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BACKYARD PROJECT

**A Garden
Entry That
Wows**

**Pro Tips
for Fixing
Fences**

HOME TOUR

**DIY
Superstar**

**Mr. Build It
Invites You In**

MAKE
NEUTRALS
WORK FOR
YOU! P. 32

JUNE 2024

Where does the armpit end and the body begin?



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Introducing Our Fresh New Look

Behind our expanded topics and re-imagined layout, we're the same *Family Handyman* you trust



You could say that every issue of this magazine is an invitation. We welcome you in and put our hosting skills to work as we guide you through DIY projects, distill indispensable pro advice and tell a few personal stories along the way. Just as if we are throwing a gathering, we put a great degree of prep work and thoughtfulness into each issue. And this time, things are different—dare I say, even more inviting. We're introducing a cover-to-cover redesign.

What you're looking at is a magazine transformed—a new house full of endless ideas and possibilities. Allow me to give you a quick tour.

We're opening each issue with a Now Trending page, which brings you an up-close look at a DIY or design trend that is on the rise and should be on your radar. You'll also notice a new Mini Makeovers section, which highlights a part of the home (this month it's offices), and shows how small changes have a big impact. Deeper inside

these pages, you'll take a walk with us through the home of a notable personality. We were lucky enough to visit the Boise, Idaho, residence of Alex Mazhukhin (aka Mr. Build It), and in this issue we give you an inside look at how his family lives in harmony with the projects he brings to you on our streaming channel, At Home with Family Handyman.

Our story on pollinator-friendly gardening is a definitive resource for a timely topic, and our guide to hoses gives you the info you need to make wise choices while you shop. As always, we're providing a large-scale project plan for you to tackle (check out this month's arbor design, which would look great in any yard), and plenty of smaller-scale step-by-steps that can enhance your home, no matter your skill level.

For 72 years we've prided ourselves on offering pro tips, easy fix-its, and product news and reviews. You'll find those in abundance, now and always.

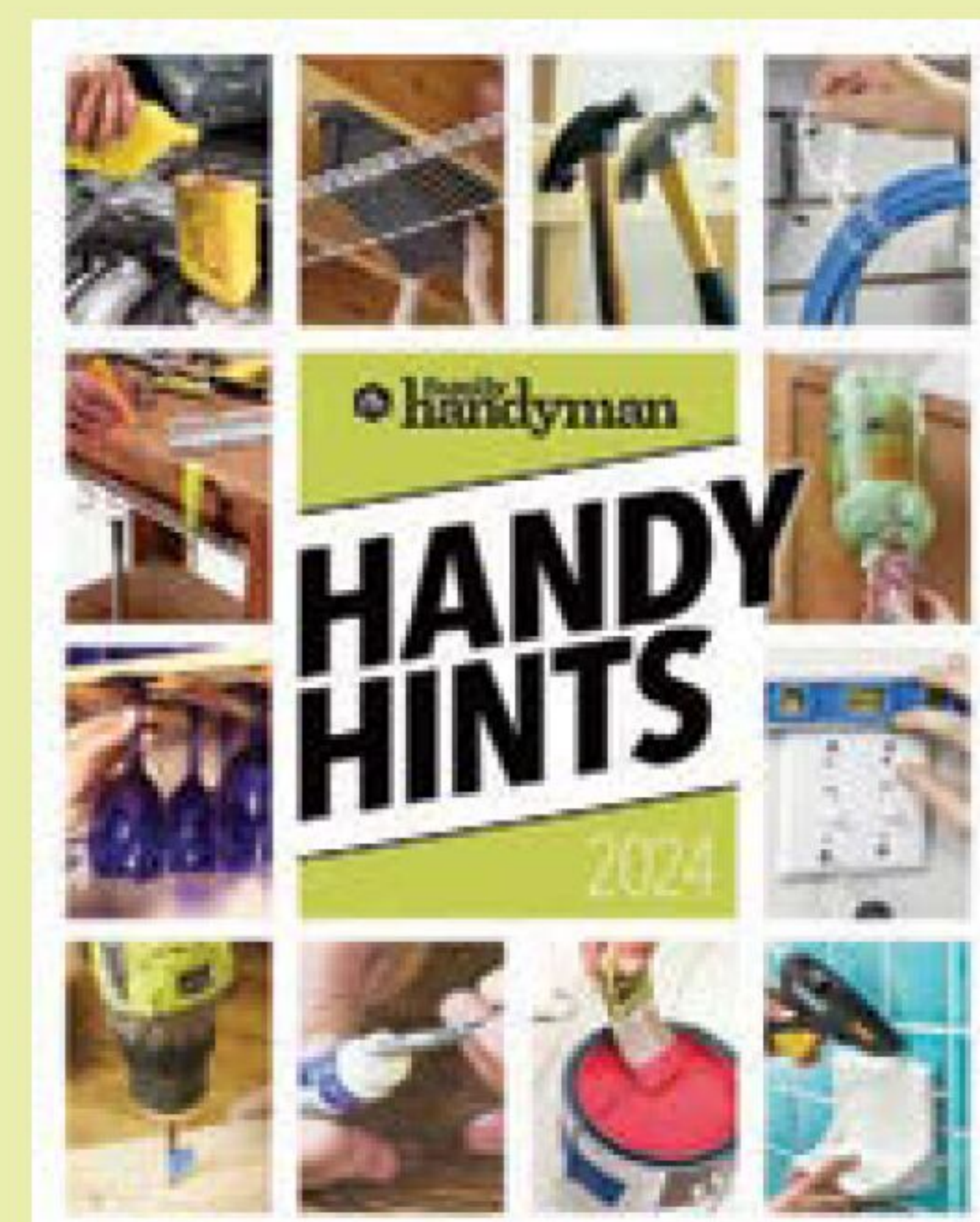
This is only a taste of what's to come in future issues, and I hope you find it helpful and enjoyable. Welcome to the new *Family Handyman* magazine. It's the best housewarming party we've ever thrown.

Kelly Aiglon, Deputy Editor



Show ... & We'll Tell!

The last page of every issue of *Family Handyman* is all about you and the amazing projects you create. Up for a little Show & Tell? We'd love to see what you're working on. Whether it be a fresh paint job, the repair of a beloved item or a full-scale passion project, send some photos and information our way. All you need to do is go to familyhandyman.com/submissions.



A New Handy Hints Book is Here

From the reader-favorite section of the magazine comes this all-new *Handy Hints* volume. It features 200-plus tips to make fast, simple fixes at home. DIY is easy with this at your side! Get it now for \$10—shipping is free. Order at familyhandyman.com/U2406.

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The latest from
our TV Channel

A Stunning Yard Transformation

Sarah Keenleyside, landscape designer and co-host of *Backyard Builds*, reveals the making of a luxury retreat



BEFORE

Ever think your yard could be a vacation destination? That was the dream of one family of four. With a \$250,000 budget and the creative minds of Sarah Keenleyside and Brian McCourt, who co-host *Backyard Builds*, it came to fruition—no passport required. Here are key takeaways from the making of this “resort at home,” complete with a swimming pool, sunken lounge, outdoor kitchen, fire pit and lanai. —Kelly Aiglon



AFTER

Lanai

“Beauty meets practicality in the lanai, thanks to a vinyl wood floor, indoor-outdoor furniture and washable rugs.”

Outdoor Kitchen

“To weather four seasons, I selected concrete, which doesn’t rust or warp. The decorative fluted panels under the bar help break up the concrete slabs.”

Pool

“A hot tub within the pool keeps the backyard looking streamlined. And I love how the staggered steps into the pool allow for shallow lounging.”

Sunken Lounge

“By edging the sunken lounge and capping the retaining wall with the darker stone, the look remains contemporary. The low-maintenance garden beds are also home to integrated lighting and speakers.”



See this project come to life in an episode of **Backyard Builds** on **At Home with Family Handyman**, and get more inspiration, by streaming the channel on Samsung TV Plus, The Roku Channel and more.



DAD BODS?

Shrink Your Gut

Being a trainer, bodybuilder, and nutrition expert means that companies frequently send me their products and ask for my stamp of approval. Most of the time I dive into research, test the product out, and send the company honest feedback. Sometimes, however, I refuse to give the product a try, because frankly, the ingredients inside aren't real food. And I'd rather drink diesel fuel than torture my body with a chemical concoction.

Like my father always said, "What you put inside your body always shows up on the outside."

One protein shake that I received, that will remain nameless, was touted as 'the next big shake' but really had a list of gut destroying ingredients. Everywhere I read I saw harmful artificial ingredients, added sugars, synthetic dyes, preservatives and cheap proteins; the kind of proteins that keep you fat no matter how hard you hit the gym, sap your energy and do nothing for your muscles.

Disappointed after reviewing this "new" shake, I hit the gym and bumped into my favorite bodybuilding coach. This guy is pushing 50, has the energy of a college kid, and is ripped. So are his clients.

While I firmly believe that the gym is a no-talk focus zone, I had to ask, "Hey Zee, what protein shake are you recommending to your clients these days?"

Zee looked at me, and shook his head. "Protein shakes are old news and loaded

with junk. I don't recommend protein shakes, I tell my clients to drink INVIGOR8 Superfood Shake because it's the only all natural meal replacement that works and has a taste so good that it's addicting."

Being skeptical of what Zee told me, I decided to investigate this superfood shake called INVIGOR8.

Turns out INVIGOR8 Superfood Shake has a near 5-star rating on Amazon. The creators are actual scientists and personal trainers who set out to create a complete meal replacement shake chocked full of superfoods that—get this—actually accelerate how quickly and easily you lose belly fat and builds even more lean, calorie burning muscle.

We all know that the more muscle you build, the more calories you burn. The more fat you melt away the more definition you get in your arms, pecs, and abs.

The makers of INVIGOR8 were determined to make the first complete, natural, non-GMO superfood shake that helps you lose fat and build lean muscle. The result is a shake that contains 100% grass-fed whey that has a superior nutrient profile to the grain-fed whey found in most shakes, metabolism boosting raw coconut oil, hormone free colostrum to promote a healthy immune system, Omega 3, 6, 9-rich chia and flaxseeds, superfood greens like kale, spinach, broccoli, alfalfa, and chlorella, and clinically tested cognitive enhancers for improved mood and brain function.

The company even went a step further by including a balance of pre and probiotics for regularity in optimal digestive health, and digestive enzymes so your body absorbs the high-caliber nutrition you get from INVIGOR8.

While there are over 3500 testimonials on Amazon about how INVIGOR8 "gave me more energy and stamina" and "melts away abdominal fat like butter on a hot sidewalk", what really impressed me was how many customers raved about the taste. So I had to give it a try.

When it arrived I gave it the sniff test. Unlike most meal replacement shakes it smelled like whole food, not a chemical factory. So far so good. Still INVIGOR8 had to pass the most important test, the taste test.

And INVIGOR8 was good. Better than good. I could see what Zee meant when he said his clients found the taste addicting.

I also wanted to see if Invigor8 would help me burn that body fat I'd tried to shave off for years to achieve total definition.

Just a few weeks later I'm pleased to say, shaving that last abdominal fat from my midsection wasn't just easy. It was delicious.

Considering all the shakes I've tried I can honestly say that the results I've experienced from INVIGOR8 are nothing short of astonishing.

A company spokesperson confirmed an exclusive offer for our readers: if you order INVIGOR8 this month, you'll receive \$10 off your first order by using promo code "FH10" at checkout. If you're in a rush to burn fat, restore lean muscle and boost your stamina and energy you can order INVIGOR8 today at DrinkInvigor8.com or by calling 1-800-958-3392.



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What's New

Now Trending • Gear Up • Mini Makeovers

The latest
we've heard,
seen, tested
and tried

NOW TRENDING

Dark Colors, Deep Sleep

Move over, brights. Today's bedrooms are being painted in saturated hues for a feeling of tranquility.

Deeper colors in the bedroom are not only beautiful, but a science-backed lifestyle choice. "We're constantly inundated with screens—so much so that environmental psychologists have identified the need to adjust the color scheme of our bedrooms to experience quality rest," says Lauren Svenstrup, principal of Chicago-based Studio Sven.
—Kelly Aiglon

PRO TIP

Try color pairing beyond the standard. Consider a mustard with your olive.



Keep It Clean

These editor-tested home-care picks might just have you looking forward to chore time

Go Green with Blueland

Blueland produces eco-friendly, plant-based cleaning products that reduce plastic waste, save space and are free of harsh fragrances and chemicals. As an organic gardener who cares deeply about the planet but also loves a spotless house, I jumped at the chance to test out their bestselling Clean Suite Kit.

This starter set includes a tablet each for foaming hand soap, multisurface cleaner, bathroom cleaner, and glass and mirror cleaner; a large pouch of powder dish soap; 14 toilet cleaner tablets; 60 dishwasher tablets; and 60 laundry tablets. Reusable “forever” bottles and tins for the products—in beautiful minimalist designs—are also included.

At home, the dishwasher tablets performed just as well as my name-brand detergent and even left less residue on my glassware. The fragrance-free glass and mirror cleaner also impressed me, and the laundry pods left my things soft and clean. The bathroom cleaner, which is bleach free, did require me to work a bit harder to scrub away hard water stains and grime on the tiles and tub, but I was glad not to be huffing chemicals in the process. Overall, the Clean Suite Kit shined bright for its all-in-one ease, affordability, impressive cleaning power and eco-friendly ingredients. —**Sheri Kaz**, Associate Shopping Editor
Blueland Clean Suite Kit, \$98; blueland.com

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Get Smart About Air Purification

My house seems to constantly accumulate dust despite regular cleaning. Luckily, the NuWave OxyPure Smart Air Purifier was up for a challenge. This sleek device employs five filters to remove dust, pet fur, particle pollutants, vehicle fumes, ozone emissions and more from the air in your home. The purifier operates quietly and is easily controllable via a simple app or physical buttons. It has built-in wheels and is suitable for large spaces. The filters also boast a 20-year life span, except for the combined carbon/HEPA filter, which lasts for a year (four extras are included).

This model isn't cheap, but it's more sustainable than other purifiers with shorter life spans, and the five-stage filtration is hard to beat. I've observed less dust at home (meaning fewer chores for me) and ditched my plug-in air freshener. Other users even report reduced allergy and illness symptoms.

—Mary Henn, Associate Shopping Editor
NuWave OxyPure Smart Air Purifier, \$600; nuwavenow.com, Amazon or Walmart

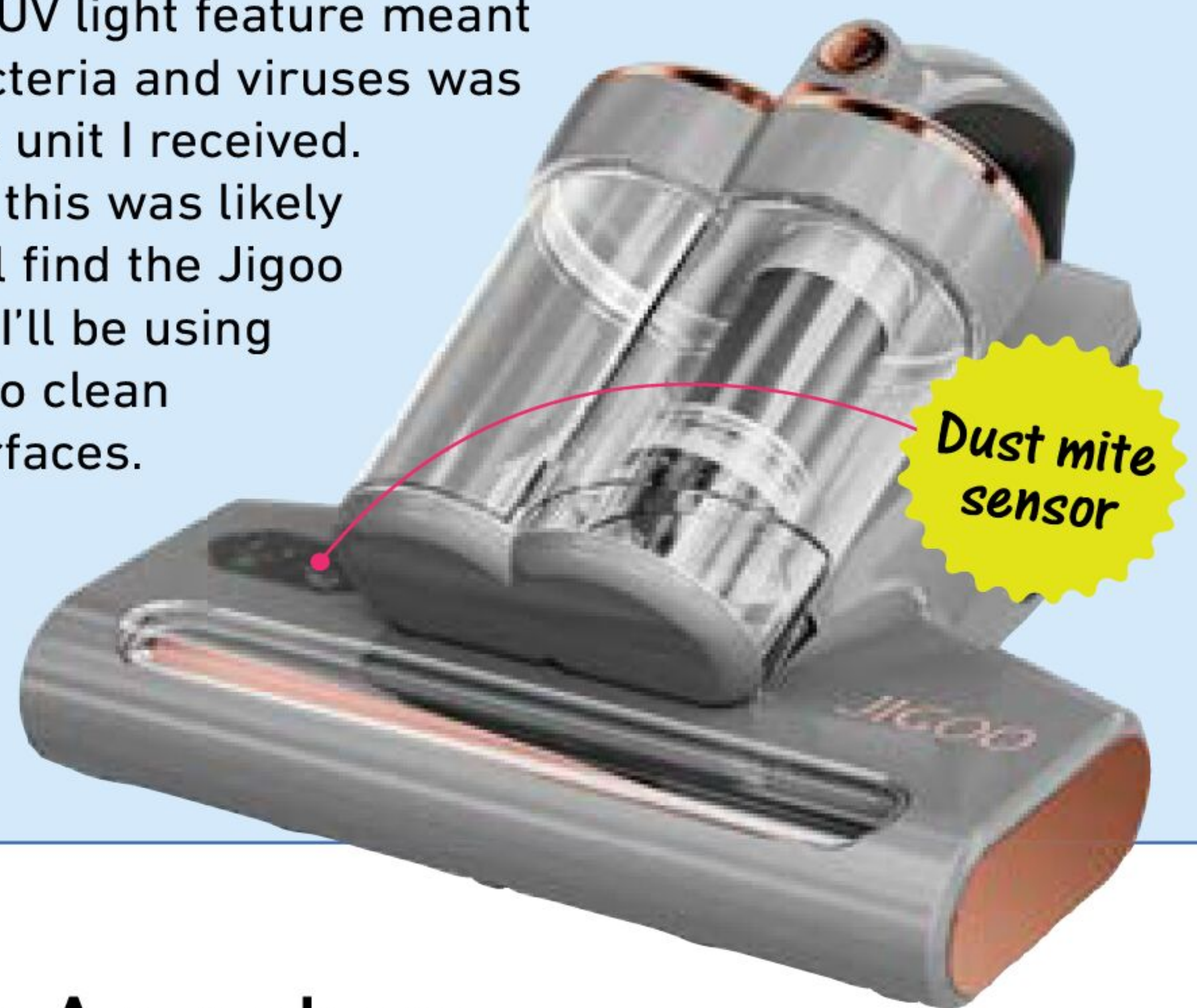
Rest Easy with a Mattress Vacuum Cleaner

After seeing multiple mattress vacuum cleaners go viral on TikTok, I was skeptical, thinking they were just another gimmick. But curiosity got the better of me, and I can now say I truly believe the hype.

Equipped with a high-speed metal brush roll and a powerful motor, the hand-held Jigoo Pro Anti-Mite Vacuum swiftly removed debris and odors from my mattress, couch, pillows and more. I was stunned (and frankly, disgusted) by how much dust it collected, and the long cord, glowing clean/dirty indicator and simple push-button waste chamber made the whole process seamless.

I liked that I could feel heat output, which aids in sanitizing, beneath the vacuum, but the UV light feature meant to help eliminate bacteria and viruses was not functional on the unit I received. While disappointing, this was likely a one-off issue. I still find the Jigoo highly effective, and I'll be using it every time I want to clean household fabric surfaces.

—Mary Henn, Associate Shopping Editor
Jigoo Pro Anti-Mite Vacuum Cleaner, \$180; Amazon



Dust mite
sensor

Wash Dishes Anywhere

It's been years since I've lived in an apartment with a dishwasher, and I cook three square meals a day, so plates, bowls and silverware pile up at warp speed. Enter the Farberware Countertop Dishwasher—a compact solution meant for use in RVs, dorms or small apartments. I've used it for months, and I'm never looking back.

The Farberware fits two to three place settings (a typical washer might hold 12) and requires 5 liters of water per cycle. You can fill the tank manually, but I prefer attaching the device right to my kitchen faucet. A drain hose runs into the sink and is attached via an included suction cup.



The normal cycle takes a little over two hours and, in my experience, effectively cleans and dries whatever I load in, halving my overall hand-washing time. While a countertop model isn't a perfect replacement for a regular washer, it's a great shortcut solution for those like me in tight quarters without the space or means for the real deal.

—Annamarie Higley,
Shopping Editor, *Taste of Home*
Farberware Countertop Dishwasher, \$400; Amazon, Home Depot or Wayfair

CLOCKWISE FROM TOP LEFT: VIA NUWAVE; VIA JIGOO; VIA AMAZON FOR FARBERWARE



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Closet Chaos, Conquered

Practical solutions and fresh inspiration to help you maximize storage, style and functionality

BY CHRISTINE CAMPBELL

Closets are a vital part of our daily routines, but their cluttered contents are often kept out of sight, out of mind. Try these ideas to pare down and spruce up your space. Soon enough, your closet will be an area of the home you look forward to using every day.



Bold lighting provides a focal point.



Wallpaper adds color and texture.



Matching bins give a harmonious look.

GET INSPIRED Your New Favorite Room

Here's a demo-free way to expand your bedroom: Embrace your closet as a design opportunity. Incorporating wall colors, light fixtures and finishes that complement your bedroom decor makes the spaces cohesive and intentional.

