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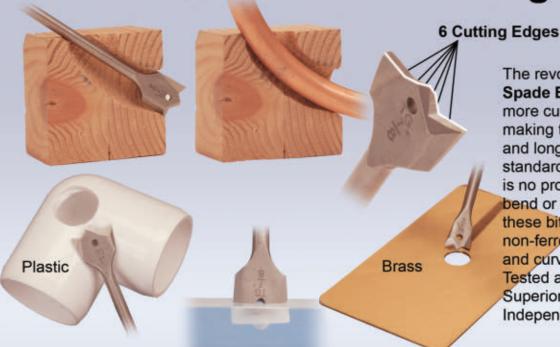


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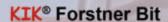
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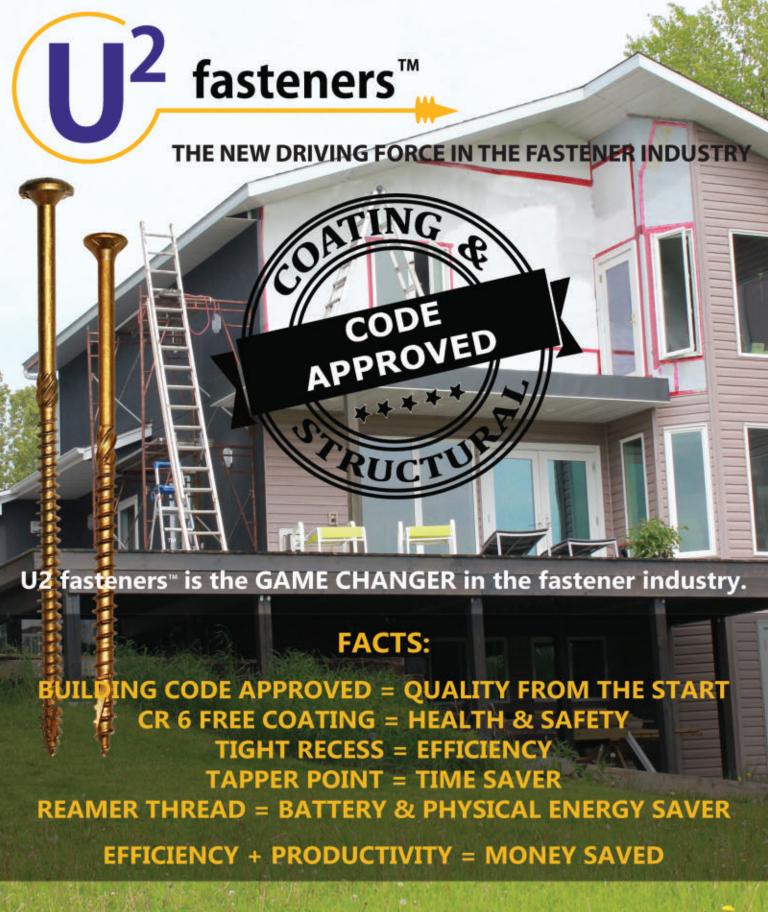
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Fasteners that contractors and engineers agree on. Find out why!



From The Editor-In-Chief

y wife and I are preparing to sell my house, and we've heard lots of advice on how to prepare it for prospective buyers. First impressions are critical, so curb appeal ranks high on the list of where we should focus our efforts. A well-kept lawn and neutral paint colors are important, so we have that covered. We can't feasibly change the size of the individual rooms, but clearing out the closets to make them look bigger, and removing unnecessary furniture throughout the house can give a potential buyer the sense of more open interior space—a big selling point.

In fact, all these suggestions seem like solid advice, but my job at *EHT* has given me a slightly different outlook on what I look for as a potential home buyer. No matter what I buy, I'm probably going to remodel it to some degree, so I'm less interested in cosmetics and more interested in "good bones" as well as the aspects of the house that are beyond the scope of my DIY abilities.

My checklist for homebuying in a nutshell consists of the following:

Site drainage—Is a nearby hill dumping water on the house or is the lot poorly graded? Water intrusion around the home is something I don't want to contend with, and moving the earth to address these problems can be a very big job.

Foundation problems—Leaning basement walls, foundation cracks, etc. are a deal-breaker because they typically must be repaired outside the home with excavation and heavy reconstruction.

Roof Condition—I've done roof work and don't want to do it again; I hate heights. With rare exceptions involving small, simple roofs, this type of dangerous work isn't recommended for DIY'ers, which means you'll have to fork out the dough for materials and labor.

Windows—Old single-pane windows can be very leaky, meaning high energy bills. And whereas I can replace a window, swapping out all the windows in a house with insulated replacements will be a very big and expensive job. I look for a house where this has already been done.

HVAC System—This makes the list for the simple reason that I don't really know how to work on these systems, nor am I licensed to do the work. Because of the high cost of service and equipment, I'd hate to get stuck replacing a system right after purchasing the home.



If these five features of a home are in good shape, then I'm ready to look at closet space. I'm fairly comfortable with my ability to remodel or repair most everything else. And anything that I'm a little foggy about, I'm willing to learn ... much like you, I suppose, since you're reading Extreme How-To.





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How Do I Fix a Leaky Garbage Disposal?

• First step when working on a garbage disposal is to safely disconnect the electrical power supply. Garbage disposals have three junctions that are the most common source of leaks. The first two are the pipe connections on the side of the disposal (the drain pipe and dishwasher intake). These connections will be easy to see.



and if you notice any signs of leakage then you might need to tighten the joints or replace the pipes. However, garbage disposals often leak from the junction between the top of the disposal and the sink drain. The gasket between them is typically made of plumber's putty, and the putty deteriorates over time. You'll need to remove the disposal usually by turning it clockwise, and removing its mounting bolts. This will give you access to the disposal's top mounting flange, from which you should clean off all the old gasket material. Replace the gasket with a liberal amount of plumber's putty completely around the perimeter, then press the flange and gasket firmly into place in the sink drain for a proper seal. Reinstall the disposal and tighten the mounting bolts. Remove the excess gasket material that squeezes out, reconnect all pipes and power supply, and then see if that fixed the problem.

• How can I prevent algae • from growing in my air conditioner's condensation pump?

• It's a good idea to get rid of
• algae from a condensation
pump because a buildup can block
water flow and cause a leak inside
your home. As water sits in the pan
waiting to drain, algae has more
time to grow, so empty the drain
pan manually during the hotter
months especially if you notice
standing water in the pan. Place
algae pan strips or tablets in the air
conditioner's drain pan. This treats
the water before it moves into the
condensation line, preventing algae



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8. Got²-2

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from growing (replace twice a year). Or, drop algae tablets into the line if your system is an open-line system that doesn't use a drain pain (replace every six months). Another option is to pour a cup of bleach into the condensation line. Most drain lines have an access joint at the top. Unscrew the cap and pour in the bleach. Most lines only need to be flushed with bleach once a year, but if you continue to notice algae growth starting, flush the line twice a year. Also available are liquid additives designed to prevent algae growth in the drain line or directly in the pump. These additives usually must be added every 90 days while the unit is in use.



What is Dry Ice Cleaning?

• Dry Ice Cleaning (aka Dry Ice Blasting) is a process in which particles of solid carbon dioxide (dry ice grains) are shot out of a spray nozzle at high velocity to clean a surface. As dry ice penetrates the contaminant, it rapidly returns to its gas form, separating the contaminant from the surface and leaving it clean, dry and undamaged. Dry Ice Cleaning can be used as a substitute for pressure-washing and/or sandblasting when surface integrity is important or trapped grit could cause problems. With no toxic chemicals, it's safe for the environment and safe for equipment. The process requires special Dry Ice Blasting machines and is generally used for industrial applications to clean everything from production machinery and baking ovens to electrical components.

• I'm building a work-shed supported by concrete blocks, but I live in a cold climate so I'd like to enclose the space beneath the floor to keep out drafts (and critters). What do you recommend I use that would be both economical and durable?

.....

• You might try using some
• 1/2-in. thick cement boards attached to the sill beams. Bury the bottoms of the cement board panels at least 6 inches underground, which may require cutting the panels and/or digging a trench. Your lumberyard will sell special screws for attaching the cement board to the frame. Cover the joints between panels with fiberglass tape, and mortar cement to cover the tape and corners. **EHT**

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Air Nailer Know-How

A Reference Guide for Pneumatic Fasteners



hese days, the default 16-oz. claw hammer spends more time coaxing things into place than it does driving nails into wood. It's been downsized by an army of pneumatic nailers that are designed for everything from driving common nails to highly specialized jobs like stapling shipping cartons in mail-order operations around the world. When these air tools first started showing up on building sites, they seemed like the natural outgrowth of the air-driven tools used in automotive shops ever since cars had inflatable tires.

The reason pneumatic nailers are so popular is because they make many jobs much easier while almost always achieving better results. A simple visual explains why: Say you are trying to nail a horizontal piece of trim on a wall. You hold the trim board in place with one hand and your hammer with your other hand. Then you try to figure out which hand is going to hold the nail. If you had a pneumatic nailer, you wouldn't need the third hand that you never have.

