. With high arches and narrow heels, my feet can be a difficult fit, and this shoe does the trick.

My favorite feature is the carbon-fiber toe. I forget it's there because it doesn't pinch as many steel-toe inserts do. Plus, it keeps the shoes light. The Vista Energy shoes retail for \$120, or a mid-height boot style is \$125. Keen makes both men's and women's sizes.

GLENN HANSEN DEPUTY EDITOR

HANDY SWITCH FOR YOUR BATH FAN

If you live with teens (or forgetful adults), you're no doubt familiar with this dilemma:

"Please use the fan when you shower and turn it off when you're done!" This Leviton humidistat switch ends the conflict. It senses the humidity in a room and automatically turns on the fan to run for a time you select, up to 45 minutes. The humidity sensitivity and run-time controls are behind the device's faceplate for easy tweaking. You can still switch the fan on manually and it will stop after the selected run-time. Save energy, avoid moisture damage and stop nagging your kids about the fan, all by installing this switch! Available at home centers and online for about \$35.

BILL BERGMANN ASSOCIATE EDITOR

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HANDS ON



MULTIPLE SOCKETS AT THE READY

I love socket wrenches when I need to apply torque to a stuck bolt, but I prefer a T-handle wrench for speed around the shop. This 3/8-in. dual-drive T-handle made by Motion Pro gives me a long arm for deep access, plus two socket connections. And with the wide selection of socket-ready tool heads, I can turn just about any fastener with this tool.

Motion Pro makes a variety of T-handle drivers with specific socket ends: metric and standard, 1/4-in. and 3/8-in. drives, fixed and with spinner handles. But the versatility of this dual-drive tool makes it more usable in my toolbox. It's solid steel with a durable finish and has a lifetime limited warranty. You can find the Motion Pro 3/8-in. dual-drive T-handle socket driver online for about \$11.

GLENN HANSEN DEPUTY EDITOR

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GOOD JOE ON THE GO

If you spend a lot of time camping, staying at hotels or just away from home, you've experienced the woes of bad coffee. I've had two hotel stays recently where I woke up to find that the coffee maker in my room didn't work! That's when I drew a line in the sand. Bad coffee is one thing, but no coffee? Count me out.

The AeroPress Go runs \$32 and makes an outstanding cup of French press coffee in minutes. You can make it hot or cold. Everything you need packs into the cup, which is just a bit larger in diameter than a soda can. Next time you travel, bring your AeroPress and good ground coffee to start your morning right.

BRAD HOLDEN SENIOR EDITOR



DIY CROWN JEWEL

After years of working without one, I finally bought a 1/4-in. crown stapler, and my world has changed. It's quickly become my go-to fastener for most things outside of framing. Here's why: 18-gauge staples offer better holding power than brad nails, and crown staplers are so versatile. I use mine for cabinet assembly, drawer box assembly, siding, carpet, paneling, upholstery, screen repair—the list goes on.

For finishing work, if you align the staple with the wood grain, a puttied staple disappears just as well as a brad nail head. If you have an air compressor and aren't bothered by hoses, this pneumatic version from Harbor Freight will set you back only about \$40—perfect for a DIYer. Battery-powered versions are also available from many manufacturers, but you'll need to lay out at least \$200.

BILL BERGMANN ASSOCIATE EDITOR

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HANDY HINTS



CLEVER SOLUTIONS FROM OUR READERS

ENGINE MARKUP

Use a permanent marker to write the exact oil blend needed for your two-cycle engine on any clean surface of the tool. It'll save you from running to the file cabinet to find your manual or grabbing the wrong mix.

MYRON PORTER





QUICKER FIXTURE MOUNTING

Surface-mounted fixtures come with a layer of foil-faced insulation, which can make it difficult to line up the mounting keyholes with the screws on the electrical box. But using a screwdriver as a guide saves a lot of time and frustration. Slip the screwdriver shaft through the keyhole and stick the tip in the screw head. Slide the fixture over the shaft, rotate the fixture until the second screw comes into view, and then twist the fixture on the screw heads and snug them up.

ALAN GRANDYS

VENTILATED SHOP VACUUM ATTACHMENT

The floor attachments for shop vacuums can get suctioned to the floor, making it difficult to pick up debris. Attachments for newer models have risers on their bottom edges to improve performance. For an older attachment without risers, there's an easy fix: Cut 1/4-in.-deep notches every inch or so along the rim with a hacksaw. Now the attachment will slide around easily and clean much more effectively.

TERRY THOMPSON

ADD FRACTIONS FAST

Adding $1\frac{13}{16}$ in. to $3\frac{3}{8}$ in. (or any fractions) doesn't have to hurt. Just line up two rulers or tape measures side by side and read the answer instantly, with complete accuracy. It works for subtraction, too—just read the numbers in the other direction.

NICK D'ALTO



HANDY HINTS



UNPEEL PEEL-AND-STICK

When my wife and I were putting new contact paper in our kitchen drawers, I was getting really frustrated trying to separate the contact paper from its backing. To solve the problem, I put a piece of tape on one corner of the contact paper and another piece on the same corner of the backing. I folded down the top of each piece of tape about 1/2 in. to get a better grip, and then I pulled the pieces of tape apart. The paper and backing separated easily. This also works well on labels, stickers and the like.

KEN EASTMAN

LADLE, NOT POUR

When you need a small amount of paint, don't pour it out of the can. Use an old soup ladle! You won't mess up the can rim or slop paint down the side, and you can ladle out exactly what you need. Bon appetit!

ANN HATZUNG



EASY DRYWALL PATCH FOR BIG HOLES

Doorknob-size holes in drywall can take a lot of time to patch. Here's a way to make the repair quicker and easier. Make sure to remove any loose paper or drywall chunks around the hole before you patch it.

DOUG WINSLOW



1 ADD INSULATING FOAM

Stuff newspaper loosely into the hole and spray expanding insulating foam into the hole to make the patch more stable.



2 SLICE OFF THE FOAM

After the foam dries, use a pull saw to cut it off. Then sand it flush with the wall.



3 TAPE AND PATCH

Apply fiber mesh drywall tape that's cut slightly larger than the hole. Then use joint compound to do the final patching.

FINISH SIX SIDES OF A DOOR AT ONCE

Staining or sealing a door takes a while if you set it on sawhorses to do one side, then let it dry before flipping it over to do the other. Here's how to cut the drying time in half. Hang two chains from the open joists in your garage and put an S-hook on each of the ends. Hang the door by sliding the hooks through the door's hinge leaves or barrels. Then you can stain the entire door at one time.

RANDY SANDERS

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THROW BURGLARS A CURVE

A great way to thwart criminals is to trick them at their own game. Studious thieves will actually learn how to dismantle different types of security systems. So, while I want to communicate to burglars that I have a security system, I don't want to give away which one. For that reason, I always have a yard sign and window decals that don't match the one installed in my home. You can buy a variety of security signs and stickers online.

GABE TURNER SECURITY EXPERT, SECURITY.ORG



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Only your healthcare professional knows the specifics of your condition and how OPDIVO in combination with YERVOY may fit into your overall therapy. The information below does not take the place of talking with your healthcare professional, so talk to them if you have any questions.

What are OPDIVO and YERVOY?

OPDIVO and YERVOY are prescription medicines used to treat people with a type of advanced stage lung cancer called non-small cell lung cancer (NSCLC). OPDIVO may be used in combination with YERVOY as your first treatment for NSCLC when your lung cancer has spread to other parts of your body (metastatic) **and** your tumors are positive for PD-L1, but do not have an abnormal EGFR or ALK gene.

It is not known if OPDIVO and YERVOY are safe and effective when used in children younger than 18 years of age.

What is the most important information I should know about OPDIVO and YERVOY?

OPDIVO and YERVOY are medicines that may treat certain cancers by working with your immune system. OPDIVO and YERVOY can cause your immune system to attack normal organs and tissues in any area of your body and can affect the way they work. These problems can sometimes become serious or life-threatening and can lead to death and may happen anytime during treatment or even after your treatment has ended. You may have more than one of these problems at the same time. Some of these problems may happen more often when OPDIVO is used in combination with YERVOY.

Call or see your healthcare provider right away if you develop any new or worse signs or symptoms, including

- **Lung problems:** new or worsening cough; shortness of breath; chest pain
- **Intestinal problems:** diarrhea (loose stools) or more frequent bowel movements than usual; stools that are black, tarry, sticky, or have blood or mucus; severe stomach-area (abdominal) pain or tenderness
- **Liver problems:** yellowing of your skin or the whites of your eyes; severe nausea or vomiting; pain on the right side of your stomach area (abdomen); dark urine (tea colored); bleeding or bruising more easily than normal

- **Hormone gland problems:** headaches that will not go away or unusual headaches; eye sensitivity to light; eye problems; rapid heartbeat; increased sweating; extreme tiredness; weight gain or weight loss; feeling more hungry or thirsty than usual; urinating more often than usual; hair loss; feeling cold; constipation; your voice gets deeper; dizziness or fainting; changes in mood or behavior, such as decreased sex drive, irritability, or forgetfulness
- **Kidney problems:** decrease in the amount of urine; blood in your urine; swelling in your ankles; loss of appetite
- **Skin problems:** rash; itching; skin blistering or peeling; painful sores or ulcers in mouth or nose, throat, or genital area
- **Eye problems:** blurry vision, double vision, or other vision problems; eye pain or redness

Problems can also happen in other organs and tissues. These are not all of the signs and symptoms of immune system problems that can happen with OPDIVO and YERVOY. Call or see your healthcare provider right away for any new or worsening signs or symptoms, which may include:

- Chest pain; irregular heartbeat; shortness of breath; swelling of ankles
- Confusion; sleepiness; memory problems; changes in mood or behavior; stiff neck; balance problems; tingling or numbness of the arms or legs
- Double vision; blurry vision; sensitivity to light; eye pain; changes in eye sight
- Persistent or severe muscle pain or weakness; muscle cramps
- Low red blood cells; bruising

Getting medical help right away may help keep these problems from becoming more serious.

Your healthcare team will check you for these problems during treatment and may treat you with corticosteroid or hormone replacement medicines. Your healthcare team may also need to delay or completely stop your treatment if you have severe side effects.

What should I tell my healthcare provider before receiving OPDIVO and YERVOY? Before you receive OPDIVO and YERVOY, tell your healthcare provider about all of your medical conditions, including if you:

- have immune system problems such as Crohn's disease, ulcerative colitis, or lupus
- have received an organ transplant



Talk to your doctor about OPDIVO + YERVOY

www.OPDIVOYERVOY.com 1-855-OPDIVOYERVOY

- have received or plan to receive a stem cell transplant that uses donor stem cells (allogeneic)
- have received radiation treatment to your chest area in the past and have received other medicines that are like OPDIVO
- have a condition that affects your nervous system, such as myasthenia gravis or Guillain-Barré syndrome
- are pregnant or plan to become pregnant. OPDIVO and YERVOY can harm your unborn baby
- are breastfeeding or plan to breastfeed. It is not known if OPDIVO or YERVOY passes into your breast milk. Do not breastfeed during treatment with OPDIVO or YERVOY and for 5 months after the last dose of OPDIVO or YERVOY

Females who are able to become pregnant: Your healthcare provider should do a pregnancy test before you start receiving OPDIVO or YERVOY.

- You should use an effective method of birth control during your treatment and for at least 5 months after your last dose of OPDIVO or YERVOY. Talk to your healthcare provider about birth control methods that you can use during this time.
- Tell your healthcare provider right away if you become pregnant or think you are pregnant during treatment with OPDIVO or YERVOY. You or your healthcare provider should contact Bristol Myers Squibb at 1-844-593-7869 as soon as you become aware of the pregnancy.

Tell your healthcare provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

Know the medicines you take. Keep a list of them to show your healthcare providers and pharmacist when you get a new medicine.

What are the possible side effects of OPDIVO and YERVOY?

OPDIVO and YERVOY can cause serious side effects, including:

- **See “What is the most important information I should know about OPDIVO + YERVOY?”**
- **Severe infusion reactions.** Tell your healthcare team or nurse right away if you get these symptoms during an infusion of OPDIVO or YERVOY: chills or shaking; itching or rash; flushing; shortness of breath or wheezing; dizziness; feel like passing out; fever; back or neck pain

- **Complications, including graft-versus-host disease (GVHD), of bone marrow (stem cell) transplant that uses donor stem cells (allogeneic).** These complications can be severe and can lead to death. These complications may happen if you underwent transplantation either before or after being treated with OPDIVO or YERVOY. Your healthcare provider will monitor you for these complications.

The most common side effects of OPDIVO when used in combination with YERVOY include: feeling tired; diarrhea; rash; itching; nausea; pain in muscles, bones, and joints; fever; cough; decreased appetite; vomiting; stomach-area (abdominal) pain; shortness of breath; upper respiratory tract infection; headache; low thyroid hormone levels (hypothyroidism); decreased weight; and dizziness.

These are not all the possible side effects of OPDIVO and YERVOY. Call your doctor for medical advice about side effects.

You are encouraged to report side effects of prescription drugs to the FDA. Call 1-800-FDA-1088.

OPDIVO (10 mg/mL) and YERVOY (5 mg/mL) are injections for intravenous (IV) use.

This is a brief summary of the most important information about OPDIVO and YERVOY. For more information, talk with your healthcare providers, call 1-855-673-4861, or go to www.OPDIVO.com.



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HOMELAB

fh A TESTING ZONE FOR INNOVATIONS

HYBRID PRESSURE WASHER



BY GLENN HANSEN

Nothing beats a pressure washer for removing a weekend's worth of dirt from your ATV, cleaning your deck or erasing years of moss from your patio pavers. I couldn't get by without mine. But I don't love the bulk: the power cables, the hoses and the weight.

When I power washed my patio pavers this summer, I needed a machine strong enough to blast through the moss yet easy to maneuver. The hybrid-powered Greenworks Pro 1,800-psi pressure washer eliminates the need for a power cord—at least for a while.

Powered by either an AC wall plug or a pair of 60V batteries, the hybrid tool is far easier to move around than a pressure washer that's always tethered to a wall

outlet or one with a heavy gas engine. Most homeowners don't regularly require the high power of a gas-engine-driven, 4,000-psi pressure washer. What we need is portability and adequate power.

This Greenworks Pro PW18HYB shines for its ease of use. It's lightweight, making it easy to move and store when your work is done. It also has a siphon hose with an attached filter so you can pull water from a barrel, lake or other

source if no garden hose is available. The soap container is well placed and just large enough.

Being able to run this pressure washer on battery power is a big plus. However, the psi drops to about 1,500 on battery power, and the two 2.0-amp, 60V batteries give power for only about 30 minutes. That's not much time when you've got a deck to clean. For the expense of those two batteries (\$250), we hoped for more cordless run-time. Still, it's a nice feature, especially if you have a Greenworks mower or other 60V tools.

We haven't seen other AC-battery hybrid pressure washers. For the power this one delivers—even on limited battery time—we hope Greenworks keeps developing similar tools. It retails for about \$220 (tool only) at home centers.



COMPOST INDOORS

Composting is a challenge when you live where real winter—the kind with snow and freezing temps—happens. The Vitamix FoodCycler FC-50 is my indoor year-round composting solution. No more trips to the backyard composter; no more turning the compost pile; no more stinky mess to manage.

To use the FoodCycler, simply scrape food waste off your plate into the device's small removable bucket, lock the lid and turn it on.

Using heat and a spinning cycle, it reduces most food scraps to easily reusable compost. (It's not for use

with beef bones, cooking oils, nut shells or fruit pits.) Carbon filters on the machine eliminate odors—I couldn't imagine composting indoors otherwise. It occupies about 1 cu. ft. of countertop space and runs on AC power.

The small bucket is dishwasher safe, so cleaning is easy. With a \$400 retail price, it's for serious composters or those willing to get serious. I have found it worth the price. If you're looking for a clean and efficient means to deal with your food waste, the FoodCycler is for you, especially if you're an avid gardener who appreciates perfect compost.

BILL BERGMANN ASSOCIATE EDITOR



SPRAY AND STICK

Electrostatic spray technology is not new. For decades, automobile and motorcycle manufacturers have used electrostatic spray to "paint" frame members and body parts. Farmers and the ag industry use electrostatic spray tools to more efficiently apply chemicals to crops at a large scale. Now the same technology can be applied around the home using handheld tools.

Ryobi delivers the effectiveness to homeowners with handheld electrostatic sprayers in three sizes.

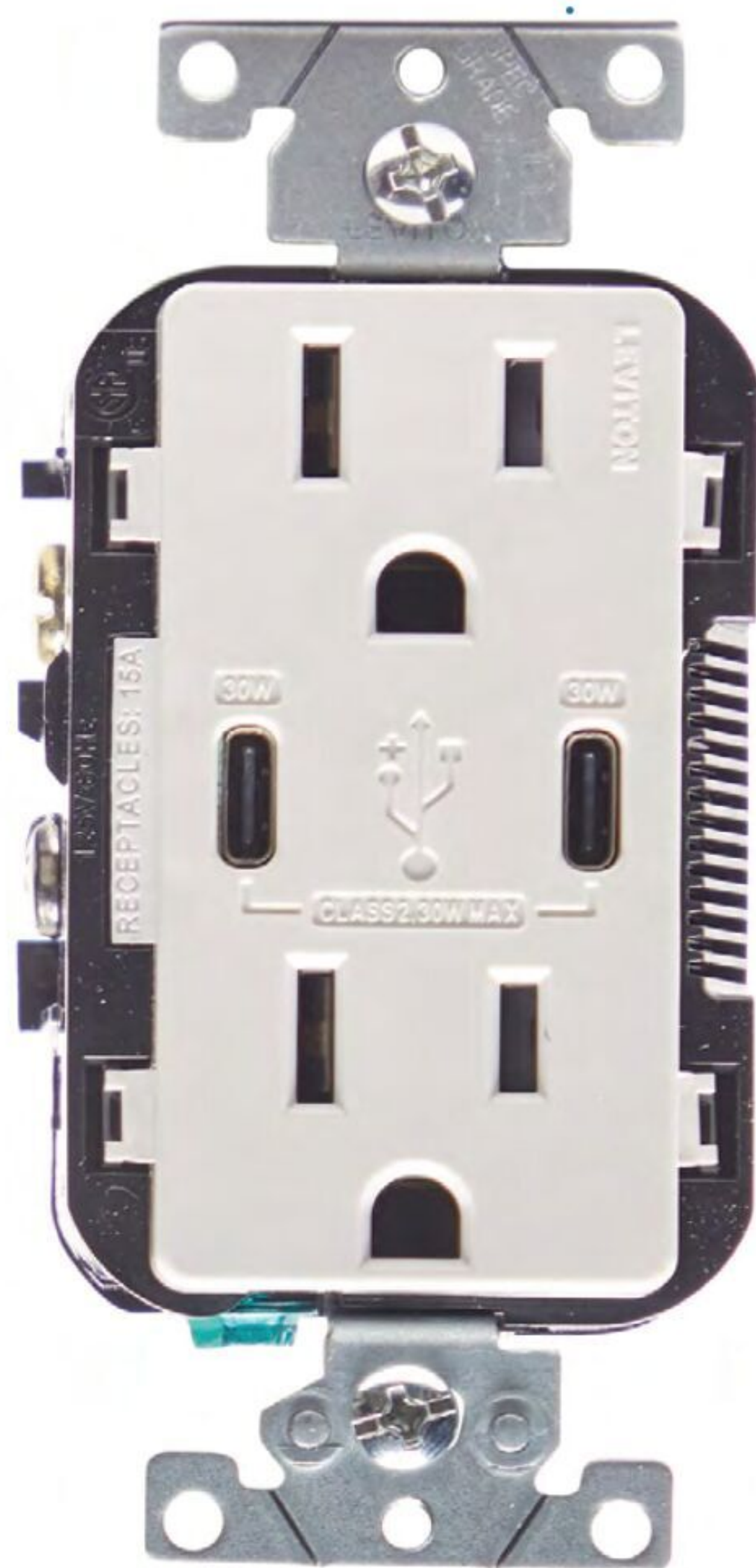
Here's how it works: A unit positively charges liquids in its container. It then disperses the liquids through a nozzle that you can set to one of three spray patterns—different micron sizes for distance of dispersal. The charged droplets repel other droplets and are attracted to the surface you're spraying. For cleaning uses, this means

the sanitizing liquid gets all over the surface you're cleaning, including chair backs and table edges. For garden uses, this means it gets on the backs of leaves where pests like to hide from predators.

The midsize model, No. P2890 (\$200), has a half-gallon container and is powered by the company's 18V Lithium ONE+ battery (the same battery may juice up your Ryobi lawn trimmer or air nailer). And the entire sprayer unit is about the size of a high-end TV camera (or the one that uses a VHS tape and is buried in your closet).

The sprayers do have limits. You can't use bleach, chlorine or alcohol-based chemicals, or liquids made from dissolved tablets or powder mixes. Check with Ryobi or a retailer for a full list of unsuitable chemicals. For many cleaning needs, though, these electrostatic sprayers are right on the money, and the dirt.





USB-C POWER DELIVERY

USB POWER DELIVERY

When it was introduced in 1996, the Universal Serial Bus (USB) simplified the transfer of data from external devices to computers, while also enabling a tiny bit of charging power. That was USB 1.0, and the rectangular connector (still in use but declining) was USB-A. Today, for so many devices we use, USB ports are about power delivery first and info exchange second. And they're smaller. We're talking about USB 4, USB-C and USB Power Delivery (USB PD). What does this mean for those of us who don't work in IT? It means we can benefit by adding new electrical outlets with USB ports for faster charging and increased convenience.

The removable plug-in adapter cube that comes with a USB cable is convenient—until you lose it or until the outlet you want to use already has two devices plugged in. USB is now a nearly universal power socket for phones, tablets, speakers, laptops and more. The time for a dedicated wall outlet is here. But they're not all created equal.

A group called the USB Implementers Forum Inc. (USB-IF) leads the development of USB technology. A nonprofit corporation, USB-IF was founded by the group of companies that developed the Universal Serial Bus specification. The

group's board of directors includes execs from Apple, HP, Microsoft and other tech giants. The latest update to the USB Power Delivery specification announced by USB-IF "enables the maximum functionality of USB by providing more flexible power delivery along with data over a single cable."

To get USB Power Delivery working in homes, Leviton makes the T5635, a USB-equipped wall outlet that can charge a device at 30 watts from a single port, while still allowing you to use the outlet's AC plug-ins for your coffee maker and toaster.

It's easy to swap your old AC outlet for the Leviton T5635, and even easier to add it to new construction. This new outlet fits in a standard

electrical box, though it sits nearly an inch deeper into the box. It won't work with shallow electrical boxes. To replace an outlet that has GFCI protection, Leviton makes a GFCI outlet for Type A USB connectors, but not for Type C.