CLOCKWISE FROM TOP RIGHT: ZENIA OLIVARES FROM STYLE IT PRETTY HOME, FOLLOWTHEFLOW/GETTY IMAGES, IMAGINIMA/GETTY IMAGES



FEELING REJUVENATED

Everyone feels aging pain, but CBD can help

By: **Beth Giles**

Life really does fly by. Before I knew it, my 60s had arrived, and with them came some new gifts from dear ol' Mother Nature—frequent knee pain, stress, low energy and sleeplessness. Now, I'm a realist about these things, I knew I wasn't going to be young and springy forever. But still, with "golden years" nearly on my doorstep, I couldn't help but feel a little cheated. That is until I found my own secret weapon. Another gift from Mother Nature.

It began a few months back when I was complaining about my aches and pains to my marathon-running granddaughter, Jen. She casually mentioned how she uses CBD rub to help with her joint pain. She said that CBD gave her more focus and clarity throughout the day and that her lingering muscle and joint discomfort no longer bothered her. She even felt comfortable signing up for back-to-back marathons two weekends in a row this year. That made even this self-proclaimed skeptic take notice.

But I still had some concerns. According to one study in the Journal of the American Medical Association, 70% of CBD products didn't contain the amount of CBD stated on their labels. And, as a consumer, that's terrifying!

If I was going to try CBD, I needed to trust the source through and through. My two-fold research process naturally led me to Zebra CBD.

First, I started calling my family and friends. Call me old fashioned but I wanted to know if there were people whom I trusted (more than anonymous

testimonials) who've had success using CBD besides my granddaughter.

Secondly, I wanted cold hard facts. Diving deep into the world of CBD research and clinical studies, I came across Emily Gray M.D., a physician at the University of California at San Diego (UCSD) Medical School and medical advisor to Zebra CBD who is researching the effects of CBD. Dr. Gray wrote "early results with CBD have been promising and we have a lot of research underway now. I've had several patients using CBD with good success. It's important that you know your source of CBD and how to use it properly."

After hearing it from the doctor's mouth, I returned to my research, asking more people and was amazed by the number of close friends and family who were already on the CBD train. Apparently, I was the only one without a clue! And funny enough, a couple of friends who commented were using the same brand as my granddaughter—Zebra CBD. There was no consensus as to why they were using CBD, but the top reasons given were for muscle & joint discomfort, mood support, sleep support, stress and headaches, as well as supporting overall health & wellness.

Eventually, even the most skeptical of the bunch can be won over. With a trusted CBD source in mind, I decided to give it a go.

When I viewed Zebra CBD's selection online, I was impressed by its array of products, including CBD oils called tinctures, topicals, chewable tablets, mints and gummies. After reading on their website

that all their products are made with organically-grown hemp, I ordered... and it arrived within 2 days!

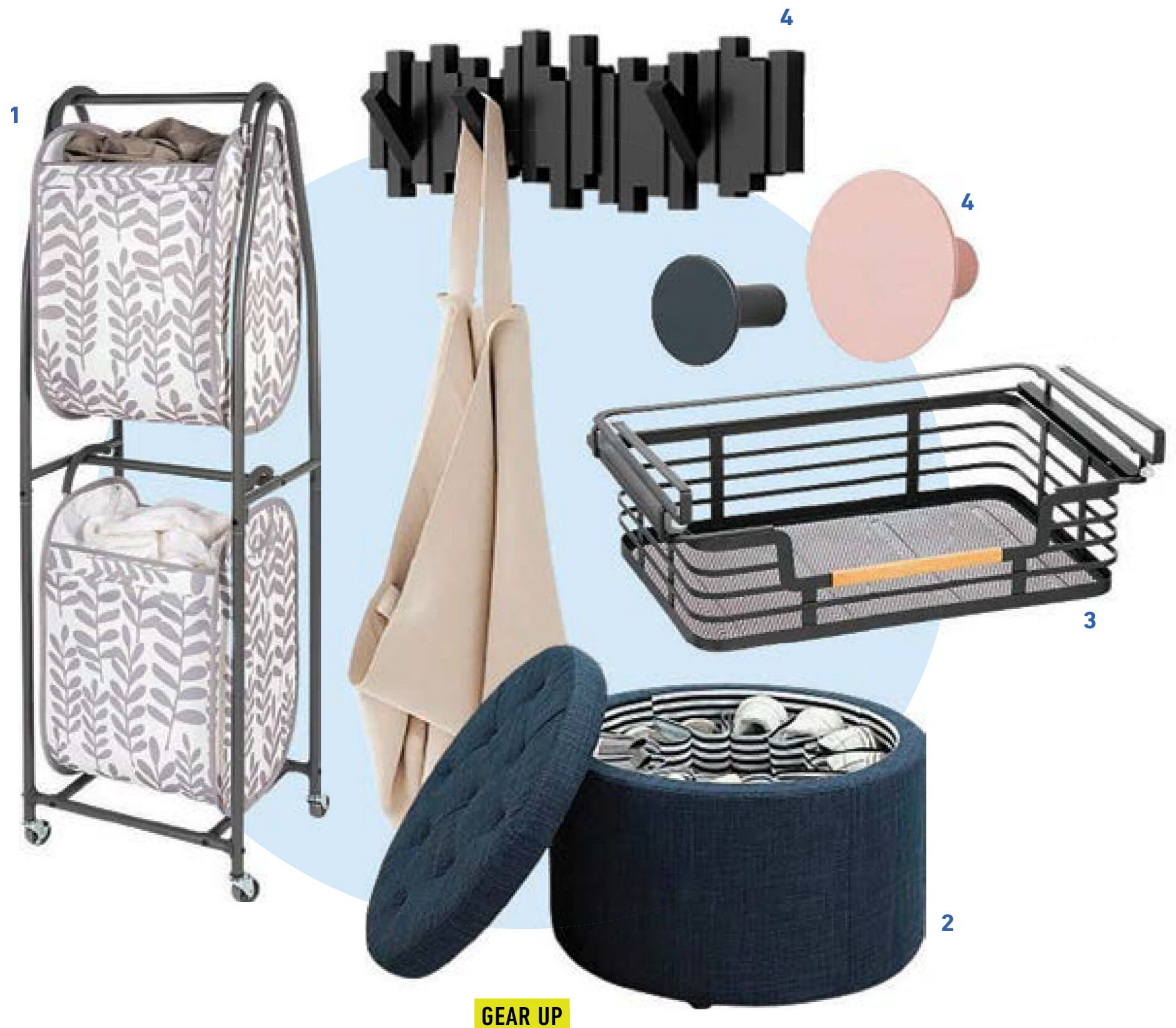
The first product I tried was the Rub. Now this stuff was strong. Immediately after rubbing it on my knee, the soothing effects kicked in. It had that familiar menthol cooling effect, which I personally find very relieving. And the best part is, after two weeks of using it, my knee pain no longer affected my daily mobility.

The Zebra Sleep Gummies, on the other hand, had a different but equally positive effect on my body. To take it, the instructions suggest chewing thoroughly. This was simple enough, and the taste was, well, lemony. After about 15 minutes, a sense of calm came over my body. It's hard to describe exactly; it's definitely not a "high" feeling. It's more like an overall sense of relaxation—and then I fell fast asleep. Needless to say, I slept great and woke up refreshed. I haven't slept like that in a long time.

While it hasn't been a catch-all fix to every one of my health issues, it has eased the level and frequency of my aches. And it sure doesn't seem like a coincidence how rejuvenated I feel.

All-in-all, CBD is one of those things that you have to try for yourself. Although I was skeptical at first, I can safely say that I'm now a Zebra CBD fan and that I highly recommend their products.

Also, I managed to speak with a Zebra CBD spokesperson willing to provide an exclusive. If you order this month, you'll receive \$10 off your first order by using promo code "**FH10**" at checkout. Plus, the company offers a 100% No-Hassle, Money-Back Guarantee. You can try it yourself and order Zebra CBD at ZebraCBD.com/FH or at 1-888-762-2699.



Instant Clutter Busters

Optimize the space you have with updated storage and organization essentials

1. A Laundry Sorter You'll Actually Use

Ditch the mismatched plastic baskets and clunky lidded hampers that accumulate clothing everywhere but inside. The *Neatfreak 2-Tier Vertical Rolling Laundry Sorter* (\$90 on Amazon) features two stacked lightweight, collapsible bins that are easy to remove and carry; alternatively, you can roll the whole assembly right into the laundry room.

2. Seating—with Storage

Having a place to sit transforms a walk-in closet into a personal dressing room. The *Convenience Concepts Designs4Comfort Round Shoe Storage Ottoman* (\$105 from Home Depot) has dedicated pockets for at least six pairs of shoes and room in the center for other items, hiding away clutter and offering a handy spot to lay out the day's clothes.

3. Double-Duty Shelf Dividers

Shelf accessories such as the *mDesign Under Shelf Sliding Basket* (\$44 for a set of two from mDesign) can double your usable storage. Use the compartmentalized drawer space to keep your clothing contained yet still visible and easy to access. Then, instead of playing Jenga with a tower of folded shirts, just slide out the drawer and find what you need.

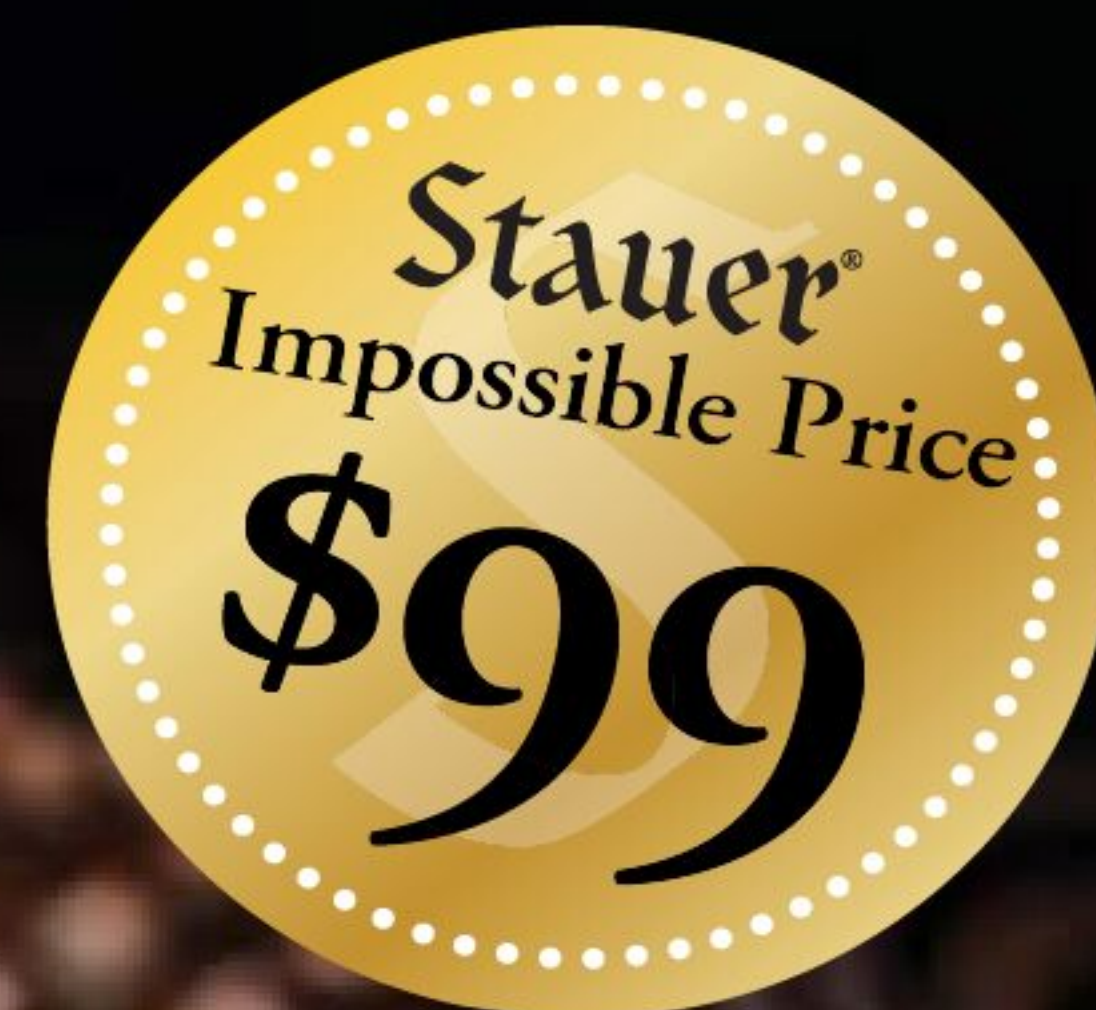
4. Hooks You Can Hang Your Hat On

Foldable wall hooks offer flexible storage when you need it and tuck away when you don't. The *Umbra Sticks 5 Wall Hook* (\$25 from Umbra) features five sturdy foldable hooks and a sleek, modern design. If you like the mod look but want to place your hooks individually, try the *Blomus Ponto Wall Hooks* (\$49 for a set of four from West Elm).

1, VIA AMAZON FOR NEATFREAK; 2, VIA HOME DEPOT FOR CONVENIENCE CONCEPTS; 3 VIA MDESIGN; 4 (PONTO WALL HOOKS) VIA WEST ELM; 4 (STICKS 5 WALL HOOK) VIA UMBRA

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Each pinecone — and therefore, each knife — has its own unique characteristics. And the back of the handle features hand tooling, a further demonstration of each piece's individual nature.

The blade is nothing to scoff at either. Constructed of Damascus steel, a modern reworking of the legendary steel forged by ancient swordsmiths, this nearly 5-inch blade features 256 layers of steel that have been folded on top of each other to increase its durability. Our competitors are charging hundreds for boring, run-of-the-mill knives with no features worth bragging about. We're asking **JUST \$99** for a knife unlike any you've seen before!

With its full-tang construction and high-quality genuine leather sheath, the Mighty Conifer Knife is the perfect blade for the

person who wants to stand out. **CALL NOW!** If you're one of the first ~~700~~ 587 callers for this ad, we'll throw in a pair of *Stauer 8x21 Compact Binoculars* — a \$99 value — **ABSOLUTELY FREE!** Satisfaction guaranteed or your money back!

Knife Specifications:

- 9 1/2" overall length.
- Full-tang construction
- Damascus steel blade and natural pinecone handle
- Genuine leather sheath

Mighty Conifer Knife

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HOW-TO

Build a Rolling Clothes Rack

Senior Project Editor Carmen De La Paz created an industrial-chic wardrobe that's strong and sturdy yet easy to assemble. Here are 5 key takeaways from her build.



1 PRE-ASSEMBLE THE PLUMBING CONFIGURATION

Working with an assembled pipe configuration allows you to determine precise measurements for the base and support wall. This also makes the final assembly a simple position-and-fasten job.



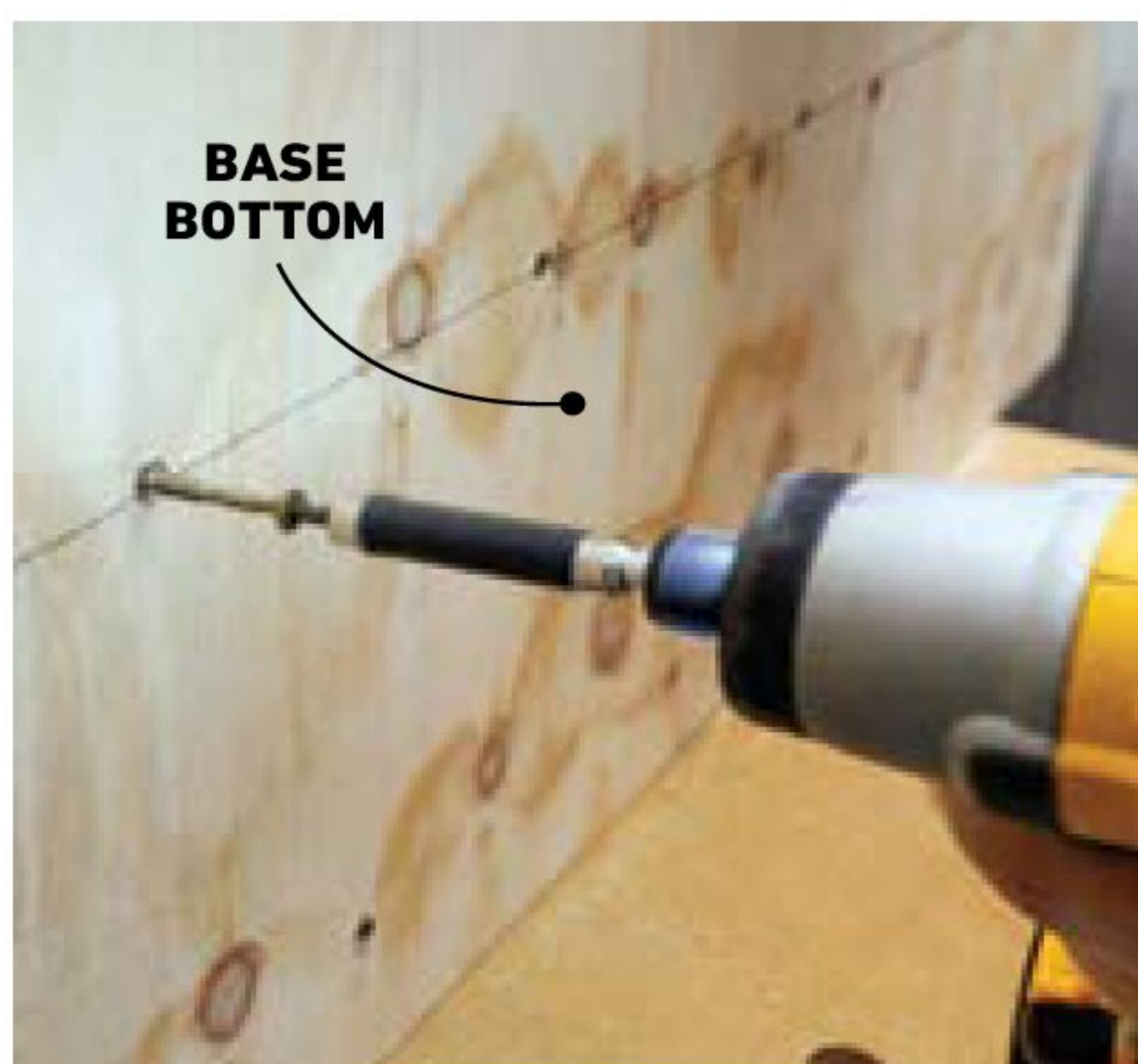
2 CONDITION AND STAIN THE WOOD BEFORE ASSEMBLY

Applying stain to separate pieces eliminates the need to cut in—and makes getting an even coat easier.



Step-by-Step Instructions

Scan the QR code to see the full project plan online.



3 TACK THE WALL TO THE BASE, THEN SCREW TOGETHER
Gluing and brad-nailing the parts keeps them secure when installing the final screws. Countersinking guarantees flush screwheads.



4 CUT THE TRIM AS YOU GO
Trim gives the plywood a finished look and hides any seams. Cutting the trim pieces as you go ensures accurate measurements and tight joints.



5 SEAL THE WOOD TO FINISH
A poly seal helps the clothes rack hold up to everyday use—and plenty of work boots.

QUICK TIPS

Keep It or Ditch It?

Pro organizers and stylists offer handy tips for pruning back an overgrown wardrobe

Start from Scratch

To begin, pull absolutely everything out of your closet. “It’s best to start with a blank slate so you can touch on each and every item,” says Jamie Hord, founder of Horderly Professional Organizing. Create piles by clothing type, then wipe down your empty shelves, drawers and garment rails. “You would be horrified to discover what dust can do to clothing over time,” says fashion archivist Julie Ann Clauss.

Identify Must-Keep Items

Keep only what fits into your current lifestyle, isn’t damaged or soiled beyond repair, and will be worn regularly. “If you truly haven’t missed wearing [a clothing item] in two years, it’s time to let it go,” says Clea O’Hana, CEO of personal styling service Wishi. Making a few exceptions for timeless or sentimental items is OK, but otherwise you’ll need to be a little ruthless.

Sell, Donate, Recycle

Sort remaining items into heavy-duty trash bags. Clothing is heavy, and “thick bags are no-tear lifesavers,” says pro organizer Lisa Jacobs. Consider selling new or like-new pieces in classic or trending styles. Donate other wearable items in decent condition, and recycle or toss the rest.

Categorize and Store

Always prioritize function when reshelving and hanging your clothes. “Pieces you wear the most should be front and center,” says Clauss. Keep like items (e.g., knits, pants) together to keep ongoing tabs on your inventory. —Rachel LeWinter •



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PROTECTING YOUR TRAVEL TRAILER ADVENTURES

Embarking on the open road with your travel trailer is an exciting experience, filled with adventure and the promise of new discoveries. However, ensuring that your journey remains carefree involves more than just planning the perfect route and destination. It involves protecting your travel trailer with insurance customized for you. Here are a few reasons why having insurance for your travel trailer is not just a wise decision, but an essential one.

Peace of mind on the road

Traveling comes with its share of uncertainties, and having insurance for your travel trailer provides you with the peace of mind that you deserve. Whether you're cruising down the highway or parked at a scenic campsite, knowing that your investment is protected can make your travels even more enjoyable.