There's also an added bonus: By adjusting the air pressure on the tool, you can regulate how far



Roofing nails for a pneumatic roofing gun usually come in collated coils that feed into the gun from a built-in canister. (Photo courtesy Maze Nails)



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TOOL SCHOOL



into the wood the nail will go. This means setting the nail head just below the surface and throwing away your nail sets.

The nailer choices available to contractors are vast, but the fasteners these tools drive dwarf the tools that drive them. The Quick Reference Chart in this article will give you a good idea of the broad range of fasteners that are available and what jobs they can handle. Most contractors and DIY'ers will probably use only a handful of different nailers, but these tools are such time-savers that in many cases a single job will justify buying another.

A cordless framing nailer uses a battery combined with a gas charge to fire the nails without an air hose.

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Type of Nailer	Type of Fasteners Used	Typical Sizes	Common Jobs	Approximate Cost	Comments
16 Gauge Straight Nailer	2" long finishing nails	1 % to 2½" nails, bound in strips of 25	Installing standard trim boards Custom-made architectural woodwork	\$25 for 5000 fasteners	Usually available in 50-nail clips
18 Gauge Brad Nailer	1" long brads	1 to 1 ½" finishing nails	Installing lightweight trim boards Hobby jobs	\$25 for 5000 fasteners	Usually available in 50-nail clips
21-Degree Framing Nailer	3" long common nails	2-3/12" common nails	Building wood- framed houses Building exterior decks Constructing concrete forms	\$20-\$50 for 1000 nails, depending on coating	Some are available with coating to increase holding power or reduce corrosion
15-Degree Coil Roofing Nailer	1 to 1%" coiled roofing nails	% to 2 %" coiled roofing nails	Installing roofing felt and shingles	\$100 for 7000 nails	Available in colled and straight magazines. Some have galvanized coating
18 Gauge Narrow Crown Stapler	% x1" narrow crown staples	1" long by ¼ to 9/16" wide narrow crown staples	Building wood framed houses Building exterior decks Constructing concrete forms	\$20-\$50 for 1000 nails, depending on coating	Some are available with coating to increase holding power or reduce corrosion

Quick Reference Chart for Pneumatic Fasteners

DON'T THROW AWAY YOUR HAMMER YET

You can't simply buy a nailer, throw away your hammer and suddenly have lots of free time. It's best to keep your hammer and buy a nailer, as well as a small compressor, at least 50 feet of 1/4-in.-diameter air hose, the right fasteners for the job (and that fit the nailer), plus a little can of light oil to keep everything working smoothly. Keep the hammer on board for smaller, more delicate jobs.

It sounds like a lot, but when you see how much easier these tools make your work, you'll be happy. You might also consider investing in one of the newer cordless nailers that are powered by different fuel cartridges: NiCad batteries, compressed propane and compressed nitrogen. None of these are tethered to an air hose and compressor or an electrical cord and receptacle, making them easy to carry and use.

Editor's Note: Steve Wilson began his career as a carpentry contractor in Rochester, New York, where he owned and operated his own business. He then joined Popular Mechanics magazine as their Home Improvement Editor, a position he held for 22 years. He is also the author of three books and now writes about home improvement, nailers and other tools for The Home Depot.



COLLATED NAILS—PAPER OR PLASTIC?

Collated nails for a pneumatic nailer typically come in strips that are held together by either paper or plastic. Some tradesmen report experiencing fewer nail-gun jams when using paper-collated nails, but the EHT staff hasn't seen a significant difference in jam rates between the two types. The two types do have their different drawbacks, however.

Plastic-collated nails tend to spit little chips of plastic at the user when the nail breaks away from the strip.



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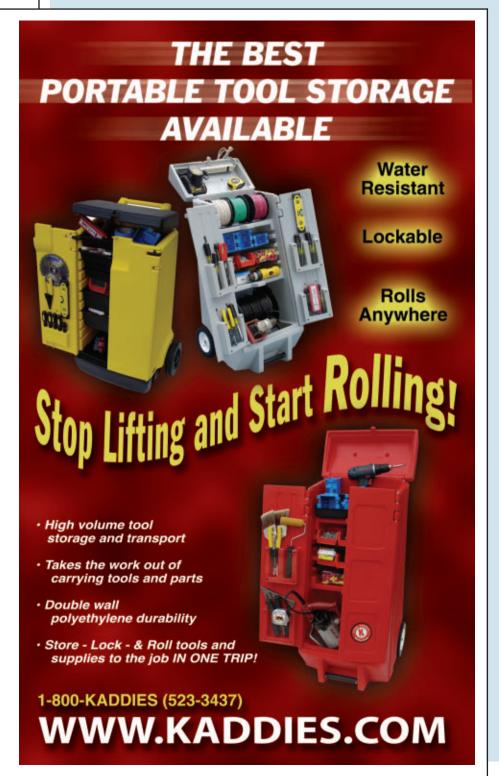
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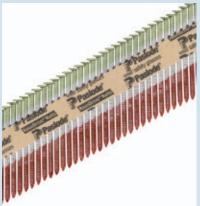
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TOOL SCHOOL

This can get annoying, plus the tiny chips litter up the work area, and they can occasionally get pinned to the work surface beneath the head of the nail. This is not an issue for rough framing, but if the nails will be visible then you'll have to pry the little plastic chips from beneath the heads—another annoyance.

Paper-collated nails tend to generate less debris, but you should avoid making the same mistake that we once did and leave a box full of them outside in the rain. When they get wet,





the paper collation essentially dissolves, and your box of strips will become a box loaded with hundreds of individually disconnected nails.

U2 FASTENERS MAKES A BETTER SCREW

Anyone who's ever built ... well, anything ... knows that quality fasteners should be durable, reliable and easy to use. For the "easy to use" part, the Extreme How-To staff prefers screws that feature a star-drive head, which helps prevent slippage and cam-out. The new U2 Fasteners screw assortment is prime example of this, designed with a "Tight Star Recess" to snugly and firmly engage with the company's U-Bits so the screws can be

so the screws can be installed with one hand. The U-Bits are impact-driver ready and made of the same case-hardened steel as the fasteners to prevent wear and tear. (U2 fasteners also fit traditional star-drive bits.)

And the innovations don't stop there. U2 Fasteners offers a new generation of codeapproved, premium fasteners in five product lines covering all essential screw types, including the company's Universal Screw and Construction Screw.

The U2 Construction Screw, also known as CS Screw, is the next generation of fasteners that are replacing lag screws. Features include the Tapper Point, which

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TOOL SCHOOL

consists of a "Cork Screw Start" and "Blade Cutting Thread" for easy piercing action. The Dome Head enhances structural capability, while the Talon Grip beneath it holds the screw tight to prevent loosening and uses nibs to dig into the material when countersunk. And below the smooth shank is the "Reamer Thread," which enlarges the hole to create a passage when drawing materials together, reducing tension on the screw head. Approved for structural and ACQ-treated lumber (ER 454), the U2 Construction Screw is available in case-hardened carbon steel and stainless 316. To learn more about these high-performance screws, visit www.u2fasteners.com.



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When face-screwing is the only option, DeckWise also offers a complete line of professional-grade stainless steel decking screws for fastening all types of decking material. The DeckWise #10 Bugle-Head, available in 305 and 316 grade stainless steel, easily penetrates hardwoods such as Ipe and Redwood, as well as preservative-treated woods. Looking to install composite or PVC decking? The DeckWise Composite Screw has an anti-fade painted trim





TOOL SCHOOL

head that's designed to eliminate mushrooming or marring the deck surface. The Composite Screw is available in five colors that match the most popular composite decking on the market today. All DeckWise products are made in the USA. Visit deckwise.com.

METAL-FREE FASTENERS FROM SENCO

SENCO expands its fastener lineup to include composite staples and nails for customers requiring blade-friendly, non-rusting, metal-free fasteners.

Manufactured with a blend of polymer resin and fiberglass, composite fasteners are beneficial for specific applications in the woodworking, millwork, timber processing and more.

SENCO composite staples and nails can be used where metal staples and nails cannot due to moisture or metal detector use. They're also ideal for applications where sanding belts, saw blades, router bits and molder knives can be damaged by metal fasteners.

The new SENCO composite fasteners won't rust or corrode and are resistant to chemicals, sunlight and moisture. Unlike metal, they do not cause wood deterioration, staining, or long-term degradation of the fasteners' holding power. This makes them a convenient solution for outdoor projects.

Plus, the composite fasteners can be sanded, shaped and cut without damaging equipment. They are ideal for joining smaller and larger boards for machining. They also eliminate the need to clamp or construct complicated jigs for setup.

Unlike metal fasteners, composite staples and nails permanently fuse with the material they are being driven into



when they are sanded down. This eliminates the need to putty, resulting in a seamless appearance when the material is painted or stained.

SENCO composite fasteners are available in standard size strips that fit pneumatic nailers specifically designed to drive composite fasteners. Sizes include: 18 ga brad nails; 15 ga nails; 16 ga and 20 ga staples. Learn more at www.senco.com.



THE WISDOM OF STAINLESS STEEL FASTENERS

Planning new siding or a deck? Wondering if stainless steel fasteners are the way to go? Here are 3 great reasons to go stainless.

1. Financial:

Saving money on fasteners?