We installed the Leviton outlet in our homeLAB, replacing a standard two-plug outlet. It enabled faster charging for every device we plugged in. All Leviton USB outlets use a smart chip that recognizes the power needs of the device you're charging—more power for a laptop, for example. With the increasing use of USB Type C connections, this Leviton outlet is a good addition to a home office space or busy kitchen counter.



USB-A OUTLET

FALL CLEANUP THE EASY WAY

Fall foliage is great for trees, but not on your lawn.

When your yard is littered with fallen leaves, spare yourself the chore of raking and hauling. Use the Cyclone Rake to make your tough jobs easy. Get your yard cleanup done in half the time and give your back a break as the Cyclone Rake vacuums and collects all your leaves in a few easy passes.

Get a FREE INFO KIT to learn more!

Call: 1-800-593-6704 Visit: CycloneRake.com

Cyclone Rake

The Cyclone Rake is shown with optional Mower Deck Adapter and Roof Rack Carrier. Mower not included. ©2021 Woodland Power Products, Inc. • 72 Acton Street • West Haven, CT 06516

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BY MIKE BERNER

MEET THE BUILDER



MIKE BERNER IS AN ASSOCIATE EDITOR AT FAMILY HANDYMAN. AS A FORMER TEACHER AND REMODELER, MIKE LIVES FOR FINDING CLEVER SOLUTIONS TO PROBLEMS AROUND THE HOUSE.

WHAT IT TAKES

TIME 2 days	COST \$200 + fireplace*	SKILL LEVEL Intermediate
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TOOLS

Circular saw, basic carpentry tools, drywall tools, wire stripper

*The Touchstone Elite Sideline shown here costs \$1,200 at Lowe's.



Stepping out of a warm tub or shower into a cold space is one of life's lesser joys. Besides just tolerating the chill, the usual remedy has been to install a heat lamp. But with their red glow and noisy timers, they can make you feel like a newborn chick or maybe a hot dog waiting all afternoon for a hungry customer at a gas station.

I wanted a completely different vibe—no surprise—for our bathroom revival. With this electric fireplace, I can change the color of the flames and embers, and I can control the heat output, all using Wi-Fi.

EASY INSTALLATION, ANYWHERE.

To ease this installation, I built out an existing wall. Doing this makes it possible to put an electric fireplace anywhere in your home without worrying about compromising a load-bearing wall or the insulation on an exterior wall. It simplifies pulling wires too, but you'll have to apply drywall, tape and mud.

1 MAP IT OUT

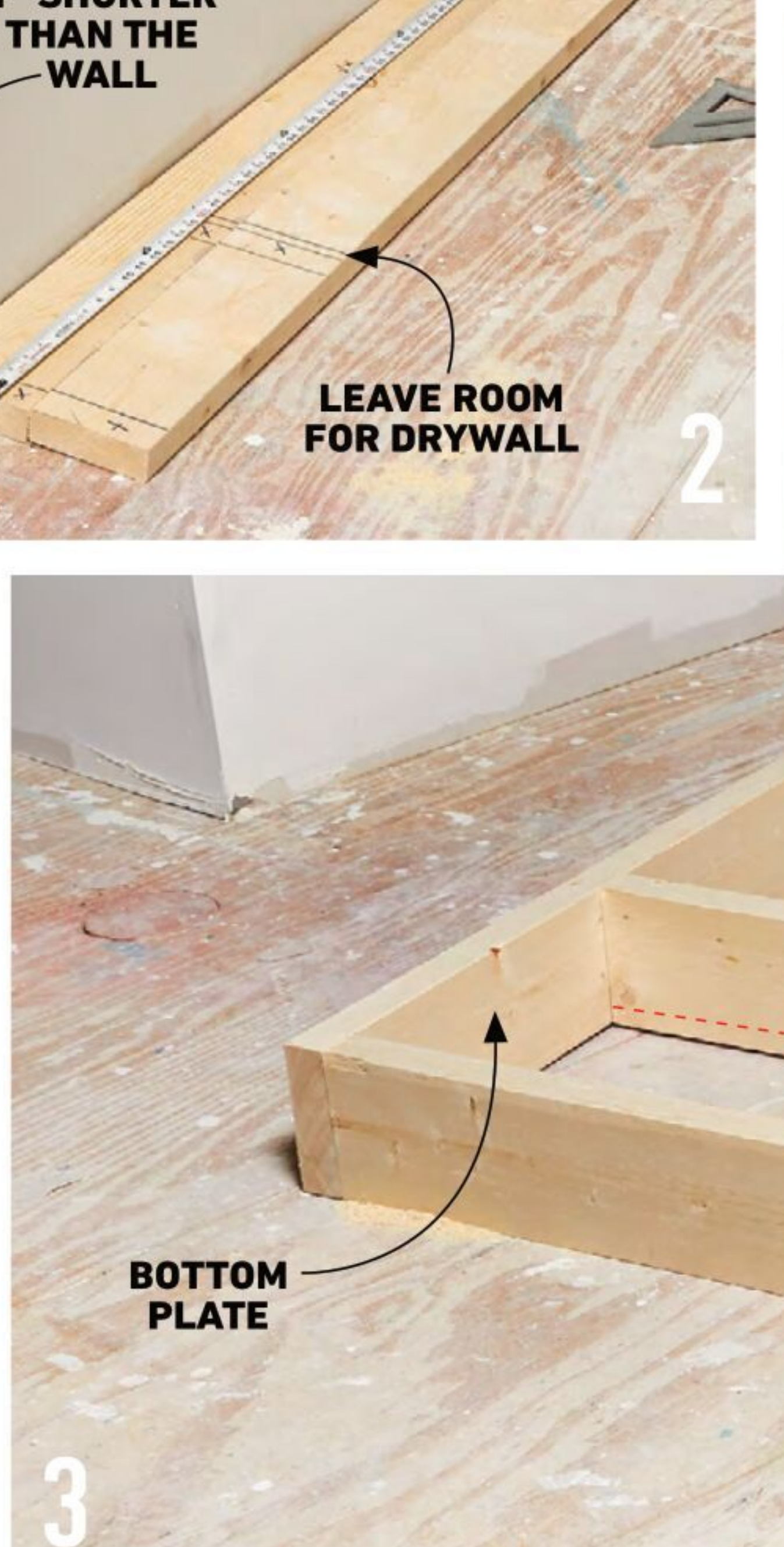
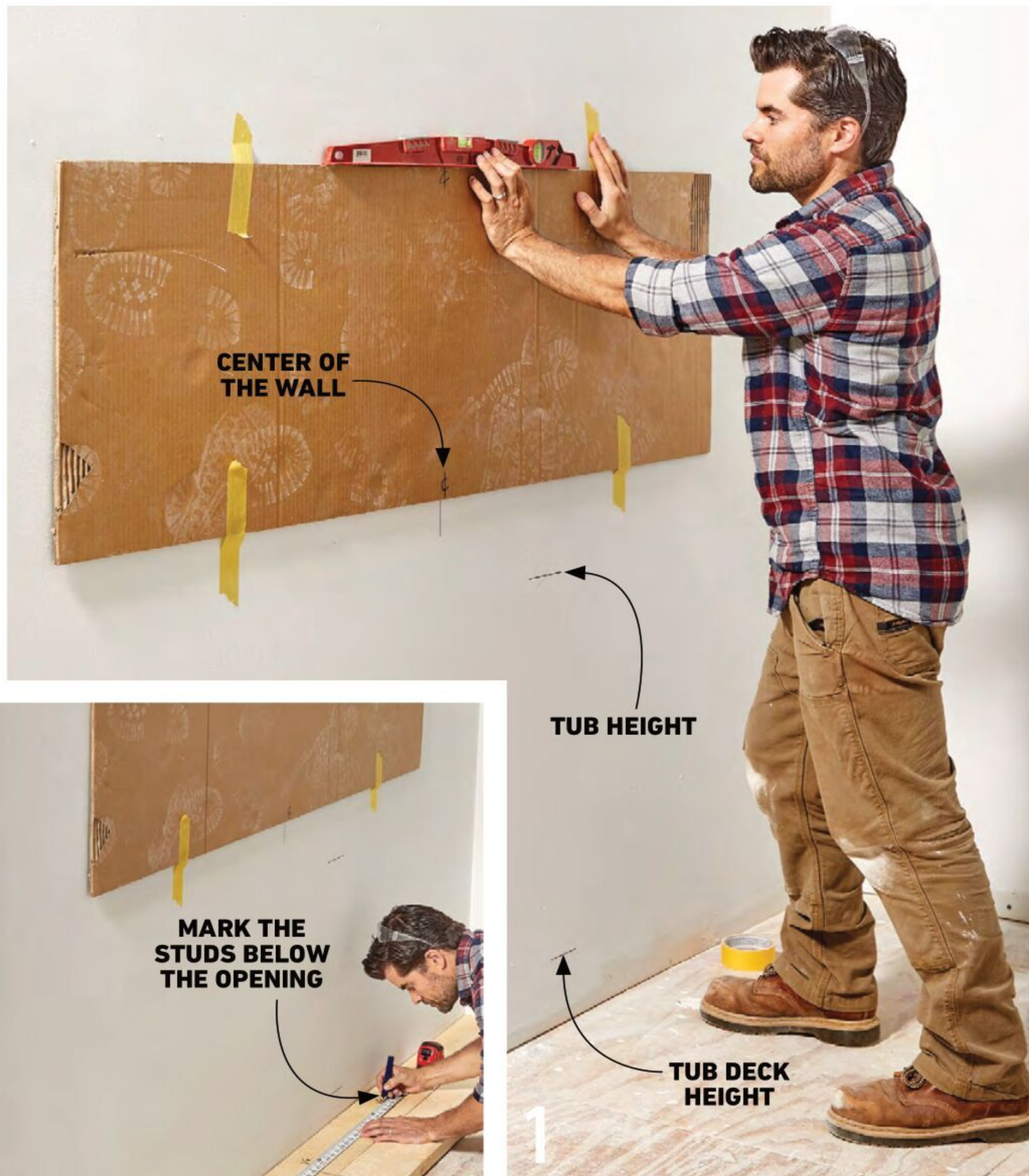
To position the fireplace with the required clearance, I started with a cardboard cutout of the fireplace. For this bathroom remodel, we're adding a raised deck for a tub (see p. 34), so I marked the finished height of the tub deck, the height of the tub and 6 in. of clearance above the tub to the bottom edge of the fireplace. I centered and leveled the cutout, and then taped it to the wall.

2 MARK THE PLATES

For the top and bottom plates of your fireplace wall, cut two 2x6s 1 in. shorter than the finished wall. Flush their ends and use a Speed Square to mark across both plates, marking the center, the fireplace rough opening and the studs every 16 in. on-center. The rough opening should be 1-1/2 in. taller and wider than the fireplace; this will give you enough space to drywall the opening, as well as some wiggle room.

3 BUILD THE WALL

After you cut the studs, separate the top and bottom plates, and lay the studs in between. While you line up the studs on your layout marks, check them for a crown and, if there is one, face it up. For this small wall, I fastened the studs with screws through the plates, positioned the sill to the rough opening size and then capped the wall with a second top plate.





4 SECURE TO STUDS WITH BLOCKS

To fasten the new wall in place, attach blocks between the studs, flush with the back of the wall. Then locate studs in the existing wall and drive screws through the blocks into the studs. If the existing studs line up with the new wall's stud layout, toe-screw the top of the wall into the existing studs.

5 FISH THE CABLE

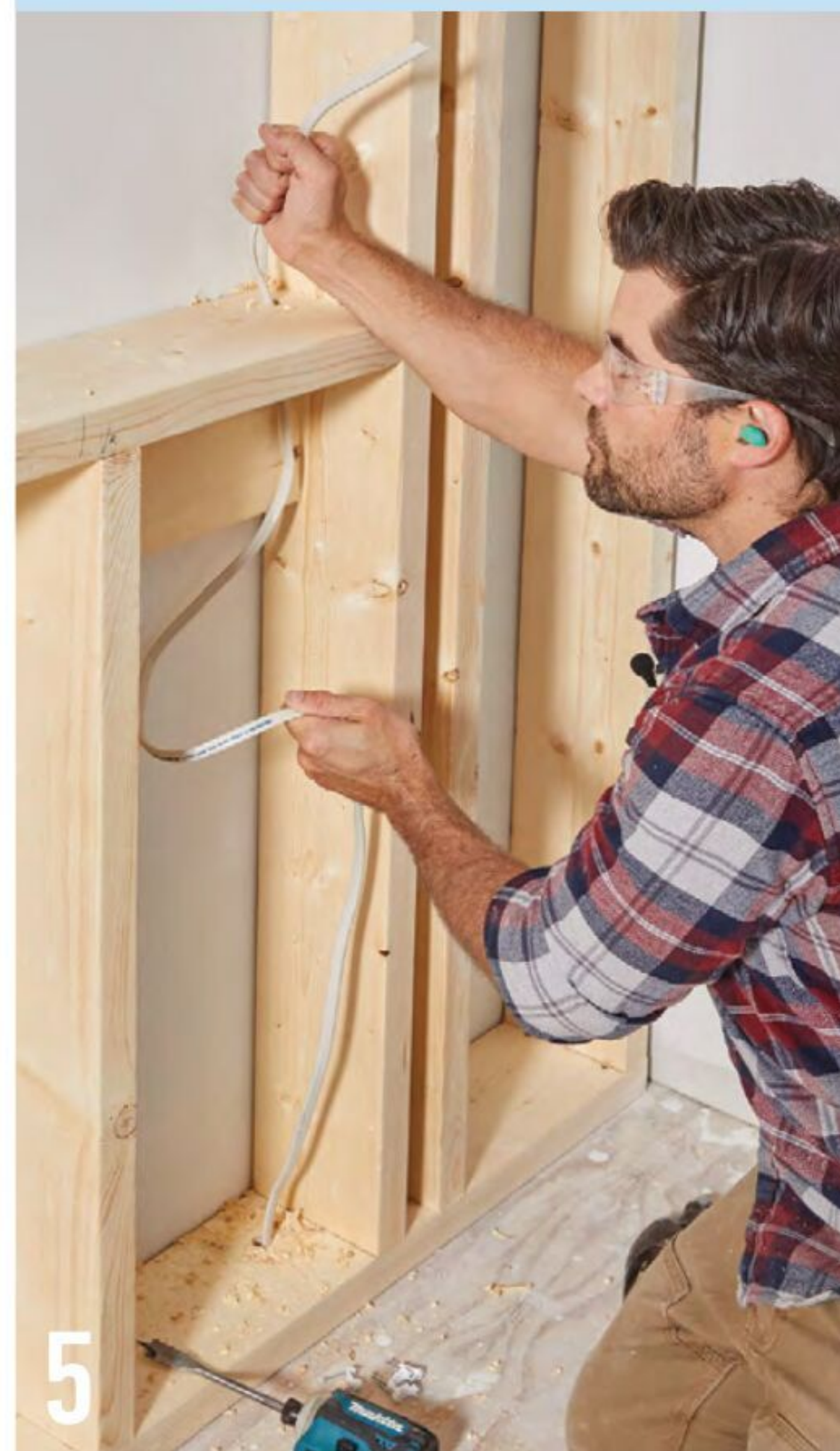
Building out a wall makes running cable as easy as drilling a hole and pulling the cable through. Read the owner's manual for your electric fireplace. Ours says, "Never overload the circuit" and, "Avoid plugging other appliances into the same circuit as this fireplace." This told me it should probably be on its own circuit for safety. If there isn't a dedicated circuit already in place, hire an electrician to install one.

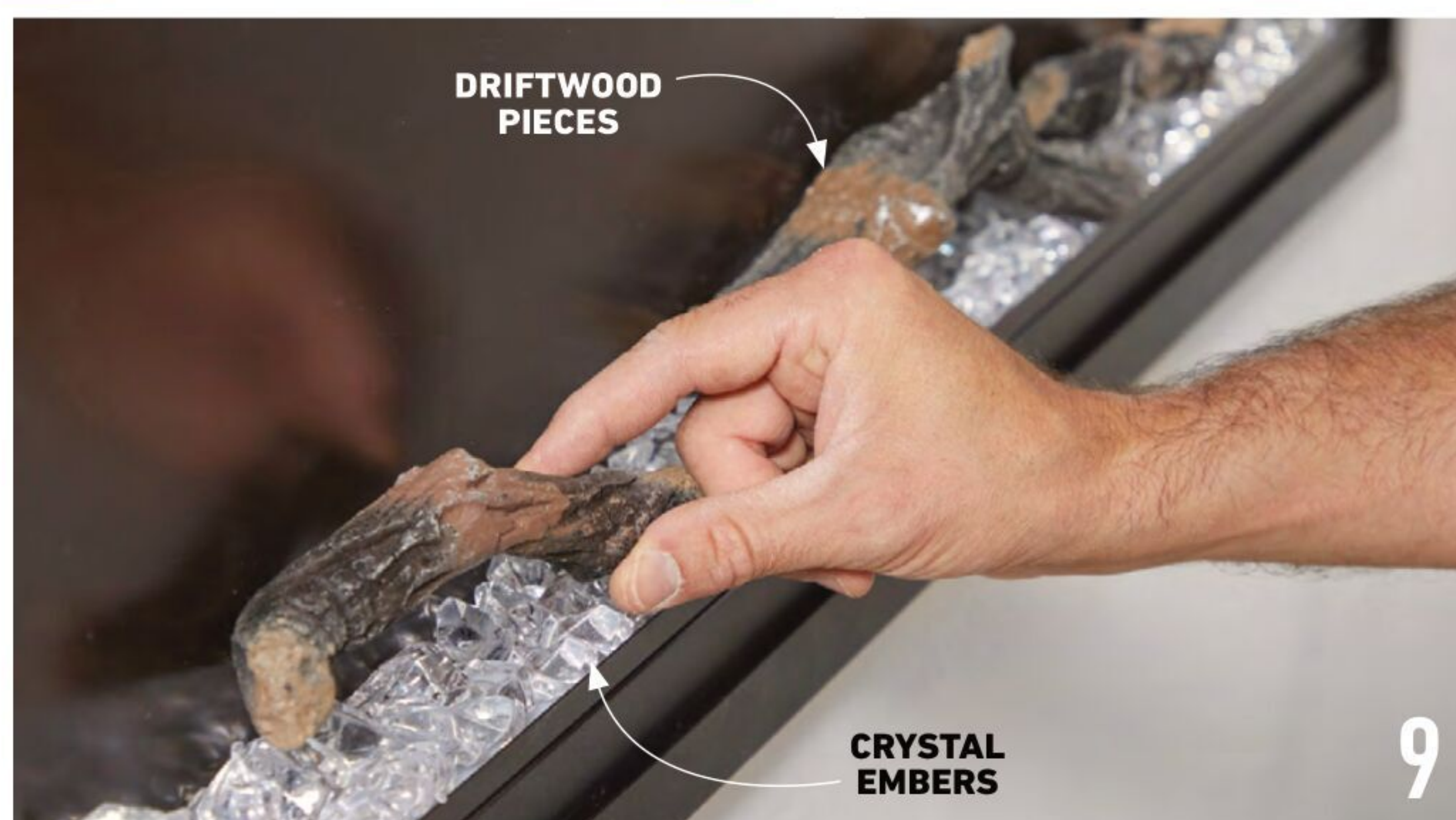
6 FINISH THE WALL

With the electrical cable run through the opening, I covered the wall with drywall, taped and mudded. The inside of the opening where the wood framing is exposed should also be covered with drywall to maintain the recommended clearance to combustibles.

PRO TIP

Pull cable through an opening close to the wall and near the fireplace power cord.





8

SIDE BRACKET

FIREPLACE TRAY

7

7 OPTIONS FOR POWER

This fireplace has two options for power: You can either plug it into an outlet with the cord that's attached, or remove the cord and hardwire it to a dedicated circuit. To plug it in, I would have needed to add an outlet, so I opted to hardwire it. I simply opened the cover and swapped the cord with the cable I fished through the opening.

8 FIT AND FASTEN THE FIREPLACE

Remove the glass panel and the side brackets inside to expose the holes for fastening the fireplace. I used the matching black 1-1/2-in. wood screws that came with the kit and drove them while pressing the fireplace tight to the wall. Once both sides were fastened, I replaced the side brackets.

9 ADD THE EMBERS & LOGS

I added the crystal embers to the fireplace tray and set the driftwood log pieces on top. The LED strip below the embers makes the crystals glow in different colors.

10 REPLACE THE GLASS PANEL

After cleaning the fireplace screen and the back of the glass, I carefully set the glass panel in place and fastened it into position with two setscrews. When the circuit breaker is flipped on and our wall is painted, this bathroom will be a warm and cozy retreat.



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SPA BATH ON A BUDGET

BY BRAD HOLDEN



MEET THE BUILDER



BRAD HOLDEN IS
A SENIOR EDITOR
AND FORMER
CABINETMAKER.



TONGUE

GROOVE

TONGUE & GROOVE JOINT

CREATE A SPACE FOR RELAXING & RECHARGING

To update our bathroom and give it the feel of a spa, we knew we wanted to install a modern freestanding tub. And setting it on a raised deck gave us the feel of stepping into a cozy new space.

After removing our old tub, we considered tiling the walls. Instead we added marblelike wall panels; they gave us a luxury look in a fraction of the time it would have taken to tile and grout.

MOVING A TUB DRAIN

Relocating a bathtub to the center of the room entails moving the tub drain. Unless you're confident in your plumbing skills, call a pro for this. You'll need to cut into your flooring to access the old drain and position the new one. Since you're covering the whole area with the tub deck, you don't need to worry about patching it all afterward. Just make sure there's enough space below the new location to accommodate the drop of the P-trap. This will be easiest if you have an unfinished basement underneath. Your plumber can also connect the new drain to the old line.

WHAT'S ON THESE WALLS?

We installed WetWall, a wood/plastic composite similar to composite decking, topped with a high-pressure laminate surface. About 1/2 in. thick, WetWall is waterproof and durable. It's available in a wide array of panel sizes—including custom sizes—and patterns. It can be applied to many existing surfaces, including tile. It's easy to work with and requires no special tools—just a sharp, fine-tooth saw blade for smooth cuts. Tongue-and-groove edge joints make seams virtually disappear.