Protection against the unexpected

Damage to your travel trailer can happen when you least expect it. Comprehensive and collision travel trailer insurance can cover you in case of events that are out of your control, like a tree limb falling on your trailer. Optional Pest Damage ProtectionSM provides coverage for damage from pests such as rats, mice, insects, birds, or other nondomesticated animals.

Coverage for personal belongings

Your travel trailer is not just a mode of transportation; it's your home on wheels. Optional personal effects coverage can help cover the cost of personal belongings inside the trailer, providing financial assistance in case of theft or damage.

When auto insurance isn't enough

Auto insurance generally provides coverage for your travel trailer only when it is connected to your vehicle and may assist in cases where your trailer causes damage to another vehicle. However, it typically does not provide standalone coverage for repairing or replacing your trailer if it sustains damage or is totaled.

You can choose travel trailer insurance options that help cover those expenses and may even offer the benefit of total loss replacement coverage.

When homeowners insurance isn't enough

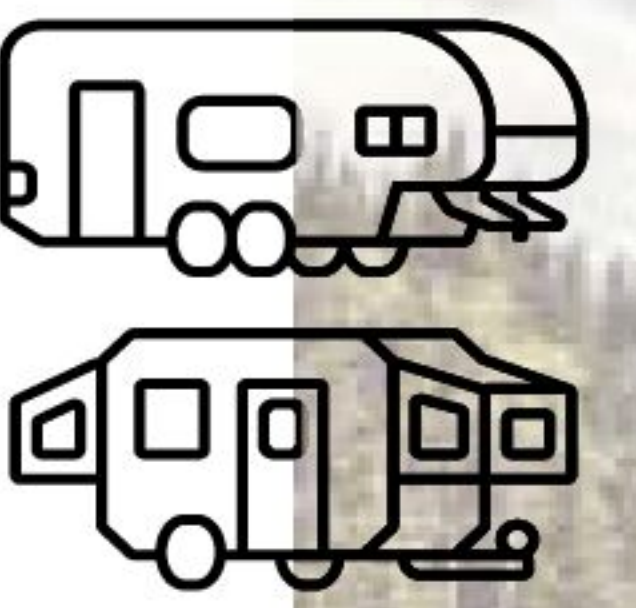
Homeowners insurance may provide some coverage for your belongings, but often has limitations when the trailer is off your property. A customized travel trailer insurance policy can ensure that your trailer and belongings are adequately covered.

Liability protection

Accidents involving your travel trailer can also lead to liability issues. Insurance can provide protection against third-party claims, covering medical expenses or property damage that may arise from an incident involving your trailer.

Insuring your travel trailer is not just a precaution; it's a commitment to a worry-free travel experience. Safeguard your investment, enjoy the journey, and make every moment on the road a memory worth cherishing. Start your adventure with the confidence that comes from knowing your travel trailer is protected against life's unexpected twists and turns.

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UNDER THE Enchanted Arbor

Sporting gentle curves and graceful coves, this outdoor build is rich with organic charm

BY FAMILY HANDYMAN EDITORS

Arbors make a great addition to any outdoor space. They can be used to frame a walkway, hold trailing vines or mark off a garden entrance—sometimes all three at once! Even better, their presence encourages you to slow down, take a look around and appreciate the beauty of your surroundings.

This build may look like a time-consuming challenge, but if you can handle a saw and drive screws, you can easily build it over a long weekend. And don't be intimidated by those coved arches and beams—we'll show you goof-proof methods for achieving great results. Read on for our step-by-step process and everything you'll need to be transported somewhere magic in your own backyard.

What It Takes

Time	Cost	Skill Level
Multiple days	\$500-\$1,500	Intermediate
Tools		
• 7¼" circular saw	• Combination square	• Drill/driver
• Belt sander	• Countersink drill bit	• Level
• Chisel	• Drill bit set	• Mallet
• Clamps		• Posthole digger
		• Sawhorses

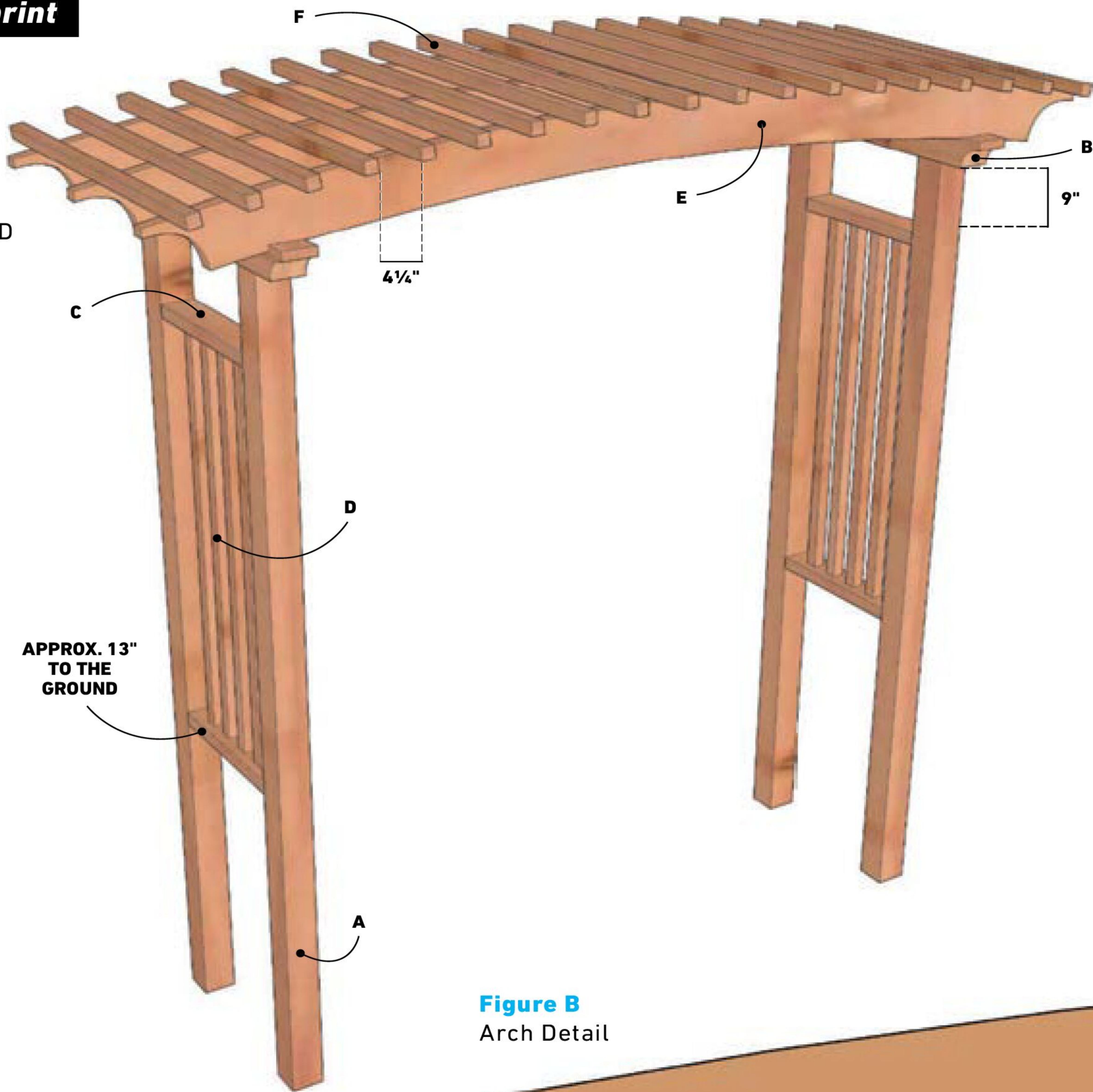




The Blueprint

Figure A
Arbor

Overall
Dimensions:
Approx. 104" H
x 107" W x 40" D



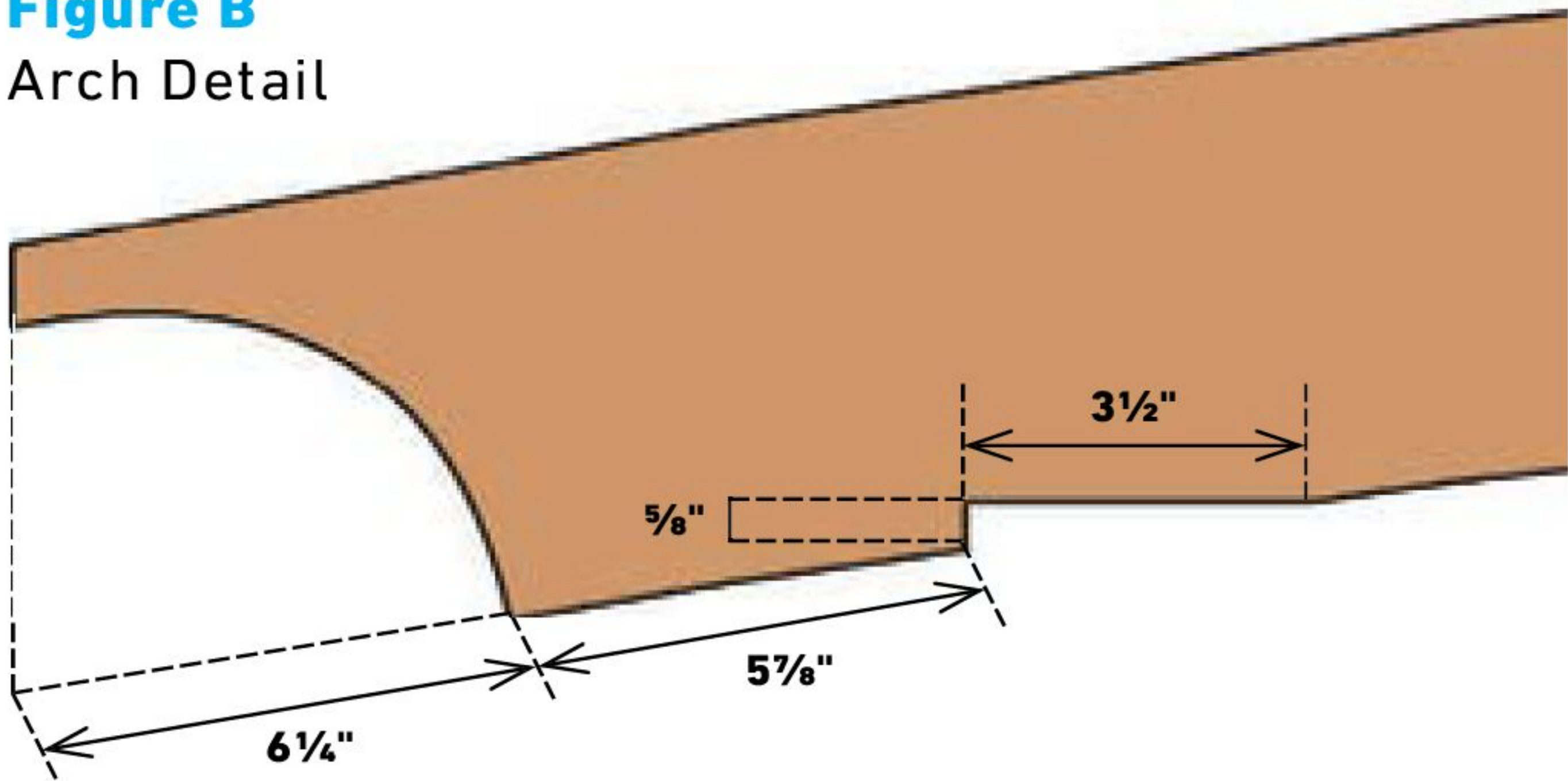
Materials

Item	Qty.
2x4 x 8'	1
2x2 x 8'	14
2x12 x 10'	3
2x4 x 10' (for bracing)	3
4x4 x 8'	5
80-lb. bags concrete mix (or 4 bags post setting foam)	4
3" screws	
6" screws	8

Cuts

Key	Qty.	Dimensions	Part
A	4	3 1/2" x 3 1/2" x 96"	Post
B	2	3 1/2" x 3 1/2" x 36"	Beam
C	4	1 1/2" x 3 1/2" x 18"	Rung
D	8	1 3/8" x 1 3/8" x 47"	Side slat
E	3	1 1/2" x 11 1/4" x 107"	Arch
F	19	1 3/8" x 1 3/8" x 40"	Top slat

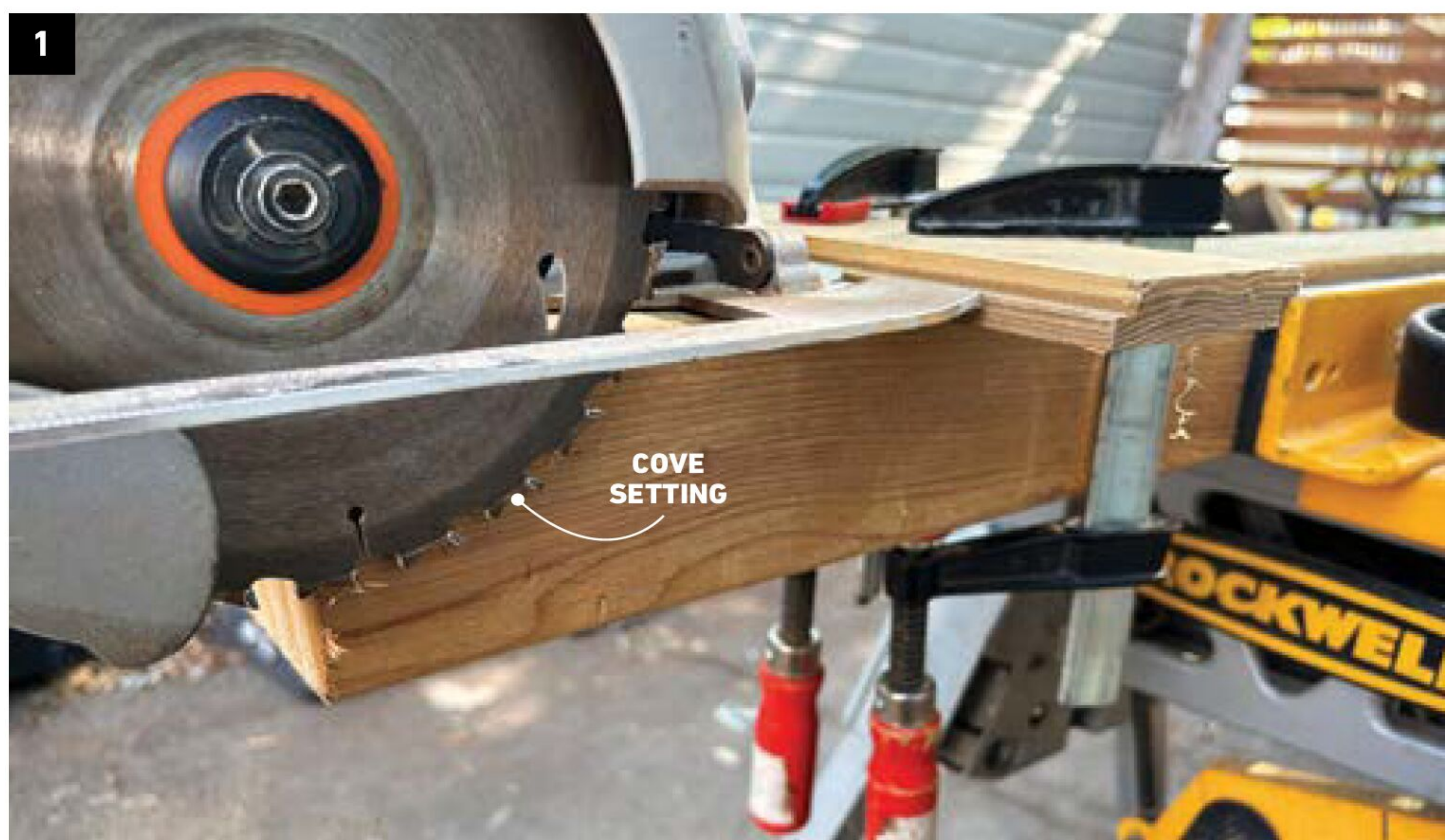
Figure B
Arch Detail



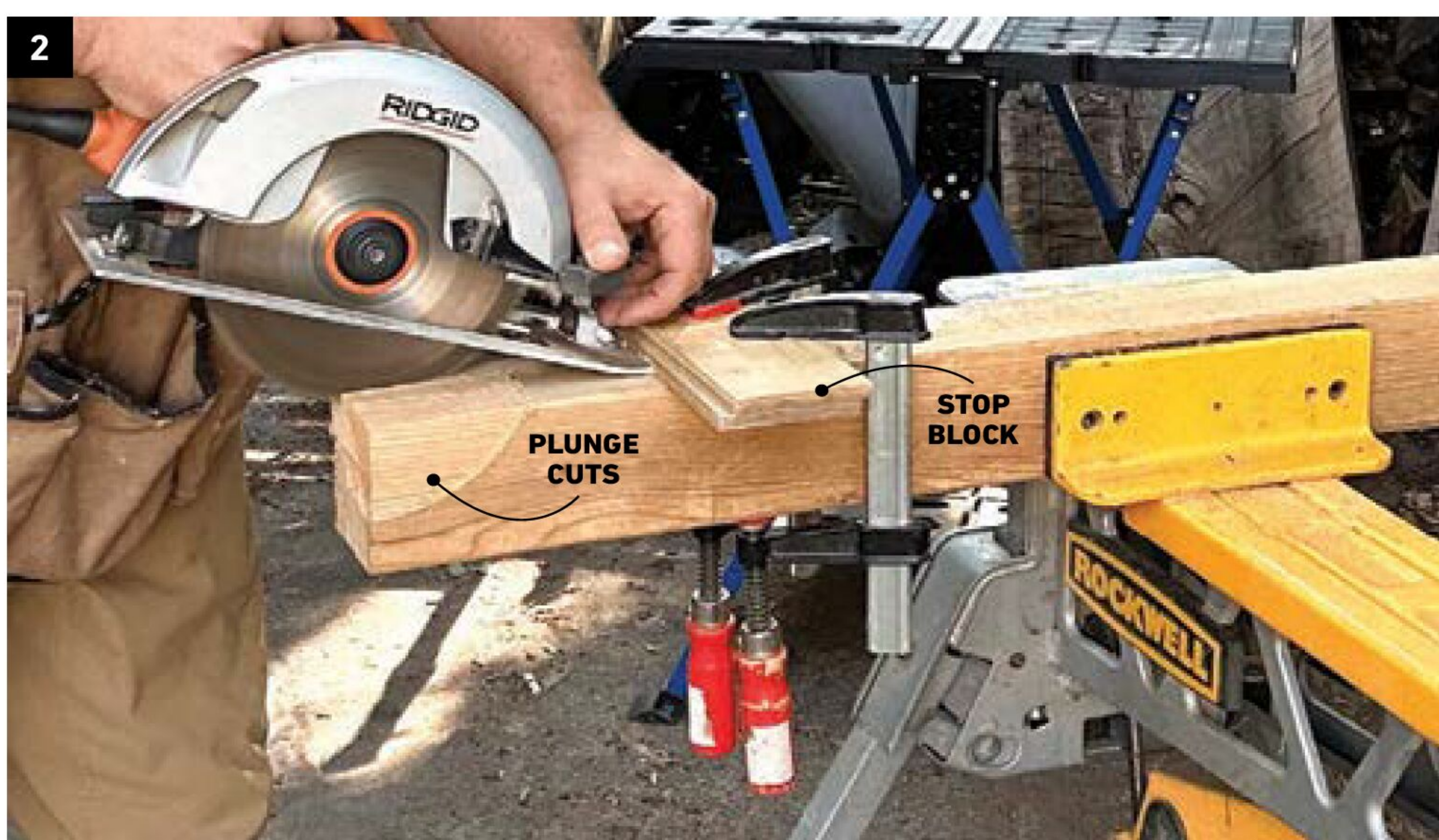
Safety Considerations

Wear eye, dust and hearing protection when cutting, sanding or mixing concrete during the construction and placement of this garden arbor. Make sure you're familiar with the tools required and possess the necessary knowledge and confidence to use them in a safe and effective manner.