Budgets often focus on the major materials and labor. Fasteners may be considered a possible choice to cut expense—not often a good idea. Consider that stainless steel fasteners extend the longevity and perhaps safety of your project. They reduce the need for future repairs, saving you money in the long run. When reviewing your budget, think long-term effect to determine real cost.

2. Aesthetics: Rust? (It looks awful)

Fast-forward to the not-so-distant future. After enjoying your new deck, siding or other outside project, you spot it: unsightly rusting and streaking around the fastener heads. Rusting fasteners look terrible and, more importantly, cause structural problems. Choosing stainless steel fasteners will prevent major headaches later.

3. Safety: Is it safe?

We depend on our decks to be safe. When decks fail it often causes personal injuries (or worse). Poor choice of connectors and fasteners contribute significantly to failure. Simpson Strong-Tie, an industry leader in structural connectors and fasteners, cites improper construction and fastening, corrosion damage and lack of maintenance as significant failure factors. Stainless steel connectors and fasteners maximize appearance and structural integrity for years to come. Siding, decking and other projects exposed to saltwater conditions, including de-icing salts, should always use marine-grade type 316 stainless steel.

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Flowering Groundcovers Brighten the Yard

Accent your lawn and landscape with a splash of color.



well-kept lawn is the hallmark of a handsome home, but flower gardens and accents are what provide the true focal points of the yard. Every gardener loves the color that blooming perennials bring to a garden. Flowering perennials are the workhorses of the landscape, bringing colorful blooms year after year. Herbaceous perennials such as asters, coneflowers and penstemons are favorites because they are easy to grow and always bring a dependable show of blooms. But there's one category of perennials that are often overlooked when homeowners shop for plants: groundcovers.

"Flowering groundcovers are an indispensable element of any well-designed garden," says David Salman, chief horticulturist of HighCountryGardens.com. "Lowgrowing perennials may be short in stature, but when placed in the right spots they fill in the gaps in a yard and garden with colorful blooms and attractive foliage."

Low-growing groundcover plants are great for using as alternatives to turfgrass lawns (especially in shady areas). Groundcovers are especially well suited for filling the spaces between flagstone and pavers. These diminutive plants are also great for creating a "living mulch" that cools the

ground and suppresses weed growth.

SIX COLORFUL CHOICES

Here are six great flowering groundcovers that Salman recommends as a tough and beautiful addition to any garden.

Veronica liwanensis (Turkish Speedwell) — Veronica liwanensis is one of the showiest blue-flowered groundcovers, which accounts for its popularity. The plant is native to the mountains of Turkey (hence the common name, Turkish speedwell). The stems of evergreen foliage root as they spread across the soil and



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SPOT LIGHT

cover themselves with bright blue flowers in late spring. This is a vigorous, fast-growing species that thrives in difficult climates throughout USDA Zones 4-8. When not in bloom, the round, glossy evergreen leaves creep across the garden, creating a thick green carpet.



Turkish speedwell can be used to create a low-maintenance groundcover "lawn" that tolerates occasional foot traffic. With the first hint of warmer weather to come, the small but numerous spikes of flowers paint the garden blue like a reflection of the sky. With a little extra water, Veronica liwanensis reblooms lightly later in summer. This plant appreciates afternoon shade in hot summer climates. At maturity, each plant reaches 2 inches tall and 18 inches wide.

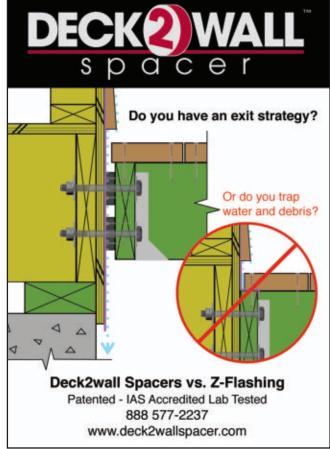
Zauschneria garrettii Orange Carpet (Creeping Hummingbird Trumpet) — Zauschneria garrettii Orange Carpet is a vigorous perennial groundcover that blooms in midto late summer with a profusion of bright orange trumpet-shaped



flowers that lasts for weeks. Spreading with underground stems, this beautiful plant is perfect for slopes and cascading over the edges of raised beds. Regular watering when in bloom keeps the flowers coming.

Plant Creeping Hummingbird Mint in well-drained, compostenriched soil. 'Orange Carpet' prefers some afternoon shade, especially in warmer climates at





lower elevations. Wait until spring to cut it back just above ground level to prevent the plant from drying out during dry winters. This is an original selection by High Country Gardens founder and chief horticulturist David Salman. Each plant grows 4-6 inches tall and 15-18 inches wide.

Delosperma ashtonii 'Blut' (Blut Ice Plant) — 'Blut' is one of the very best cold hardy Ice Plants. With its vigorous growth habit, durable evergreen foliage and summer-long display of deep magenta-red flowers, it is an invaluable groundcover. It is a drought tolerant (xeric) plant.

Delosperma ashtonii 'Blut' hugs the ground, only reaching 1 inch tall and 15-18 inches wide. This new variety of ice plant was discovered by nurseryman Kelly Grummons (owner of Timberland Gardens, Arvada, CO) growing as a volunteer seedling in his gravel driveway. 'Blut' has attractive deep



green, slightly flattened leaves that grow to form a nice flat mat of evergreen foliage. Blooming through the summer months, this beauty has the most intensely magenta-red flowers ever seen in this genus. Once established, grow this plant in hot and dry conditions to intensify the flower color. It's showy, but it cannot tolerate foot traffic.

Ceratostigma plumbaginoides (Hardy Plumbago) — Hardy Plumbago is one of the most versatile groundcovers for cold climates, performing well in both sun and shade. Plumbago (also commonly known as Leadwort) is an easy-to-grow groundcover that's well suited for average, medium and well-drained soils. It blooms in late summer with deep blue flowers, and then the foliage turns burgundy-red in the fall.

Ceratostigma plumbaginoides is well-suited for full sun in cooler climates, but it also grows well with afternoon shade in hotter





SPOT LIGHT

climates. Plumbago spreads by rhizomes and can be somewhat aggressive in optimal growing conditions. (It can cause contact dermatitis if skin is exposed to its vesicles, so it is advisable to wear gloves when pruning the plant.) It goes dormant in winter, leafing out in spring. Hardy Plumbago grows in USDA Zones 5-9, but in Zone 5 add winter mulch. It's usually 6-8 inches tall and 18 inches wide.

Cotula 'Tiffindell Gold' (Creeping Gold Buttons) — Tiffindell Gold is a groundcover that can be used in flower beds or as a lawn substitute. This plant was discovered growing on the rugged hills surrounding Tiffindell—South Africa's only alpine ski area. A vigorous grower with deep, water-seeking roots, 'Tiffindell Gold' has soft,



inch-high emerald green foliage and an impressive display of golden button-like flowers that illuminate the garden beginning in late spring.

Deadheading extends the bloom season through the summer. This perennial is a wide spreading, lowcare groundcover whose stems root as they spread to make a weed-resistant mat of foliage. It is invaluable for carpeting large patches in perennial beds or as a grass replacement in low traffic areas. It even looks good in the winter as its foliage is evergreen. Plant 'Tiffindell Gold' in any well-drained soil. It is drought resistant, so it's a good choice for dry areas of the landscape. USDA Zones 5-10.

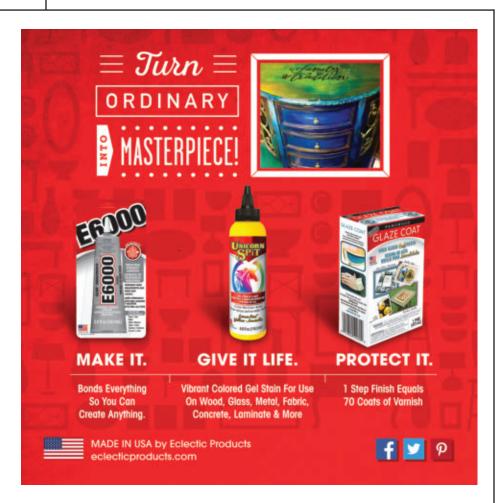
Delosperma Fire Spinner (Fire Spinner Ice Plant) — The Delosperma Fire Spinner is an astonishing sight in full bloom. It has vibrant tri-colored flowers of orange, red and lavender that are unique in the world of perennial flowers. In late spring, its profuse



tri-colored flowers cover the tight evergreen mat of succulent foliage.

A heat-loving groundcover, this ice plant is best grown in full sun and well drained sandy-loam soil. Fire Spinner is perfect for use in raised beds and in waterwise landscapes to plant into gravel mulch. (It will quickly cover the gravel.) One look at this groundcover in full bloom and it's obvious why it was a 2011 Plant Select winner. Plant it in USDA Zones 5-8.

All of these easy-to-grow ground-covers are available from High Country Gardens, a top online source for beautiful plants that thrive in even the most challenging conditions. For more information on plants and gardening, visit www.highcountrygardens.com. **EHT**



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he term "wainscoting" refers to almost any treatment you give to the lower portion of a wall that's in contrast to the upper portion. This often involves a system of panels capped by a chair rail that lines the lower wall. Wainscoting can be comprised of raised panels, beadboard, sheet paneling, picture-frame molding and more.