WHAT IT TAKES

TIME	COST	SKILL LEVEL
2-4 days	\$1,700*	Intermediate

TOOLS

Table saw or circular saw, drill/driver, finish nailer, caulk gun

MATERIALS

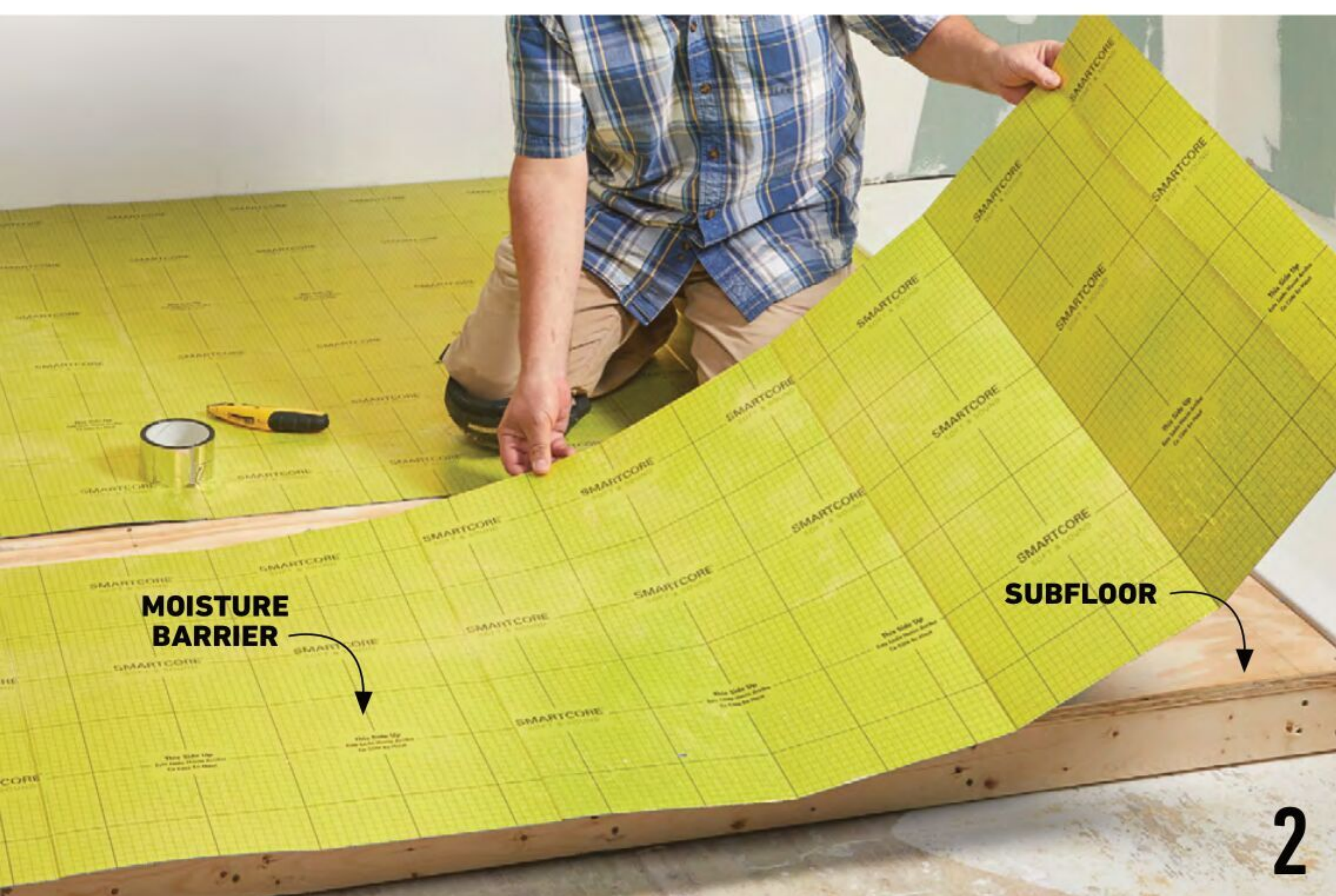
WetWall panels, 2x4s, subfloor plywood, moisture barrier, LVT flooring, adhesive, aluminum angle
* A typical WetWall shower kit costs up to \$1,200. We spent more on WetWall because we covered all the walls with it. The tub deck cost \$500.



BUILD THE TUB DECK

1 BUILD THE DECK FRAMING

Build the floor deck using 2x4s, 16 in. on center, as if you were building a stud wall. I wanted the tub deck to end up about 1/4 in. lower than the curb of our shower pan, so I calculated the thickness of the flooring, moisture barrier and subfloor to figure out how high the deck framing needed to be. In this case, I trimmed the 2x4s to 3-1/4 in. wide.



2 INSTALL THE SUBFLOOR

Fasten the subfloor to the framing, then apply a moisture barrier. The luxury vinyl tile (LVT) I used is waterproof, but for a wet location such as a bathroom or basement, you still need to install a moisture barrier at least 6 mil thick.

3 APPLY THE FLOORING

Install the LVT flooring, starting in a corner of the room. This floating, click-together LVT installs quickly and easily—no glue and no nails or staples.

4 TRIM THE LEDGE

Apply stair nosing to cover the edge of the deck flooring. I made my own, matching the stain to the color of the flooring. Next, apply flooring to the front face of the tub deck. Use construction adhesive here.





INSTALL THE WALL PANELS

1 DRY-FIT THE PANELS

Test-fit the panels and cut as needed. If you need to trim a panel, trim the edge that abuts a wall, not where two panels meet. The best way to trim large panels like this is to use a track saw or a circular saw with a cutting guide.

2 APPLY WALL ADHESIVE

Clean the back of the panel using denatured alcohol and allow it to dry thoroughly. Apply adhesive to the back of the first panel. The manufacturer recommends a 1/4-in. bead every 10 to 12 in. Clean and dry the walls before applying WetWall panels.

3 INSTALL THE PANELS

Press the first back wall panel into place. Apply a bead of color-matched seam sealer to the tongue on the panel, then apply adhesive to the back of the next panel and install it. The joints are tight; get a helper. Tile-setting suction cups are also a big help.





4 CLEAN THE SEAM

After pressing the panels together, wipe off any excess seam sealer with denatured alcohol. If the adhesive isn't holding the panels securely in place, you may need to use bracing boards to hold up the panels.

5 CUT HOLES FOR FIXTURES

Measure and lay out the shower's fixture holes on the appropriate panel. To cut the holes, use a jigsaw with a fine-tooth blade or a hole saw, as your fixtures dictate.

6 INSTALL SIDE PANELS

Apply the side panels as you did the back panels, trimming as needed and using adhesive on the backs and seam sealer on the tongue-and-groove joints.

7 CAULK JOINTS

Apply a bead of seam sealer to the corners where the wall panels meet. WetWall has color-matched sealer for all of its products. For outside corners, you can order WetWall with a bullnose edge. We chose to trim our outside corners around the shower with 1-in. aluminum angle applied with construction adhesive.





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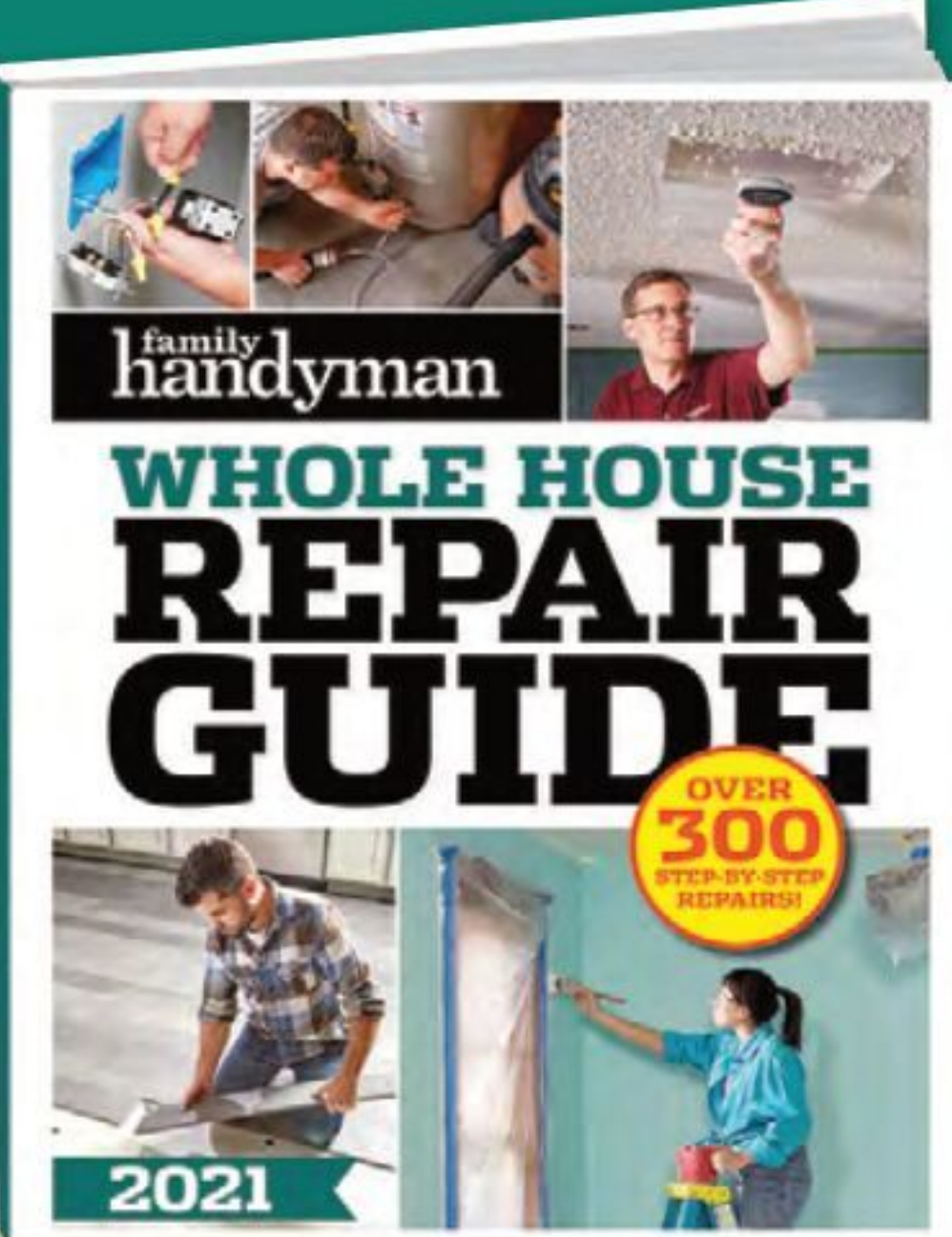
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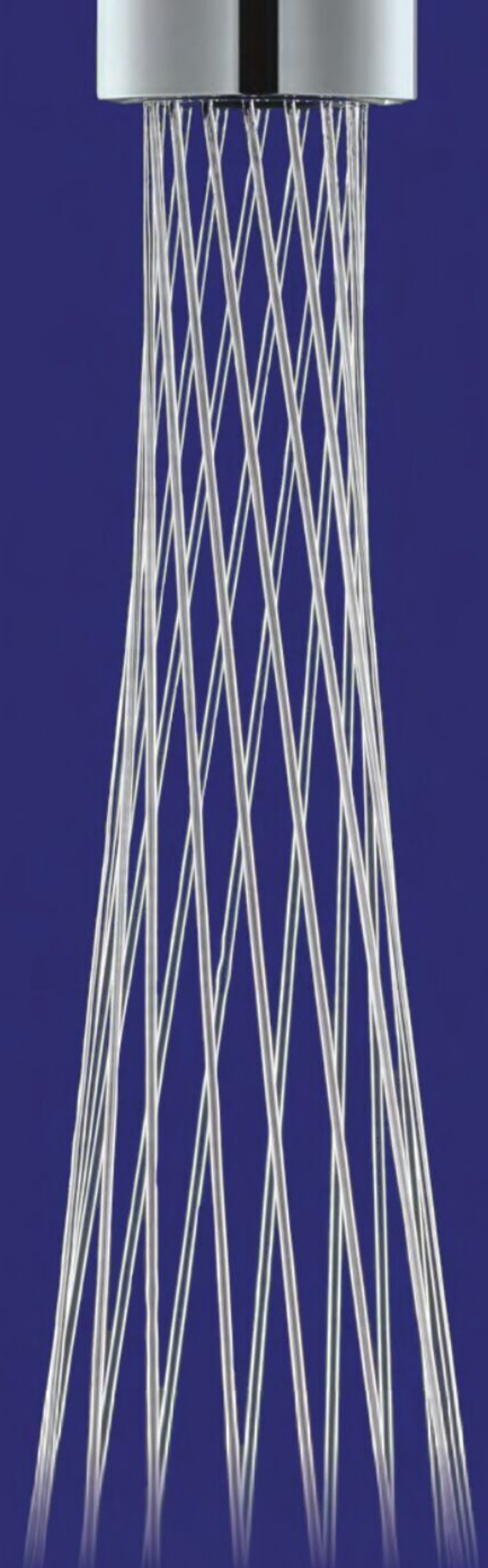
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REFRESH WITH PLANTS

////////////////////
CREATE A CALMING SPACE WITH THIS STYLISH PLANTER

BY JAY CORK

Being surrounded by greenery relieves stress and brightens your mood. Set in this custom-size planter, foliage can brighten your decor too. Why not add one to your bathroom, bedroom or any living space? Fitted with pots, it lets you easily change out your plants whenever you'd like.



WHAT IT TAKES

TIME	COST	SKILL LEVEL
2 days	\$200	Intermediate

TOOLS
Table saw or circular saw, jigsaw, router, orbital sander, brad nailer, basic carpentry tools

1

MEET THE BUILDER

ASSOCIATE EDITOR
JAY CORK ENJOYED
DESIGNING A PLANTER
FOR INDOORS.



DECK STAIN
APPLICATOR PAD

2



1 PREFINISH SHEET GOODS

It's faster to prefinish a 4 x 8-ft. sheet than to do several small parts, and the finish is more consistent. After whitewashing the Baltic birch with white gel stain, I top-coated with a water-based polyurethane. Unlike an oil-based finish, it won't yellow over time.

2 PROFILE THE EDGES OF THE TRIM CAP

Using a router, profile the nose of the cap. For this project I used a 3/8-in. round-over bit to create a simple, classic line. Sand all the parts to 180 grit.

3 STAIN TRIM TO MATCH

Poplar is a good choice for the trim on this planter box—it's readily available and works easily. To color-match the LVT used for the tub deck (p. 34), I started with iron oxide stain, followed by amber shellac.

4 APPLY FINISH TO THE TRIM BOARDS

Once all the trim boards are stained, apply two coats of clear finish. I chose an oil-based topcoat because it will imbue a slight yellow tone. This is the final step in my color-matching process.

3

HOMEMADE IRON OXIDE STAIN



4

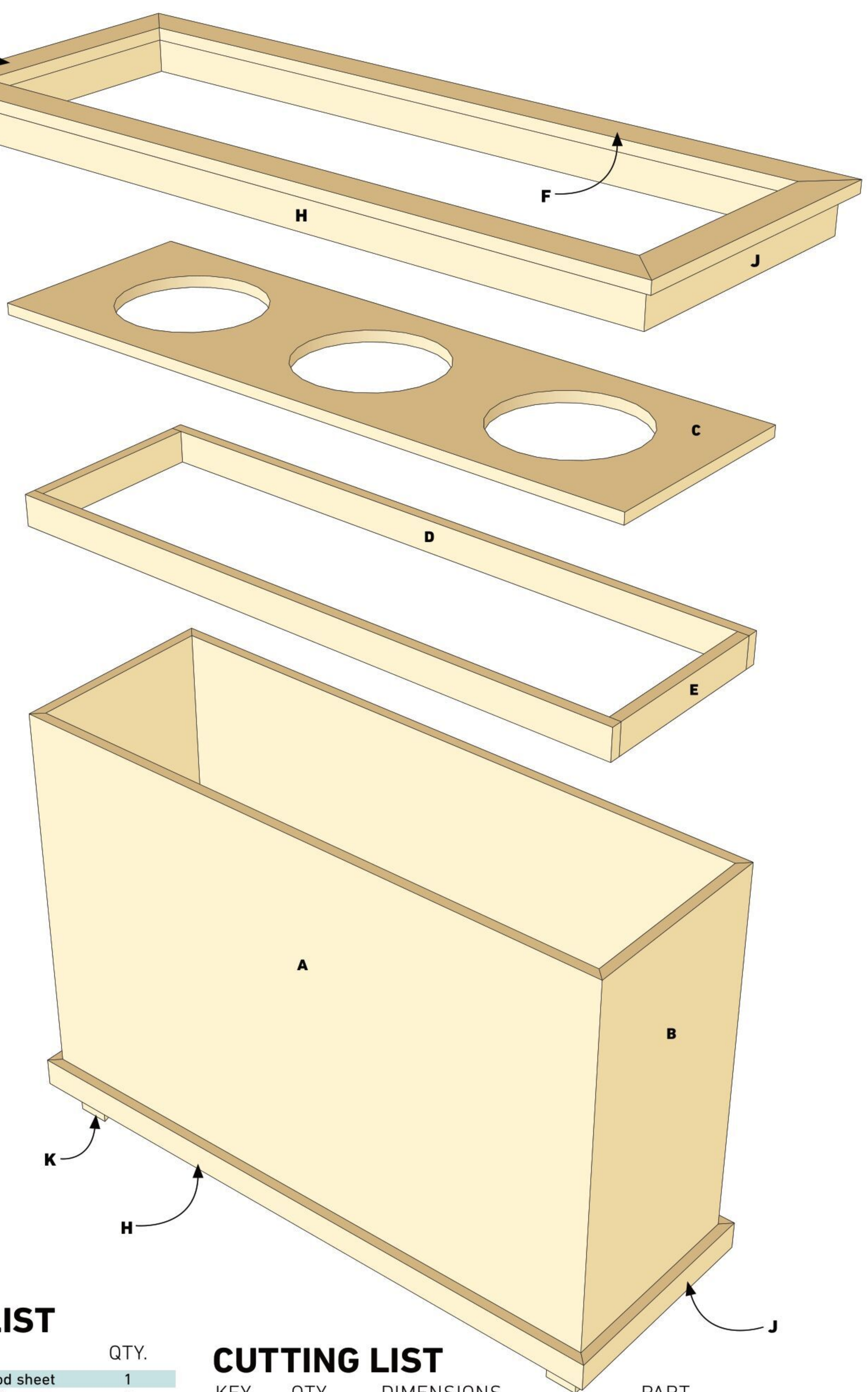


FIGURE A
PLANTER BOX

OVERALL DIMENSIONS:
32"W x 12"D x 23-3/4"H



**HOVER YOUR
CAMERA HERE
TO SEE THE
LOCK MITER BIT
IN ACTION!**



MATERIALS LIST

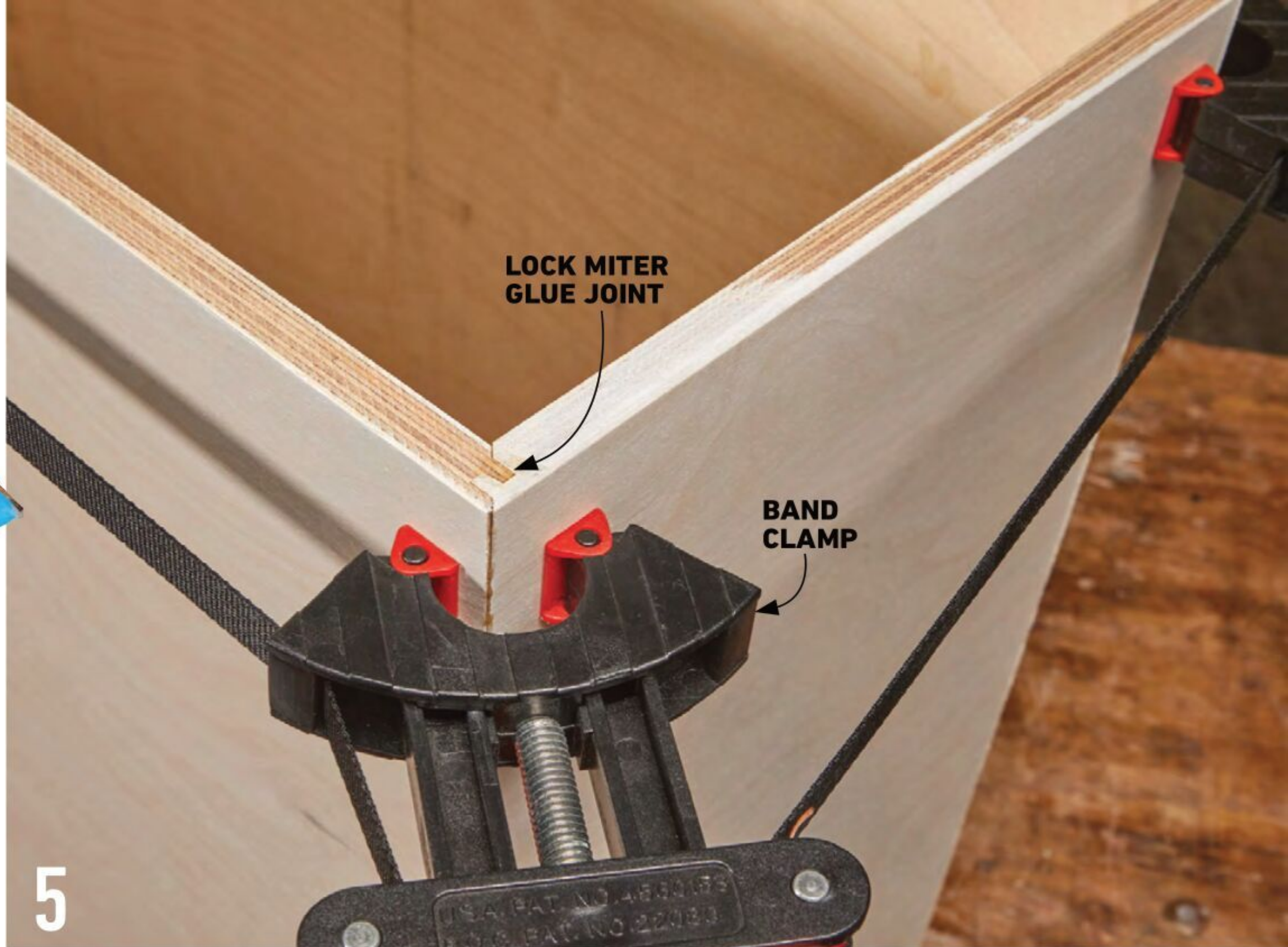
ITEM	QTY.
4' x 8' x 1/2" Baltic birch plywood sheet	1
8' poplar base cap (for the skirt)	3
1x2 8' poplar board	1
Wood glue	1 bottle
Instant-grab construction adhesive	1 tube
White gel stain	Pint
Water-based polyurethane	Quart
Oil-based topcoat	Pint
3/4" brad nails	Box
1/4" staples	Box
3 mil black plastic	Roll

CUTTING LIST

KEY	QTY.	DIMENSIONS	PART
A	2	1/2" x 30" x 21-1/2"	Front and back
B	2	1/2" x 10" x 21-1/2"	Sides
C	1	1/2" x 28-7/8" x 8-7/8"	Base
D	2	1/2" x 1-1/2" x 29"	Ledger (long)
E	2	1/2" x 1-1/2" x 8"	Ledger (short)
F	2	3/4" x 1-1/2" x 32"	Trim cap front and back
G	2	3/4" x 1-1/2" x 12"	Trim cap sides
H	4	3/4" x 2" x 31"	Skirt front and back
J	4	3/4" x 2" x 11"	Skirt sides
K	4	1-1/2" x 1-1/2" x 6"	Feet

5 ASSEMBLE THE PLANTER BOX

You could use pocket holes and screws for this job, but the plywood end grain would show on the corners of the box. With a lock miter joint, you can get a continuous grain pattern as well as a strong glue joint. This method requires a router table and a lock miter bit—and some patience. But this is a great joinery method to learn for this and other projects.