TECHNICAL ILLUSTRATIONS BY JAY CORK



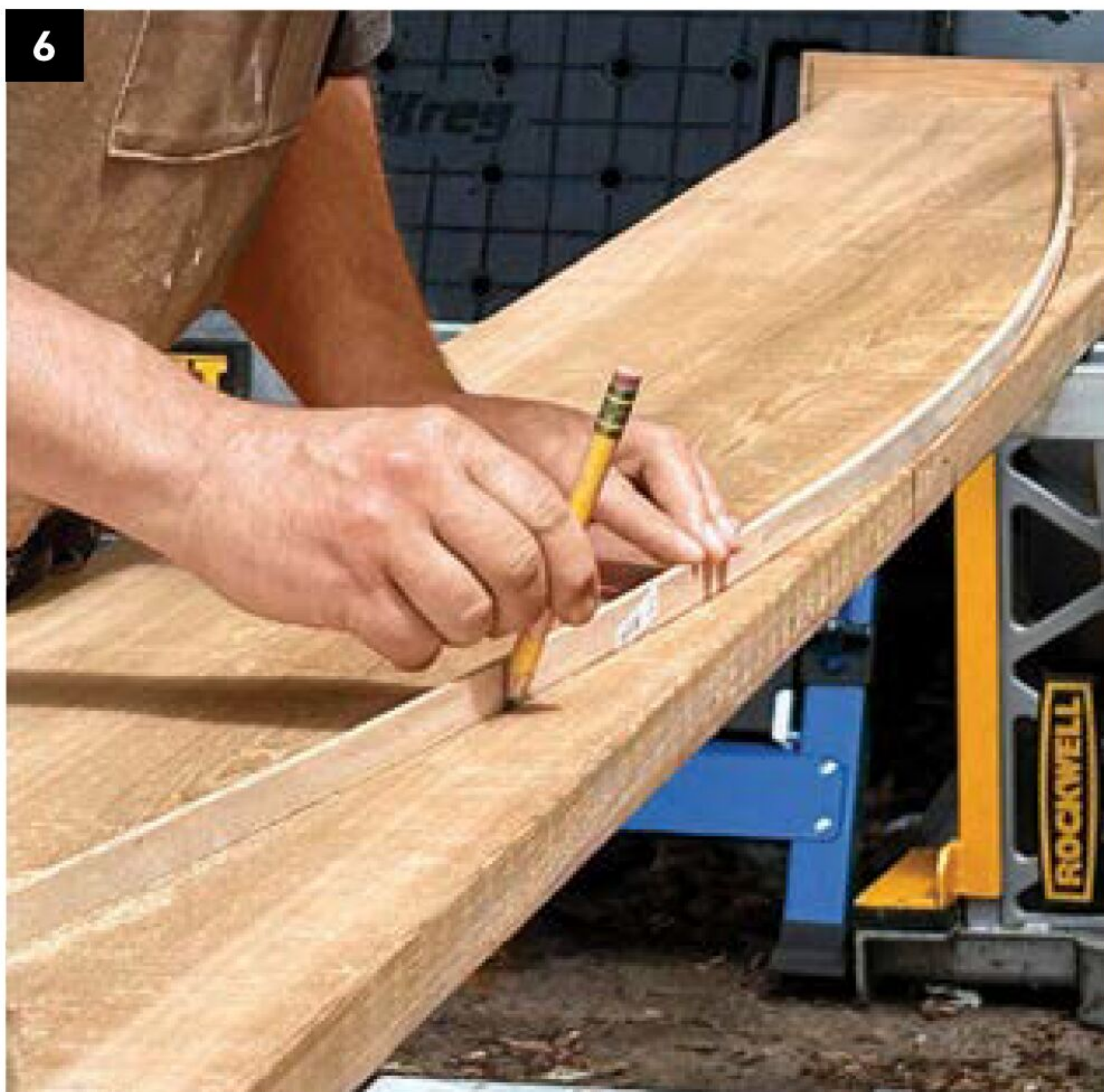
1 POSITION THE SAW
Using a 7 1/4-in. circular saw, align the blade's arbor with the end of one beam (B) and make a mark at the front of the saw's shoe. Using this mark as a guide, clamp a stop block to the beam.



2 MAKE PLUNGE CUTS
To cove the end of the beam, make multiple plunge cuts by pivoting the saw downward while holding the shoe against the stop block. Repeat clamping and coving with the other three beam ends.

3 REMOVE THE WASTE
Cut out the waste from the beam ends using a mallet and a chisel.





4 CLEAN UP THE COVES

Smooth the coves with a belt sander. The more plunge cuts you made, the easier this will be.

5 ASSEMBLE THE SIDES

Align and evenly space the side slats (D) between the rungs (C). Attach them with screws through the rungs. Next, drive screws at an angle through the rungs (C) and into the posts (A). Drilling pilot holes to guide the screws will make this easier. Fasten the beam (B) to the posts (A) with 6-in. construction screws. Be sure the screw heads sink in flush with the beam surface so they're not in the way when you set the arches (E) on them. Bore countersink holes if needed.

6 MARK THE ARCHES

Cut the 2×12 arch material to length and screw oversize blocks to the ends. Bend a spring stick between the blocks. (A spring stick can be any piece of scrap wood that

is 10 ft. long with a consistent bend to it.)

Trim the ends of the spring stick to decrease its arch. Once you've found a curve you like, trace along the stick on the 2×12 material. Move the stick down 6 in., then trace again.

Use the first arch (E) as a pattern for the other two.

7 CUT THE ARCHES

On these gentle curves, a circular saw is faster and easier to control than a jigsaw. Set your circular saw blade depth to 1 3/4 in. and cut the curves in the arches (E), taking your time and cutting along the outer edge of the marks. Clean up the cuts with a belt sander.

Referring to Figure B for placement, mark each arch's (E) end coves using the bottom of a 5-gallon bucket as a radius. Again referring to Figure B, mark the placement of the bird's mouth cuts. Cut the coves and bird's mouths using a jigsaw.

8 SCREW THE SLATS TO THE ARCHES

Before attaching the



slats, double-check that the arches are spaced correctly. Screw a few scraps of plywood to hold them there while you screw in the slats. Use a square to make sure the center top slat (F) and arches (E) are perpendicular to each other. You may have to nudge the whole assembly to adjust it for squareness.

Make a spacer block from scrap plywood and use it to help you position and attach the slats quickly (and prevent mistakes).

With all the main components now assembled but not yet put together, apply an exterior paint or deck stain of your choice and let dry per



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Get a Grip on Posthole Digging

Unless you're a body builder, avoid those giant, heavy-gauge, fiberglass-handled clamshell diggers when digging the postholes for this arbor. You're better off with a smaller, lightweight digger. If you're digging in sticky clay soil, dip your digger in a bucket of water so the soil won't stick. Knock off clumps by rapping the digger against a downturned shovel. Spread a tarp to help keep dirt off your grass.

the manufacturer's instructions.

9 ASSEMBLE, SQUARE AND BRACE THE ARBOR

Screw 2×4 braces to the posts (A) to hold them the correct distance apart. Screw the arches (E) to the beams (B). Take diagonal measurements to square up the arbor and add a diagonal brace to hold it square.

arbor into them. Level the posts by stacking blocks and shims under the braces, or by using gravel in the holes.

When the arbor is perfectly positioned, fill the postholes with concrete or post-setting foam. Keep the braces attached until the concrete or foam has set according to the manufacturer's instructions.



10 LEVEL THE ARCH AND COMPLETE INSTALLATION

Stand up the arbor exactly where you want it and mark the locations of the postholes. Dig the postholes and set the



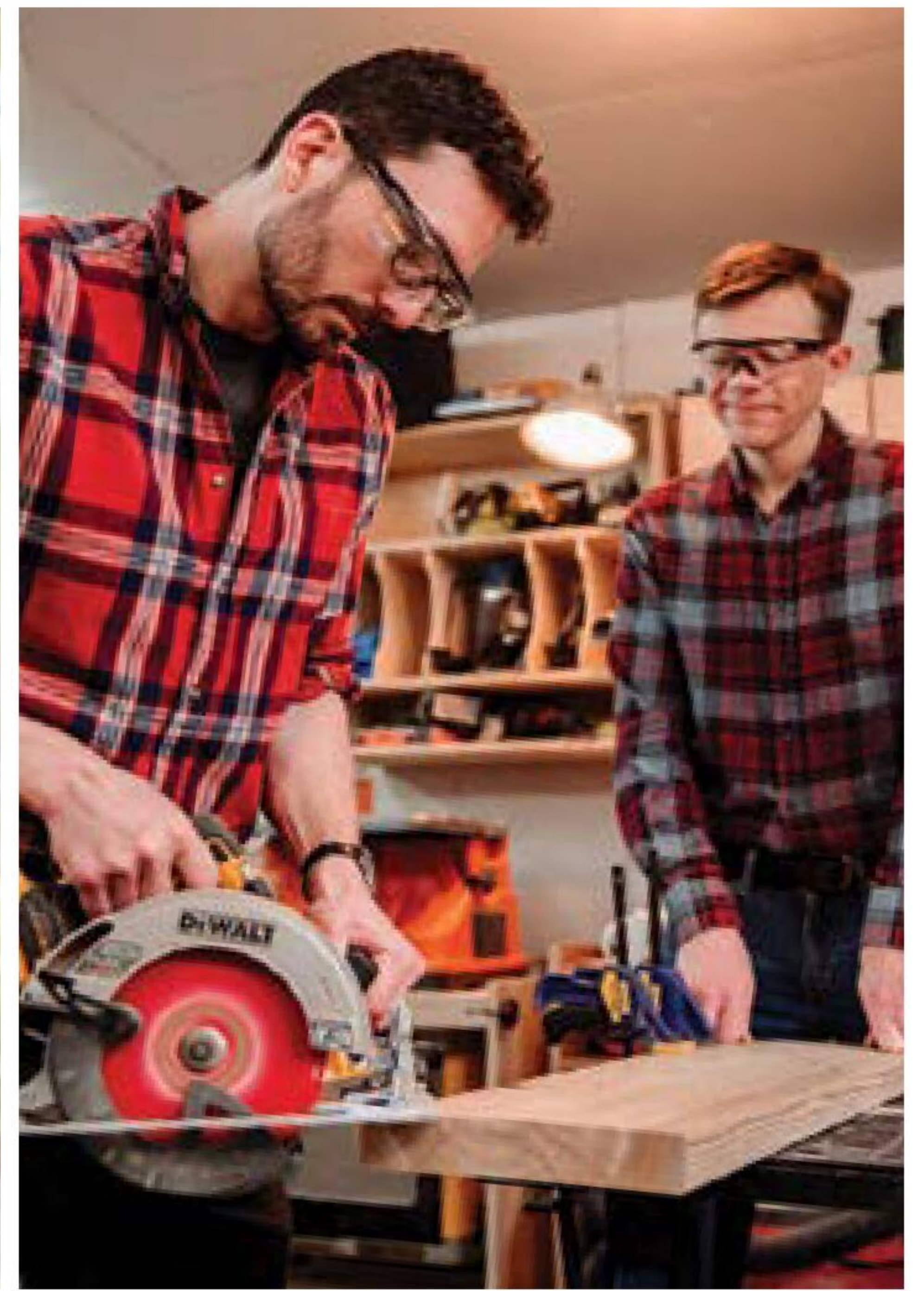
Video Online

Scan the QR code to watch a video of the build.



Built to Last

When two DIYers tied the knot, a *Family Handyman* woodworking project served as the guest of honor



When hobbyist woodworkers—and *Family Handyman* readers—Eric Roper and Tane Danger of Minneapolis, Minnesota, got engaged in early 2020, they knew a centerpiece build would be a key component of their wedding. Well, what better than

a handsome wooden arch to get married beneath? Our Easy Garden Arbor project, originally published in *Family Handyman*'s April 2019 issue, set their woodworking gears turning (and wedding bells ringing).

To tailor the build to their needs, Eric and Tane made a few adjustments to the original plans, including scaling up the archway and designing a support system to help the structure stand alone. The couple built the arch together in the garage workshop of their historic 1907 home, commemorating the process in their engagement photos, but they were mindful that the project would need to be relocated for the ceremony. With the help of some reliable friends, they spent the early hours of their wedding day schlepping disassembled pieces of the arch to the outdoor venue in a rented van. "We were ratcheting bolts

together just hours before we were set to walk down the aisle," Tane remembers.

Luckily, the assembly and ceremony both went without a hitch: The archway framed Tane and Eric as they said "I do" and even got a shoutout in their marriage vows. It also served as a popular photo backdrop for the event's 175 guests.

The next day, the newlyweds broke down the arch and brought it back to their shop. After trimming the parts to a suitable height, they removed a section of fence between their front and back yard and reinstated the arbor as the garden archway it was designed to be—ushering in a new life together and a beautiful reminder of how their marriage began. To learn how to build our Easy Garden Arch, go to familyhandyman.com/project/build-a-garden-arch. ●

—Christine Campbell



Living His Dream

Alex “Mr. Build It” Mazhukhin’s home is a stunning reflection of personal labor—and love for family

BY KELLY AIGLON



A small golden retriever races out of the den and into the kitchen, leaving a little girl squealing with delight. “We just got a puppy,” says her father, padding barefoot after the dog. “It’s been ... exciting.”

It’s moments like these that make this dad, Alex Mazhukhin, stop and appreciate the life he has built, literally and figuratively. Alex’s new home in a quiet suburb of Boise, Idaho, is the sixth that he has completely renovated. And he’s invited America to watch along the way.

Moving On Up

For those uninitiated with Alex’s special brand of relatable DIY savvy, know this: He’s a true self-made success story. Under the name Mr. Build It, Alex creates YouTube videos of him working on projects throughout the home, much to the delight of his nearly 900,000 followers. It’s easy to see how he got so big. With a relaxed demeanor and zero ego (“I’m all about showing my mistakes to give people a



Alex Mazhukhin renovated his living room, making it an ideal gathering place for him, his wife, Irina, and their children, Jack, Beckham and Harper.



Explore Neutral Territory

Tricks and tips for working with earth tones

As the Mazuhkins' home proves, neutral doesn't mean boring. In fact, earth tones provide a sense of balance and connectivity to the outdoors. Ground your home with these tips.

- **Mix Materials**

You'll get texture, which adds depth and dimension. Think beyond the paint can and try earth-toned metals, stone, marble and fabric (who doesn't love a shearling throw?).

- **Mind Your Lighting**

Warm lighting may bring out undertones, especially on your walls, making a neutral room appear larger.

- **Use Wood for Warmth**

Walnut, oak and cedar add cozy character. Plus, it's a great chance to use your woodworking skills!

- **Explore Color Palettes:**

There is more than one shade of beige, white or gray. Layer your space with several hues from the same color family. For example, consider chantilly lace baseboards with eggshell cabinets.



realistic expectation," he says), Alex has learned everything he knows about building on his own and isn't afraid to admit it.

It's the kind of tenacity you might expect from this Russian immigrant who came to Idaho in his early 20s for medical school. The path he forged first took him to a career as a respiratory therapist at St. Luke's hospital in Boise. It also led him to his interior-designer wife, Irina, herself a Ukrainian emigre, in 2016. "When we bought our first home, we were broke kids living off pennies and had no money for remodeling," says Alex.

His first project was building a simple industrial pipe-and-wood coffee table, a job he executed with "sweat equity." From there, the thirst for bigger projects began as Alex binged YouTube how-to's and realized that he too could show others how hard work and shedding fear of failure are the key ingredients to getting any job done.

"I had this false sense of confidence ... it made me keep trying," he says. "My strongest suit isn't building or designing, but having a high comfort level with failure."

Starting Fresh

A decade of skill-building has culminated in his latest achievement: rehabbing his current 3,000-sq.-ft. home where he, Irina and their three children (Jack, 11, Beckham, 10, and Harper, 4) have lived since last spring. Here, the intent was to create calming spaces that are

"My strongest suit isn't building or designing, but having a high comfort level with failure."

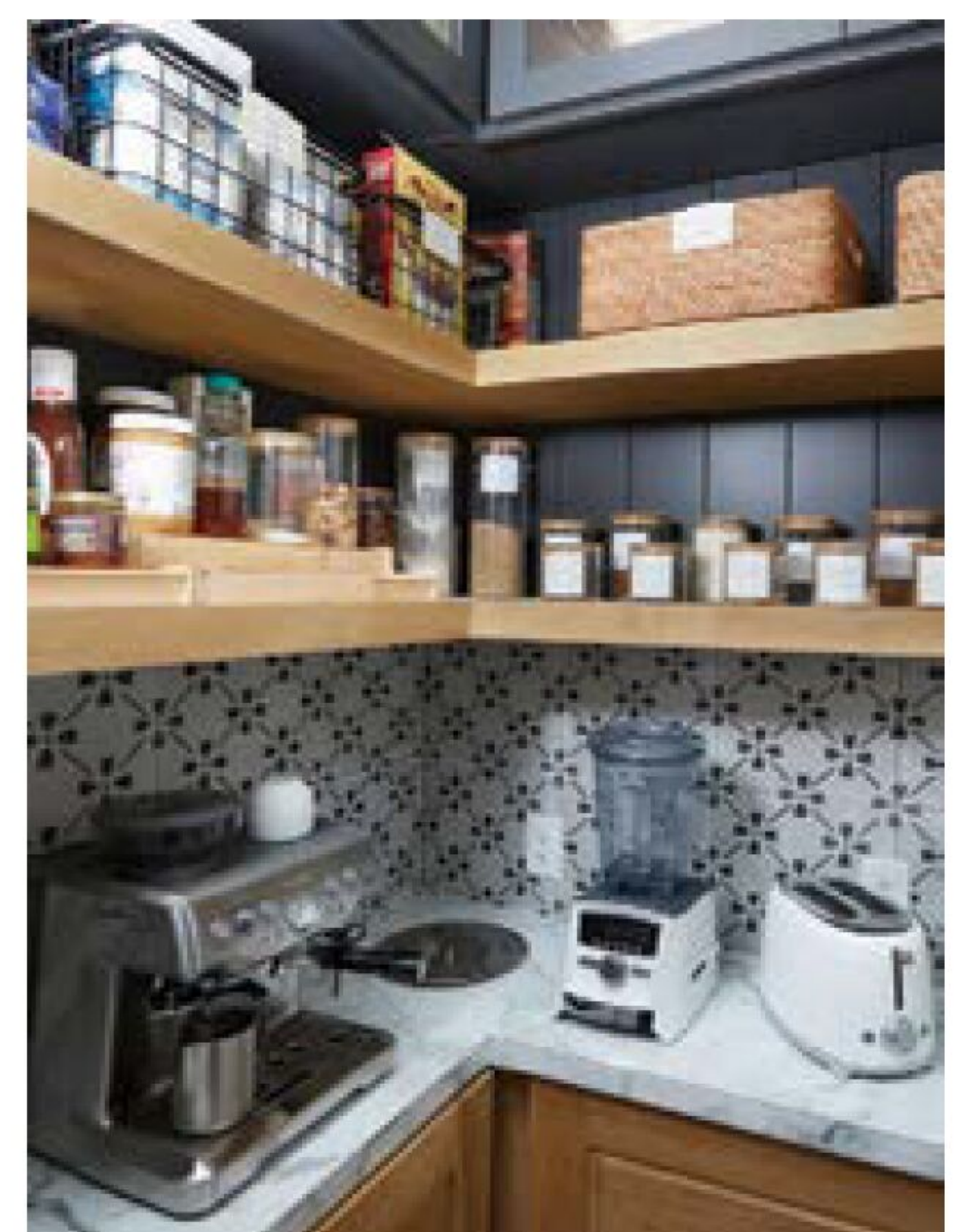


refined and modern, yet still welcome the lively dashes of spontaneity that go hand in hand with parenting.

It's with family life—and a love of entertaining—in mind that the Mazhukhins worked together to create their space. Alex did the gutting and building. Irina oversaw the interior-design aesthetic, from paint colors to furniture and fixture choices. “She pushes the design further with tones, textures and shapes,” says Alex. The result of their collaboration isn't just easy on the eyes; it's incredibly personal.

“This house has my favorite build I've ever done,” says Alex. He's referring to a wooden structure in Harper's room; it's a playhouse-meets-bed that's fit for a princess. It's designed so Harper can walk up a small staircase to reach a tower that's lit from above by LED lights that resemble twinkling stars.