The original purpose of wainscoting was reportedly to cover the lower part of house walls that were often affected by rising dampness. These days wainscoting is used as a trim detail to enhance a home's interior décor. The general rule of thumb is that the wainscoting panels are usually 1/3 the height of the wall, but ultimately the decision is up to you, and your pattern and color choice can dramatically change the overall look of a room.

Check out these four DIY-friendly approaches to wall trim.

BEAD-BOARD

Traditional bead-board wainscoting is easy to install for DIY'ers because of the narrow repeating pattern. You can essentially cut the tongue-and-groove panel along any of the bead-board joints and then seam it to the next panel by hiding the cut edge inside a shadow line. This ability to cut the panels at any point without interrupting a visible pattern is why bead-board is often a favorite wainscot pattern for small rooms



Q DIYHomeCenter.com





























WAINSCOTING SOLUTIONS



The easiest wainscot pattern to install is a bead-board panel.

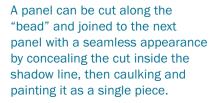
like bathrooms, where the walls may be too short to accommodate a larger pattern such as raised panels.

Plan the bead-board installation so full panels are most prevalent with cut panels located in a less conspicuous areas. When possible, use a single bead-board panel until the wainscoting meets a corner. Apply construction adhesive to the backs of the panels and fasten them into the wall studs with brad nails. Install the panels perfectly level. Any gaps at the floor can

be concealed with base or shoe molding. Nail the trim profile of your choice on top of the paneling to serve as chair rail.



Since the bead-board pattern repeats every couple of inches, the panels can be cut and joined to suit small spaces like bathrooms, whereas a larger pattern such as a raised panel would be interrupted by the short walls.



PREFORMED RAISED PANELS

Raised panel wainscoting gives a room a more formal appearance that is popular in dining rooms, foyers and hallways. Assembling the panels from scratch, however, requires careful measurement, shrewd carpentry skills, plus a lot of time and labor. You'll need a powered saw, a router, a router table, as well as the specialized raised-panel router bits in order to fabricate each rail (horizontal piece), stile (vertical piece) and interior floating panel.

One way for a DIY'er to significantly reduce the labor for this style of wainscoting is to order customized prefab panels that are shipped to your home as large, single sections complete with the decorative pattern routed into the MDF material. Rather than piecing together every rail, stile and panel, the large prefab sections can be installed directly to the wall so the job progresses as much as 8 linear feet at a time. The single panels are also less prone to paint cracking,



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▼ Foamboard

√ Stone

▼ Laminate

✓ Ceramic

✓ Brick

▼ Tile

▼ Aluminum

✓ Concrete

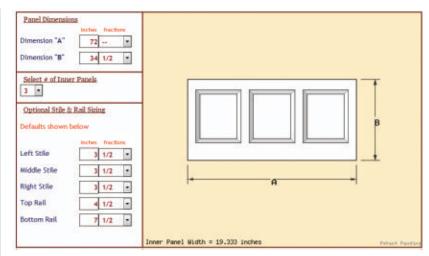
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WAINSCOTING SOLUTIONS



Online suppliers such as Wainscoting America can produce pre-routed raised panels according measurements that you provide.



The custom-made wainscoting arrives at your home in sheets up to 8 feet long, ready for installation.

because there are no carpentry joints, which are prone to expansion and contraction.

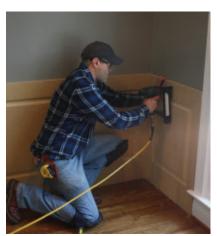
Wainscoting America is an online supplier that streamlines the selection process with an online design tool. First step is to select your preferred style and the height of your panels. Determine your Top Rail Wainscoting Height, and then determine your Bottom Rail Wainscoting Height. Next, determine your Left, Middle and Right Stile Widths. Based on your careful measurements of each wall, the web tool will produce

a visual representation of your panel design. Make adjustments until you're satisfied. The panels then ship to your home.

The panels install over the wallboard with a combination of construction adhesive and brad nails driven into the wall studs. The seams between panels are concealed with an overlapping rabbet joint. The chair rail is installed with glue and nails, and the entire project is finished with caulk, spackling, primer and paint. Remember that when installing any type of wainscoting, try to minimize the use of nails in favor of adhesive to limit the amount of spackling and touchup work required to fill the fastener holes.

FAUX PANELING

Faux wainscot paneling has made its way into today's homes because it's easy to install and saves time and material. Faux paneling basically entails attaching picture-frame moldings to the wall to create the look and effect of solid wainscoting panels. The moldings are mitered to create a square or rectangle, and the wall and moldings are painted one



To minimize fastener holes, glue wainscoting panels to the wall and only use enough nails to hold them in place while the glue dries.



color to look like solid wainscot. Glue the molding to the walls, attaching the pieces with six-penny finish nails driven at opposing angles to hold them in place while the glue dries.

For curved walls, flexible molding can be applied to simulate curved panels.



To install "faux wainscoting," fasten picture rail molding to the wall to look like raised panels.



On curved walls, flexible molding can be used to bend with the contour of the walls.



When faux wainscoting is painted a single color with the lower portion of the wall, it achieves the visual effect of the genuine article.



WAINSCOTING SOLUTIONS

TWO TONE WALL WITH CHAIR RAIL

A chair rail is horizontal molding attached to the wall at a height that typically ranges from 32 to 48 inches above the floor.

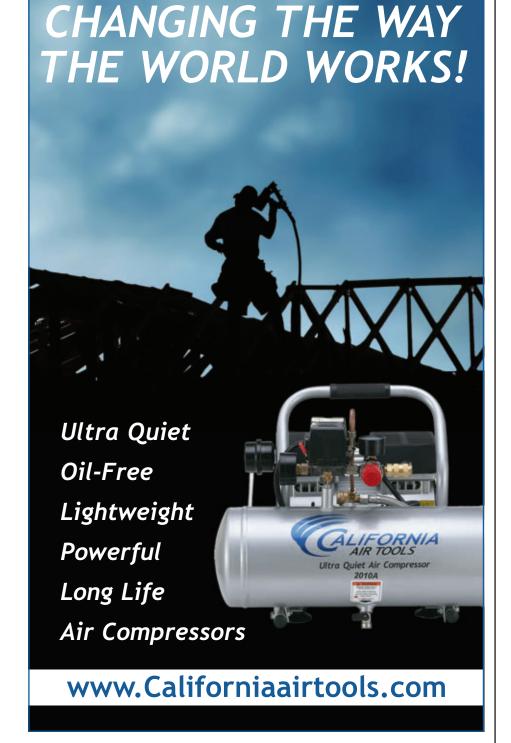
Traditionally it was used to help protect the wall from the scuff marks of chair backs, but today it often serves as a decorative element above wainscoting. You've probably never seen wainscoting



Whether you use picture frame molding to simulate panels or not, a simple change on paint color separated by a chair rail can greatly add to a room's décor.

installed without a chair rail, but you can easily install a chair rail without the wainscoting. Using the rail as a transitional piece, you can achieve a wainscot effect by separating two paint colors on the wall. Use a darker shade on the lower half of the wall to anchor the room and use a lighter shade on the top half, which makes the ceiling look higher. Paint the ceiling the same color as the upper walls to help the room feel light and airy.

A similar effect can achieve by covering half the wall with wallpaper and separating it from the paint with a chair rail. Take a cue from fashion when choosing a wallpaper pattern; it's best to use vertical stripes instead of horizontal stripes to create the illusion of height.











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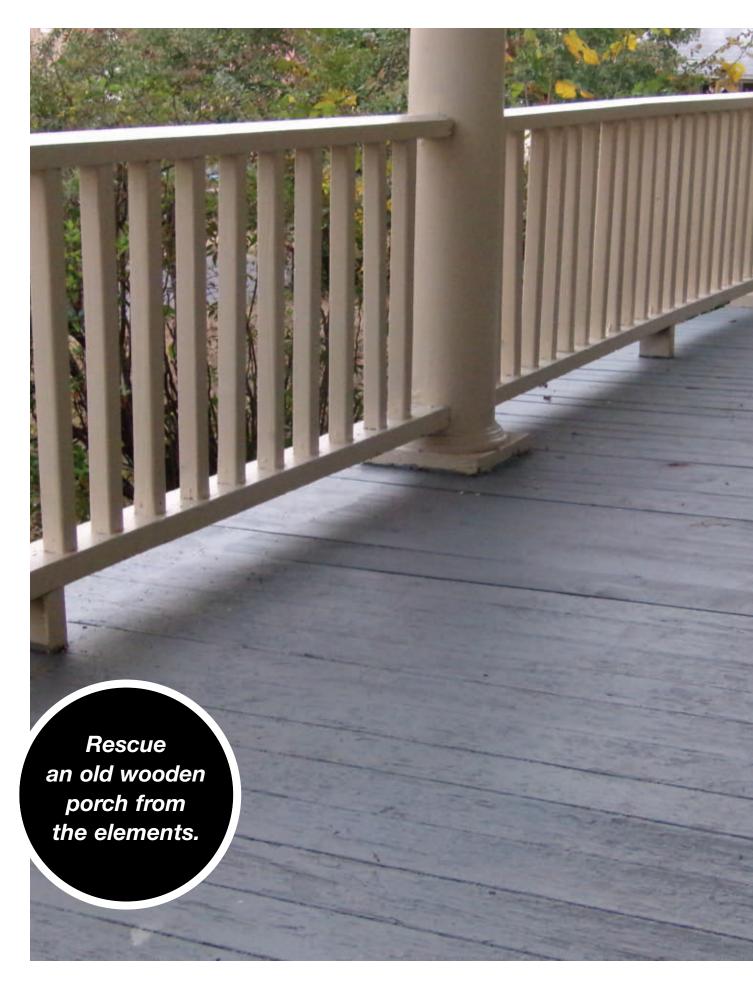