6 CUT HOLES IN PLANTER BASE

Using a jigsaw, cut three evenly spaced holes in the planter base. Size them according to your planter pots. Once the holes are cut, sand any rough edges and check the fit. The planter pots should slide in right up to the rim.



7 ATTACH THE LEDGER

Position the ledger 1 in. down from the top. It will hold the planter base and you'll staple the plastic liner to it in Step 9. Using a combination square as a guide, I used instant-grab construction adhesive and 3/4-in. brad nails to fasten the ledger parts.

8 ATTACH THE FEET

Position the feet to raise the planter box off the ground about 1-1/4 in. I used scrap wood from my shop and attached the feet with instant-grab construction adhesive.





9 LINE THE BOX WITH PLASTIC

This is an indoor planter box; line it with 3 mil plastic to prevent damage from overwatering. Staple the plastic to the front ledge first, then the back, leaving plenty of slack. Do the sides last. Trim the excess with a utility knife.

10 PAINT THE INTERIOR AND BASE

Because I planned to fill the top of the planter with black river rocks, I applied two coats of black oil-based paint to the base and inside edges of the box to make them less noticeable. Paint the inside to match the rock you choose.

11 ATTACH THE TRIM

Using construction adhesive and brad nails, attach the skirt trim pieces. Do the cap first, then attach the upper and lower skirts.

12 FILL PLANTER TOP WITH RIVER ROCK

I found inexpensive black river rock at dollartree.com (\$1 per 32 oz.). Cover the pots completely for a traditional planted look.



Now, THIS is a Knife!

This 16" full tang stainless steel blade is not for the faint of heart — now **ONLY \$99!**

In the blockbuster film, when a strapping Australian crocodile hunter and a lovely American journalist were getting robbed at knife point by a couple of young thugs in New York, the tough Aussie pulls out his dagger and says "That's not a knife, THIS is a knife!"

Of course, the thugs scattered and he continued on to win the reporter's heart.

Our Aussie friend would approve of our rendition of his "knife." Forged of high grade 420 surgical stainless steel, this knife is an impressive 16" from pommel to point. And, the blade is full tang, meaning it runs the entirety of the knife, even though part of it is under wraps in the natural bone and wood handle. We found full tang, stainless steel blades with bone handles in excess of \$2,000. Well, that won't cut it around here.

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A SHOWER WITH POWER

////////////////////
**GET A BETTER FLOW WITH THESE
TIPS FROM A PRO**

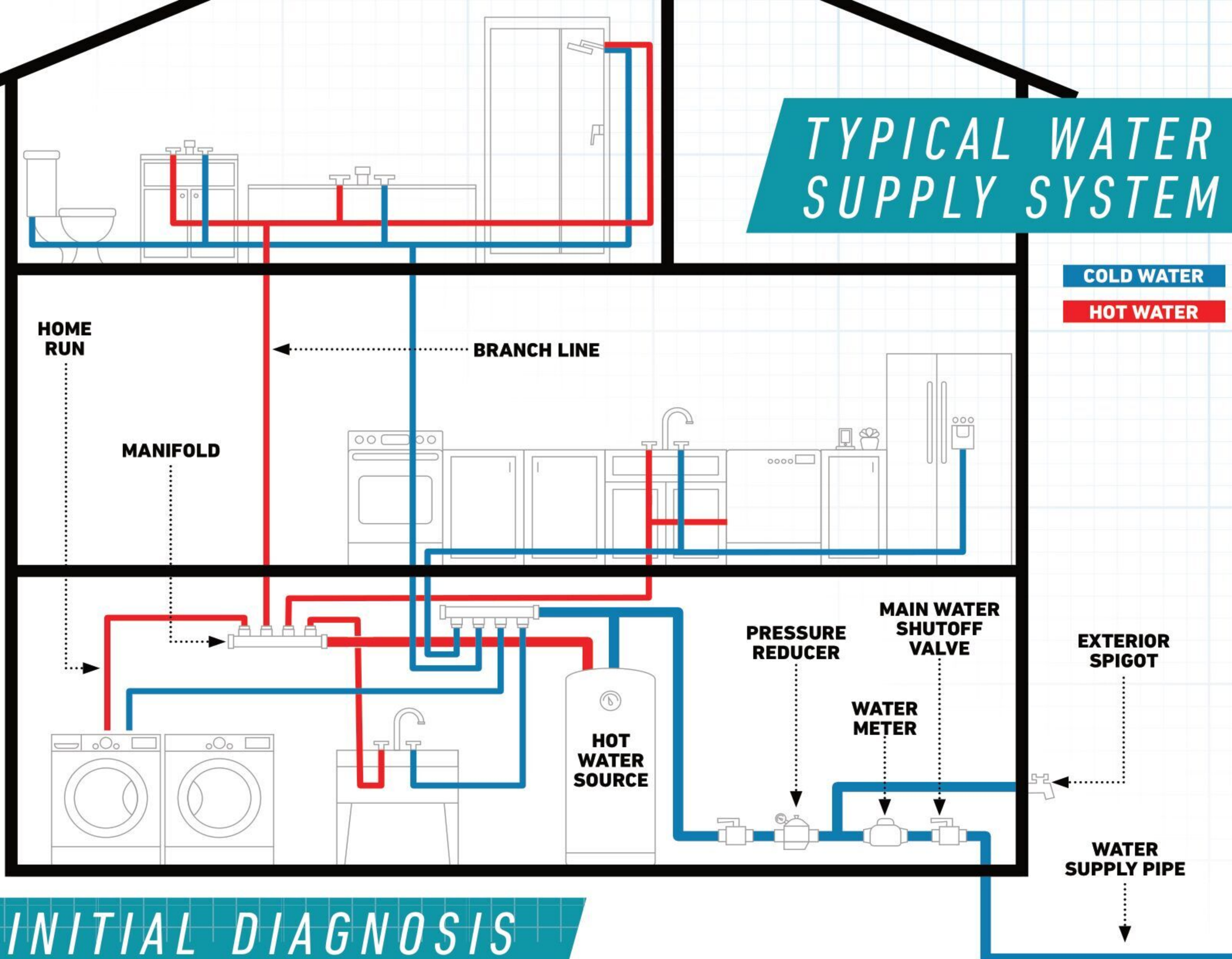
BY BILL BERGMANN

Ever come home from a fancy hotel stay and find yourself disappointed by your own shower? If your showerhead is weak, you may think it's caused by low water pressure—and it could be—but it's more likely that faulty plumbing or fixtures are reducing the flow or volume of water at your showerhead. I sat down with Master Plumber Suzanne Boyer to sleuth out this situation, discuss common causes and offer solutions.

MEET THE EXPERT

SUZANNE BOYER IS AMONG THE 4.3% OF MASTER PLUMBERS NATIONALLY WHO ARE WOMEN. IN HER 20-PLUS YEARS OF EXPERIENCE, HER M.O. HAS BECOME SIMPLE: "MY PURPOSE IS TO HELP PEOPLE. PLUMBING ALLOWS ME TO DO THAT. I MAKE PEOPLE SMILE. THAT'S WHAT IT'S ALL ABOUT."

TYPICAL WATER SUPPLY SYSTEM



INITIAL DIAGNOSIS

MAIN WATER PRESSURE

If your plumbing fixtures don't provide an adequate stream of water, the water pressure entering your home could be low. However, Boyer says the water pressure from the street is usually too high instead of too low. Optimal pressure is about 40 to 60 pounds per square inch (psi). Boyer has seen it as high as 150 to 200 psi. And that's why many homes have a water pressure regulator or pressure reducing valve (PRV) installed near where the water main enters the house. Low water flow in your house could be caused by a faulty PRV, or the main water valve could be clogged or stuck partially open.

You can check the water pressure coming into your house using a water pressure gauge that costs about \$10. Attach the gauge to an outdoor spigot near your water main and open the spigot valve. If it reads well above 60 psi, you need a new PRV. If it's below 40 psi (and it's probably not), check with neighbors to see what they're experiencing.

The next step is to call a plumber; you may have a leak somewhere. In the meantime, keep reading, because we might have a fix for you and your inadequate showerhead.

BRANCH LINE OR HOME RUN?

If you experience low water flow with just a few fixtures in your home, like in your shower, you may have a clogged branch line, or a line that's plumbed incorrectly or has too many fixtures on it. It's common in older homes to have more than one fixture on the same supply pipe.

The new homes that Boyer plumbs have direct supply pipes, or "home runs," serving each fixture. She says it's best to have one dedicated branch supply line for each bathroom. She often gets calls to correct this issue for clients and then ends up upgrading most of the plumbing in these older homes.

"Today's PEX piping installs so much faster and cheaper than copper, so redoing the supply piping in a whole house is an affordable upgrade, especially if you get them all taken care of in one fell swoop."

HOT OR COLD?

If the amount of hot and cold are unbalanced, the first things to check, Boyer says, are any shutoff valves that are integral to the supply piping. They could be faulty or just not open completely. If it's only hot that's lacking, you could have a water heater issue, but more likely it's calcium buildup in the fixture itself. Boyer says most municipal water has a disinfecting additive called chloramine that will cause calcification, especially in the hot side of a fixture. Chloramine is also known to break down rubber seals. A whole-house carbon filter can remove the chlorine and contaminants, including particulate matter, but it won't remove any of the ammonia found in chloramine.

THE SIMPLE FIXES

SHOWERHEAD: It could be all in your head—your showerhead, that is. Calcium or iron deposits can affect water flow through the showerhead. A good soaking in a 1:1 solution of vinegar and water will break down particle buildup that you can then scrub off with an old toothbrush. Either remove the showerhead or tie on a plastic bag full of the solution. Check the manufacturer's guidance for cleaning. Vinegar can damage the finish of some showerheads.



TUB SPOUT DIVERTER: For a shower in the bathtub, the tub/shower diverter in the spout may be cheating your shower of adequate flow. Grab a pipe wrench or wide-mouth pliers and, after wrapping the spout with a rag to protect the finish, remove the spout and examine the diverter gate to see if it's stuck or clogged. Boyer says you can fix the diverter mechanism with a rebuild kit. Or better, go buy a new diverter spout for less than \$50.

VALVE CARTRIDGE: If your showerhead isn't the problem, check the valve cartridge. Remove the handle and faceplate to access the cartridge. The cartridges vary. For many, you remove a retainer clip to get the cartridge out (you may need a specific puller tool). Examine the plastic and rubber seals. You can clean it all with vinegar and water, but if it looks worse for wear, it's best to get a new cartridge. "Most manufacturers stand behind their warranties," says Boyer, "and will provide a replacement for free."





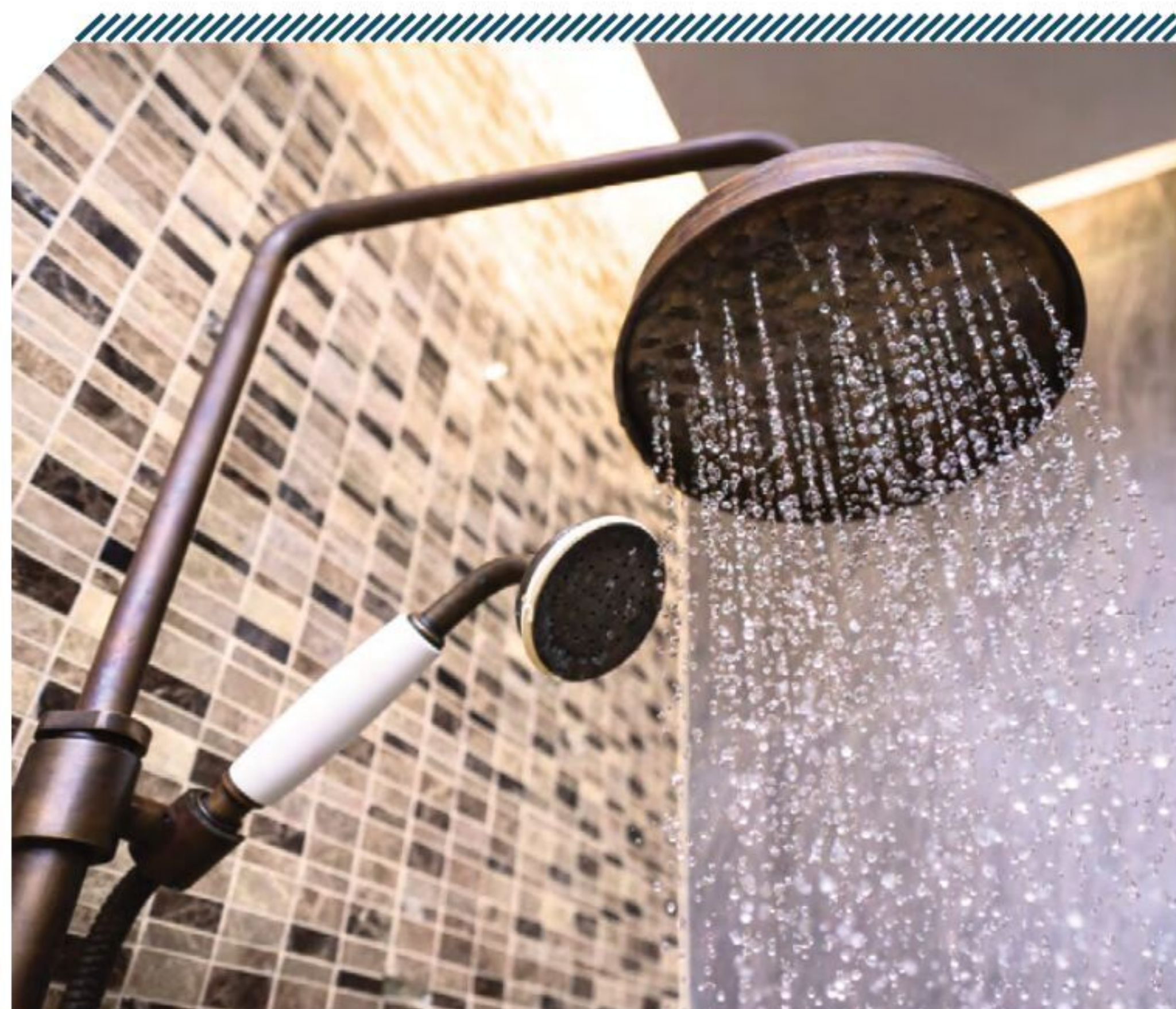
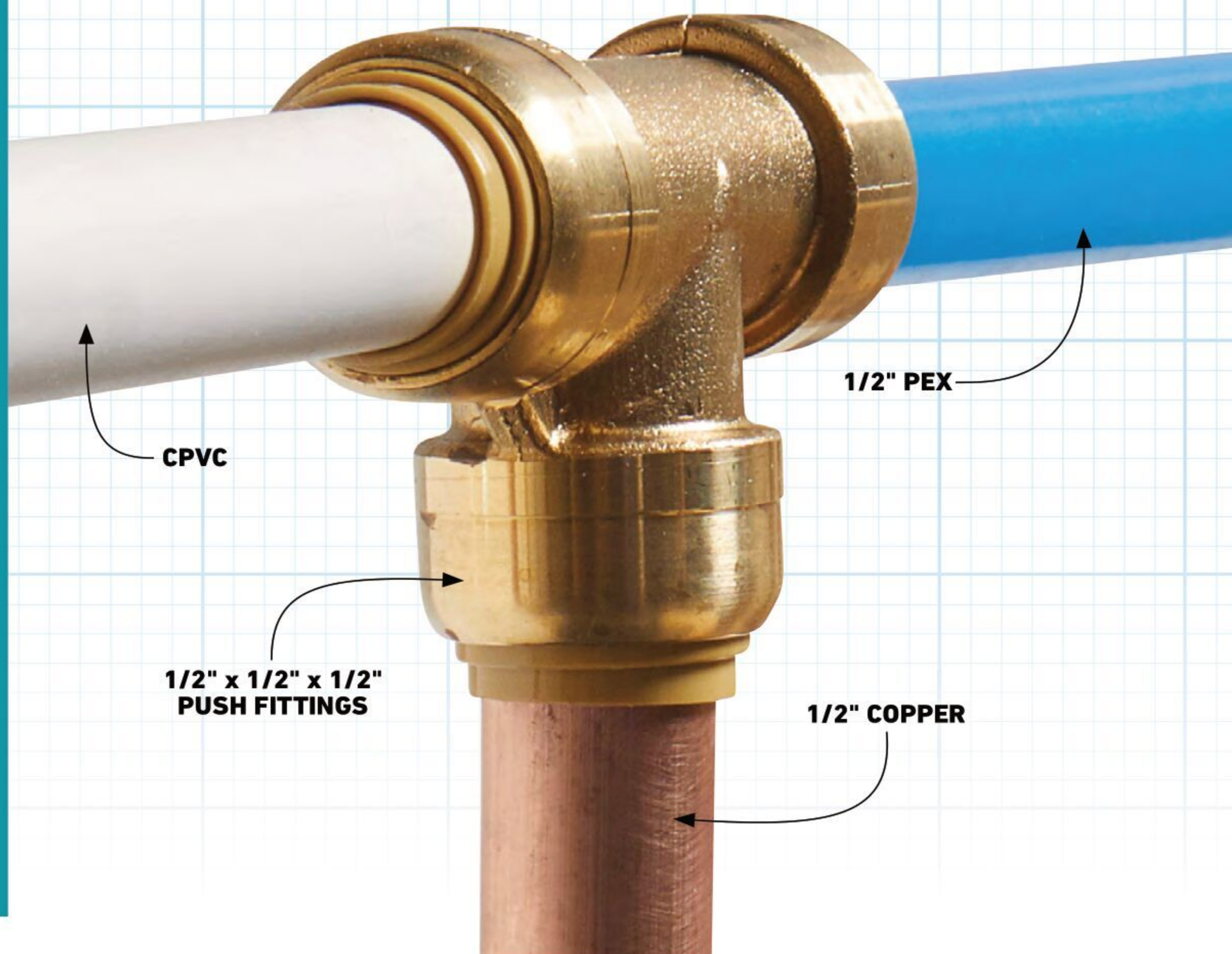
THE NOT-SO-SIMPLE FIX

FAULTY SUPPLY PIPES: Steel pipes are the most common cause of low water flow in older homes. They don't last forever, even though they're galvanized. The steel pipes will eventually rust from the inside, creating sediment and buildup that restrict flow and clog fixtures.

If your water runs rusty after periods of no use, or if you see rusty deposits in your showerhead, your home's old pipes may need to be replaced. With the advent of PEX piping, "these pipes are much easier to replace than back in the copper piping days," Boyer says. If you're upgrading, replace all the piping, not just the easily accessible pipes. Some home sellers will do a partial plumbing upgrade, replacing just the most visible steel pipes with copper or PEX, leaving the steel pipes where they're not visible and where they're more expensive to replace.

DIY PLUMBING IS NOW EASIER THAN EVER

New materials and technologies have simplified the work of copper plumbing, but that doesn't mean plumbers are charging any less. You might want to do this upgrade yourself. Plumbing has always been an intimidating task for DIYers, but now with PEX piping and more push-to-connect fittings, it's far less daunting. Push-to-connect fittings are now code approved in most states, and PEX piping is affordable and available even at the corner hardware store. It's now more feasible than ever to consider replumbing the water supply in your home.



LOW-FLOW SHOWERHEADS—IT'S THE LAW

The average family uses nearly 40 gallons of water each day just by showering. That's a lot of water—nearly one-fifth of all residential indoor water use (according to the EPA). And it's why, beginning in the early 1990s, Congress set a 2.5 gallon-per-minute maximum flow rate for showerheads. This is why showerhead design becomes key. You can enjoy the shower you want even with a low-flow showerhead that puts out 2.0 gpm.

Do your homework, and shop wisely. "Do not go cheap," says Boyer. "You rely on efficient water flowing in your house every day. You can feel the weight difference in a quality fixture made of brass and ceramic, not plastic and thin steel. It's just one of those things you'll appreciate every day."

READY FOR RELAXATION

////////////////////
**OUR GETAWAY IS COMPLETE!
C'MON INSIDE & CHECK IT OUT**

Welcome to the Family Handyman Getaway.

From the DIY kitchen island to the large windows and roll-up door to the inviting wraparound deck, the styled interior reveals the simple beauty of the finished build.

One Kichler pendant light above our DIY kitchen island provides plenty of light and minimizes clutter overhead.

BY GLENN HANSEN

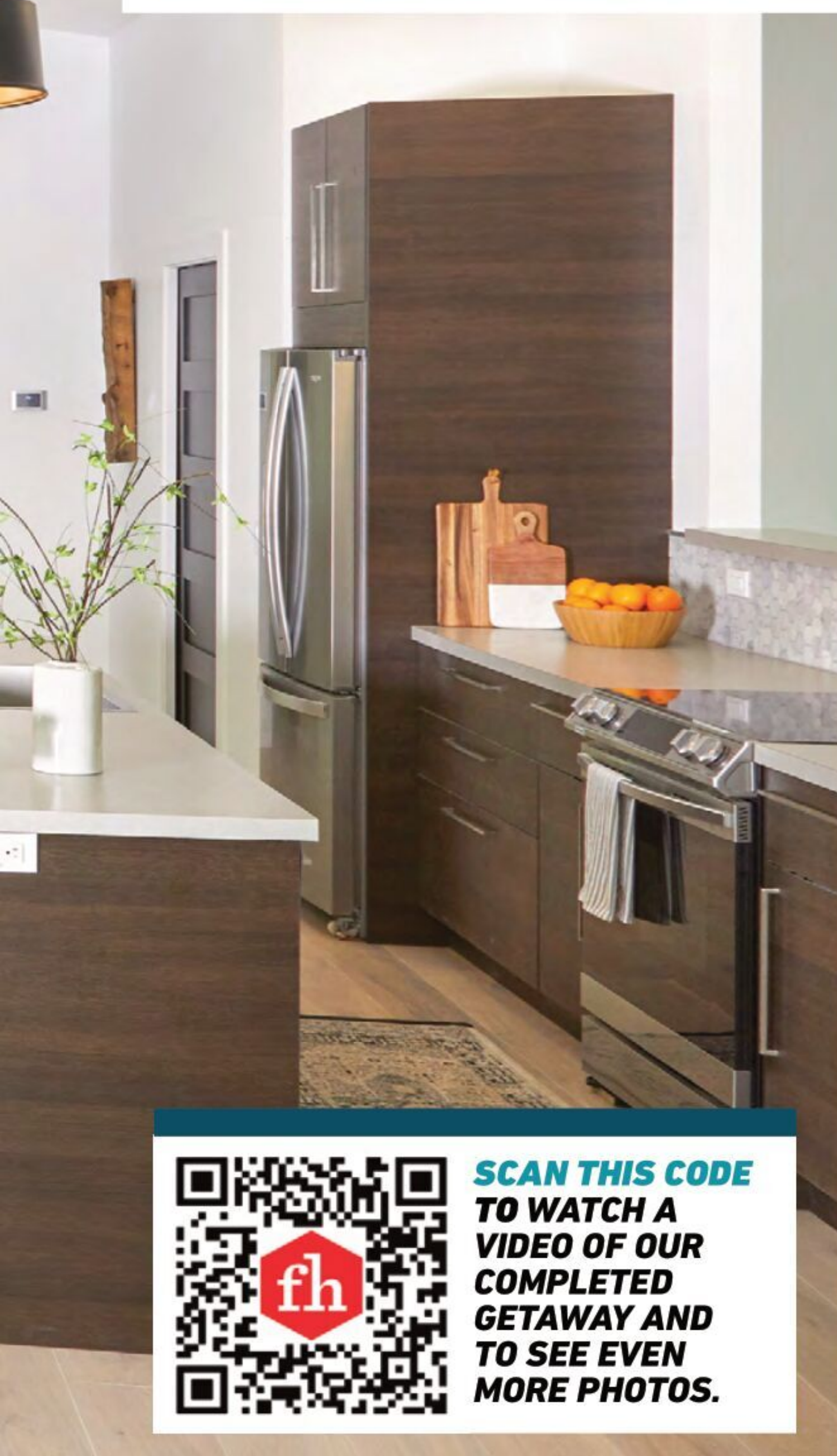


We love the Wayne Dalton insulated glass panel door that keeps us connected with the outdoors.