Other projects in his new home that Alex tackled included gutting the kitchen to install a marble island and new counters and cupboards, in addition to shiplapping walls for visual appeal. Add to that a new fireplace, wooden bunk beds for



Shelf Styling for Beginners

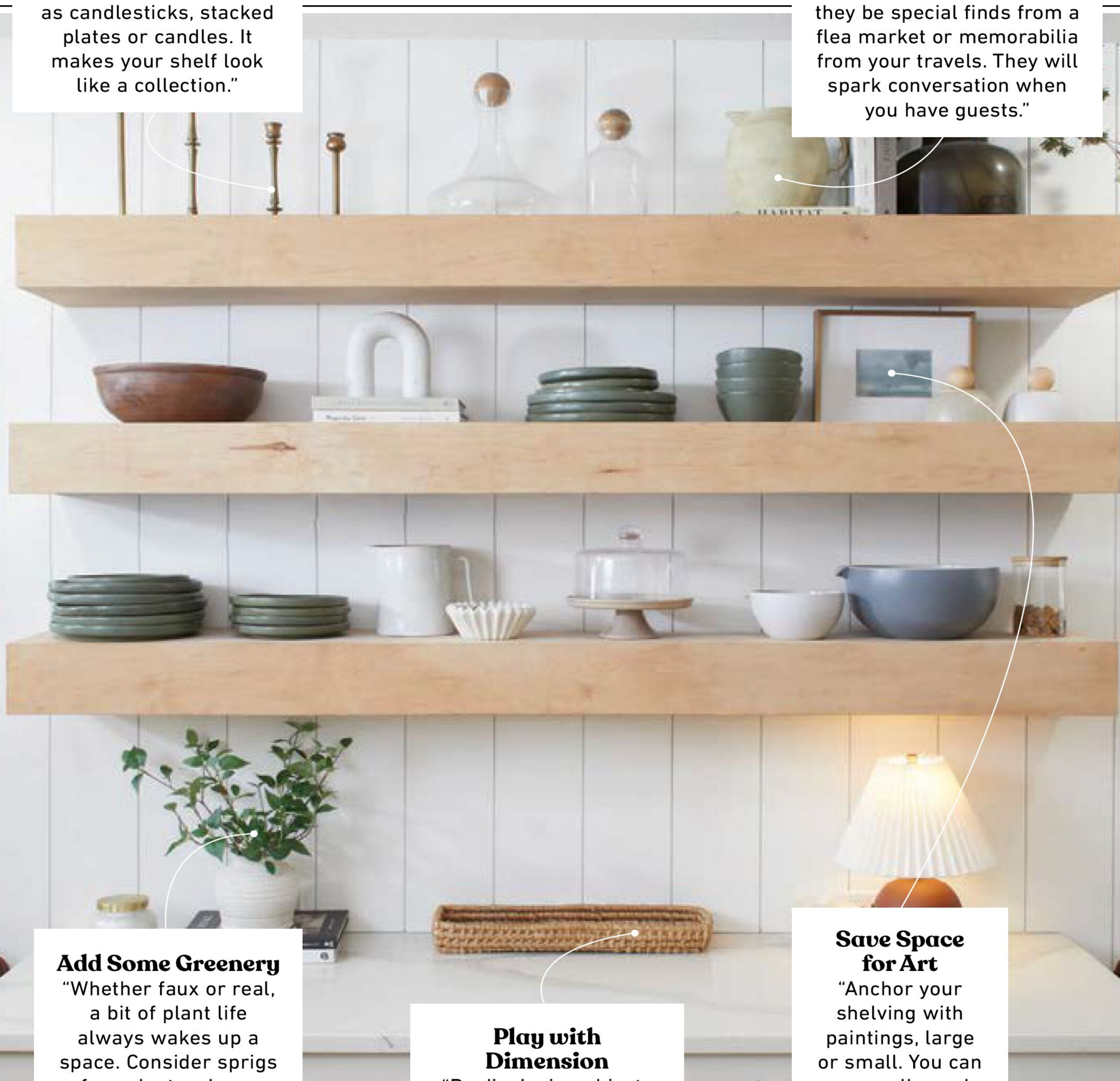
Shelves aren't just for storing and stacking. Irina Mazhukhin shares her own, along with tips for turning them into interesting focal points.

Group Similar Items

"Create little vignettes of like-minded things, such as candlesticks, stacked plates or candles. It makes your shelf look like a collection."

Make It Personal

"Display items that are important to you, whether they be special finds from a flea market or memorabilia from your travels. They will spark conversation when you have guests."



Add Some Greenery

"Whether faux or real, a bit of plant life always wakes up a space. Consider sprigs of eucalyptus, lemon leaves or Italian ruscus—a little goes a long way."

Play with Dimension

"By displaying objects of all shapes, sizes and textures, you invite the eye to move around."

Save Space for Art

"Anchor your shelving with paintings, large or small. You can use small easels or simply lean your art directly against the wall."

his boys, a striking rafter ceiling in the primary bedroom and a refashioned laundry room, and you'll think there's nothing Alex couldn't tackle.

These new builds are harbored in an unassuming yet relaxed sea of neutral tones—the kitchen alone features three shades of Benjamin Moore white—that were chosen by Irina for their ability to go with anything yet create subtle impact.

There is an outlier in the wash of neutrals, and that's the den. It's sheltered behind huge doors that were salvaged from a family barn. Saturated in deep green, this hideaway is a “man-cave gentlemen's hang,” complete with a pool table, a TV for the big games and a bearskin rug.

Unconventional Approach

To create the dozen YouTube videos that Alex publishes each month, he allocates an hour each morning to combing Pinterest. But by and large, when it comes to getting his hands dirty, Alex likes to “shoot from the hip.”

He doesn't create blueprints and rarely measures, opting to trust his eye. “Still, there are certain things you have to know when you start a project,” he cautions. “Be aware of a home's structure, or which walls can be load-bearing.”

Alex will soon apply his singular intuition to their latest labor of love: flipping a home into a stylish Airbnb in the Boise mountains. They've purchased the land but have no plans to uproot from their current home any time soon. Says Alex: “This is the first home we've lived in where we truly have peace of mind.” •



Learn how to build these barn doors.

Alex created a step-by-step that anyone can try!



ULTIMATE GUIDE TO **Pollinator Friendly Gardening**

With minimal effort from you,
these pollinator gardens help
bring a balance to nature

BY CHRISTINE PETERSON



FLOTTMYND/GETTY IMAGES



Your Yard Matters

Try our tips for creating eye-catching landscapes that pay it forward

If you spend a morning outside, sipping coffee in the midst of a gorgeous garden, you'll realize the importance of blooms to pollinators. Bees, butterflies, moths and flower flies flit from one splash of color to the next. Their timeless work has kept life on our planet thriving for many millennia. But as we continue to urbanize, some have wondered if there's a way to help offset the dramatic landscape changes brought on by things such as buildings, concrete and asphalt. Researchers say yes, to some degree, and the key is in your backyard.

Scott Schell, a University of Wyoming extension entomologist, says having flower-filled private yards, in addition to natural areas and public gardens with pollinator favorites, is important. They will provide corridors for these insects to travel, explore and get the resources they need. New research shows that while city garden plots cannot replace

wildlands, they certainly can help. A 2019 study published in the *Nature Ecology and Evolution* journal outlined years' worth of research in the U.K., analyzing the importance of natural green spaces in cities.

Researchers discovered that the biodiversity of pollinators

is directly connected to both the amount and the diversity of plants in particular areas. That knowledge is critical. A wide range of tiny creatures—from the showy monarch to the humble flower fly—are responsible for supporting 85% of the world's flowering plants and helping to keep more than two-thirds of the world's crop species going. In addition, fruits and seeds from pollinated plants are a diet staple for 25% of birds and many mammals.

While catering to pollinators seems intuitive, a few tips and



tricks should make your yard and gardens even more fruitful for all your flying friends.

Watch Your Yard

“Before heading out to buy plants and seeds, take a minute to just simply sit and observe,” says Jennifer Thompson, the University of Wyoming’s small acreage outreach coordinator. “Look around your and your friends’ yards, local parks and nurseries, and flowering plants near businesses,” she says. Ask yourself: “Which plants are being visited by bees, butterflies, other insects and hummingbirds?” Make a note of which ones seem the most interesting for pollinators and focus on those. If you don’t have

Mixing flowers with different bloom times helps your garden stay vibrant throughout the seasons.

time to watch and categorize, she suggests visiting your local extension office or its website for recommendations of plants that lend a hand to pollinators.

Plan for the Seasons

“Consider choosing flowers that bloom from early spring until late fall to cater to the largest number of pollinators,” Jennifer says. “Many native bees, for instance, have very short adult lives, so different

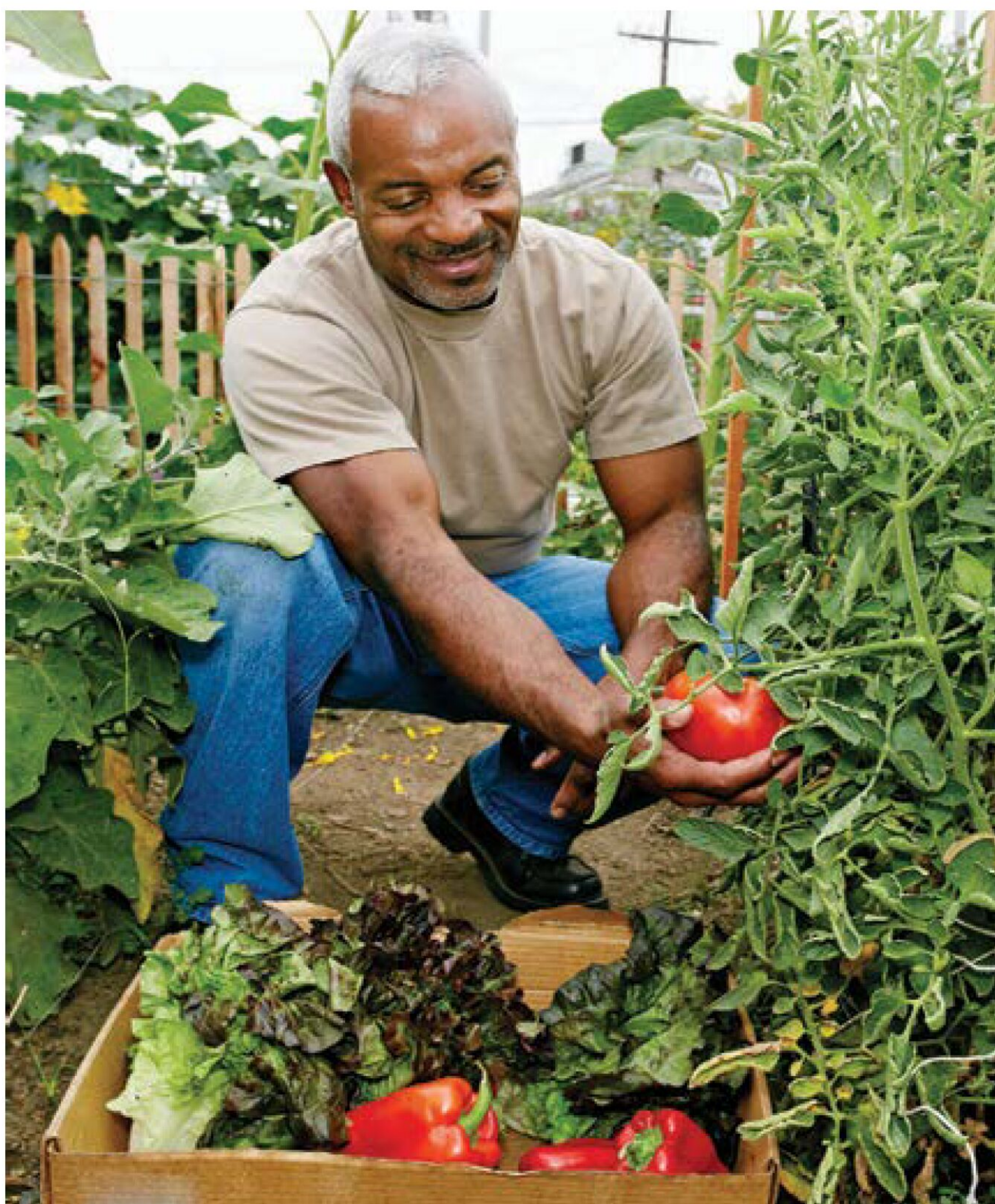
species will emerge and visit your yard at different times during the season,” she says. “Have something blooming when they come out.” Mixing flowers with different bloom times also helps your garden stay vibrant throughout the seasons.

Go Ahead, Be Messy

Many of us like order in our yards and gardens, but senior lecturer Katherine Baldock, a pollinator researcher in the U.K., recommends letting your yard be just a touch messy. Consider mowing less frequently so the clover or dandelions have a chance to bloom. If you have an area that can go wild with native plants, let it. Think about reaching out to your local municipality to inquire about planting more flowers in public places or even converting portions of green parkland into spaces for native plants.

Remember the Veggies

As you’re planning a garden, add a few more vegetables. Not only will you appreciate your forethought during the later harvest, but insects will also appreciate the variety. Katherine says crops benefit from pollination, and pollinators, in turn, benefit from the large amounts of pollen and nectar. If you don’t have room, plant in pots or consider joining a community garden.

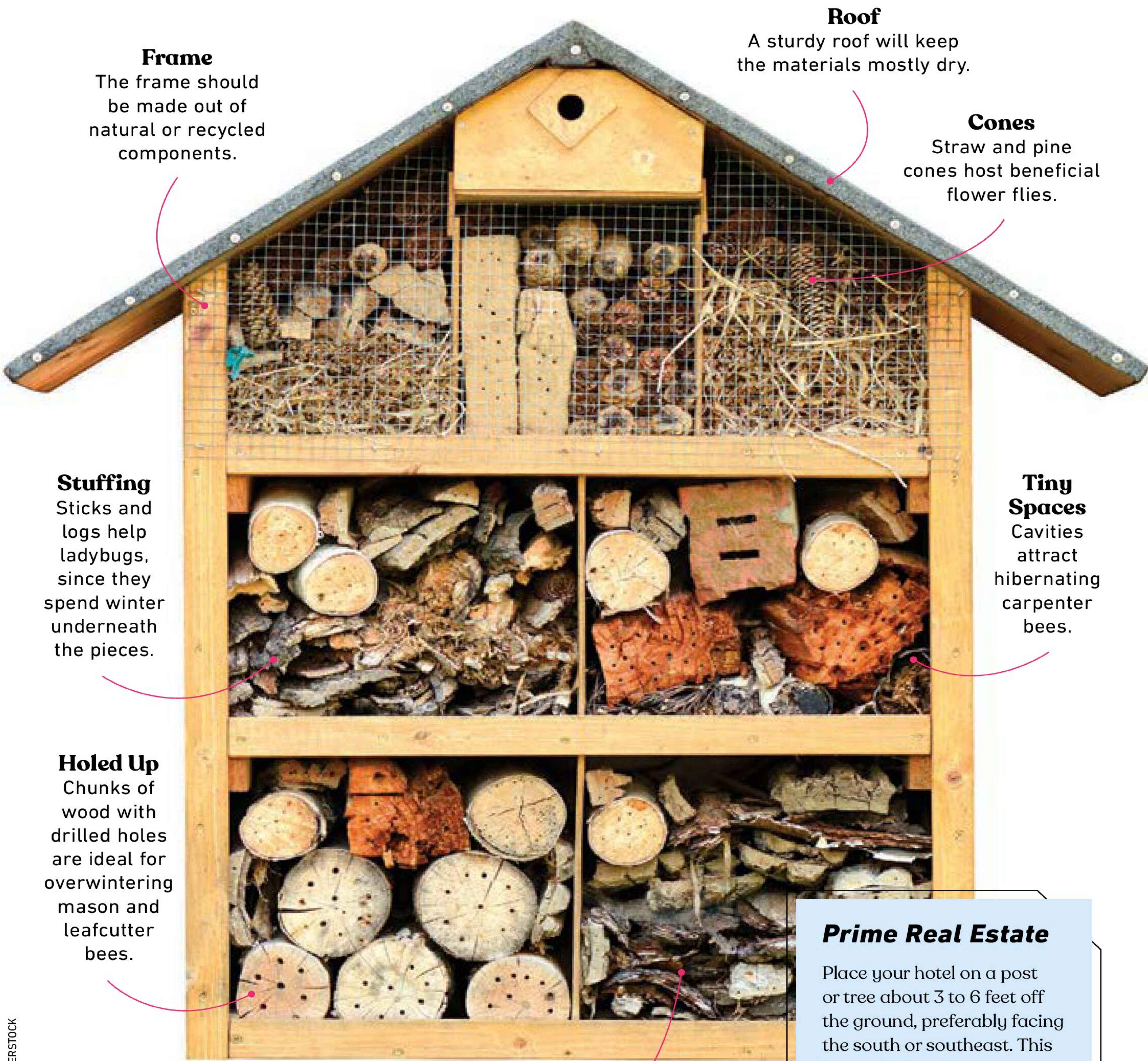


More Online

Scan the QR code to discover 15 native plants that can enhance your yard.

Open Vacancy

Look for these qualities when you buy or build a bug hotel by filling a box with wood, sticks and natural materials



Frame

The frame should be made out of natural or recycled components.

Roof

A sturdy roof will keep the materials mostly dry.

Cones

Straw and pine cones host beneficial flower flies.

Stuffing

Sticks and logs help ladybugs, since they spend winter underneath the pieces.

Tiny Spaces

Cavities attract hibernating carpenter bees.

Holed Up

Chunks of wood with drilled holes are ideal for overwintering mason and leafcutter bees.

Bark

Bark shreds provide a home for beetles, spiders and millipedes.

Prime Real Estate

Place your hotel on a post or tree about 3 to 6 feet off the ground, preferably facing the south or southeast. This keeps the hotel warm on chilly days, allowing bees and other pollinators to go about their business.

6 Best Flowers That Attract Bees

Create an ideal pollinator habitat by growing the plants and flowers bees love most

Bees are extremely important garden bugs that pollinate many of our favorite edibles and ornamentals. The World Wildlife Federation estimates that one out of every three mouthfuls of our food depends on pollinators such as bees. Native plants are always a great choice for attracting indigenous bees, but many ornamental flowers will also help feed and support the bee population. When selecting plants, be sure to choose the flowers that bees love which bloom at various times throughout your growing season. This will ensure the bees have a reason to return to your backyard month after month. Plant these flowers that attract bees.



Bee Balm

A list like this would not be complete without bee balm. This flower will attract bees as well as hummingbirds and butterflies. This vigorous plant reseeds readily, but the fragrant leaves provide a bit of aromatherapy when thinning in spring. As an added bonus, the leaves of this North American native plant can be steeped to make tea.



Goldenrod

With its feathery yellow blossoms, goldenrod provides late-season forage for honeybees, bumblebees, butterflies, beneficial wasps, soldier beetles and more.



Coneflower

This native wildflower is simple to grow and has masses of tall purple blooms. Recent cultivars come in other colors, but stick with natives for the most nectar value. Coneflowers also attract birds and butterflies.



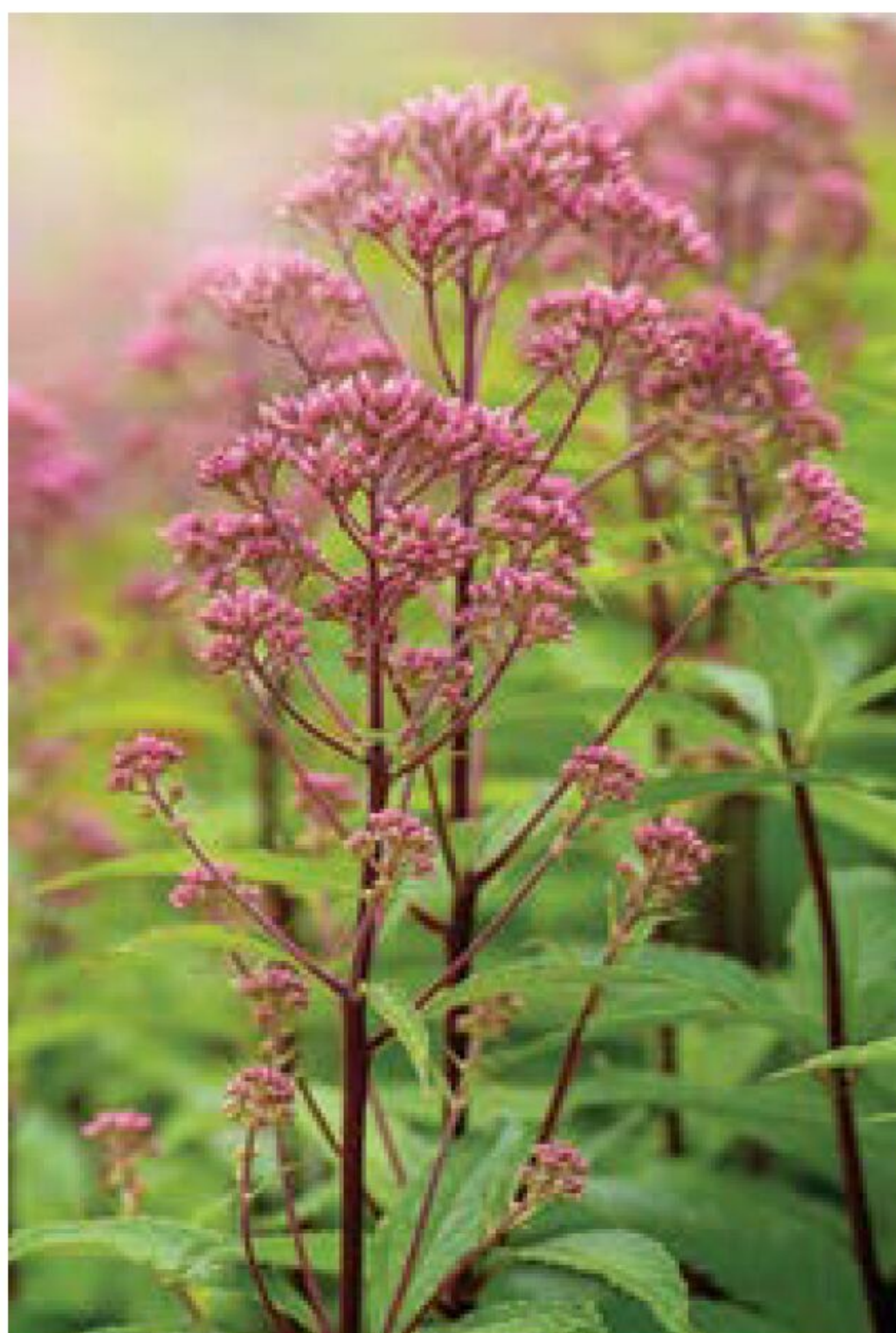
Catmint

Don't let the name sway you from these. Look for well-behaved varieties that don't reseed and take over the garden. You'll be rewarded with blue flowers that top silvery foliage all season long.