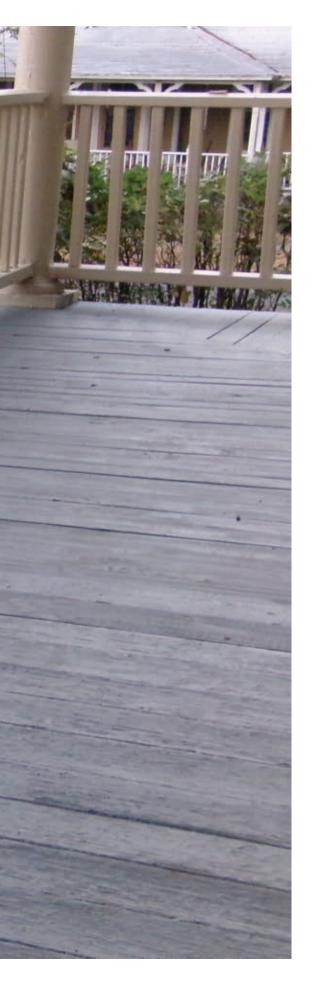












PORCH RESCUE

By Clint C. Thomas, Esq.

Vour house is in a constant state of battle with the sun and rain. The heat from the sun, especially in the hot summer months, wreaks havoc on paint and caulk. Rainwater presents the biggest long-term threat to any manmade structure. Wind and extreme cold temperatures also pose their own threats to houses. Even if a house has an exterior veneer comprised of brick, stone or vinyl, other parts of the house will still be constructed of wood. Porches are almost always made of wood, and many older homes have a porch floor made from tongue-and-groove lumber.

Knowing the devastating effects that water will have on a wood porch, older homes were built so the porch floors gently sloped from the house to the outside edge of the porch. This was done to allow rainwater to run off the porch and not accumulate in puddles that would eventually rot the flooring. In addition to a water-draining design, older homes also had the advantage of being painted with lead-based paint. Now no longer used due to health and environmental concerns, lead-based paint, for all of its negatives, was very durable. Our grandparents would only have to paint their houses every twenty to thirty years. Whereas, our generation is having to repaint about every ten years with 15 years being on the outside extreme.

The porch on one of my houses had taken a beating over the years and was beginning to show signs of serious water-related problems. A couple of the columns supporting the roof were beginning to sink into the floor, and one outside edge is what I refer to as a "problem spot" because of where it is situated. A gable on the main roof of the house channels a lot of water onto the end of the porch roof, which is constructed with a 23.5-degree outside angle of its own. This results in a heavy amount of runoff being blown into this end of the porch.





For this repair project we milled interlocking tongue-and-groove boards from treated lumber to replace the original rotted porch boards.

I decided to replace the entire side of porch flooring with the exception of a roughly 4-ft. span that I could tell was the original porch flooring from when the house was built in 1880. Since this section was still in pretty good shape and was also original to the house, I decided to leave it and only replace what was on both sides of it.

MATERIALS

I am of the belief that the only two materials to use on the exterior of historic homes are pressure-treated lumber or some type of plastic/polymer product. The two porch columns that were sinking into the floor were in good shape since someone else had already replaced their wooden bases with composite bases. Even though the



Using a router table helps to ensure a smooth, consistent cut when shaping the profile. The model shown is from Grizzly Industrial (grizzly.com).



A tongue-and-groove router bit is what shapes the interlocking tongue-and-groove joints along the board edges.

flooring under the base plate was rotting, which caused the posts to sink, the bases themselves were in perfect shape.

In order to repair my porch I needed to use tongue-and-groove (T&G) lumber. However, I've yet to find any place that sells pressure-treated T&G lumber. The flooring that I was replacing was untreated 1x4 T&G pine. I decided to mill my own T&G from pressure-treated 1x4x8 stock.

In order to do this, I would buy twenty to thirty pieces of treated 1x4x8 from my local lumber yard at a time, making sure that I would get the best looking pieces (not warped or bowed). The next step is to let the lumber dry out. Treated lumber is milled while it is wet and is normally still wet when it is received by the lumber yard. Through trial and error, I determined it is much harder to mill a tongue and groove on wet wood. However, don't just throw the wood into the August sun for a couples of days, because it will warp and bow in unimaginable ways. I learned this the hard way. The best method is to stack the lumber tightly together in a bundle and place some weighted objects on top of it at each end and in the middle. Lay the bundle of lumber in a place that gets some sun but not the full direct sun of late summer. After about three days of this, move the lumber onto your porch out of the sun. Rearrange the lumber in the bundle; place the wetter pieces toward the top of the stack and leave it for the remainder of the week.

MILLING

Once the wood has dried out sufficiently it can easily be milled on a router table using a tongueand-groove bit. I prefer using a

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We ripped up and replaced the rotten wood but kept as many usable boards as we could.

A hammer and pry bar made short work of the old boards.

router bit with a 2-in. arbor for this job. I also highly recommend purchasing a router with the highest horsepower you can find and one from a reputable manufacturer. Running twenty and thirty boards through a router, adjusting the bit for the other side, then making

the same number of passes puts a lot of strain on the router motor.

As I milled the tongue, or male end, on each piece I would run a 1/4-in. wood chisel down either side of the tongue to clean up the cut and make sure it was smooth. Once the wood is milled, be sure

to stack it back as previously described out of direct sunlight, weighting the stack to prevent warping or bowing.

With the lumber milled, begin removing the old porch flooring. My son Sterling and I used framing hammers and a pry bar to pull it all up without much difficulty.

The hard part came when we reached a column. Needless to say, it's not feasible to simply remove the flooring from under the column. The column is supporting the roof, therefore the load has to be supported to remove the column. In order to do this, we removed the flooring up to the column and then placed a 20-ton hydraulic bottle jack on top of the brick foundation under the porch. We used a rough cut 4x4 post as the jacking piece between the jack and the porch header. I then slowly jacked that section of the porch up off the old flooring. Make certain that the 4x4 post you are using on top of the jack is perfectly plumb. I used a postlevel for this job. If the post is not plumb—straight up and down—the resulting angle can cause the post to slip, often violently, off the jack. This can result in bodily injury to whomever is operating the jack or



To conceal the fastener holes, the new T&G boards were blind-nailed through the edge. We ran the edges long and then cut them all at once to the same length after marking them with a chalk line.



A BoWrench is a handy tool for bending bowed boards and for closing T&G joints.



Make sure the porch boards maintain the original slope away from the house to shed water.

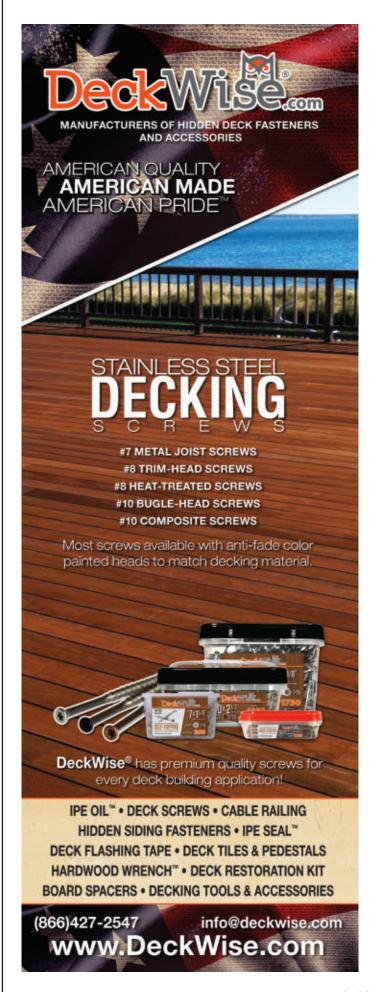


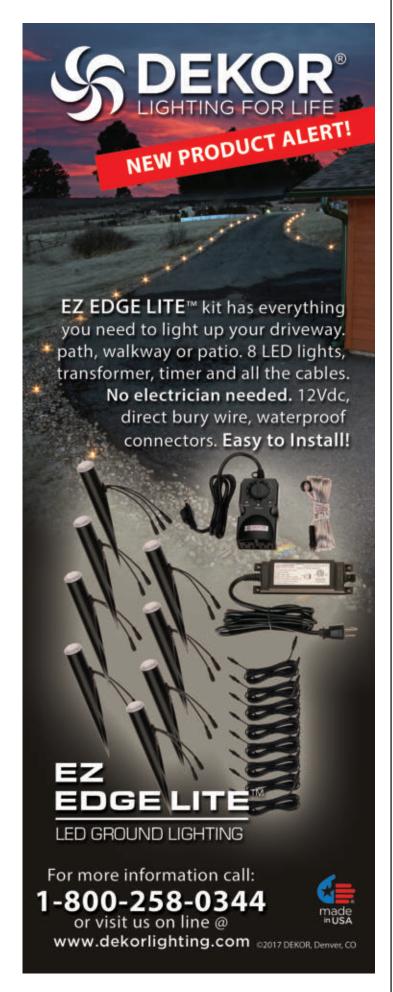
The porch columns posed an obstacle. Although the wood columns and the boards beneath them had rotted, the column bases had previously been replaced with a composite material and remained in sound shape.

damage to your house when everything crashes back down, or both.