This is where it happens, all of it—at the kitchen island. We made ours a functional and stylish centerpiece of the room.



This Delta faucet has the clean look we wanted, as well as modern features.



SCAN THIS CODE TO WATCH A VIDEO OF OUR COMPLETED GETAWAY AND TO SEE EVEN MORE PHOTOS.



This Bellawood Artisan flooring from LL Flooring was easy to install and looks as natural as our surroundings.



These triple bunks turn the small bedroom into a sleepover zone.



We made our own trim in a minimalist style and saved hundreds of dollars.

The Getaway's two bedrooms and three-quarter bath are small but well designed with high ceilings and ample windows for lighting and views. The spaces are functional and still offer design opportunities with plenty of wall space and minimal trim carpentry.



**LIKE WHAT YOU SEE?
SCAN THIS CODE TO FIND OUT WHERE YOU CAN BUY THESE FIXTURES, TABLES, LAMPS AND MORE.**



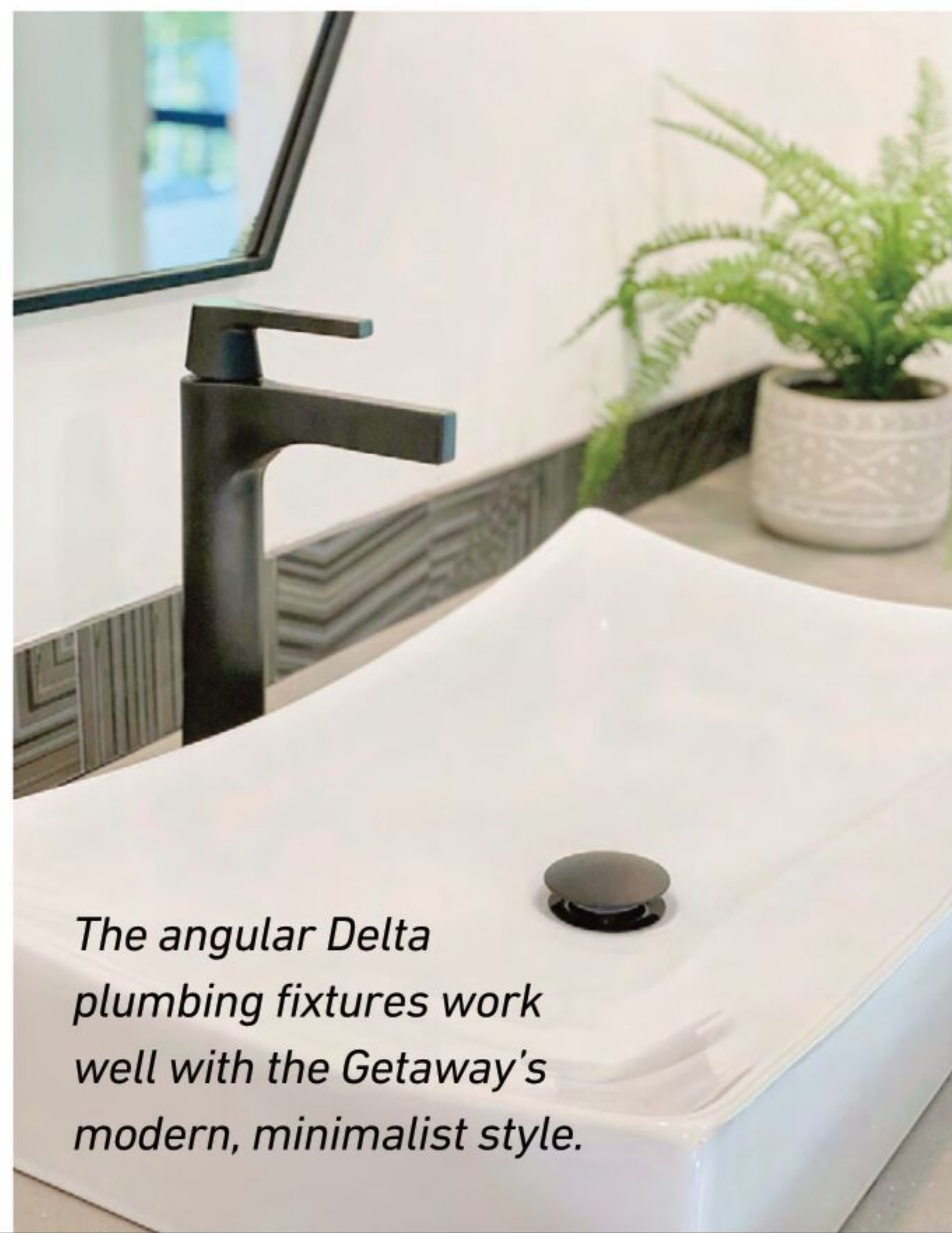
We chose pendant lights in the main bedroom because we like the wood style and the extra space on the nightstands.



A pair of Kichler pendant lights illuminate the bathroom sink and counter, as well as the ready-to-assemble cabinet beneath.



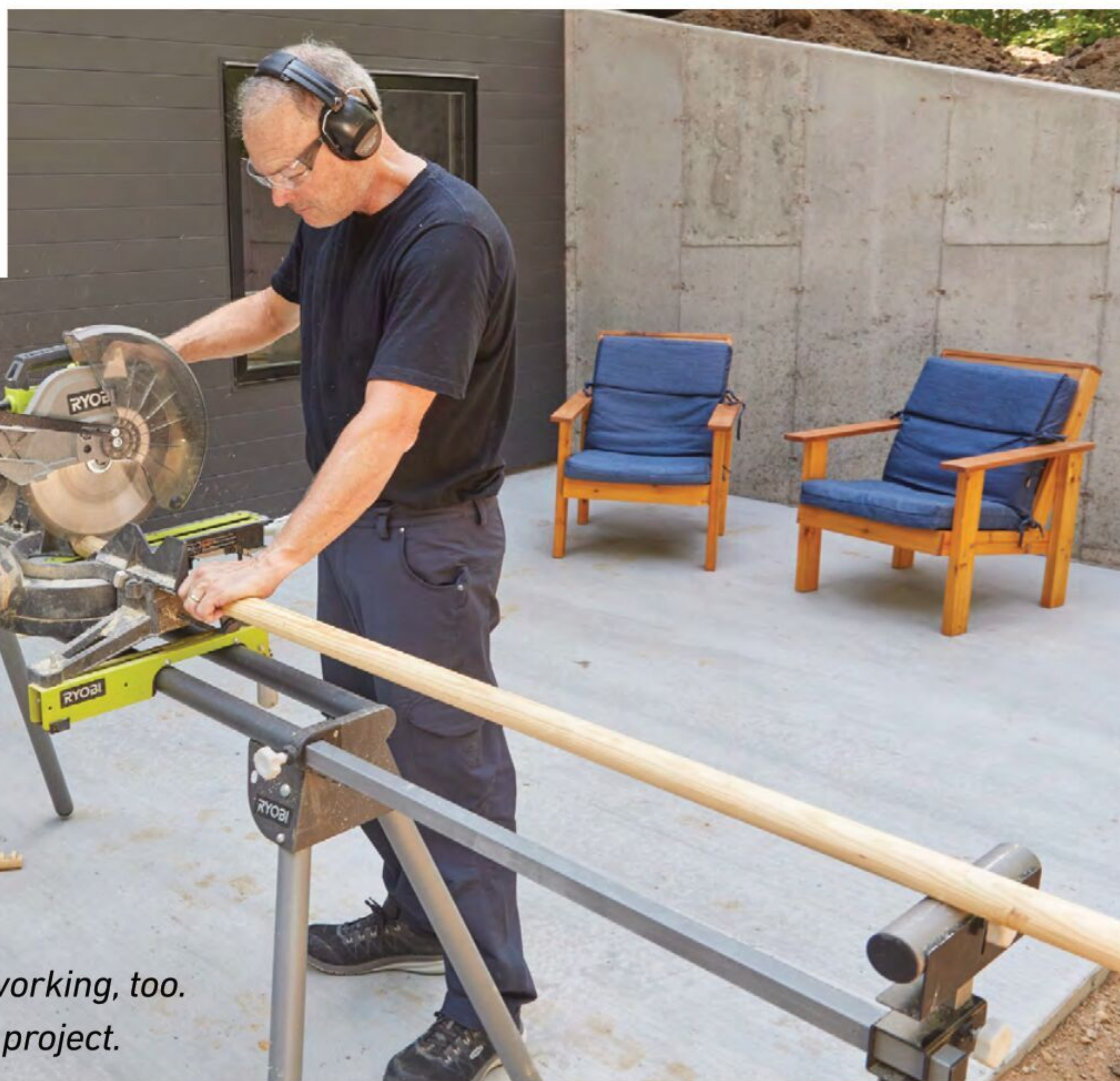
The shower, tiled in Daltile's Geometric Fusion porcelain, features a pair of built-in wall niches.



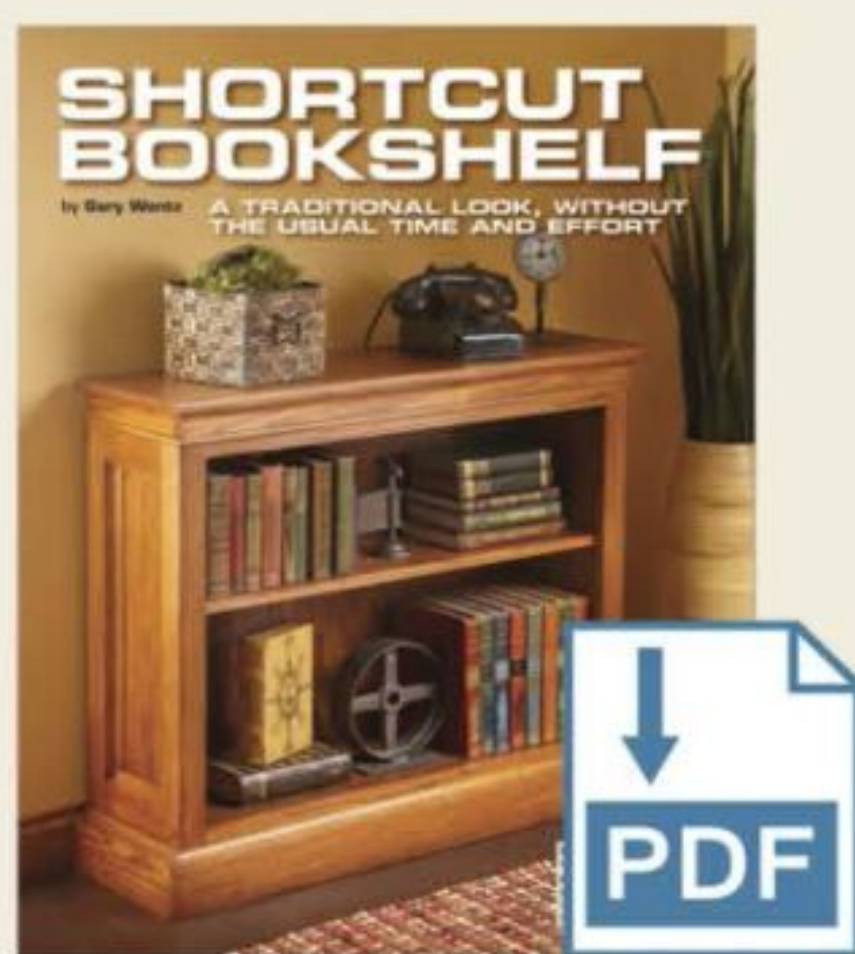
The angular Delta plumbing fixtures work well with the Getaway's modern, minimalist style.



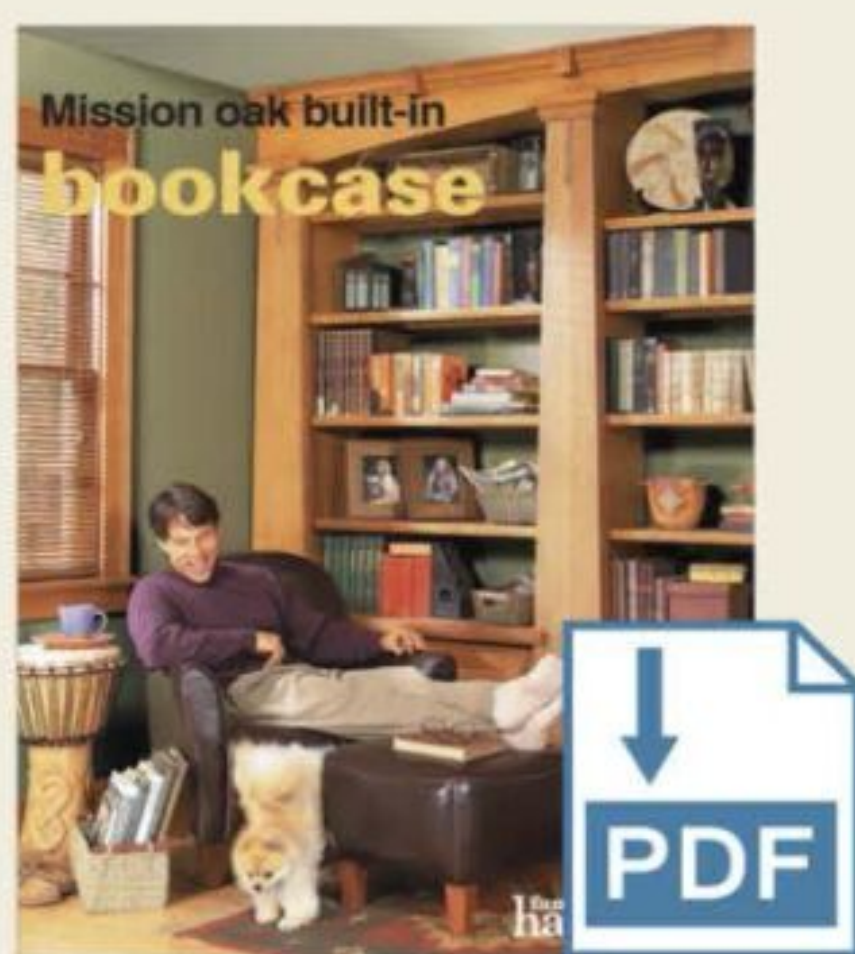
The composite decking from Deckorators adds woodsy appeal with little maintenance needed. The surrounding cable rail is nearly invisible.



Our Getaway gives us space to keep working, too. We can always come up with another project.



Shortcut Bookshelf
\$6.99



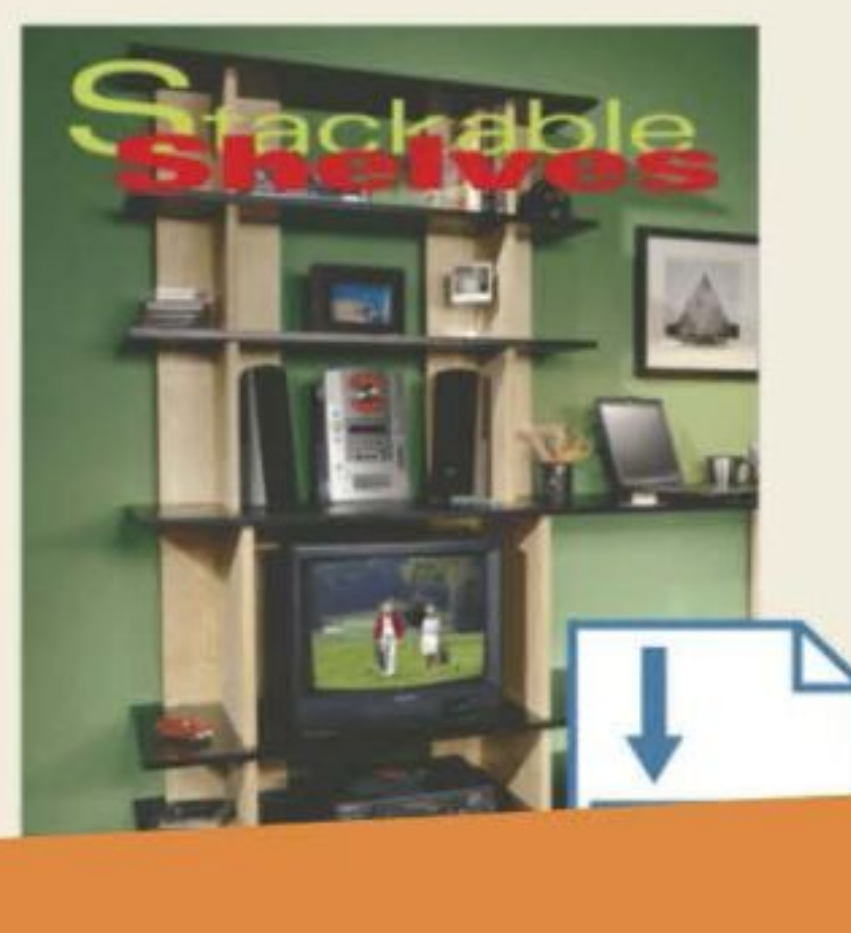
Mission Oak Built-in Bookcase
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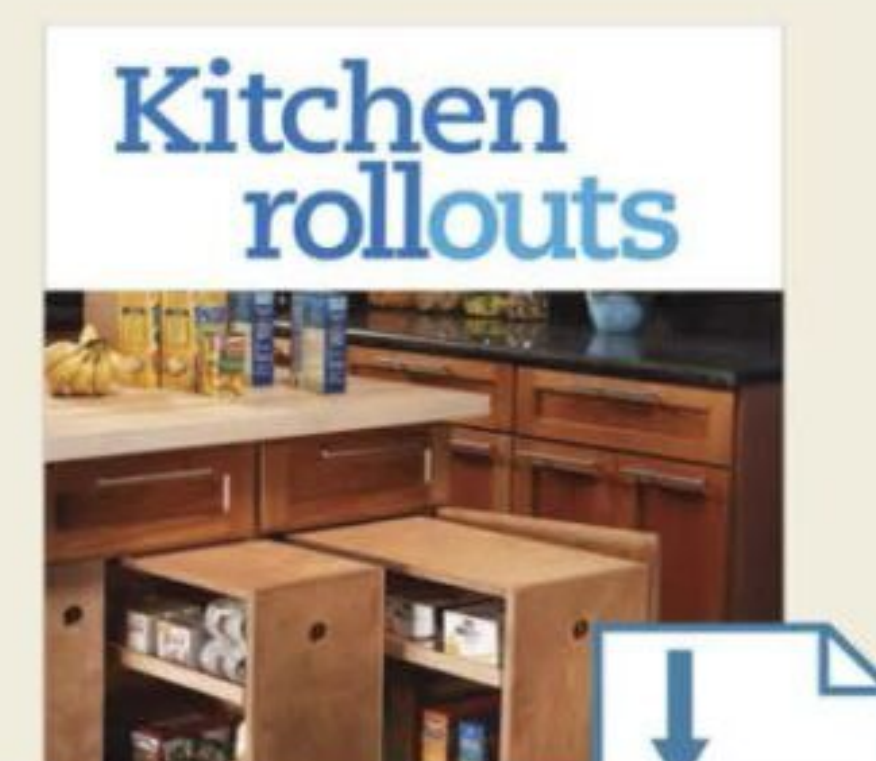
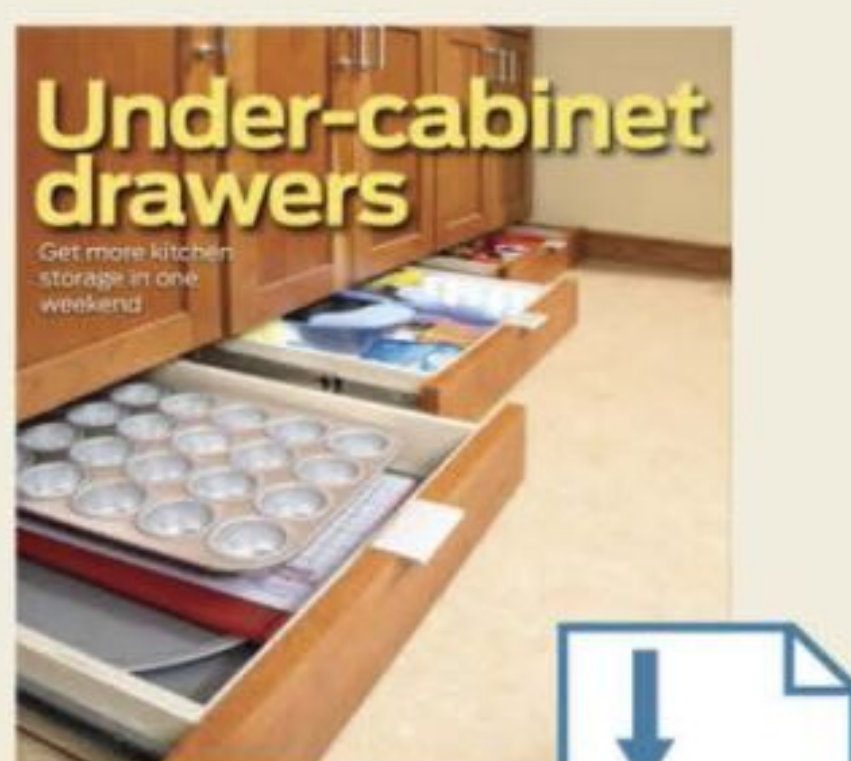
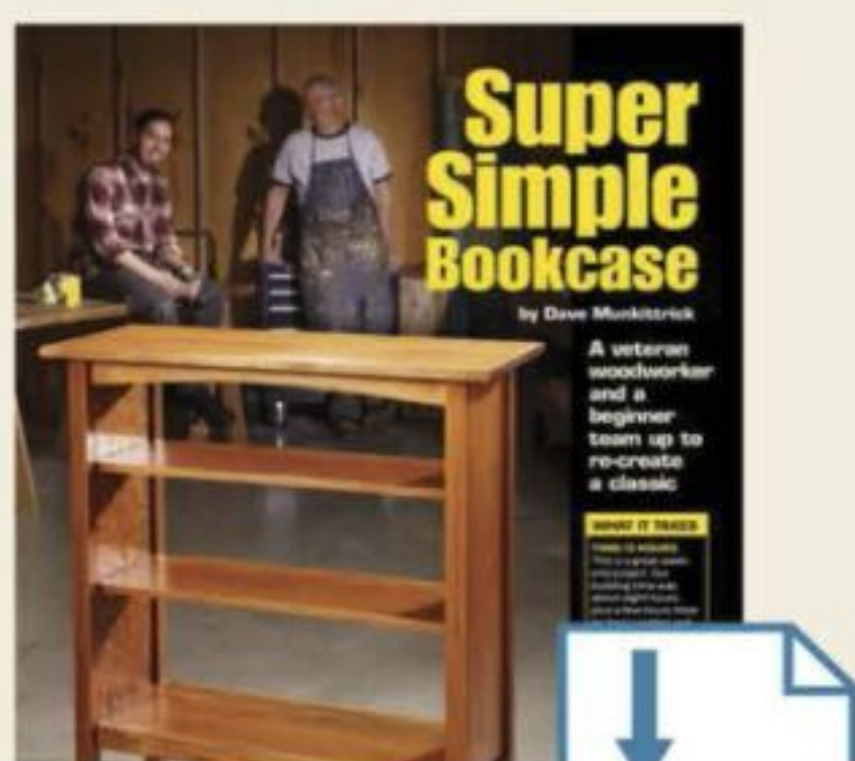
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FIRE UP FOR WINTER

HERE'S A FAST WAY TO STACK & DRY FIREWOOD

BY BRAD HOLDEN

The Holz Hausen ("wood house") is a traditional German method of stacking firewood. It's an effective way to dry wood, and we love that it goes up quickly. The inside isn't stacked—you just toss logs into the center as you go.