Beyond Plants

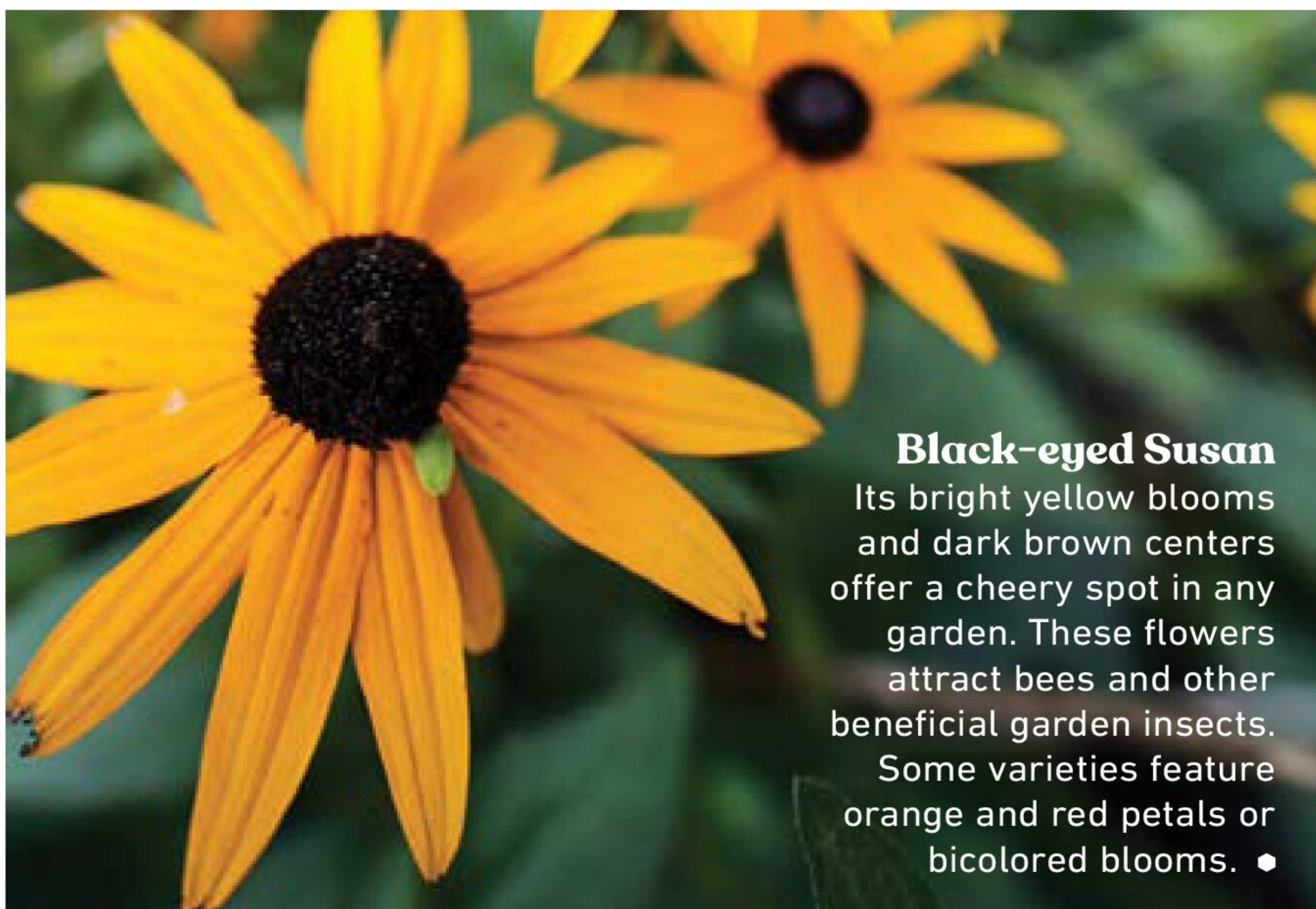
How to assist pollinators in other ways.

- Leave small rocks on patches of dirt, Scott suggests, for pollinators that nest on the ground.
- Resist the urge to use a weed barrier on your landscape.
- Skip cleaning up any dead stems and twigs in your yard at the end of the growing season. Scott says, "Some species of pollinators use that habitat for their overwintering generation."
- "Move plant stems and other yard waste into an out-of-sight pile if you can't take the mess," Jennifer says.



Joe Pye Weed

Primarily known as a butterfly plant, this perennial flower also attracts bees with its fragrant pink-purple blooms. It prefers moist soil where it can shoot up to 9 feet tall.



Black-eyed Susan

Its bright yellow blooms and dark brown centers offer a cheery spot in any garden. These flowers attract bees and other beneficial garden insects. Some varieties feature orange and red petals or bicolored blooms. ●

Builds for the Birds

Update your yard with a birdhouse,
bird feeder and birdbath



Bird Feeder

Make this large-capacity feeder, fill it with sunflower or other birdseed and watch birds come to feast

BY SAM ROSENMAYER

1 LAY OUT THE SIDES

Lay out the measurements from the template on page 44 on a piece of scrap wood the size of the cedar sides.

Once you've cut out the side shape using your miter saw and jigsaw, transfer it onto the actual cedar sides to make two identical side pieces. Sand the edges of the sides smooth to remove any kerf marks and fine-tune the shape.

2 CUT THE GLASS CHANNELS

Measure and mark the channels where the glass pieces will sit in the side pieces. I used 6 x 8-in. glass pieces, so my measurements required a 6-in.-long channel. The channels are all offset $\frac{1}{2}$ in. in from the edges of the side pieces.

With a router, set the depth to $\frac{1}{4}$ in. With a $\frac{1}{8}$ -in. straight cut router bit, rout out the channel. I prefer to run a hair deeper than $\frac{1}{4}$ in. with my channel and have the glass slightly loose, rather than rout it too shallow, fight the glass during assembly and possibly crack it.

Use a straight piece of wood and wood clamps as a guide for making your channel straight. You may need to make the channels slightly wider or narrower depending on the thickness of the glass.

3 PRE-FIT THE GLASS INTO THE CHANNELS

Slide both pieces of glass into the wood channels. Make sure they fit properly. Use clamps to pre-fit the glass into place. Adjust as needed.

You don't want the glass too tight in the channels, or else

it may crack due to outside temperatures expanding or contracting the wood.

4 ROUT THE PERCHES WITH A ROUND OVER BIT

Round over the long edges of two $\frac{3}{4}$ x $1\frac{1}{2}$ x $7\frac{1}{2}$ -in. cedar pieces with a $\frac{1}{8}$ -in. round over bit attached to your router. This will eliminate any sharp edges.

5 ASSEMBLE THE SIDES

Remove the glass and clamp the sides and perches together. I flushed the bottom edge of the perch to the bottom of the sides and attached it at the point where the radius on the bottom of my sides began. I predrilled pilot holes through the sides, then used trim head screws to fasten them together.

6 ATTACH THE SCREEN

On the bottom of the bird feeder, measure and cut window screen with a utility knife to fit the base of the feeder. Attach the screen to the bottom of the sides and perch with a stapler. The window screen allows drainage if the bird feed becomes wet from rainfall.

7 CAPTURE THE SCREEN

To capture the edges of the screen and cover the unsightly staples, I made trim pieces. I ripped $\frac{1}{8}$ x $\frac{3}{4}$ -in. pieces of scrap cedar, cut them to length on the miter saw, then nailed them to the bottom edge of the feeder using a brad nailer. Rip these pieces from the straightest-grain scrap cedar you have.

Avoid nailing the trim pieces too close to the edge. If you do, they may split.



Tools

- $\frac{1}{8}$ " round over router bit
- $\frac{1}{8}$ " straight cut router bit
- $\frac{3}{8}$ " drill bit
- Brad nailer
- Clamps
- Drill/driver
- Foam brush
- Hammer
- Jigsaw
- Miter saw/table saw/circular saw
- Pliers
- Router
- Ruler
- Safety glasses
- Speed square
- Stapler w/staples
- Tape measure
- Tin snips
- Utility knife

Materials

- One 1x8x6' cedar board
- 1 qt. exterior polyurethane
- 12" x 24" 26-gauge copper sheet
- Two 6x8" glass panes
- 2 small eye screws
- 220-grit sandpaper
- $\frac{3}{4}$ " brad nails
- Chain or rope
- Copper finish nails
- Piano hinge
- Trim head screws
- Window screen



8 BEVEL THE ROOF PIECES You'll need at least a 1-in. overhang around the roof to keep out rain or snow. With two $\frac{3}{4}$ x 7 x 11 $\frac{3}{4}$ -in. roof pieces cut, rip a 45-degree bevel along one of the long sides of each piece. This allows them to fit together at the peak of the feeder roof.

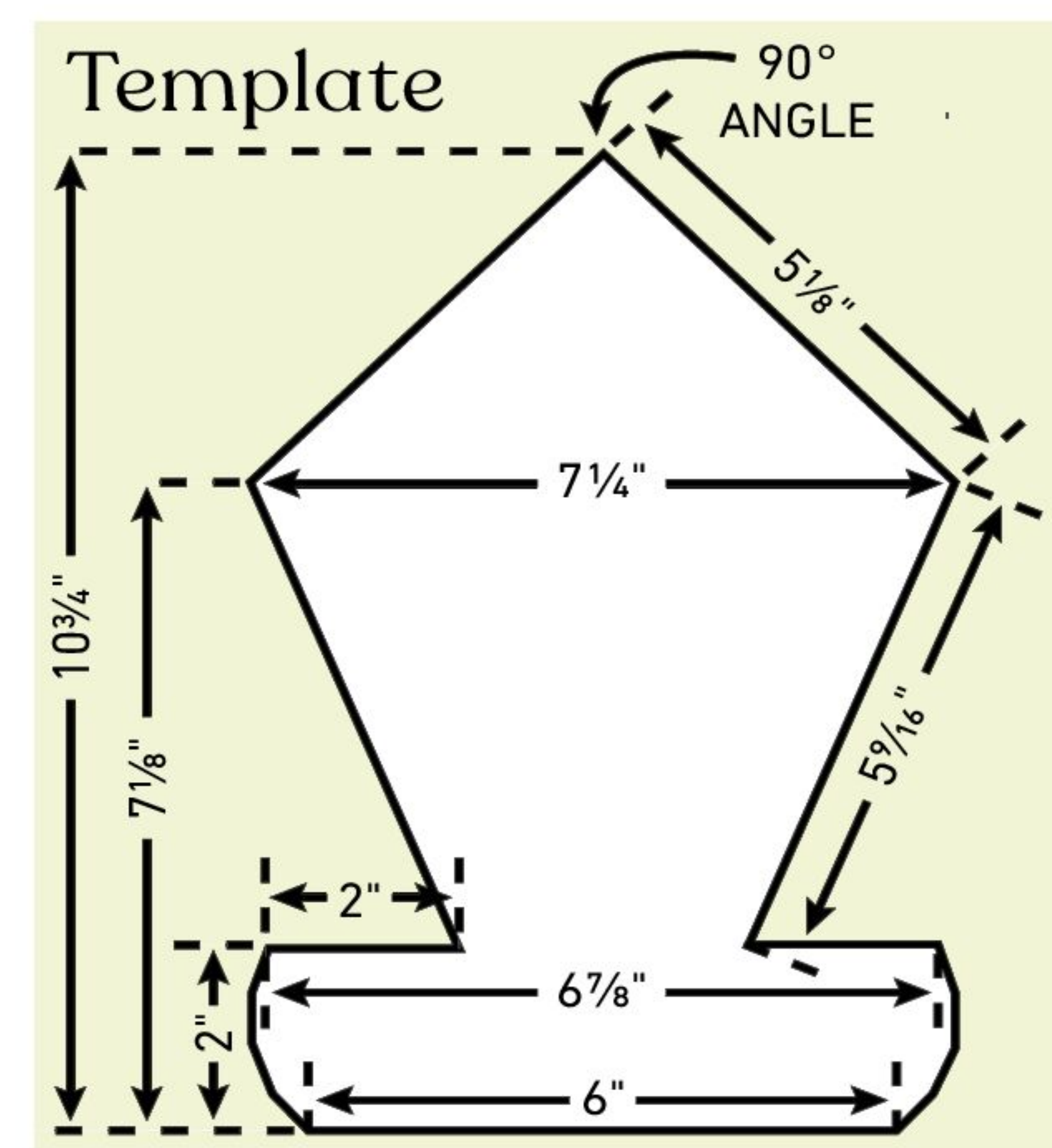
9 SEAL THE BIRD FEEDER Use a foam brush to apply exterior polyurethane to all the cedar components, including the sides, perch, roof pieces and screen trim. Let dry before proceeding.

10 FASTEN ONE SIDE OF THE ROOF Install one side of the glass into the wood channel routed into the feeder side. Secure it in place by attaching the roof panel above it with trim-head screws. Be sure the overhangs are consistent on the feeder sides and front, and that you're fastening the same side of the roof you installed the glass on.

11 INSTALL THE COPPER SHEETING Measure for the copper to overhang $\frac{1}{8}$ in. all around the edge and front of each roof panel. Cut the copper with tin snips and sand the cut edge with sandpaper. Fold over the top edge with a hammer and fasten it with copper nails. Repeat this process for the second loose roof panel. (Copper roof is optional.)

12 INSTALL THE PIANO HINGE Select a piano hinge with a large enough barrel so the gap at the peak of your roof can accommodate the chain or rope the feeder hangs from. Use a metal blade on your jigsaw to cut piano hinge to the length of the bird feeder. Install the piano hinge to the 45-degree bevel on the fixed roof panel. Attach the other leaf of the piano hinge to the bevel of the other loose roof panel, aligning the two panel edges before driving the screws.

13 ATTACH THE CHAIN Install eye screws into each side of the feeder. Attach the rope or chain to hang the bird feeder. A 2-to-3-ft. length is recommended.



More Online
Scan the QR code to see photos for each step.



Birdbath

Place this bath on a pedestal for increased visibility, or drape it on a flower bed to mimic a more natural setting

BY NINA BRICKO

1 BUILD A SAND DOME

Put down plastic and pour sand on top. Make a domed pile of sand so the leaf holds its shape. If needed, add a little water as well.

NOTE: Birds prefer shallow baths, so keep the dome only 1 or 2 in. deep.

2 PREP THE LEAF

Use a large leaf, such as a rhubarb or burdock leaf. If those aren't available, try an elephant ear or large houseplant.

Place the leaf on the sand dome, veiny side up. Cut the stem at the base of the leaf. Then rub vegetable oil on the veiny side of the leaf. This will help it come off the hardened concrete smoothly.

3 MIX THE CONCRETE

You can use various types of concrete and cement mixes. I had some vinyl concrete patcher left over from a driveway project. This comes as a fine powder, leaving a nice, smooth finish that captures the details in the leaf.

Pour the concrete in a mixing tray and then slowly add water until it's the consistency of brownie mix.

4 COVER THE LEAF WITH CONCRETE

Scoop concrete onto the leaf until it's covered. The center of the leaf should be thicker (around $\frac{3}{4}$ in.) than the edges (about $\frac{1}{4}$ in.).

5 ADD THE CHICKEN WIRE

Add chicken wire between layers of concrete for added stability. I like to cut the wire in the shape of the leaf.

Once the chicken wire is in place, layer an additional $\frac{1}{8}$ -to- $\frac{1}{4}$ -in. coat of concrete on top of it so it's buried.

6 CREATE A FLAT BASE

Create an extended flat base on the center of the birdbath. This will act as a slight pedestal to keep the bath basin in place.

Whether you leave it as is or add a flat base, allow it to dry for 48 hours. If needed, cover it with plastic to protect it while it dries.

7 REMOVE THE LEAF

Take the birdbath off the sand, turn it over, then pull off the leaf. Let the concrete cure for a week before painting or adding a sealant. Avoid direct sunlight.



More Online

Scan the QR code to see photos for each step.

8 PAINT THE BIRDBATH

Paint the birdbath with a thin wash of nontoxic paint. I used milk paint since it's made from natural ingredients, such as milk protein, clay and natural pigments. You could also use bilge paint designed for water basins.

Start with a thin wash of paint so the intricate details of the leaf pattern show. Continue to add coats until you reach your desired hue. The paint dries quickly, so you won't have to wait long to add more coats.

9 SEAL THE BIRDBATH

Use a nontoxic sealant. Tung oil is sustainable and absorbs into porous materials.

To use, pour a small amount directly onto the birdbath and rub it in with a rag or foam brush. Cover every nook and cranny. Wait 30 to 60 minutes for it to dry, and then add another coat. Two to five coats should do the job.

Wait 30 days before adding water to the birdbath to allow the sealant to cure.

Tools

Large sheet of plastic
Mixing tray for concrete
Paintbrush
Rag or foam brush
Scissors
Trowel

Materials

1 medium to large leaf
10-lb. bag Quikrete vinyl concrete patcher
50-lb. bag sand
Chicken wire
Disposable gloves
Nontoxic paint or concrete dye
Nontoxic sealant like tung oil
Vegetable oil
Water



Birdhouse

Grab your tools and turn your extra materials into any house wren's dream nest box

BY CARMEN DE LA PAZ

1 CREATE A TEMPLATE AND TRANSFER IT ONTO WOOD

Create a template like the one on the next page. Then transfer it onto a wood face piece by tracing over carbon paper, or simply by cutting out the template and outlining it with a marker.

PRO TIP: You don't need a fancy computer illustration application to create a template. You can get this job done with the line and shape tools in Microsoft Word.

2 CUT OUT THE SILHOUETTE OF THE FRONT AND BACK FACES AT THE SAME TIME

To cut out the exact same shape for the front and back faces (A), use a small dab of hot glue or double-sided tape to secure the two pieces of wood together. Then cut them as one, using a jigsaw or band saw to cut out the silhouette you've drawn. Any

adhesive residue can be sanded back later.

PRO TIP: For a more accurate shape, cut on the outside of the line, then clean up to the line using a sander with 150-grit sandpaper.

3 DRILL THE BIRDHOUSE HOLE

For this birdhouse, which is suited for house wrens, place the entrance hole 4 in. up from the bottom of the face.

Using a drill with a 1 1/8-in. Forstner or spade bit, drill through the front face of the birdhouse. I used a drill press. If you use a drill, clamp down the wood so it doesn't move around as you're drilling.

PRO TIP: For a clean hole and to avoid blowout from the back side, place a sacrificial piece of wood under the wood you're drilling through.

Tools

- 1 1/8" Forstner or spade bit
- 1/8" drill bit
- Awl
- Band saw or jigsaw
- Clamps
- Comb (optional)
- Drill
- Hot glue gun or double-sided adhesive tape
- Measuring tape
- Miter saw
- Paintbrush
- Pliers
- Sander
- Small fire extinguisher
- Small hammer
- Small propane tank with plumber's torch

Materials

- 1" screws
- 10' x 1/2" x 3/4" trim or molding
- 11' x 1/4" x 3/4" trim or molding
- 150-grit sandpaper
- 1x8x2' cedar board
- 3/4" copper nails
- Aluminum foil
- Carbon or transfer paper (optional)
- Chain or rope
- Exterior-grade sealer
- Exterior-grade wood glue
- Paint
- Paint rags

Cuts

Key	Qty.	Dimensions	Part
A	2	3/4" x 7" x 8 1/2"	Front and back faces
B	16	1/2" x 3/4" x 7"	Roof pieces
C	18	1/4" x 3/4" x 7"	Body pieces



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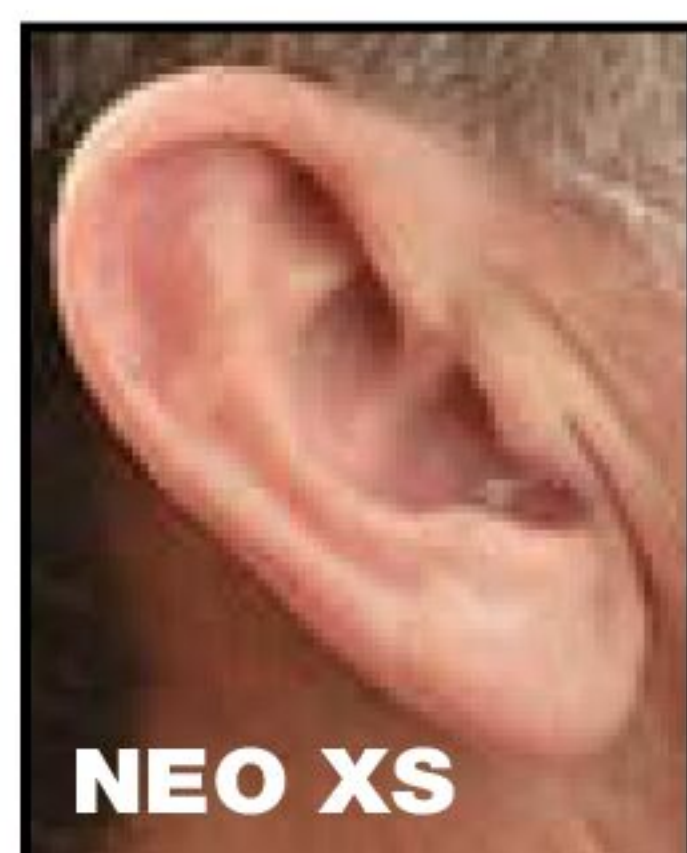
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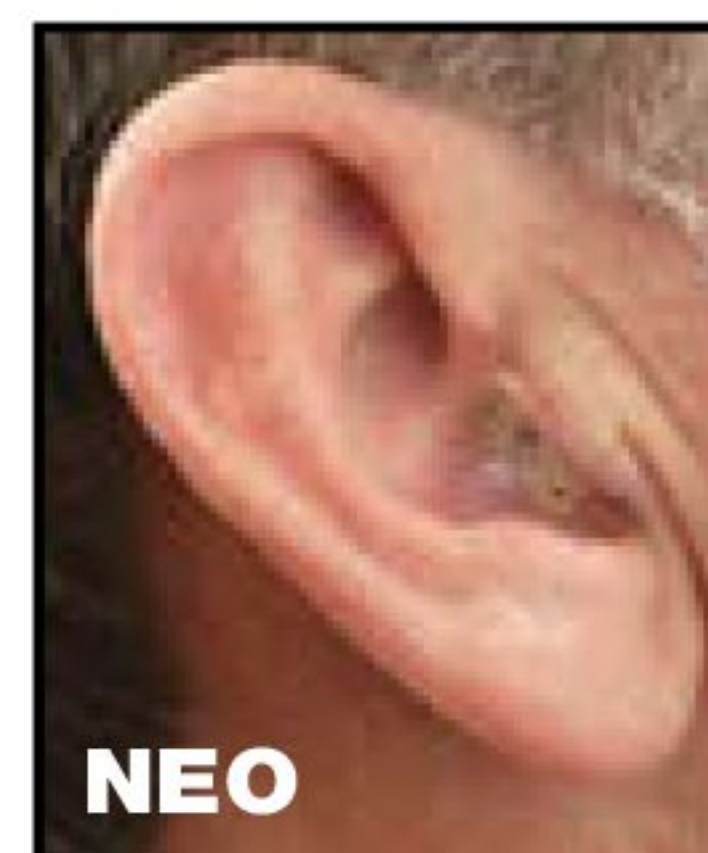
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4 CUT THE TRIM PIECES FOR THE ROOF AND BODY

Make the cuts for the roof pieces and body pieces to go around the birdhouse sides and base. (Use the Cuts list, or adjust according to your design.) I used a miter saw for this task. These pieces will connect to your front and back faces to create the shape.