I also strongly recommend removing the old flooring and installing new flooring up to a point that is near to each column to be jacked-up. Since the boards interlock each other, having the mating boards in place reduces the amount of time that any one column will be suspended in mid-air by only the jack. Also, be sure to place the jack on the side of the column that is the farthest from the area that you are working. Otherwise, you will run into the jack before you have installed the new flooring under the column.

With the column suspended we were able to remove the old flooring beneath it. We used a reciprocating saw with a metal-cutting blade to remove a nail or two that we discovered under the column.







Installing the newly milled T&G flooring was probably the most difficult part of the project. Some of the pieces would slide easily together while others were very stubborn and had to be persuaded together. Through experience my son and I determined that the best way to install each piece was to start at the outside and slide the new piece of flooring along the tongue of the last one installed. Even with using careful storing techniques there will be some minor warping and cupping that make the installation process more difficult.

As each piece is fitted in place I would nail it diagonally (45-deg. angle) through the tongue. This eliminates any holes on the exterior of each piece of wood. We discovered that in the nailing process the outer edge of the new piece of flooring would be pushed down slightly by virtue of the downward pressure exerted by the nail gun. This downward bending of the board would hinder the installation of the next piece until we learned to rectify the problem by hitting each installed board from the bottom with a hammer directly next to each joist that it was nailed into. This eliminated a lot of installation problems.



We used a jack and a 4×4 positioned next to each column to lift the roof and take weight off the column to replace the boards beneath.







We had to move the handrail to make room for the jack, but the old columns taper toward the top which simplified the task.



Be sure to already have solid porch boards installed closely to the columns so the new boards you place beneath them will have a T&G joint to interlock with.

BoWrench. This is a truly wonderful device that clamps itself onto a floor joist and then uses the reverse pressure to place tension on the piece of lumber being installed. It comes with a regular head that fits around modern 2× type lumber. However, I recommend the adjustable head that

will allow it to fit over true dimensional lumber and also over multiple pieces of modern 2× type lumber.

All of the angle cuts were made using a miter saw. Once installed, the outside ends of the new pieces of porch flooring were cut off with a jig saw after marking a straight line with a chalk-reel.

As a final suggestion, the jacking up of the columns also necessitated the removal of the porch railings. The best and easiest way to do this is to loosen the joints where they connect to each column and then run a reciprocating saw with a metalcutting blade through the joint to cut the nails off. Once each section of railing is loosened it can then be removed by lifting it up and sliding it out of place. Porch columns, especially older ones, are tapered so they are wider at the bottom and more narrow at the top. This allows for the easy removal of the railings.

My side porch measures 22-1/2-by-7 feet. I replaced all but about 4 feet of the entire side of my porch with pressure-treated T&G lumber that I milled myself for a cost of less than \$300.00. Comparing that to what a contractor would charge for the same work, it makes me glad I know how to do it myself. **EHT**



Here's the completed floor prior to painting.



TRIPLE WINDOW TRIM-OUT

By Larry Walton Photos by Tim Walton

hen James and Michelle were designing their custom house on a great piece of property southwest of Eugene, Oregon, we talked about window designs, and how to incorporate active windows that can be opened for maximum airflow. I suggested grouping windows together that we could trim to look as though they were a single unit. As finish carpenters, my brother and I have trimmed lots of these window groupings, some with as many as 15 windows arranged in a grid.

For these applications, each window must have the proper framing around it so it is supported and sealed just as it would be for a single window installation. Take care in the framing process to get the rough openings aligned and spaced evenly. Install the windows in the rough openings, ensuring they stay straight and aligned. Pay particular attention to keeping the sides of the windows parallel.

Buy horizontal trim boards of sufficient length by taking into account the width of the vertical casing boards, reveals and return cuts. In our case the parting bead had to extend past the far left and far right vertical casings. The bed mold at the top of the header needed enough length to make return miters for a proper crown molding look.

An overview of the trim process will be helpful in completing the job. Measure and cut both verticals and the top horizontal surround boards for each window. Use the horizontals to lay out the notches in the window stool. Test and adjust the window stool before nailing it to the rest of the window surround boards. Place the assembled stool and surrounds in position and use straight edges, measurements and shims to get all of the components properly positioned and parallel before nailing into place. Install the vertical casings and mullions.

Finally, measure, cut and install the apron and header trim.

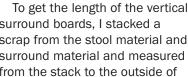
When Three
Equals One:
Trimming Three
Windows with a
Single Window
Stool



STEP

Measure to the outside of the vinyl to get the length of the top horizontal surround boards.

To get the length of the vertical surround boards, I stacked a scrap from the stool material and surround material and measured from the stack to the outside of









the vinyl, because the verticals fit between the horizontals.

Measure from the inside face of the window frame to the painted face of the drywall to determine the width of the window surrounds.





Cut all of the surround boards to size and mark the backs with a number for the window. "V" or "H" for vertical or horizontal and an arrow indicating the outside or finished edge.



After placing the window surround top pieces on the sills and aligning them with the window frames, determine the length of the window stool by taking into account the casing width and desired reveals. Also note the locations of all three window surrounds in relation to the ends of the stool.



On the saw table, I cut the stool to length and positioned the horizontal top surround boards on the stool to lay out the horns and notches.

Use a jigsaw to cut out the horns and the notches on the window stool.

Place the window stool in position on the sills to check for fit and make any needed adjustments.

Use a flat shim equal to the thickness of the largest gap to make scribe marks to adjust

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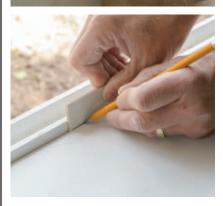
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TRIPLE WINDOW TRIM-OUT







the stool for a tighter fit to the window frame.

The same shim can be used to scribe the stool at any wall sections that may keep the stool from going back to close the gap.

I use a power planer to remove material to my scribe lines on the longer sections of the stool.







Make a chamfer along the back of the stool where the window frame meets the sill to avoid interference with adhesives and residual vapor barrier.

I used an angle grinder with a coarse sandpaper to remove material to the scribe line on the horn of the stool.





We lay out all of the window surround parts and the stool to nail them together. I often repeat the phrase "numbers out, arrows up, horizontals run by" to keep from orienting boards in the wrong direction during assembly.



Shoot a pair of 7/16-in. crown staples through the horizontal board into the vertical board at each joint. Both boards are supported by the same flat shim to compensate for irregularities on the work surface.

I micro-pinned a wood strip across the face of the surrounds





for stability as we moved the assembly.

Amazon through Professional Grade Products (search "Model FB2632")

It's a two-man job to move the surround assembly into the window openings.



After a shifting the stool left and right for reveal (the same amount of window frame showing on each window) and shimming for both reveal and flatness, nail through the stool and the shims into the framing sill.

After shimming and nailing the top corners of each window



surround, use a straightedge and shims to keep the vertical boards straight.



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A string line across the upper horizontal surround boards provides a good reference for shimming and nailing them into place.

After cutting and installing the vertical casing and mullion boards, I installed a 1-1/4×3/4-in. parting bead on top of the casing and mullions.

On top of the parting bead, I installed a header board preassembled with bed mold crown.







Here is a closeup of a completed top corner. Note the overlaps and reveals (exposed edges) of the casing, parting bead, header and bed mold.

A simple a 1x4 apron covers the gaps and shims at the bottom of the assembly and helps support the stool.

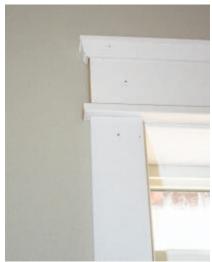
Here is our completed triple window assembly ready for spackle, caulk and paint.

We also trimmed the exterior of our set of three windows as one unit. **EHT**

















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Patch a Popcorn Ceiling



By Matt Weber

ater leaks are house killers, and this drywall repair story is testament to that. Act fast at the first sign of a water problem, because chances are good the leak has existed for a while before you've discovered it. This means that damage which has already occurred might be hidden in the walls or ceiling, and will only worsen until the problem is resolved.

The ugly, melted, mold-stained ceiling shown in this article is the result of a leaking bathtub overflow gasket from the room above. Most of the mildew had been concealed by the ceiling texture

(which had been coated in latex paint and served as a kind of leak-hiding "skin" for a while). A little work with a scraper revealed that not only had the ceiling been repaired in the past, but the new leak had been spreading in secret throughout the drywall. And it wasn't pretty.

We used a scraper to peel away the loose texture and then cut out the unusable drywall in a square shape. An oscillating tool with a drywall blade is a handy tool for the making the cut-out.