1 DEFINE THE PERIMETER

To build your stack, start by laying out the bottom circular course. We used roughly two cords of wood to build our stack, which is about 6 ft. in diameter and 6 ft. tall.

2 BUILD UP THE WALLS

Continue stacking on top of the first course. As you go, if the logs start to slope outward, shim their outer ends to lift them. This shores up the stack by keeping the weight directed inward. Fill the center of the stack as you like; it's a good spot to put crooked logs that don't stack well. This inner fill also supports the walls.

3 PUT A CAP ON IT

Once you've reached the height you want, continue building up the center, giving the top of the stack a conical shape. Top off the pile with logs, bark side up, to help shed water.



GOOD & BAD WOODS FOR INDOOR FIRES

Which species of wood will create the best fire indoors this winter? The driest one, honestly. Yes, different species of wood burn differently in your fireplace, and some generate more heat, measured in Btu, than others. But it depends mostly on an individual log's moisture content.

Burning a well-seasoned (dry) ponderosa pine log can generate more Btu than burning an unseasoned (wet) white oak log. That's why we built our Holz Hausen—to dry our firewood fast and efficiently. Still, there are differences in the firewood you buy and season for burning indoors. Here's what you should burn and what you shouldn't.

■ ASH

This is one of the best options for a steady, long-lasting fire. Ash is easy to find and affordable. Because it can take longer to ignite, you might need more kindling, but once it gets going, it produces a long-lasting fire with little smoke.

■ OAK

This popular wood is plentiful in much of the country, and it burns long and slow without a lot of smoke. It's easy to split, although it can take years to properly dry out.

■ BEECH

Beech is dense and difficult to split, but when it's properly seasoned, it burns hot with a delicious aroma. Beech trees are native to the eastern United States and more difficult to find west of the Mississippi.

■ CHERRY

If you want ambience, including a great aroma, burn cherry. You might pay a little more to find seasoned cherry, but it burns a high-quality fire. Cherry wood lights quickly so you won't spend time tending to the fire.

■ MAPLE

This popular pick burns clean with little smoke and few sparks. Like beech and cherry, it has a pleasing scent. Look for sugar maple; it produces more Btu than silver maple.

■ PINE

Pine firewood isn't a great choice for indoor fires. The high resin and sap content can be hard on fireplace chimneys. Pine can also produce a lot of smoke. Buy small scraps and use it for kindling.

MACKENZIE EDWARDS & THE EDITORS

OAK LOGS
SPLIT AND READY
FOR A YEAR OF
SEASONING

DO NOT BURN
CONSTRUCTION
SCRAPS IN YOUR
FIREPLACE

DON'T BURN

■ GREEN WOOD (FRESHLY CUT)

Wood that has been recently cut and hasn't had a chance to season or dry out will just create a lot of steam and smoke.

■ DRIFTWOOD

If you find wood washed up on the shore, don't put it in your fireplace. This wet wood, especially from the ocean, won't burn well and can create potentially hazardous toxins according to the Environmental Protection Agency.

■ CONSTRUCTION WOOD

Much of the wood used to build homes is treated with chemicals, making it unsuitable for burning in a fireplace. It can also contain screws, nails, glue and finishes that pose additional risks.

BEST PRO TIPS



EXPERT ADVICE FROM THE JOB SITE

THE SECRETS OF TRIM CARPENTERS

TACKLE YOUR NEXT TRIM JOB YOURSELF

BY JAY CORK

Trim carpentry can be intimidating—coping cuts, crown spring angles, scarf joints and more. You'll need time, tips and practice to accomplish these cuts, but once you do, you'll no longer fear trim carpentry. Here are some lessons I've learned over the years that will help you on your next project.

MEET THE EXPERT



ASSOCIATE EDITOR
AND PERFECTIONIST
JAY CORK FELL IN LOVE
WITH THE ART OF
FINISH CARPENTRY
IN THE MID-'90S.



COPE INSIDE CORNER JOINTS

Coping creates better-looking inside corners than mitering; a coped joint is less likely to show a gap caused by seasonal expansion and contraction of the wood. Cut a 45-degree bevel on one end of the trim, and then cut along the revealed profile line with a coping saw, angling the blade back just a little.



CUT OUTSIDE MITERS PERFECTLY

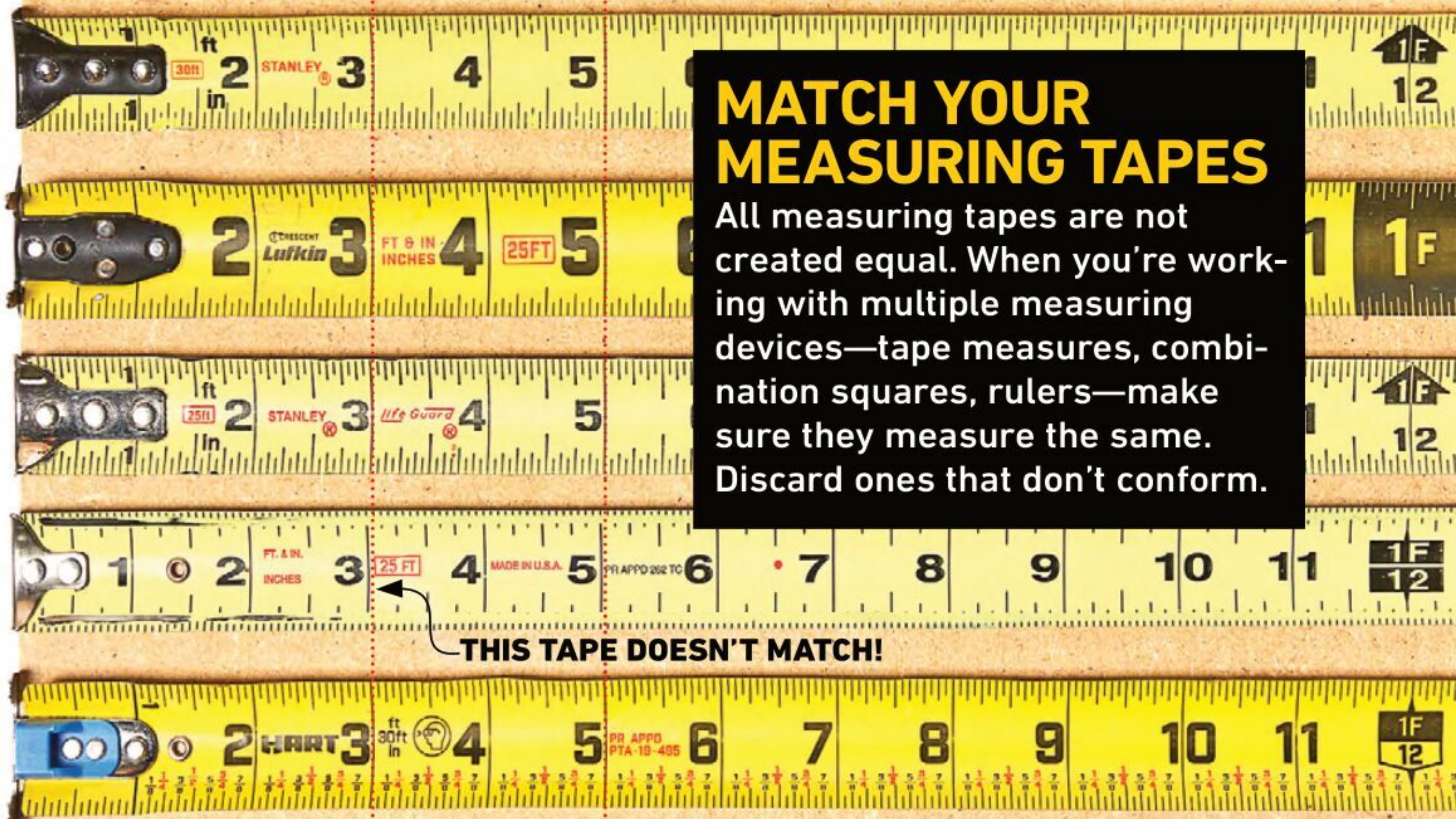
It's a rare house whose corners meet at a perfect 90 degrees. That's why one of my favorite tools in my kit is the Bora MiteriX angle finder. It takes all the guesswork out of determining the precise angle of a joint. Set the tool to the corner, then lay it along the miter saw fence and align the blade to it. No guessing.



3/32" DRILL BIT
FOR 6d NAILS

PREDRILL NAIL HOLES

If you don't have a pneumatic nailer or the job is too small to warrant digging out the air compressor, you'll have to do all the nailing by hand. Predrill nail holes to prevent splitting, and use a nail set to punch the nail just below the surface.



MATCH YOUR MEASURING TAPES

All measuring tapes are not created equal. When you're working with multiple measuring devices—tape measures, combination squares, rulers—make sure they measure the same. Discard ones that don't conform.

THIS TAPE DOESN'T MATCH!



MAKE SCARF JOINTS LESS VISIBLE

If a single piece of trim isn't long enough to span the entire wall, join two pieces of trim with a scarf joint. In a scarf joint, two trim members meet in angled cuts, unlike a butt joint that connects two squared ends. The key to hiding a scarf joint is to angle the cut away from your line of sight.



GLUE YOUR JOINTS

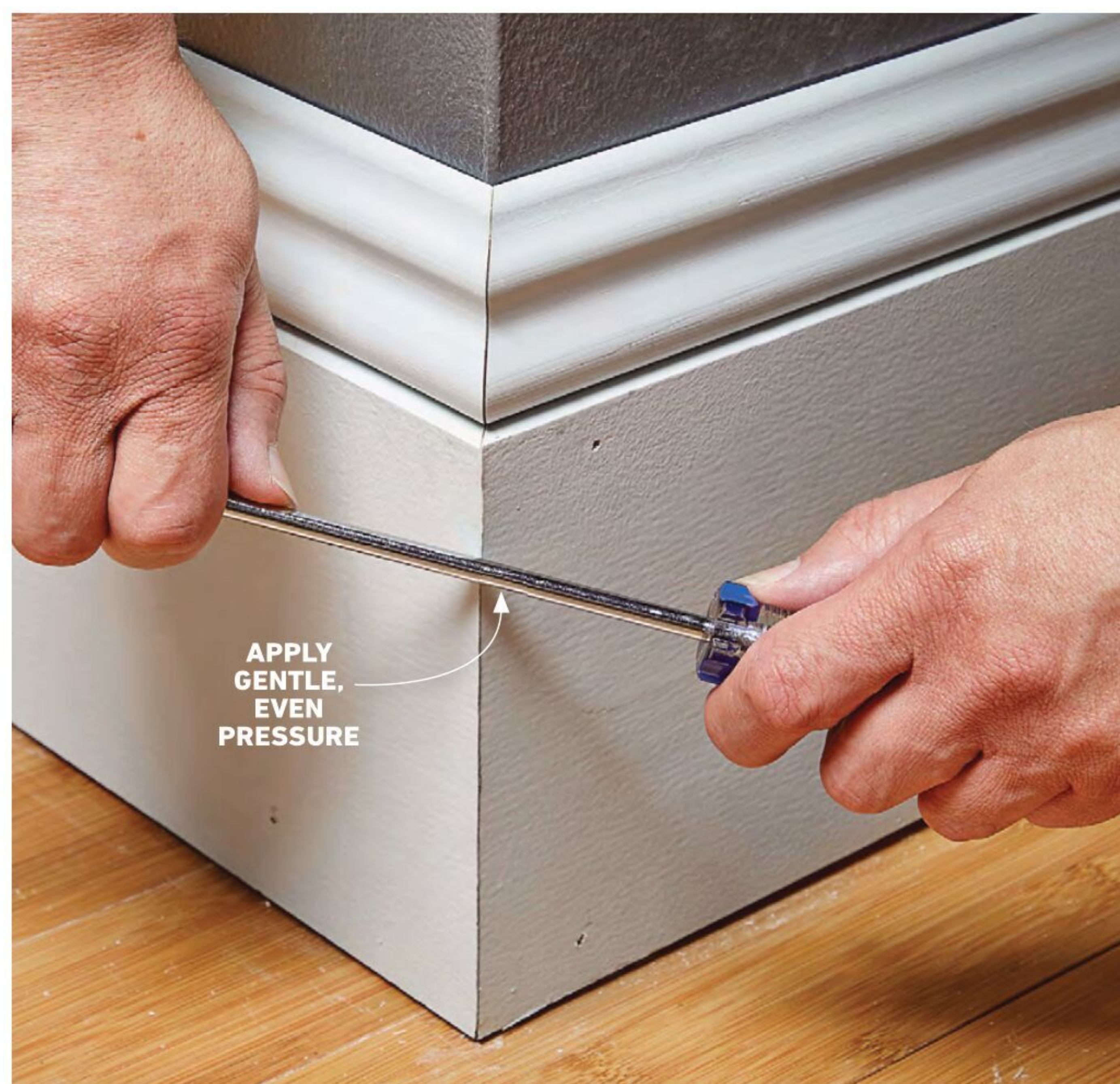
Gluing your miter joints and your scarf joints is always a good idea. As the seasons change, so does the wood trim in your home, and glue will help those joints stay tight. No more gaps!

PRO TIP: Instead of using yellow glue, use liquid hide glue. Any squeeze-out can be cleaned off with warm water even after it dries.



HANG CROWN MOLDING BY YOURSELF

Hanging long pieces of crown molding can be difficult without a helper. Here's a trick that works for me. A removable utility wall hook from 3M Command (\$10 for six) will help support one end of the crown molding while you start nailing the other.



BURNISH OUTSIDE MITERS

Sometimes, no matter how hard you try, an outside miter will still have a gap. When this happens, gently burnish the corner with the shaft of a screwdriver. This will slightly round over the edge of the miter, and the joint will look perfect.



SAVE TIME ON YOUR BASEBOARDS

Instead of buying premilled baseboard, I prefer to build it in stages. First, run flat stock, followed by a cap and then a shoe. This saves a ton of time since the only parts that need mitering or coping are small and manageable.

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BEST PRO TIPS

BACKING FOR CROWN

Finding and marking wall studs and ceiling joists for crown molding installation is tedious. Even after locating framing members, you're limited to fastening only at those spots. Install a continuous backer to speed up crown molding installation. You'll spend a little more time setting up and a lot less time fastening the crown.

LEAVE CORNERS CLEAR

FOLLOW THE 7% RULE

Crown or base molding that is too small or too big for the room just doesn't look right. Need a common rule of thumb for base and crown heights? Each should measure 7% of the ceiling height. If your ceiling height is 9 ft., for example, the baseboard should be 7-1/2 in. tall.

SAVE TIME BY PREFINISHING

Whether you plan to paint your trim or stain it and add a clear topcoat, save time by prefinishing all of it.

SHARP BLADES MAKE PERFECT JOINTS

Cheap blades cut poorly. That may be OK for rough carpentry, but for finish work, don't skimp on blade quality. I use Freud Industrial blades exclusively. They have low vibration and high-quality carbide for clean finish cuts, and there's a blade for every purpose.

TUNE YOUR SAW

Before embarking on a trim carpentry job, clean your miter saw and verify the stops give you perfect 90- or 45-degree angles.

PICK THE STRAIGHTEST STOCK

The pros will order trim and have it delivered, but it's a big advantage to pick it out yourself. Take your time at the lumberyard; go through the whole stack of trim and look for the straightest boards.

SAND EVERYTHING FIRST

If you look closely at the trim sold at the lumberyard, you'll see small milling marks. If you don't sand these boards smooth, those marks are going to stick out like a sore thumb after you apply stain or a topcoat. Take the time to sand all your trim.



MARK WITH A KNIFE

Pencils are great for rough carpentry, but for finish carpentry I prefer marking with a knife. A mark made with a sharp knife is far more precise than a pencil mark.



ALWAYS START
AT THE HIGH SPOT

FIND THE HIGH AND LOW POINTS OF THE FLOOR

Floors are seldom level, especially in older homes. When you're installing baseboard, begin at the highest point of the floor. A self-leveling laser can make this job easy, but they're pretty expensive. Instead, use a long spirit level. Draw a line on the wall around the whole room a few inches off the floor; apply painter's tape first if your walls are finished. Moving around the room, take measurements up from the floor to that line. The shortest measurement is the high spot—start your baseboard there.

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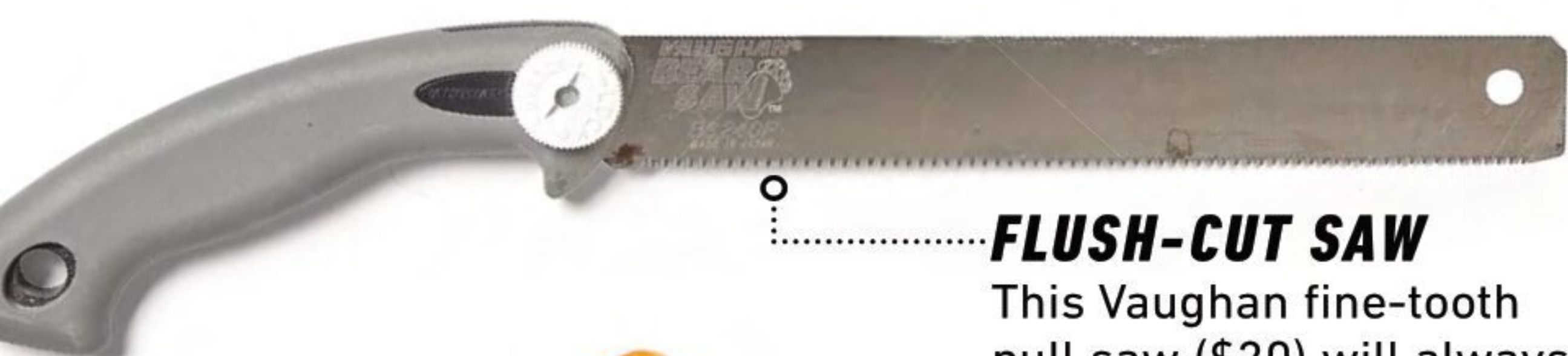
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JAY'S FINISH CARPENTRY TOOLS

Here are my favorite tools I've acquired by working as a finish carpenter.



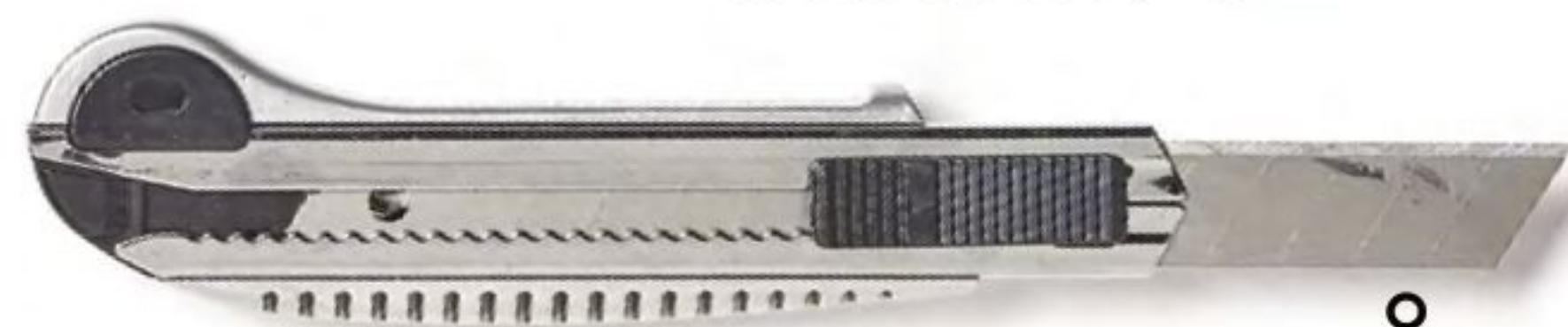
FLUSH-CUT SAW

This Vaughan fine-tooth pull saw (\$20) will always find a role on my job site.



MICRO PINNER

This 23-gauge micro pinner is perfect for delicate bits of trim. This model costs about \$70.



MARKING KNIFE

Marking with a knife is more accurate than using a pencil. Woodworking stores will charge you about \$30 for a marking knife. Instead, just use a utility knife.