To ensure the nail holes line up neatly, mark each trim piece so the nails land in the middle of the edge on the front and back faces. I decided $\frac{5}{8}$ in. would work best. Use an awl or longer nail to tap and mark where you will predrill for the nails.

PRO TIP: To avoid smaller pieces of wood snapping or being pulled in by the force of the miter saw, use a sacrificial piece of wood in front of your smaller piece and cut through both at the same time. The sacrificial piece will hold your smaller trim in place as it's being cut.

5 SHOU SUGI BAN THE PIECES

Shou sugi ban is an 18th-century Japanese technique of



charring wood to waterproof and preserve it. This technique will create different effects based on how much or deeply you burn the wood. In this case, I burned the wood to define the grain and, at the same time, give it some color contrast.

Use a small propane tank with a plumber's torch to char your wood. Burn as dark or as light as you wish. I placed my wood pieces over some aluminum foil to avoid burning the surface I worked on. Be sure to keep a fire extinguisher handy.

6 APPLY PAINT OR STAIN

After burning the front and back face, apply color or stain. I used a watered-down red paint to make it more viscous and transparent.

Brush on and wipe the excess off as if it were a stain. This technique will color the lighter shades of the wood and will be hardly noticeable over the black areas.

Apply paint or stain before you put the birdhouse together. This way you'll achieve clean lines and avoid the frustration of cutting in with a brush at the roof line. Let dry before handling. When you're done, touch up any scratches or dings.

7 PREDRILL THE TRIM PIECES

Using a $\frac{1}{16}$ -in. drill bit, predrill a pilot hole $\frac{5}{8}$ in. in from the edge of the roof and body pieces, where you marked with the awl. This leaves a $\frac{1}{4}$ -in. overhang when attached to the front and back face.



Adjust the measurements according to the dimensions of your wood and how much overhang you want over the roof line. Ideally, nails should be driven into the middle of the thickness of the front and back face. I used my first drilled piece as a template to quickly drill the ends of the rest of my wood.

8 ATTACH THE TRIM PIECES

Start at the top of the roof line and hammer in the predrilled roof pieces with copper nails, connecting the front face to the back face.

Feel free to nail in a body piece at the bottom center of the teardrop. This will give you some rigidity and keep your spacing as you nail the roof on. Use exterior-grade wood glue as you set the copper nails.

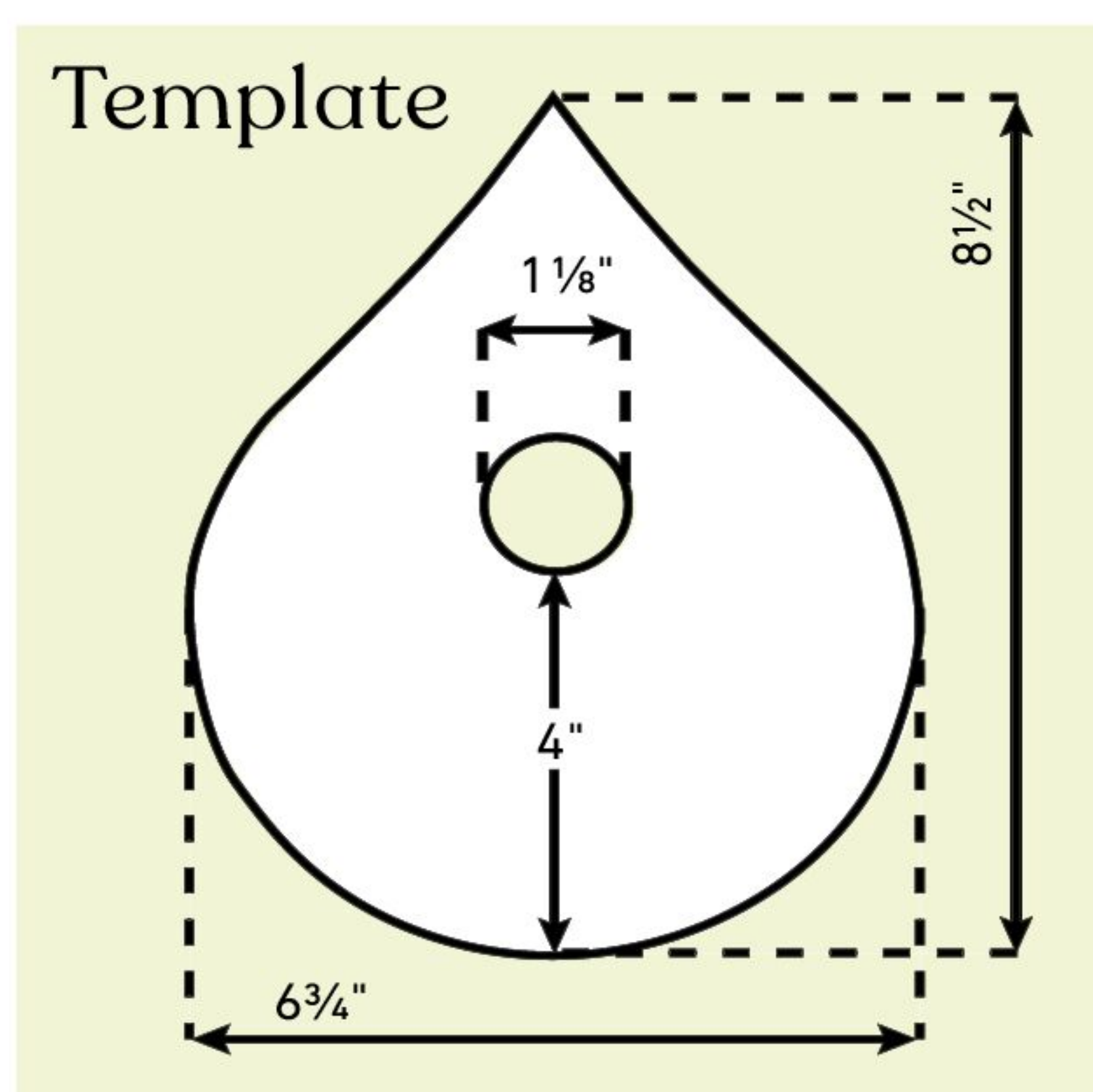
Repeat with the slightly thinner body trim to create the rest of the body, nailing the final piece at the peak of the house. Keep a wet rag handy to wipe up any glue drips.

PRO TIP: Use pliers or a comb to hold each nail while you seat it with the hammer. Repeat until the roof is connected to the front and back faces.

9 SEAL THE WOOD AND ATTACH THE CHAIN

To further preserve the wood, seal it with an exterior-grade sealer or spar-varnish. Spray or brush-on sealers work equally well; I chose to spray it on.

Finally, to hang the birdhouse, add a length of chain. I attached it to the faces at the peak of the roof with a pair of 1-in. screws. ●

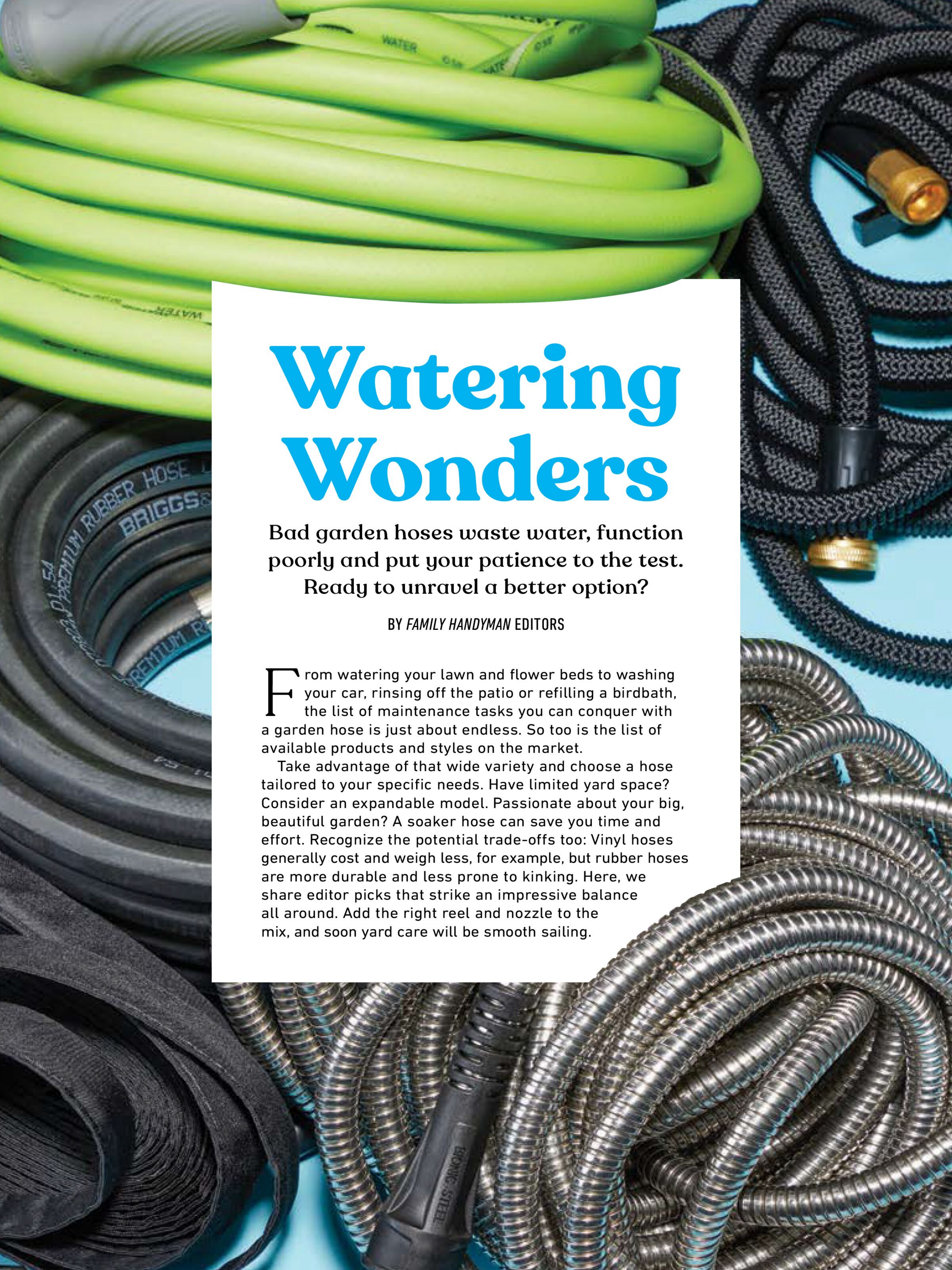


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Watering Wonders

Bad garden hoses waste water, function poorly and put your patience to the test. Ready to unravel a better option?

BY FAMILY HANDYMAN EDITORS

From watering your lawn and flower beds to washing your car, rinsing off the patio or refilling a birdbath, the list of maintenance tasks you can conquer with a garden hose is just about endless. So too is the list of available products and styles on the market.

Take advantage of that wide variety and choose a hose tailored to your specific needs. Have limited yard space? Consider an expandable model. Passionate about your big, beautiful garden? A soaker hose can save you time and effort. Recognize the potential trade-offs too: Vinyl hoses generally cost and weigh less, for example, but rubber hoses are more durable and less prone to kinking. Here, we share editor picks that strike an impressive balance all around. Add the right reel and nozzle to the mix, and soon yard care will be smooth sailing.

Garden Hoses



GREAT FOR GARDENERS

Rocky Mountain Goods Flat Soaker Hose

\$20 • **Material:** Vinyl, PVC

The flat design of this soaker-style hose allows you to set up and change positions easily. The soaker holes provide a consistent seep, using up to 70% less water than a regular garden hose. The abrasion- and puncture-resistant PVC lining and lifetime warranty are added bonuses.



EXPANDABLE

Big Boss Xhose Pro

\$47 • **Material:** DAC-5 fiber

Perfect for smaller gardens and occasional heavy-duty watering tasks, this lightweight hose shrinks to a third of its size when not in use. Its durable fiber cover prevents abrasion damage, and it lays flat and coils easily. Modify the water pressure with an easy-to-operate on/off nozzle and crush-resistant brass fittings.



VERSATILE AND DURABLE

Bionic Steel Hose

\$50 • **Material:** Stainless steel

This hose is built to last yet is still lightweight and easy to maneuver. The commercial-grade stainless-steel housing is resistant to corrosion, rust and kinking, so you won't have to worry about leaving it outside. Plus, the sturdy aluminum fittings and wide diameter allow the hose to withstand high pressure and provide a steady water supply.

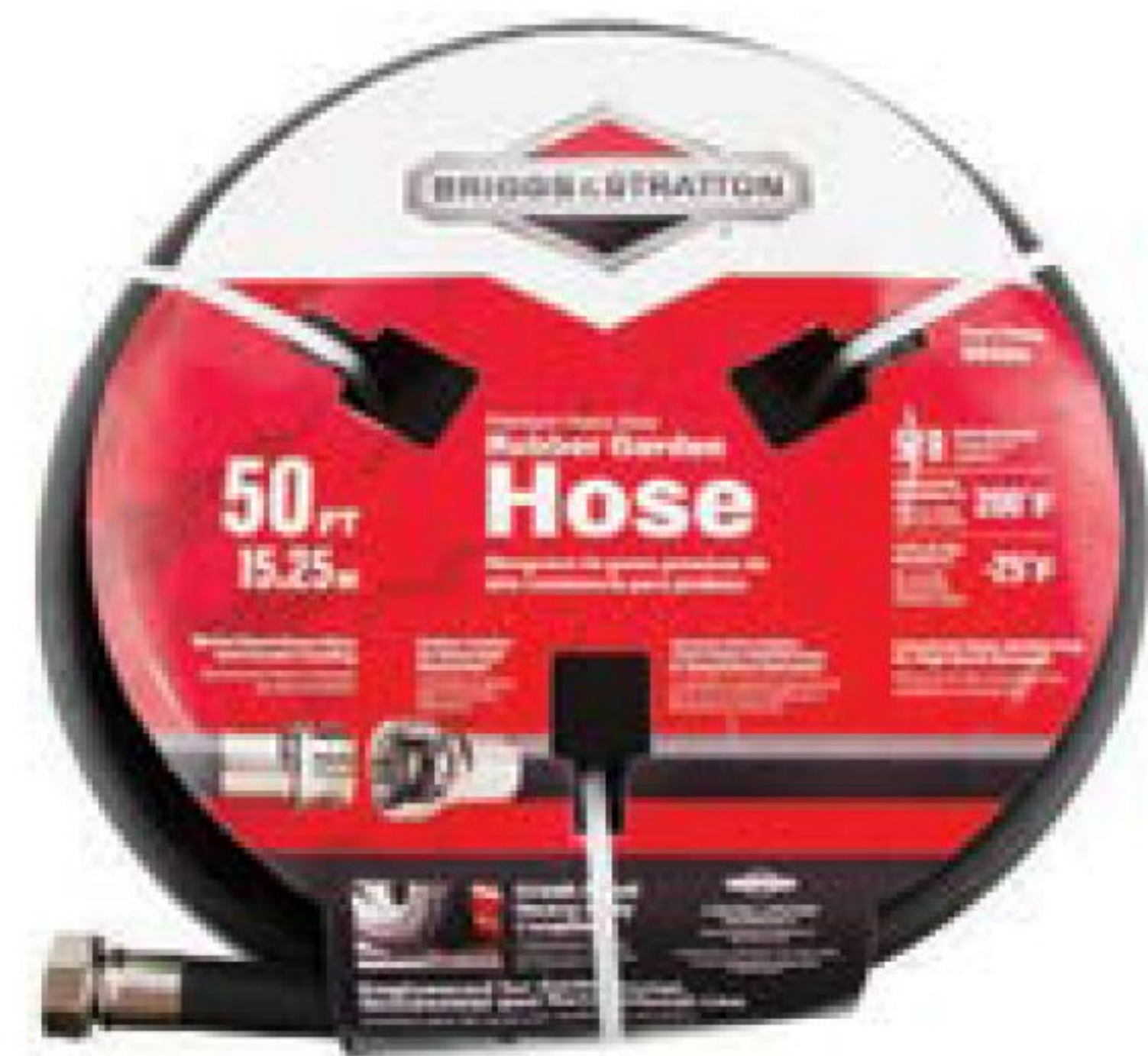


DRINKING-WATER SAFE

Flexzilla Garden Hose

\$40 • **Material:** Hybrid polymer

This kink-resistant hose remains flexible no matter the season. Easy to lug around your yard, it stays flat and is reinforced with an extra-durable layer that prevents abrasion, UV damage and mold growth. The silicone handles are easy and comfortable to hold, and the durable O-ring ensures a leak-free connection.



HEAVY-DUTY

Briggs & Stratton Rubber Garden Hose

\$45 • **Material:** Rubber

This heavy-duty, industrial-grade hose withstands 500 psi of water pressure and comes with durable, nickel-plated brass couplings to prevent leakage. Made in the U.S. from thick (and weighty) rubber, it also keeps its shape without kinking, no matter how much you pull, twist or fold.



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Reels



BOX-STYLE

Suncast Hideaway Hose Cart

\$74 • Max. Hose Length: 225 ft.

This box-style reel cleverly tucks your hose away when not in use, and the contemporary wicker-style cabinet, made of strong yet pliable fade-resistant plastic, looks great in any yard. Guide tracks prevent tangles or kinks as you re-spool your hose with the handle.



RETRACTABLE

Giraffe Tools Retractable Garden Hose Reel

\$160 • Max. Hose Length: 100 ft.

With this reel, all you do is pull the hose to the length you need and it automatically locks in place. When you're all done, tug slightly and the hose retracts into its 180-degree-pivoting clamshell casing. A 100-ft. hose and a mounting bracket are included.



ROTATES 360 DEGREES

Liberty Garden Rotating Garden Hose Reel

\$131 • Max Hose Length: 125 ft.

This classic-looking reel rotates 360 degrees for smooth, effortless unwinding sans snags or bends. Constructed of 18-gauge steel and powder-coated in bronze, it's weather resistant and holds up to 125 feet of hose. The attached storage tray is the cherry on top.



LOW PROFILE

Suncast Sidetracker Garden Hose Reel

\$45 • Max Hose Length: 100 ft.

Short on yard space? This slim side reel mounts flush to siding and fences and is removable for easy storage. It comes assembled and features a crank handle for quick and reliable hose winding. Simply mount the reel, attach your hose to the spigot and spray away!



Nozzles

SLOW AND STEADY

Gilmour Metal Bubbler

\$16 • Style: Soaker

Releasing water in gentle drips and slow gurgles, this soaker-style nozzle is designed to irrigate tender flowers and delicate new plantings. The aluminum bubbler is great for spot-watering too. Just place it in flower beds, vegetable plots or container gardens—it lightly aims the water directly at the roots without disturbing the surrounding soil.

