THE OLD-HOUSE JOURNAL



Renovation And Maintenance Ideas For The Antique House

An Old House Is A Way Of Life

OLD HOUSES aren't for everyone. Plumbing may leak; space isn't laid out efficiently; wiring isn't adequate...the list of sensible reasons why one shouldn't buy an old house goes on and on. Yet there are many who would never live anywhere else...they are truly Old House People.

IY DC people endure the extra headaches of wning an old house—all for the privilege of living in a structure that takes on aspects of a cantankerous spouse?



FIRST, there is a romance to old houses. An old house is part of the collective memory of man; long ago joys and sadnesses linger in old halls and on dark staircases. An old house continually reminds us that people have lived before us in different times and circum-

stances. Through the house we share an experience in common with these other people in other times. Keeping up an old house is keeping faith with the past.

AND AN OLD HOUSE has character....in many ways resembling a living person. After being fussed with for 75 years, a house bears the imprint of its previous occupants....acquiring a personality that is unique to it.

A NOTHER CHARM of an old house is that it was unmistakably made by the hand of man. In this increasingly mass-produced world, there is something reassuring about floors that are not quite level and walls that are a little out of square.

BUT DESPITE imperfections, an old house frequently exhibits an excellence of aftsmanship and detail nat cannot be duplicated today. And while the creation of such extraordinarily constructed detail is



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RESTORING WOODEN SHUTTERS



beyond the ability of most contemporary workmen, it is within the ability of most homeowners to restore and preserve this detail.

PARTLY out of necessity and partly out of a desire to develop their own craftsmanship, growing numbers of homeowners are taking the doit-yourself approach to caring for

it-yourself approach to caring for their elderly homes. Starting with an old house, they keep the best of the past intact—and remodel the rest to fit the needs of modern living. And in the process they discover the joy of living in a home finely made by the human hand.

WITH THE TOOLS and materials available to today's homeowner, it's possible to become one's own old-world craftsman—by the time to learn the tricks of the various trades. In a world that puts a premium on sheer volume of production, there's a secret satisfaction to be found in taking all of the time

necessary to do a job in the
very best possible way. While renovation can be a painful process,
those that have gone through it successfully have found it to be one of
the most creative and rewarding experiences of their lives.

TO THOSE who love old houses—and find joy in reviving them—The Old-House Journal is dedicated.

Protect The Aging House From Winter Storms

NOW IS THE TIME to think about protecting your house from the ravages of the oncoming winter. An antique house is like an elderly person... it's most likely to develop ailments during the winter. So just as you bundle a frail person against the elements, you should also make sure your home's outer covering is impervious to winter storms.

COLD WIND, rain, snow and ice all belabor a house during the winter. And although you are aware soonest of cold air leaking in, this is actually the least serious problem. In the long run it's water—and its bad brother, ice—that will do the most damage.

WATER IS THE NATURAL ENEMY of a house. It will rot wood, loosen bricks, peel paint, weaken plaster, spall stones and generally raise havoc. The problem is compounded in winter because of ice dams that prevent normal water run-off. Result: Water works its way under shingles, behind loose bricks, into soft stone, and into cracks you never suspected were there.

A LITTLE DETECTIVE WORK this fall can help you avoid grief later on. Search out any spot where water might enter, keeping in mind that ice and wind can cause water to back up into the unlikliest of places. The time to conduct this search is now—when you can work outside without freezing your fingers off. February is no time to discover

THE OLD-HOUSE JOURNAL

Published Monthly For People Who Love Old Houses

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Published by The Old-House Journal Company, 199 Berkeley Place, Brooklyn, N.Y. 11217. Tel. (212) 636-4514. Subscriptions \$12/yr. Contents of The Old-House Journal are fully protected by copyright and must not be reproduced in any manner whatsoever without specific permission in writing from the Editor.

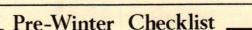
Logo art: Stanley Skardinski

that you need to do work on the roof. So set aside a Saturday or Sunday for this pre-winter physical examination.

TO GET YOU STARTED, we've assembled a checklist of things to look for. As you locate places where water or cold air can enter, seal

where water or cold air can enter, seal with caulk, roofing compound, putty or paint—depending on the place where the leak is found.

ELSEWHERE in this issue are some specific home remedies for windows, roofs and chimneys—should your pre-winter checkup reveal that any of these vital areas are in need of repair.



ROOF:

Cracks, bubbles or holes in roofing material?
Cracks or gaps around flashing?
Need to install electric heating cables to prevent build-up of ice dams around gutters and leaders?

GUTTERS & LEADERS:

Gutters packed with loose debris?
Any holes that need patching?
Debris screens need replacing?
Hangers and straps secure?
Rust spots that should be painted?
Water from leaders properly diverted from house?

WINDOWS:

Gaps in frames need renailing or caulk?
Sash and sills need waterproofing
and paint?
Loose putty need replacing?
Weatherstripping needed between sash
and frame?