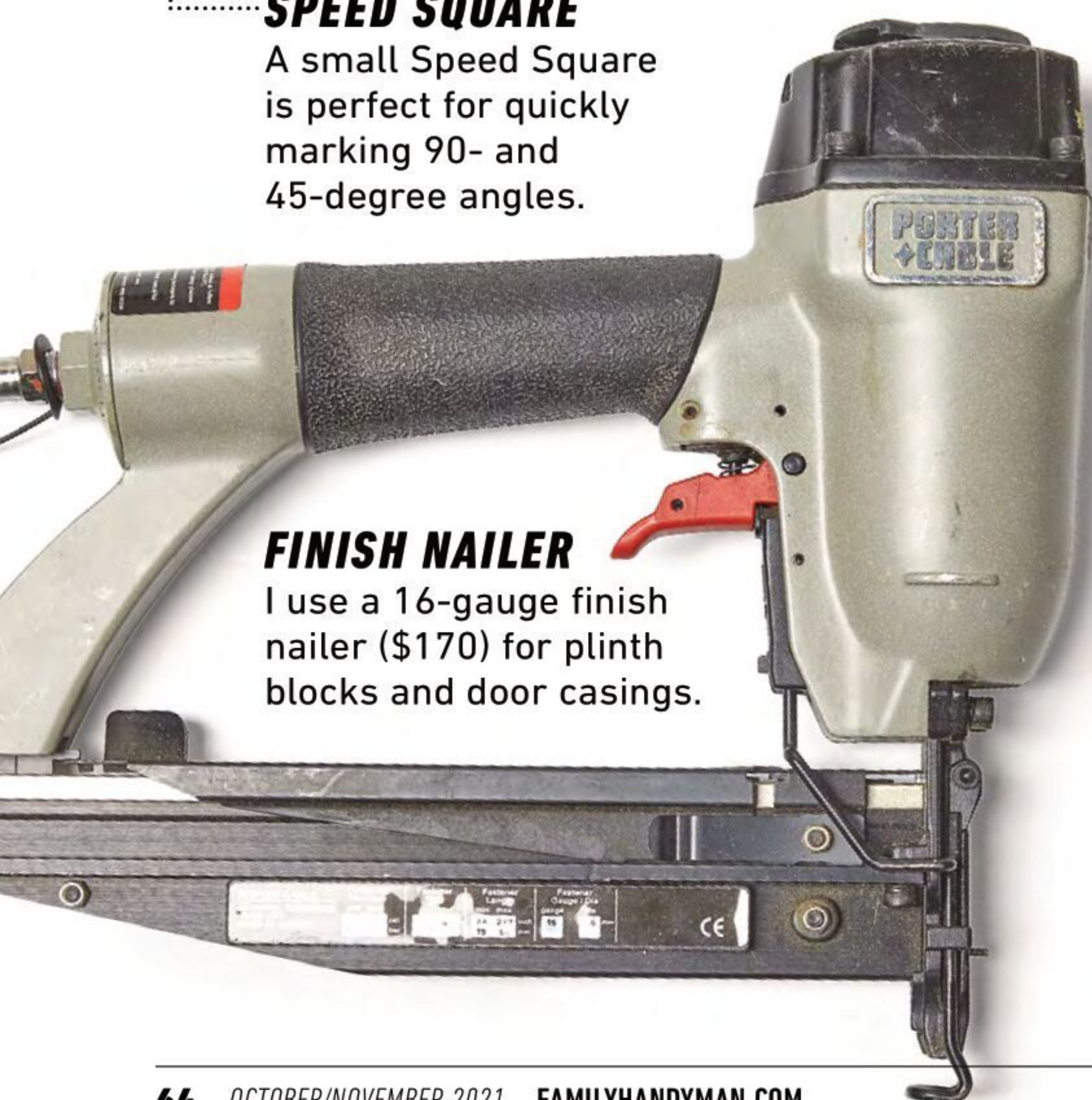
SPEED SQUARE

A small Speed Square is perfect for quickly marking 90- and 45-degree angles.



BORA MITERIX

This tool takes the guesswork out of finding miter angles. You can find one for about \$30 at home centers and online.



FINISH NAILER

I use a 16-gauge finish nailer (\$170) for plinth blocks and door casings.



FRET SAW

I use this Olson fret saw for coping because it allows me to use smaller, more nimble blades. It costs \$25 online.



FINISH HAMMER

A 16-oz. finish hammer is the correct weight for trim work.



HIDE GLUE

Hide glue (\$9 for 8 oz.) cleans up easier than yellow glue.

SCRIBE

This scribe from FastCap makes marking lines a cinch. It sells for about \$20.



CHISEL

A sharp chisel makes quick work of notching or trimming.



NAIL SETS

Use a nail set to avoid hammer dents on your trim. Spring-loaded sets are terrific for where a hammer won't fit.

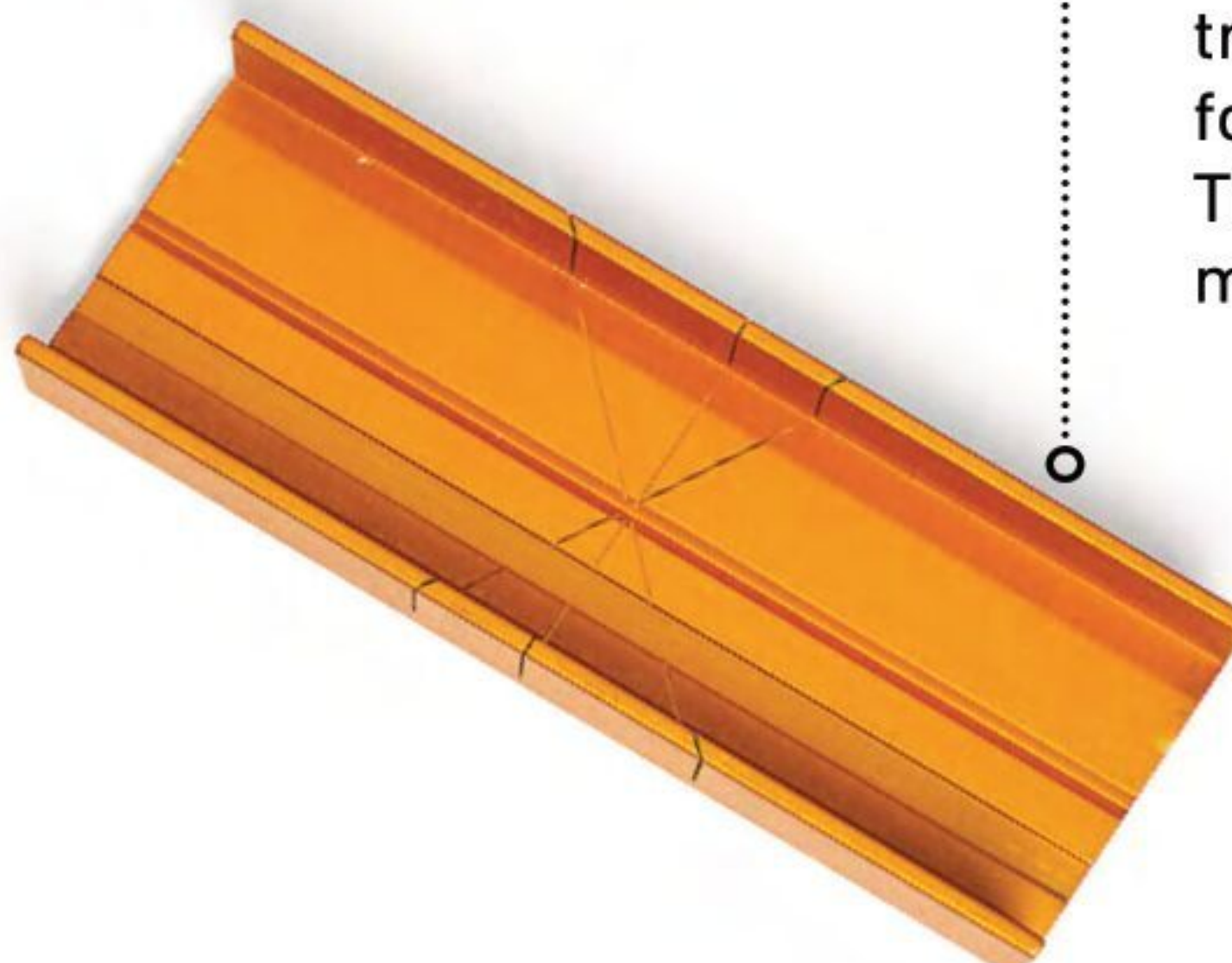
COMBINATION SQUARE

An important all-around tool, the combination square can be a depth gauge, marking gauge, square and more. Expect to pay at least \$40 for a good one.



MINI MITER BOX

Some delicate trim is too small for a power saw. This Zona mini miter box is \$35.



BRAD NAILER

An 18-gauge brad nailer (\$75 online) will work well with most trim thicknesses.



STUD FINDER

Knowing where to nail is vital in trim carpentry. A stud finder will cost you about \$25.



FILES

My collection of files helps me fine-tune coping cuts for a perfect fit.



SLIM PRY BAR

This Titan pry bar (\$15 online) is perfect for removing delicate trim.



HOME CARE

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WATER SOFTENER 101

Your water softener is easily the most ignored appliance in your house. You don't interact with your water softener as you do with your range, refrigerator, or washer and dryer. It might also be the most misunderstood. You put salt in (when you remember), but do you know how it works, what it's doing and whether it's performing the way it should? I consulted Mike Bruce from Rheem Manufacturing for a 101 course in water softeners.

MEET THE EXPERT



MIKE BRUCE IS THE SENIOR PRODUCT DEVELOPMENT MANAGER AT RHEEM MANUFACTURING. HE WAS BORN AND BRED IN MINNESOTA, THE LAND OF 10,000 LAKES AND JUST AS MUCH HARD WATER.

BY BILL BERGMANN

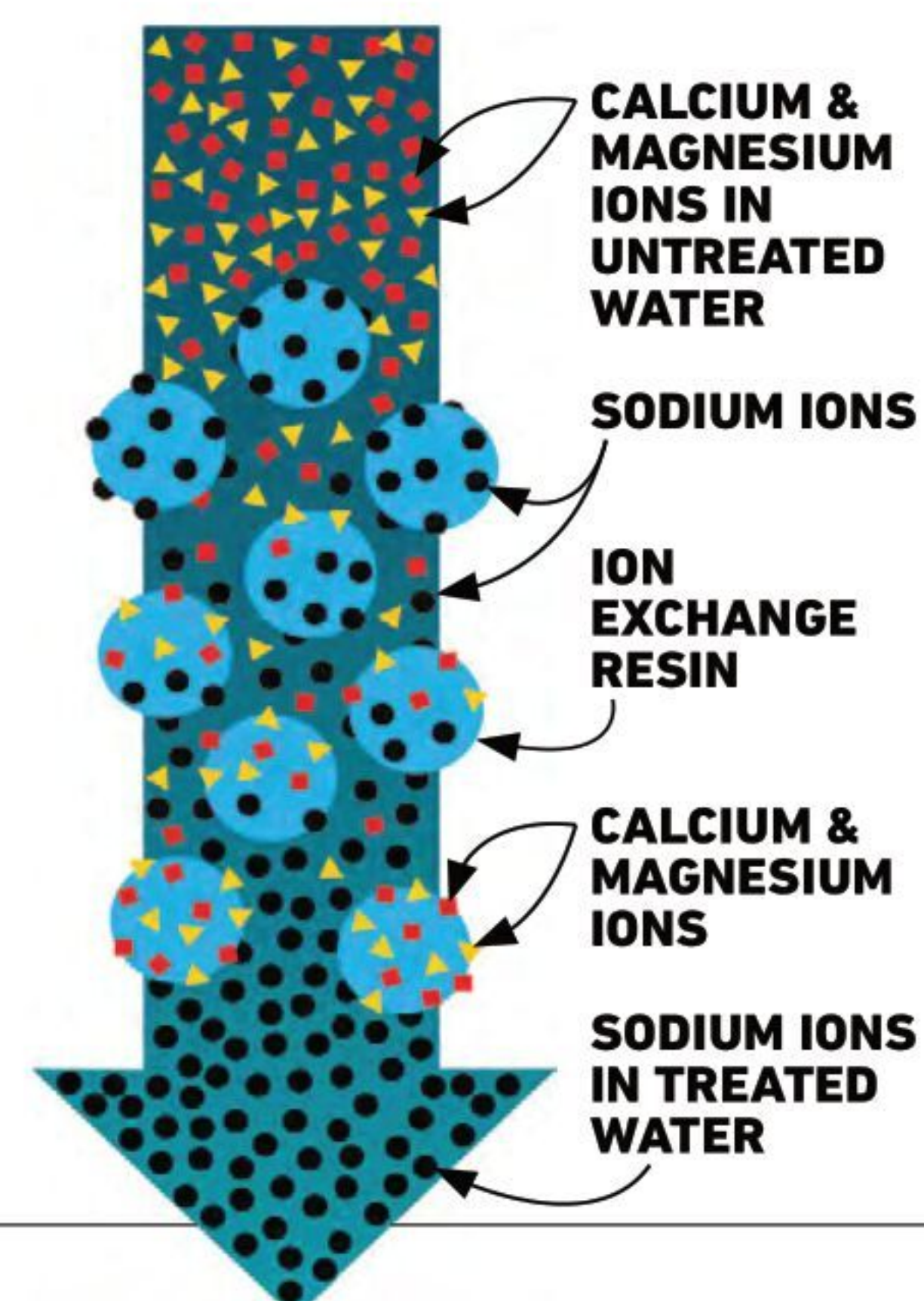
HOW DOES A WATER SOFTENER WORK?

In the simplest terms, a water softener is a filtering device for your home's water supply. It removes high concentrations of minerals, such as calcium and magnesium, which can cause buildup in your home's pipes, plumbing fixtures and water heater.

Most water softener systems use resin beads as a filtration media in a process called ion

exchange. The ion-exchange beads in your water softener's resin tank are negatively charged. Hard water minerals like calcium, magnesium and iron each have a positive charge. When those positive minerals pass through the softener, they're trapped by the negative resin, leaving you with softened water at the faucets.

When the resin beads fill up with minerals and contaminants, they no longer carry a negative charge. To recharge them, the system initiates a cleaning cycle. A saltwater solution from the main tank rinses over the beads to flush the contaminants out of the resin and down the drain. The beads return to their negative charge and are ready to soften water again.



HOW CAN I TELL IF MY SOFTENER IS WORKING EFFICIENTLY?

A telltale sign of hard water is the scaly white residue that can build up around the mouth of a faucet. This residue may also show up on shower walls, toilets and water-dependent appliances. These calcium and magnesium deposits can destroy the plumbing in a home, and that's why your home's water softener needs to function properly.

Bruce says one of the things new users notice when using a water softener is that their water can feel silkier and they can shower or bathe with less soap.

Also, if you have been using softened water previously and your water starts to feel slimy, you should check your softener's salt levels to ensure the appliance is functioning properly. Also check that no other contaminants are affecting your home's water. You can always have your water tested by a state-certified laboratory. You can find one in your area by calling the Safe Drinking Water Hotline at (800) 426-4791 or visiting epa.gov/safewater/labs.



TESTING THE WATERS

Homeowners with water softeners can and should test their water using hard water test strips, available at most hardware stores. Use water that has not gone through the softener, such as water from an outdoor tap or faucet. "With more than 85% of North American households in a hard water area," says Bruce, "homeowners who add a water softener should see a noticeable improvement shortly after installation. If your dishes and glassware are spotty or if you find soap scum on your shower walls, you will benefit from a water softener."

There's a growing focus on water softeners as a significant contributor of chloride to our rivers and lakes. Bruce says, "The industry is developing technology that can mitigate the environmental impact of water softener use. Some municipalities are shifting to up-front methods of softening (i.e. lime-softening) the water supply before it reaches residents' homes. Residents in these areas will see lower hardness levels when testing and may not need to install a softener."



MAINTENANCE

■ BUY GOOD-QUALITY SALT:

Use pure salt with an iron remover. Standard rock salt is less expensive, but it contains contaminants that can be hard on your water softener. Rock salt can cause inches of sediment to build up in the brine tank, and the sediment can clog the injector and the softener's control valve.

■ MAINTAIN THE SALT LEVELS:

Quality salt typically improves a water softener's efficiency, but maintaining sufficient salt levels is crucial to ensure your device operates at its best.

■ CLEAN THE BRINE TANK ANNUALLY:

Solid masses of salt, known as bridges, can result from adding too much salt or adding it too frequently. You can break up these masses with a broom handle or dissolve them with hot water. Empty the tank

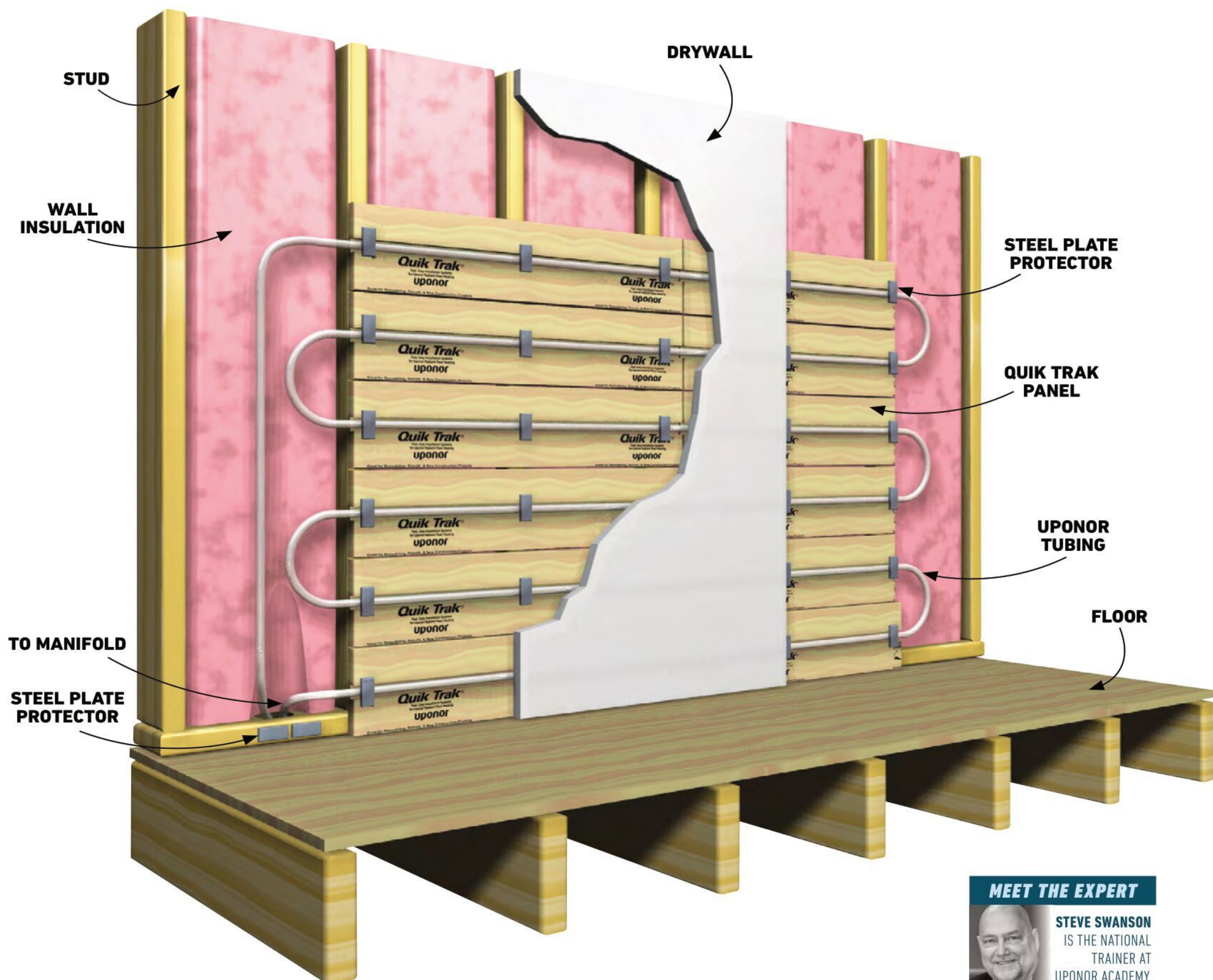
annually and remove any sediment with a shop vacuum. Use soap and water to thoroughly clean the tank, then rinse it.

■ CLEAN THE RESIN BED:

Bruce recommends using a water softener cleaner once a year because it removes iron to clean the resin bed. More ambitious DIYers can clean the resin tank injector and the parts in the control valve. Check familyhandyman.com for water softener repair tips.

SOFT WATER

HARD WATER



MEET THE EXPERT



STEVE SWANSON
IS THE NATIONAL
TRAINER AT
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ANOTHER OPTION FOR RADIANT HEATING

In-floor heat feels great on your feet, but installing it might not be practical. There's another radiant heating option: PEX tubing that circulates hot water through walls or ceilings. The systems are similar to floor heat and offer most of the same advantages: draft-free heat, plus silent and even operation.

Quik Trak or other panels that secure the tubing can be installed directly on studs or with existing wall or ceiling materials. On walls, radiant heat tubing is typically installed on the bottom 4 ft. to reduce the risk of driving a picture nail into the tubing. Adding wainscoting lets you hide this addition. Ceilings are sometimes a more practical option, and you lose only an inch of ceiling height.

Installing radiant heating in walls and ceilings gives a few benefits over floor installations:

1. You don't have to get under your flooring. Also, carpeting won't affect the performance of the heating system as it can with floor-installed heating.
2. Without the worry of warping wood flooring, the supply-water temperature can increase by 20°F, improving efficiency over in-floor tubing by almost three times.
3. Tubing in radiant walls and ceilings has a much lower mass than tubing installed in concrete, so it responds to temperature changes faster. This makes the use of setback thermostats more efficient.

4. The energy from radiant walls and ceilings is directed at objects in the room. Both furniture and floors will be slightly above the air temperature. The floors won't be as toasty as they would be with in-floor heat, but they'll be much more comfortable than they would be with forced-air heating.

CORRECTION

The photos of the Grill Station in our June '21 issue show the Char-Broil gas grill positioned too close to the wood cabinets. Keep your freestanding gas grill at least 3 ft. from combustible materials. Check your owner's manual.



RESIST FALL PRUNING

We love the shade and beauty of our trees in the summer, and we're tempted to trim or prune them as part of our fall yard maintenance. The fact is, this could damage or even kill one of these beloved trees. In a natural transition from summer to fall, trees drop their leaves—the process is called abscission—so the tree doesn't waste any more energy keeping those leaves as it gets colder. Trees use excess energy to bolster their health and vitality for the winter instead of continuing to put energy into new growth. Wounds will have trouble closing if a tree is pruned before it's completely dormant, and this puts a tree at risk for fungal diseases. Fall pruning can also stimulate new growth that won't have time to mature and harden before the cold weather comes.