BUDGET-FRIENDLY

Gilmour Metal Pistol Nozzle with Threaded Tip

\$7 • Style: Pistol

This dependable nozzle comes in at a bargain price and has all the basic functions and features you may need in a sprayer: an adjustable water flow, a back-positioned squeeze handle, a finger-groove grip and a trigger lock that allows for continuous spraying. Made of durable metal, it stands up to rigorous everyday use. The threaded tip is compatible with additional cleaning tools.

EASY ON YOUR BACK

Green Mount Watering Wand

\$36 • Style: Wand

Great for reaching plants in high hanging baskets, this nozzle also eliminates the need to bend down to water seedbeds. It features a durable, lightweight aluminum tube attached to a slip-resistant handle for excellent control. Regulate the eight water patterns using a simple dial and engage the hold-open clip for continuous spraying—a perk particularly helpful for gardeners with arthritis. ●



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Fences 101

From quick fixes to new builds, carpenter Tonda Thompson advises on how to master your yard's wooden walls

BY ALLY CHILDRESS

When Tonda Thompson's 3-year-old son fell through a coffee table (he's OK!) during the pandemic, the few stores that were open weren't exactly filled with sturdy replacements. So she went on YouTube and learned to build a solid wood coffee table herself. Then, when her neighbor's aggressive dogs began roaming the alley behind her house, she went back to the internet and added building fences to her repertoire.

"Everything I do is for my kid," she says. Thompson posted her woodworking endeavors on social media, and suddenly everyone wanted a new fence or table. Her company, She Slangs Wood, was born

Meet the Pro

Tonda Thompson is the owner of the woodworking business She Slangs Wood, offering custom furniture and fences, and classes for kids.





Thompson says an auger, like the Ryobi 40V HP Brushless 8-in. Earth Auger Kit, is essential to any fence job.

in 2020 in her hometown of Milwaukee, Wisconsin. And to keep up with demand—and give back to the community—she enlisted girls from her former high school, teaching them how to build fences too.

“We have some disadvantages when it comes to young women, especially African American women, becoming carpenters,” Thompson says, so she set out to become a pipeline from high school to apprenticeships and technical colleges in Wisconsin.

She Slang's Wood is an inspiring success story, but it came with trial and error. I talked to Thompson about what she's learned building her business, so you can get right to building a new fence—or repairing the one you have.

Start with a Solid Foundation

Fence posts make or break the stability of your fence. “If you don't have a solid frame or foundation, it automatically



has to go,” Thompson says. A good rainstorm could push that fence right over. Check each post, especially the base, before starting any repair job. If your fence rocks or you notice visible rot, your job just went from “repair” to “rebuild.”

Mind Your Materials

Red cedar is the gold standard for fences. It lasts 30 to 40 years but costs more upfront—about three times more—than your other main option, pressure-treated pine, which lasts 10 to

15 years. One thing about cedar: “If you don't protect it with a stain or finish, it will turn another color quickly,” Thompson says. (That color is gray.) She recommends using timber oil or spar urethane to keep your cedar fence looking like new for years.

DIY Picket Repair

Thompson gets tons of calls from people who need picket replacement. “I don't think people understand how easy it is to replace a picket,” Thompson

If your fence rocks or you notice visible rot, your job just went from “repair” to “rebuild.”

says. They cost about \$2 to \$3 (even cedar), so if your fence has warped or missing pickets, just pick up a few at the hardware store and nail them into place.

Keep Things Straight

One of Thompson’s first paid fence gigs ended up zigzagging down the property line. “Nobody wants a wavy fence,” she says with a laugh. So be sure to stake the boundaries of your property and pull a string taut along the perimeter. As you set your posts, line them up on your string line. Not sure of your property boundary? Consult your municipality when you get your permit—they should have one

on file. If it’s been decades (or centuries) since the last survey, get another one.

Watch the Weather

Concrete doesn’t set very well when it’s cold outside, so make sure you have a stretch of warm weather to build your fence. Thompson says about 45 degrees Fahrenheit should be your cutoff. “We see a lot of fences where the concrete wasn’t properly cured,” Thompson says—you can tell because they tend to lean under the weight. Always wait 24 hours before attaching framing members and pickets to your fence posts to allow the concrete to cure.

Why Fence Fasteners Matter

Rust seeping out from rotted nails or screws makes a fence look like it’s crying, so choose fasteners that can withstand the elements. Thompson uses galvanized framing nails, which are hot-dipped in zinc. And Thompson says to buy ridged ones, not smooth-shank. Ridges hold the pieces of your fence together better. Also make sure you have the correct size—a nail that’s too long will poke out the back of your fence and be a danger to your neighbors.

Drive your fasteners in at a slight angle, varying the direction on each horizontal framing member (aka 2x4). Wood tends to warp, and Thompson says this trick keeps the pickets from popping off the framing. So on the top 2x4, drive two nails slightly upward. Then switch to a slight downward angle for the middle one, and back to upward on the bottom. Always use three horizontal framing members on your fence posts (yep, even on a 4-ft. fence). Thompson says three framing members provide stability and keep the pickets secure. ●

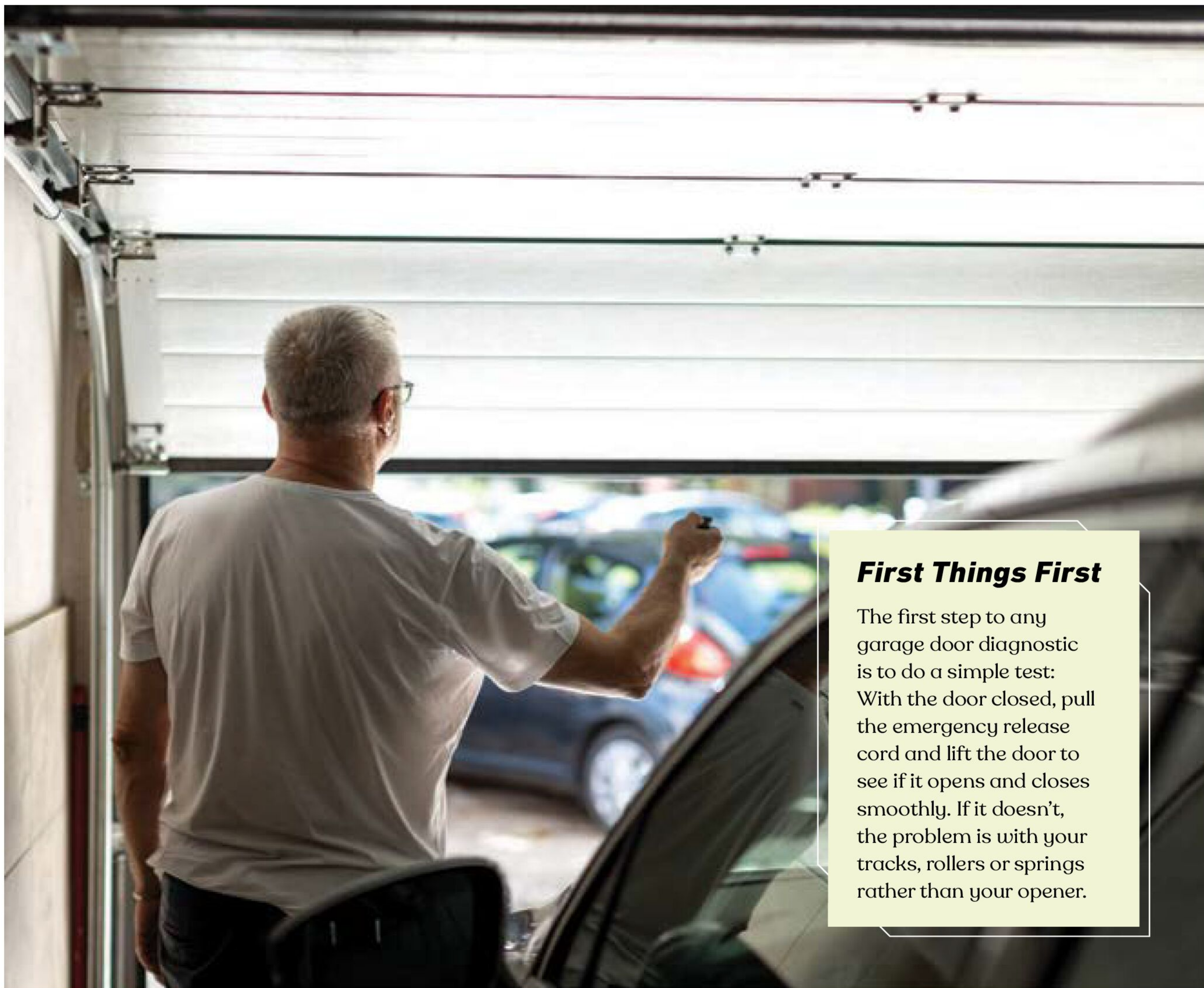


LEFT: VOGUE DREAMS PRODUCTION; RIGHT: SKODONNELL/GETTY IMAGES

Be a Garage Door Doctor

From squeaking to stalling to simply getting stuck, these common garage door problems are easily fixed

BY FAMILY HANDYMAN EDITORS

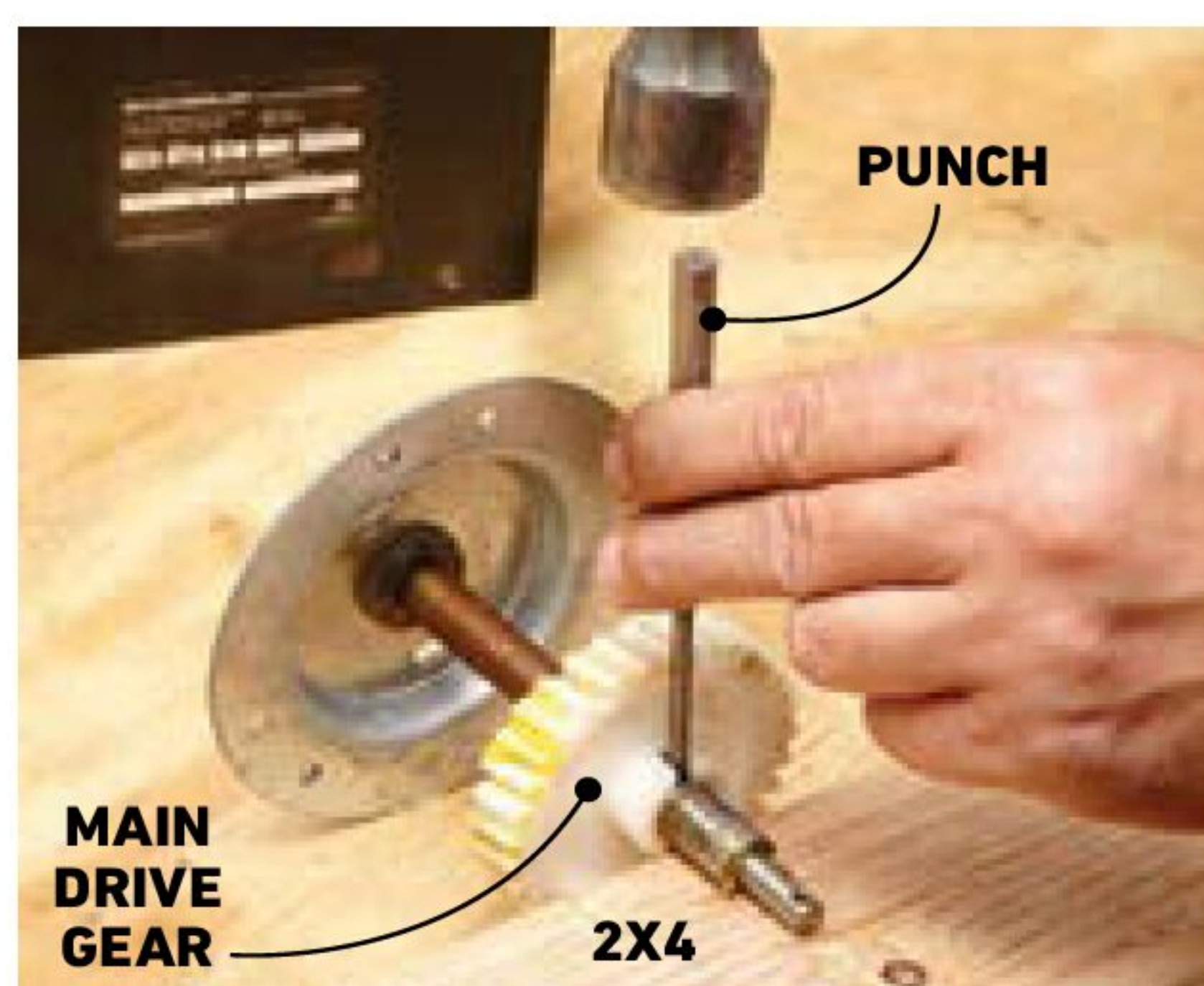


First Things First

The first step to any garage door diagnostic is to do a simple test: With the door closed, pull the emergency release cord and lift the door to see if it opens and closes smoothly. If it doesn't, the problem is with your tracks, rollers or springs rather than your opener.

Q: My garage door is mysteriously opening by itself. What could cause this?

Low batteries in your remote can cause false “open” signals. Easy solution: Replace the old batteries. If the problem persists, clean the remote's buttons. They can collect dirt over time and this buildup can interfere with functionality, triggering unintentional activation. A quick wipe down usually fixes the issue.



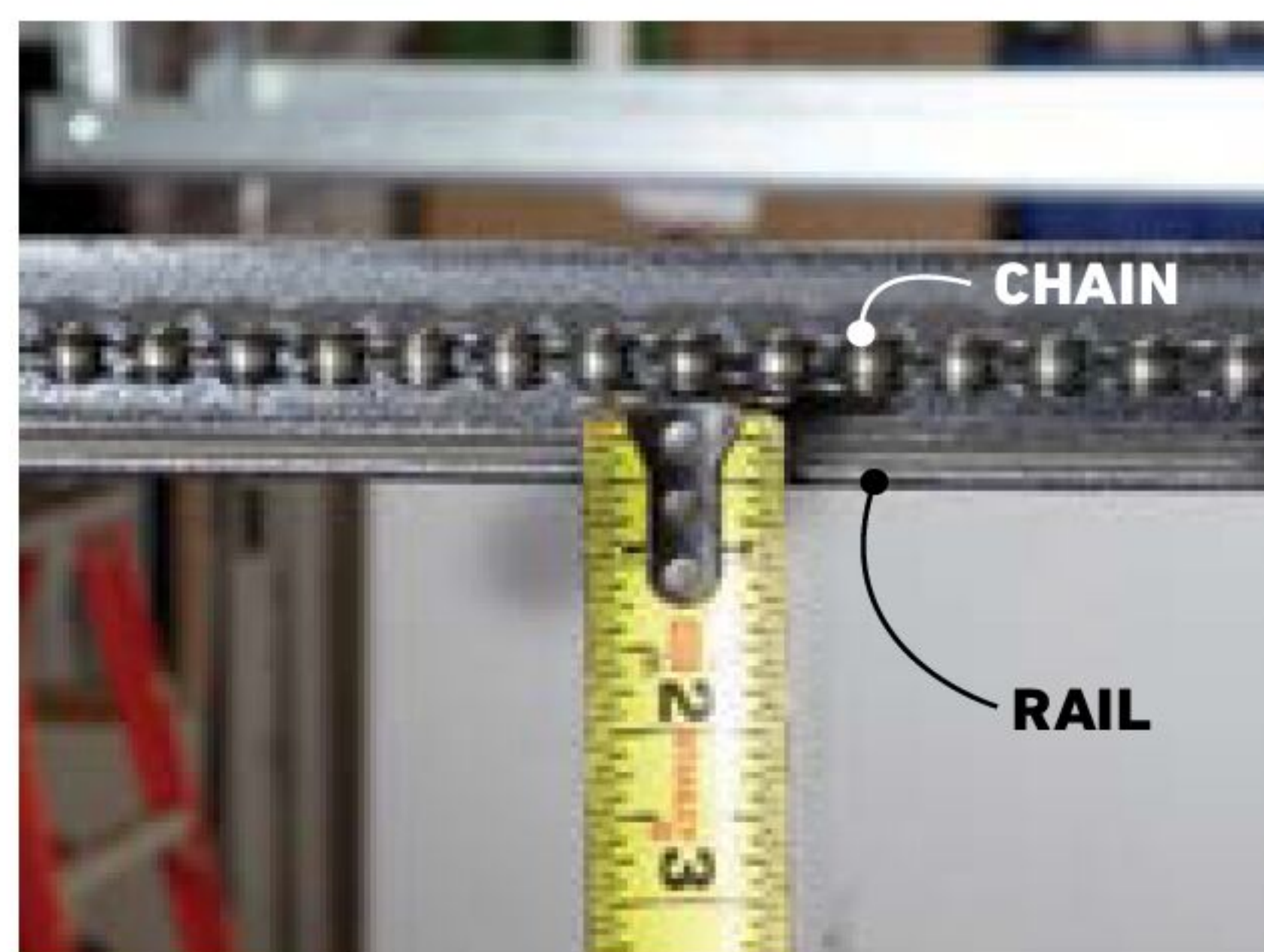
Q: Why is the garage door opener making a grinding noise but not moving?

Your main drive gear is probably toast. The main drive gear is the plastic gear that comes in direct contact with the worm drive gear on the motor. There are several components that need to be removed before you can get to the gear. Once you get the gear out, you can remove it from the shaft with a punch, or you can buy a kit that comes with a new shaft. Make sure you lube it all up when you're done. The gear alone should cost less than \$20. A complete kit that comes with the shaft will cost closer to \$40.



Q: The trolley carriage moves but the garage door doesn't open. What's the deal?

The culprit is probably a broken trolley carriage that needs replacing. Before you pull the old one off, clamp down the chain to the rail. This helps maintain the location of the chain on the sprocket and speeds up reassembly. Marking the location of the chain on the sprocket with a marker or wax pencil also helps streamline later adjustments. Once the chain is secure, separate it from both sides of the trolley. Disconnect the rail from the header bracket and move the rail off to one side. Slide off the old trolley, and slide on the new one. Reattach the chain and adjust the chain tension. Replacing the trolley on a belt drive and replacing it on a screw drive are similar procedures. A new trolley will cost \$25 to \$40, depending on your model.



Q: Why won't my garage door open all the way?

It's time to check the chain tension. Most chain drive openers suggest you tighten the chain so there's about 1/4 to 1/2 in. of slack from the rail to the chain (check your manual). Overtightening the chain will put excess wear and tear on the shaft and gears. Too little tension could cause the chain to skip off the sprocket and fall down on your car.

The Right Stuff

No matter what type of garage door opener you have, you should always lube the rail where it comes in contact with the trolley carriage. Use a lubricant that doesn't attract dirt, such as silicone spray. If you have a screw-drive opener, you'll need to grease several spots along the rail gear at least once or twice a year. In colder climates, use lithium grease, which won't harden when the temperature drops. ●

A Fresh Coat

Swatch, pour, store and more—
it's easy with these clever painting hacks

A New Life for Plastic Trays

If you need to do a quick painting job and want to minimize cleanup, use a plastic tray from your last takeout order or frozen-food entree. It makes a great disposable paint pan that is easy to move around and carry. When you're done, the only thing you'll need to clean is your brush. —Sam Rosenmayer





Supersize Your Color Swatches

We have recently been updating the bedrooms in our house: tearing out carpeting, painting walls and adding new curtains. To help choose flooring types and colors, I took a roughly 2-ft.-square scrap piece of drywall and, after applying a white primer, painted the wall colors onto it. Taking the swatch to the store and placing it vertically on top of the floor samples was much more helpful than using typical small paint chips. —Tom Kubica



Put Your Brush on Ice

When you're in the middle of a painting project and need to stop for the night, place your paintbrush in an airtight plastic bag or plastic wrap and store it in the freezer until needed. That way you won't come back to a dried-up mess the next day. —Carmen De La Paz



Flip the Script on Paint Storage

Once the rim of a paint can is cleaned and sealed, I store the can upside down. Any tiny air leak will be sealed by the paint itself, ensuring a longer shelf life. This is also the best way to store wood stain, finishes and anything else with a metal groove-type lid. —Chuck Erhart

No mallet to close your paint can with? Improvise with a hammer, a damp sponge and an elastic band.



Swipe a Card to Seal

To ensure a solid seal for painter's tape, first clean the area and then apply the tape, pressing down with your hands as you lay it. Finally, apply pressure with the edge of a credit card or gift card to smooth the tape and remove any wrinkles or air bubbles. Now you're ready to paint! —Gloria Nguyen ●

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Farm to Table

Family Handyman reader Arlene Stromberger created an heirloom from her family's history



For several years I've had barnwood from our family's barn on the farm where I grew up, and I was planning on making a dining room table. We recently built a new home and we were eating on a Costco folding picnic table, so it was time. I bought a planer and went to work. I had a lot of sawdust! I sanded and stained the boards and made a 94-in. table

that will seat 10 people. I did five coats of polyurethane, sanding after each coat, and three coats of wipe-on poly, sanding again after each. I purchased iron legs online that were powder coated black. I love the old knots and nail holes—they truly help make this family heirloom unique. It will be enjoyed for years.

—Arlene Stromberger, Medical Lake, WA •

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