You'll need a drywall patch for the ceiling, so measure the thickness of the drywall. It's common



for ceilings to utilize 5/8-inch drywall while the walls are 1/2 inch, because the thicker sheets tend to resist sagging. Cut a replacement patch from drywall that's the same thickness.

Penetrant or Lubricant: What's the freakin' difference?

One of the best ways to save time and money is to use the right tool for the job the first time around.

Don't think of tools as only the ones that fit nicely inside the toolbox. Tools can include anything that helps get the project finished. This includes chemicals like penetrants and lubricants.

Have you ever had a rusted or corroded bolt that you couldn't get to budge on your own? Or perhaps a lock or wrench that was rusted over. Maybe you reached for a general multi-purpose lubricant to help out. More than likely, you didn't get the results you expected. This is because of a common misconception regarding two types of products: Penetrants and Lubricants.

This is a misconception that often leads to the misuse of the two types of products, therefore not getting the job done as expected. Whether the use of these products is crucial to your profession or limited to the household, it's important to examine proper use and application. Understanding the difference between a penetrant and a lubricant will maximize the benefits they both have to offer and save you time and money, and ultimately, it will save you a headache.

Let's start with the basics. A penetrant is generally a solvent-based formula that is used to break through rust and corrosion on a stuck or immobilized part. A lubricant is an oilbased formula that is used to reduce friction on moving parts, displace and repel moisture and help prevent further rust and corrosion.

See Example 1: When testing the penetrating qualities of PB B'laster Penetrant vs. WD-40 lubricant over an eight hour time duration, there is a clear difference. The penetrant wicks its way up and across the metallic surface, even into the tight confines of a rusty, threaded fastener. This is because the penetrant is formulated to break through

rust and corrosion faster and more effectively than the general multi-purpose lubricant on the left

B'laster Corporation, a leading manufacturer of penetrants and lubricants for over 60 years, frequently encounters the misuse of these two types of products amongst their consumers. In fact, industry

research shows that 23% of consumers who use multipurpose lubricants use the product incorrectly. B'laster's head chemist, Tom Hrabak says, "These types of products are often used interchangeably by mistake. It simply comes down to the intended purpose the product was formulated to achieve." Hrabak further explains that in most instances a penetrant will not provide better lubrication than a lubricant, and a lubricant will not penetrate as quickly or deeply into rust and corrosion as a penetrant would.

PB B'laster Pentetrant, the #1-selling penetrant, is formulated and manufactured with the intention of breaking through rust and corrosion. It's a penetrant first and foremost. It uses a unique capillary action that quickly breaks loose surface tension created by rust and corrosion by creeping up, around and into hard-to-reach cavities. A penetrant such as PB B'laster does also have the added benefit of providing lubrication because it doesn't evaporate. Therefore, the film that remains on the applied parts will help prevent further rust and corrosion. But the lubricating element is secondary, unlike its sister product, B'laster Pro-Grade Multi-Purpose Lubricant.

B'laster Pro-Grade Multi-Purpose Lubricant is formulated and manufactured for use as a lubricant firstly, to provide maximum working fluidity by reducing friction between surfaces. It's also enhanced with Teflon™ flouropolymer to further help reduce friction, enhance performance and protect surfaces. It's also a better option for indoor and household tasks because it has a light vanilla scent. The added benefit of a general multi-purpose lubricant is that it will also help provide protection from further rust and corrosion.

Some common applications for PB B'laster:

- Rusted Nuts, Bolts, Pipe Threads, etc.
- Brakes
- Exhaust System
- Suspension System
- Farm Equipment
- Mobile Homes

Some common applications for B'laster Pro-Grade Multi-Purpose Lubricant:

- Sliding Doors & Windows
- Hinges
- Locks
- Valves
- Hand Tools
- Sports Equipment
- Rollers
- Wheels
- Valves

Here's a good general rule of thumb to help you decide which product to use for your application:

- If it's rusted, stuck or corroded, use a penetrant like PB B'laster.
- If it's sticking or squeaking, use a general multi-purpose lubricant like B'laster Pro-Grade Multi-Purpose Lubricant.

Understanding the difference between these two types of products will save you time and money. And let's be real, those are two things worth saving. So, you're welcome.



QUICK FIX



It's a good idea to cut 2×4 blocking to fit between the joists and straddle the joints between your patch and surrounding ceiling drywall. Toe-screw the blocking in place with 3-in. fasteners. The blocking will support the patch edges with solid backing to minimize movement and prevent cracking in the finished ceiling.

Drywall tends to crack and crumble when screwed within an inch of its edges. To prevent damaging the patch, we fastened an intermittent 2x4 block between the joists so we could drive



screws through the middle of our patch instead of the edges. Make sure to install the blocking flush with the bottom edge of the ceiling joists.



Insert the drywall patch into the hole and fasten to the middle block with drywall screws.

We filled the joints and screw heads with a flexible spackling compound and skim-coated the entire patch to blend with the surrounding ceiling.

We used Gardner Flex-N-Fill spackling compound, which not



If you've watched any home design or remodeling show in the last year, you know that Shiplap is making a comeback for interior walls. From Craftsman to farm house to modern, the clean lines of Shiplap are in demand by home owners and designers across the country. Pacific MDF Products, Inc. has taken Shiplap to a new level with our Pioneer Series Interior MDF Wall Boards. People can now get the traditional Shiplap look without the worry of filling knots, priming, and trying to install warped boards. Our MDF Shiplap is already primed, and ready to install and finish. With our precision sizing, once you place your first run on the wall, the rest of the pieces are easy going. The 16 foot length of the boards also makes it easy to install over long walls which are popular with open concept living areas today. Ease of installation, pre-primed for time and cost savings, and consistency of product make Pac Trim's Shiplap Interior MDF Wall Boards

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Photo Courtesy of Simply Irresistible Photography

popular with building professionals.









only stays flexible to prevent cracks, but it has a built-in primer, which saves an extra step.

After the spackling compound has completely dried, the next step is to apply the ceiling patch. Spray-on and brush-on "popcorn



ceiling patch" products are available, but we prefer the brush-on variety.



The brush-on patch allows us to move around the aggregates and adjust the texture to more closely match the surrounding ceiling. Once the texture had dried, I cut a small piece of crown molding and finish-nailed it as a transition piece between the ceiling and shower surround.

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QUICK FIX

The Popcorn Ceiling Patch is a latex-based product that should be coated with shellacbased primer to prevent staining. If your textured ceiling has been painted like the one in this article, then finish the repair with a matching topcoat. **EHT**







Why is My Car's A/C Blowing Hot Air?

The air conditioning system in your car is designed to cool down the air in the cabin of your vehicle to keep you comfortable on a hot day. When you only get hot air instead of cold air, it can be frustrating and extremely uncomfortable. In this article, we're going to look at how your Car's A/C creates the cold air so you can more accurately diagnose what's

The cool air is created by blowing air from either outside your car, or from the cabin over cold coils. This cools down the air before it gets blown out of the vents into your car to keep you comfortable. Most systems are designed to blow very cold air, between 32 and 40 degrees! These cooling coils, called the evaporator, is where the actual cooling of the air happens. These coils are cooled by cold refrigerant flowing through them.

Most cars today use a refrigerant called R-134a which is a special refrigerant designed to work at the temperatures and pressure standard in a car's A/C system. As the cold refrigerant passes through the evaporator it absorbs the heat in the air which warms up the refrigerant. This warmer refrigerant now needs to be cooled back down so your A/C system can continue to operate. This is accomplished by first compressing the refrigerant to a high pressure which also heats it up to

This hot refrigerant is then cooled down by running it through the condenser. The condenser is cooled by ambient air in the front of your car just like the coolant in the radiator is cooled. On most cars the condenser is actually in front of the radiator and gets cooled first to make sure your A/C system gives you consistently cool air. This high pressure, now cooled, refrigerant is then allowed to expand quickly as it passes through an orifice or expansion valve. The expansion valve is a simple device that takes advantage of the fact that quickly expanding liquids and gases get cold. The process of liquids and gases getting cold during expansion is a scientific phenomenon you can prove by using an entire can of spray paint in one sitting and seeing how cold the can gets.

Now the cold, low-pressure refrigerant can return to the evaporator to cool it and along with it, more air keeping your car comfortable. There are a few other components in the system like temperature and pressure sensors, hoses and the dryer or accumulator. The dryer is where any moisture is removed from the refrigerant, the refrigerant is filtered to make sure it all enters the compressor as a gas, and the oil for the system is equally distributed through the refrigerant passing

If your car's is blowing hot air then one of these systems isn't doing its job properly. Since there are two components that require air to be moving through them, the evaporator and the condenser, it is possible one or both of these are clogged and not getting the proper air flow. Check the front of your vehicle for debris, the engine cooling fans for proper operation, and your cabin air filter for debris and dirt. The refrigerant in your system also needs to be able to flow properly through the system. Check your compressor for proper operation, clogs in your system and the proper amount of refrigerant. All of these can be checked by observing the pressures around the system both before and after the compressor and all the other components. This can be done with set of A/C gauges to measure both the high and low pressure sides of your A/C system.