Effective pruning involves some species-specific knowledge; study over the fall and wait for winter when trees are dormant or for early spring when they start to actively grow again. When the timing is right, here are a few tips:

- Clean out any dead or compromised branches first.
- Don't prune when it's wet or damp out. Any dampness can encourage bacterial growth. A temperate dry day will be better for both you and the tree!
- Never remove more than 20% of the tree's live wood.
- Thin out overgrown and smaller branches to increase light and air at the tree's "crown."
- Remove any low-hanging and unwanted lower branches.
- Always cut at the node of a branch. This can be where twigs meet the branch or where a branch joins the trunk.

IS PREMIUM OR MID-GRADE FUEL WORTH THE EXTRA MONEY?

Premium gas doesn't provide any more power or contain better additives than regular gas, and it contains ethanol like other grades (depending on the state you live in). But it does resist detonation (knock) better than lower-octane gas—nothing more, nothing less.

Some brands place slightly more detergent additive in their premium than in their other grades, but all grades meet the minimum required by the EPA. Bottom line? The carmaker knows best, so use the octane-rated fuel that's called for in your owner's manual. If your engine requires 89- or 93-octane fuel, that's what you should use to get peak performance and fuel efficiency. But there is an exception to the rule.

If you have an older car that's designed for 87-octane gas and it knocks when you punch the pedal, try filling it with 89-octane fuel to see if the knock goes away. If so, keep using 89-octane to lose the knock and save your engine.



BEWARE THE QUAD BOX

A “quad box” is a common fixture on construction sites and in the garages of some DIYers. This length of extension cord with a metal duplex box, and hopefully a GFCI receptacle, has served home builders for years. But no more.

Our go-to electrical inspector, John Williamson, pointed out that homemade quad boxes are no longer permitted on construction sites because of a notable change to the National Electrical Code (NEC). According to Provision 525.23(D) in the 2020 NEC, “Where GFCI protection is provided through the use of GFCI receptacles and the branch circuits supplying those receptacles utilize flexible cord, the GFCI protection shall be listed, labeled, and identified for portable use.”

Homemade outlet box/extension cords take a lot of abuse, and often the neutral conductor can become damaged, broken, loose or otherwise “open,” posing significant risk of electrical shock to the user.

Manufactured portable GFCI cord sets that are approved by a Nationally Recognized Testing Laboratory (NRTL) always have “open neutral protection.” In other words, if a dangerous open-neutral situation exists, the GFCI will trip and shut off the power to the receptacle.

Williamson feels that “ground-fault circuit-interrupter (GFCI) protection is so important. It’s hard to quantify the number of lives that have been saved (or accidents averted) by GFCIs because only the accidents that resulted in injury or death get reported.”

Think twice about what’s powering your outdoor power tools or accessories. Go buy a GFCI cord set that’s listed and labeled by a NRTL.

For more resources on GFCI protection, seek out the Electrical Safety Foundation International at esfi.org

MEET THE EXPERT



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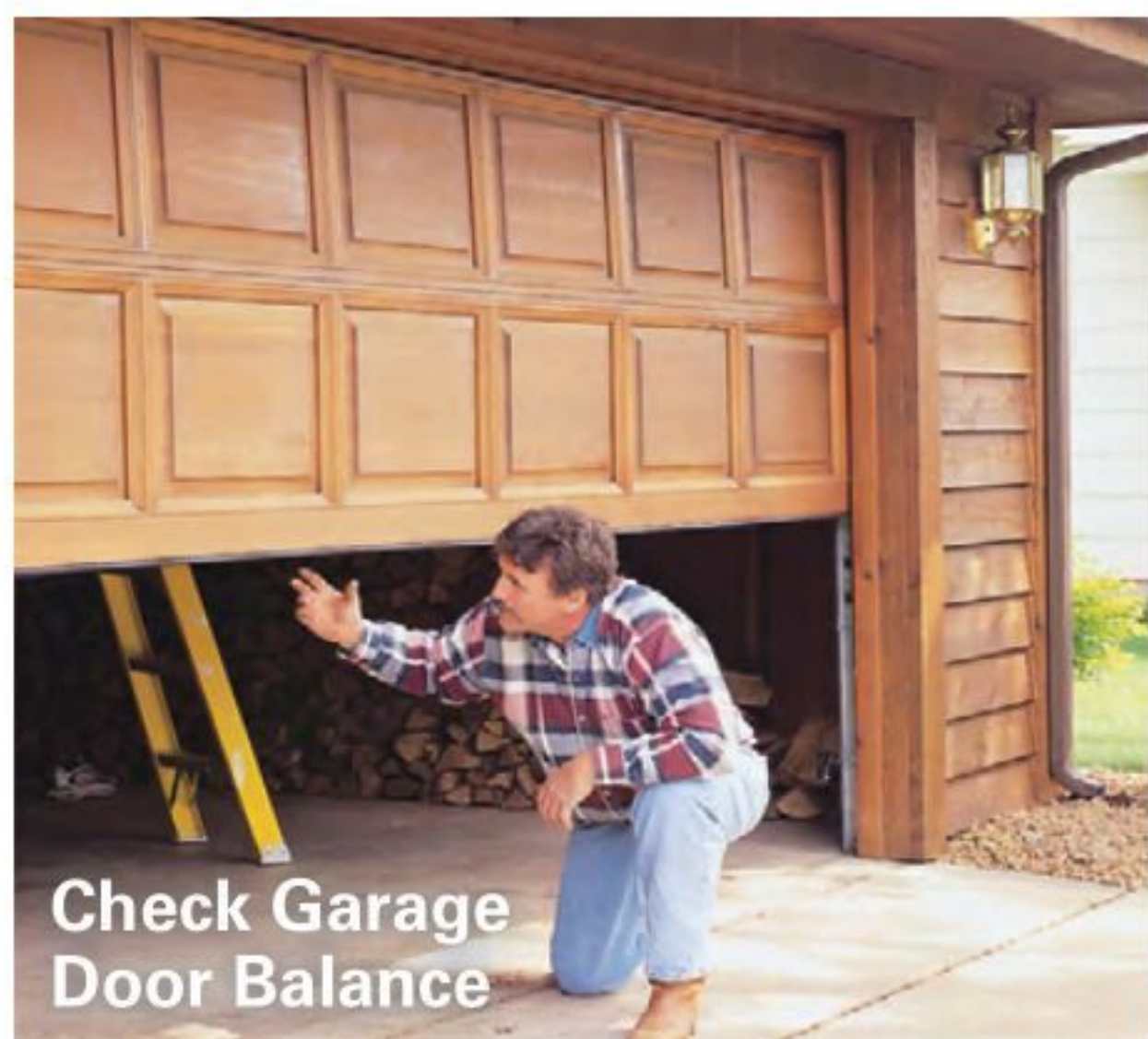


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Clogged, Backed-up Septic System...Can anything Restore It?

DEAR DARRYL: My home is about 10 years old, and so is my septic system. I have always taken pride in keeping my home and property in top shape. In fact, my neighbors and I are always kidding each other about who keeps their home and yard nicest. Lately, however, I have had a horrible smell in my yard, and also in one of my bathrooms, coming from the shower drain. My grass is muddy and all the drains in my home are very slow.



Dear
Darryl

My wife is on my back to make the bathroom stop smelling and as you can imagine, my neighbors are having a field day, kidding me about the mud pit and sewage stench in my yard. It's humiliating. I called a plumber buddy of mine, who recommended pumping (and maybe even replacing) my septic system. But at the potential cost of thousands of dollars, I hate to explore that option.

I tried the store bought, so called, Septic treatments out there, and they did Nothing to clear up my problem. Is there anything on the market I can pour or flush into my system that will restore it to normal, and keep it maintained?

DEAR CLOGGED AND SMELLY: As a reader of my column, I am sure you are aware that I have a great deal of experience in this particular field. You will be glad to know that there IS a septic solution that will solve your back-up and effectively restore your entire system from interior piping throughout the septic system and even unclog the drain field as well. **SeptiCleanse® Shock and Maintenance Programs** deliver your system the fast active bacteria and enzymes needed to liquefy solid waste and free the clogs causing your back-up.

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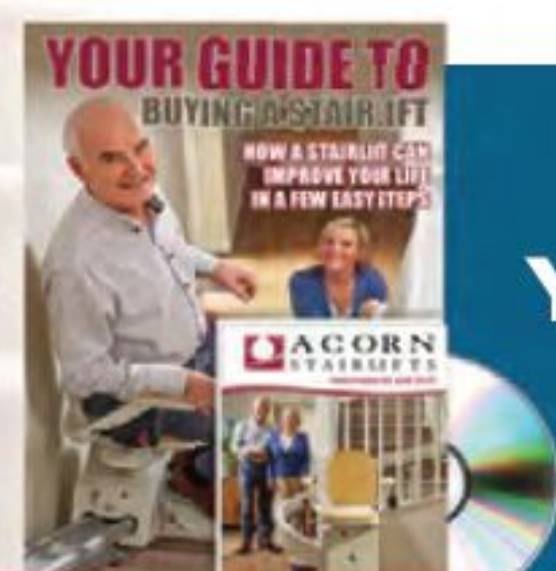
SeptiCleanse® Shock and Maintenance Programs are designed to work on any septic system regardless of design or age. From modern day systems to sand mounds, and systems installed generations ago, I have personally seen SeptiCleanse unclog and restore these systems in a matter of weeks. I highly recommend that you try it before spending any money on repairs. SeptiCleanse products are available online **www.septicleanse.com** or you can order or learn more by calling **toll free at 1-888-899-8345**. If you use the promo code "FAHA1", you can get a free shock treatment, added to your order which normally costs \$169. Make sure to use that code when you call or buy online.

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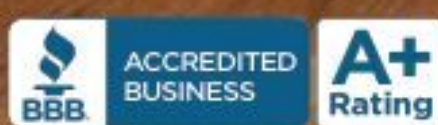


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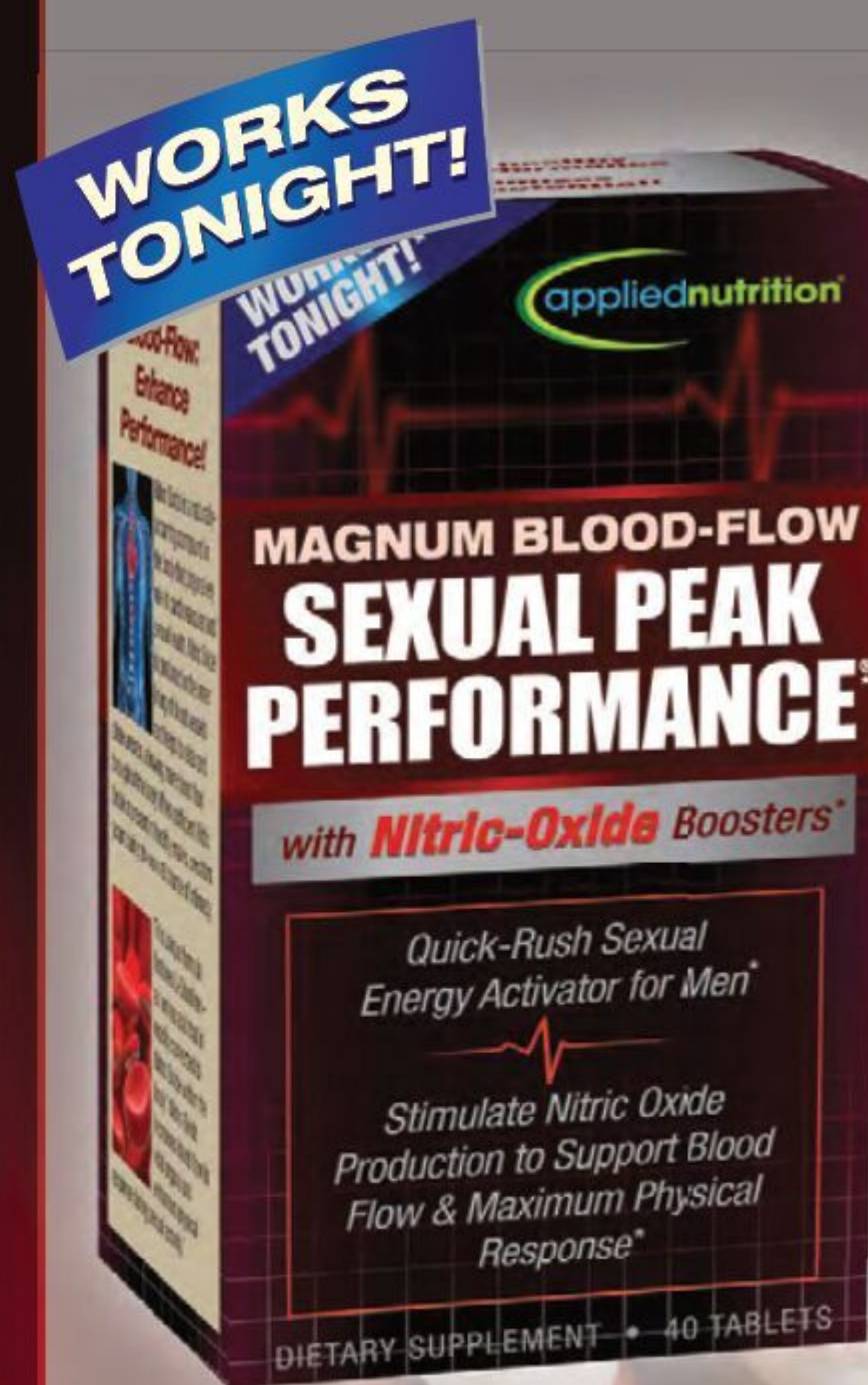
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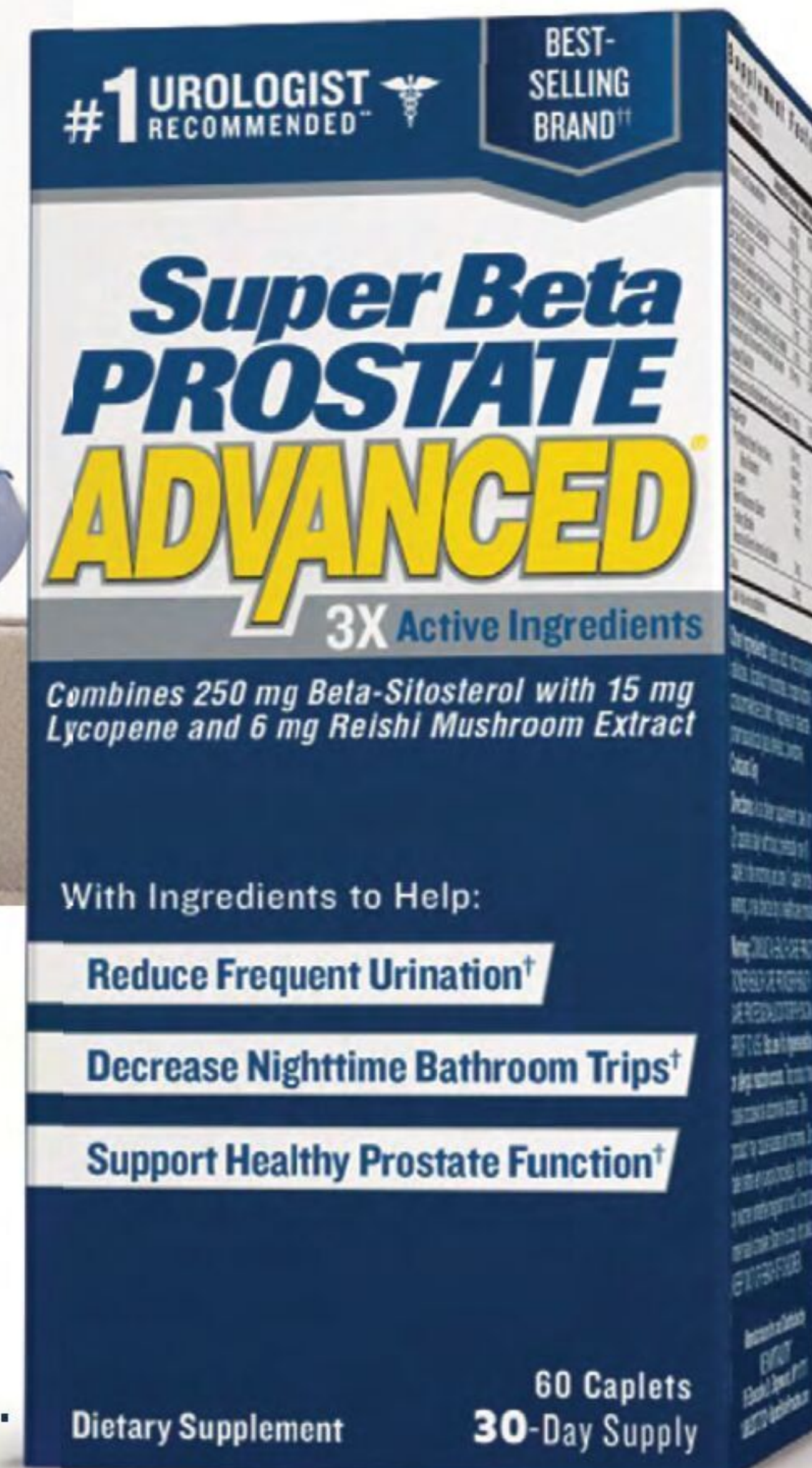


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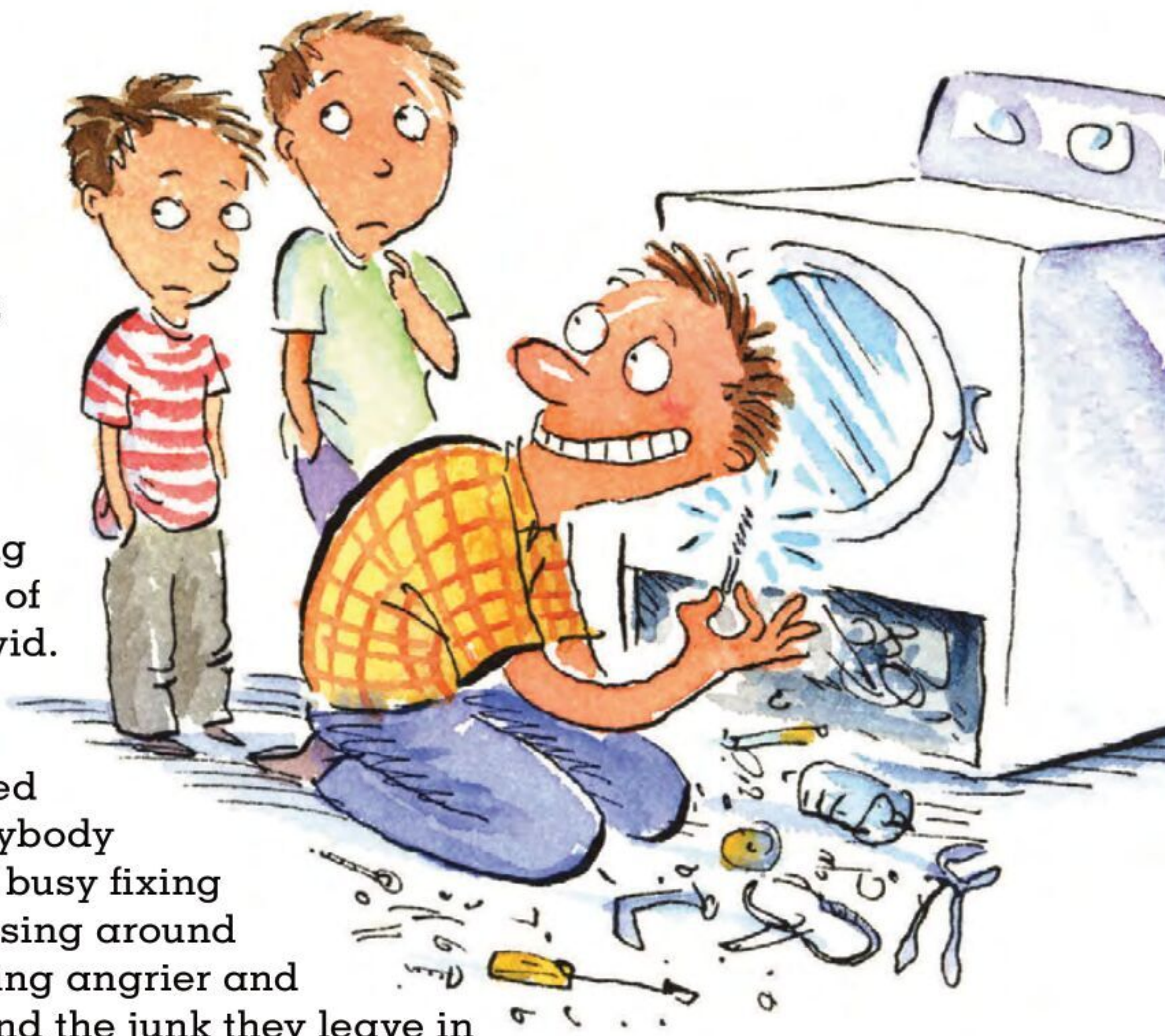


LAUGHS AND LESSONS FROM OUR READERS

DO AS I SAY...

I'd been riding my kids about emptying their pockets before tossing their clothes into the laundry. So when the washer stopped working in the middle of a load of baseball gear, I was livid. I stared at the gallons of dirty, soapy water in the drum, then I stomped upstairs and read everybody the riot act before I got busy fixing the machine. After messing around with it for an hour, getting angrier and angrier at those kids and the junk they leave in their pockets, I finally found the problem. A drill bit I'd left in my pocket jammed in the mechanism and kept the pump impeller from rotating. I quietly removed the bit, put the machine back together and ate a large piece of humble pie.

MICHAEL McNULTY



LOW FLOW OR NO FLOW?

Several months ago, my best friend installed a low-flow faucet in her master bathroom. Her husband had offered to do it, but she decided to tackle it alone and was very proud of her work. Her husband immediately complained about the weak trickle of water, and after a few months, even she couldn't stand it anymore. She decided her attempts to be "green" weren't worth it, and she went out and bought a different faucet.

When she started to uninstall the low-flow faucet, she immediately discovered the problem. She'd never opened the valves under the sink all the way! She told ME this story, but she was definitely NOT telling her husband!

LORI OKIMOTO

FLYING COLORS

My neighbor collects baseball caps, and she decided to run them through the dishwasher to clean them. To prevent them from shrinking, she stopped the dishwasher before the drying cycle. She was worried they would shrink in the clothes dryer too, so she came up with the brilliant idea of air-drying the caps by strapping each one to a blade on her ceiling fan. Genius! She turned on the fan, made sure the caps were secure and left to go shopping. When she got back, the caps were definitely dry, but there were crazy stripes of color all over the room. As the caps were spinning around, the dye bled out and shot color all over her living room walls!

LEIGH NELSON



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