If you find unusually high pressure before any particular components and unexpectedly low pressures after them, there is a good chance there is a clog in that component. If this is the case, you will most likely find the clog in the accumulator or the condenser. If you don't have a large enough pressure increase across your compressor you may be in need of a new AC compressor. If you have lower than expected pressures on the low pressure side of your system, may simply have a low refrigerant level.

If you do not have enough refrigerant in your car's A/C system the compressor may not be able to raise the system pressure high enough for the expansion valve to be effective in cooling down the refrigerant. Due to the high pressures of your air conditioning system and the volatile nature of the R-134a refrigerant used, it is not uncommon for some of the refrigerant to leak out over time causing a low pressure condition in your system. If you discover this to be the reason why your A/C is blowing hot air add Red Angel A/C Stop Leak to your vehicle's air conditioning system to seal any leaks no matter how small they are before you recharge the system.

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PRODUCTS

RE-GRIP

Re-Grip is the simple, affordable way to add a new grip to any handle, lever or tool within seconds and with no mess. This non-slip grip increases safety while also providing maximum comfort and reducing muscle fatigue. Re-Grip can fit nearly any cylindrical or semi-cylindrical handle and comes in three diameters to fit a





range of needs. Using the product couldn't be easier; the elastic grip is held extended by an inner coil, forming a tube. Slide the Re-Grip onto the handle, ensuring the pull-tab is at the object's base. Hold the Re-Grip securely in position, where you would like your new grip located, and pull the tab to unwind the inner coil. The elastic grip will constrict and form snugly around the handle. It works with tools of all kinds, including lawn and garden, construction, garage, home, outdoors and more. Affordable and easy to install, Re-Grip is made with durable rubber that provides mechanical and environmental protection while enhancing comfort. The grips are UV-resistant, chemical-and dip-tested for long-term use. Visit www.re-grip.com

GLAZE COAT FROM FAMOWOOD

According to Eclectic Products Inc., just one coat of Famowood Glaze Coat equals 70 coats of varnish. This ultra-clear, high-gloss finishing epoxy is ideal for home improvement and craft projects. Famowood Glaze Coat is a pour-on epoxy coating that can be used on most indoor surfaces—rough or smooth, stained or painted. It's great for coating tables or bar tops, preserving photographs or embedding decorative items. With an easy 1:1 mixing ratio, the product achieves a glass-like look with no brush lines. Glaze Coat is self-leveling so minimal spreading is required, and it's available in pint, quart and gallon kits. Visit eclecticproducts.com.



THREE NEW STAIN COLORS FROM ARMSTRONG-CLARK

Armstrong-Clark Company adds three new colors using high quality trans-oxide pigments to its oil-base wood stain line. Black Walnut was formulated for the increased demand for a dark brown on exotic hardwoods such as ipe. Chestnut was developed as a dark reddish brown for owners of pine wood decks that want the look of ipe. Chestnut looks exceptionally beautiful on cedar, especially western red cedar. Lastly, Natural Oak was formulated for customers wanting either a transparent brown or a medium brown. Although it is technically a semi-transparent color, the use of trans-oxide pigments gives it more trans-

parency than many other semi-transparent stains. Armstrong-Clark Company offers long-lasting traditional oil stains that are easy to use and a breeze to maintain. All colors are intermixable to create custom colors and they can be applied in direct sunlight, no matter how hot it is outside, without getting tacky

(in temperatures over 110 degrees). You can walk on the stain during application, and it can withstand rain an hour after the stain has absorbed into the wood. The

stains do not peel or crack, and the finish does not need to be stripped or sanded before future maintenance coats. Sample cans are available for all of Armstrong-Clark's colors. Visit www.armclark.com.



NAIL PRO NPCN-7312 COIL NAILER

The Nail Pro NPCN-7312 wire coil pneumatic nailer by JAACO offers unique fastening flexibility for both professionals and DIY'ers. The tool fires standard 15-degree wire coil nails for wood projects. It also fires coil-collated hardened ballistic pins. The pins meet ICC-ES ESR2961/ESR3009 requirements for attaching plywood, fiber cement board, 2x plates and rigid foam insulation board (with the optional washer attachment and washers) to commercial steel studs, filled and unfilled concrete block, and aged concrete. When used with its power-boosting



sleeve attachment and the ability to operate at 175 psi, the tool allows attachment of 2x wood plates and other materials to 5,000-psi aged concrete. The large-capacity coil magazine accepts a wide range of 15-deg. coil nails and hardened ballistic pins from 1-1/4- through 3-1/2-in. lengths in 0.098-to 0.145-in. diameters. Hardened stainless steel pins are also available, providing outstanding corrosion protection for projects exposed to salt water and other corrosive conditions. Whether framing, decking or attaching to concrete and steel studs, the capacity of the NPCN-7312 to fire such a wide range of fastener sizes and types makes this the single "go to" tool for most construction applications. Visit www.ManasquanFasteners.com.

EZ EDGE LITE

Dekor is a premier manufacturer of LED lights that designs and builds their LED lights right here in the USA. Having led the industry with the innovative PaverDot LED lights—which can be embedded into pavers, concrete or stone—the company has taken the same quality light and created an easyto-install, ground effect lighting system that can outline or accent driveways, walkways, paths or patios. The all new EZ Edge Lite is available as a complete kit with eight lights, transformer, photocell timer and direct-bury cables or in a convenient four-pack, in case you want to add more lights to your project. Simply push the EZ Edge Lite into the ground next to your hardscape (you may need to use a rubber mallet in hard ground), run the cable, and plug in the waterproof plug-n-play connectors. No electrician is needed. And because the system is 12-Vdc, it's safe with no worry about getting shocked. Two options are available: the standard LED (20 lumens) or the NEXGen LED with 70+ lumens for brighter lights. EZ Edge lights also have a super-tough, waterproof polycarbonate lens and 10-year warranties. Visit www.dekorlighting.com or www.hardscapedepot.com.



PRODUCTS

84 LUMBER INTRODUCES ECOLIFE TREATED WOOD

84 Lumber Co., one of the nation's leading lumber dealers, is now selling Ecolife Stabilized Weather-Resistant Wood for above-ground applications in decks, fencing and similar projects. Ecolife integrates a wood preservative with a built-in stabilizer that keep boards straighter and resists twisting, warping, cracking and checking. Ecolife is fully compliant with American Wood Protection Association (AWPA) standards and International Building Code (IBC) and International Residential Code (IRC) codes for most deck projects. Viance, the producer of Ecolife, offers a Lifetime Limited Warranty on above-ground preservative treatment, which includes wood framing members that are critical to the safety and performance of the structure, including joists and beams.



For common deck applications, Ecolife is a more costeffective option when compared to products treated for ground contact use, and is still the best option for outdoor projects when used appropriately. Call your local 84 Lumber store for Ecolife availability and visit www.treatedwood.com to learn more.

GORILLA SEALANT

Gorilla steps into the sealant jungle with a truly All-Purpose Sealant family that maintains the brand's superiority and proves its simplicity and versatility. Gorilla Glue introduces the long-awaited Sealant Cartridge family that includes formulations in clear, white and paintable. To advance what the brand is already known for, this product gives users the ability to buy one tube for any kitchen and bath, or window and door project. The simple, versatile product replaces the overspecialized sealants without sacrificing an ounce of efficacy. The Gorilla 100% Silicone Sealant Cartridges simplify the job for any resourceful handyman and big-project-DIY'ers. It's proven to be effective on siding, metal, porcelain, glass, granite, laminate, stone, vinyl, aluminum and more. Given the All-Weather seal, it can hold up against the freeze-thaw cycle for the cold environments and won't

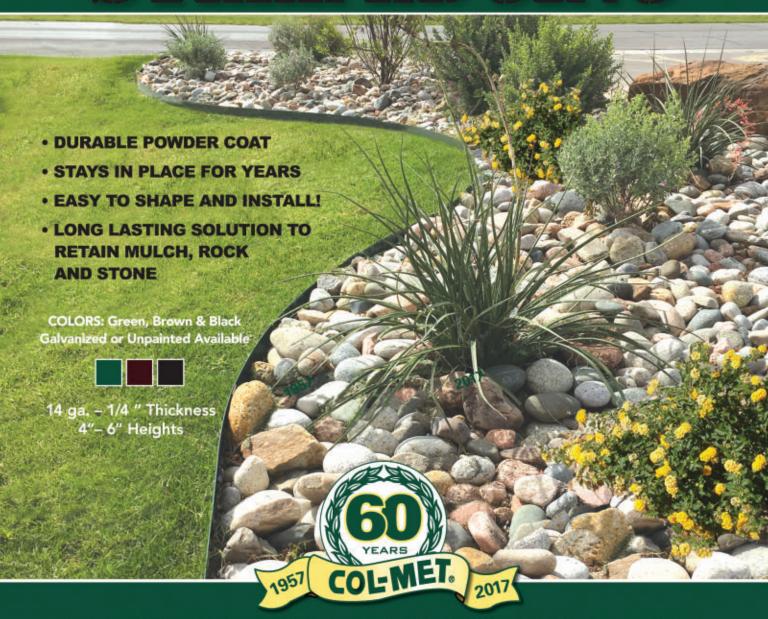
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