WALLS:

Bricks need repointing?
Cracks or gaps in cornices and trim
boards that need caulking and paint?
Caulk needed in gaps between walls and
frames of doors and windows?

CHIMNEY:

Loose mortar need repointing? Coat of waterproofing compound needed? Unused flues that should be capped?

DOORS:

Caulk needed between frame and wall? Gaps need weatherstripping? Waterproofing and painting required?

BASEMENT:

Any openings from outdoors resulting in drafts that will chill house and/or freeze pipes?

A Brownstone In Brooklyn

In the Landmark district of Brooklyn's historic Park Slope, the ninety-year-old brownstone of Mr. and Mrs. Everett Ortner is a special house. It has all the original features prized in Victorian rowhouses—elegant woodwork, extraordinary plastering, fine parquet floors—but it is the influence of the house that makes it unique.

THE ORTNER PARLOR AND DINING ROOM may have done more for the cause of urban home preservation and restoration in New York than any other single building. The process is relatively simple: People see the Ortner's house and want one like it. Bankers reluctant to give mortgage money to would-be city homeowners are entertained at cocktail parties in the Ortner partor and the risks seem substantially less. Young couples with children and not-quite-sufficient down-payments go away from tea at the Ortner table with a vision of gracious living—and borrow an additional five grand from their parents-in-law. Families in their third and fourth and fifth years of do-it-yourself renovation leave lively sit-down dinners for twelve with renewed purpose and vigor.

IN 1960, THE ORTNERS did not foresee that the simple act of acquiring real estate would set them on a lifetime course of winning friends and influencing people. But their house brought them instant gratifications which they wanted to share—and almost immediately they found themselves involved in promotion of their com-

munity in particular and the cause of urban culture in general. Mrs. Ortner, an interior designer, is President of the Victorian Society in America; Mr. Ortner, an editor, is President of the Brownstone Revival Committee of the City of New York. They are founding members of the Betterment Committee of the Park Slope Civic Council; were among those primarily responsible for the Park Slope Historic District Designation Report; and have given themselves to service of their community at every level.

THE HOUSE that inspires this activity was built in 1886 and designed by architect Charles Werner. The overall exterior effect is one of severely disciplined lines and angles. A three-sided bay rises the full front height, with a bold bracketed and paneled cornice providing a strong silhouette against the sky. There is a high front stoop, with balustered cast-iron handrailings and massive newel posts, and a double front door, flanked by pilasters. The Ortners occupy the basement and parlor floors; the upper two stories provide rental units.

ELEGANTLY DETAILED MAHOGANY woodwork extends throughout the lower floors. The broken pediment above the pier mirror in the parlor is decorated with stylized leaves, an example of the standard detailings selected by the original owner from a millwork catalogue.

POSSIBLY THE OUTSTANDING FEATURE of the parlor is the ornamental plastering, which suggests the handiwork of a French pastry chef. In the final stages of plastering, ceilings and walls were covered with fine grade canvas. The final application of plaster was worked into this material, which then provided a solid base for application of the intricate moldings. The walls are painted white, the moldings highlighted in cream for subtle contrast. The wall sconces were



Parlor pier mirror frames 19th-century portrait.



Stylized leaf design on broken pediment over dining room mirror matches parlor woodwork.

assembled from pieces of an original gas ceiling fixture that was salvaged from an old Park Slope house and wired for electric lights.

In the DINING ROOM, the converted gaslight chandelier is not the original fixture, but was made circa 1880. Another addition to the room is the pair of mahogany and leaded glass china cabinets flanking the fireplace. They were made specifically for the room around 1940, and the only testimony to their nouveau status is the fact that they extend slightly over the parquet pattern of the floor. The

parquet is original with a simple ribbon border stained walnut by the Ortners.

AS IS THE CASE with many old-house owners, the Ortners bought more than a building. Along with four stories of Victorian elegance, they bought a lifestyle, an avocation, and a challenge. Their house re-directed the course of their lives, has influenced enormous numbers of other people, and continues to contribute indirectly but positively to the social and economic growth of their community...an example of the best in old-house living.—CW

Handy Crevice Tools For Stripping

AN OLD-HOUSE dweller who has stripped a lot of ornate woodwork lately passes along some hard-won information:

The time-consuming and frustrating part about stripping woodwork is coping with all of the complex moldings that a

the complex moldings that a carpenter lovingly made when the house was built—and which someone subsequently gleefully filled with gallons of boardinghouse green paint. To dig this gunk out after paint remover has done

May

paint. To dig this gunk out after paint remover has done the preliminary work, try using a nutpick (to dig into irregular spaces) and an old screwdriver (to scoop out long grooves). Let the paint re-

mover stand about 15 minutes. Then after digging out the goo with the appropriate crevice tool, finish up with steel wool and a solvent wash—either water or denatured alcohol.

Ask The House Doctor

Do you have a renovation or maintenance problem that's driving you up the wall? The House Doctor and the Journal's technical staff can probably help.

Describe your problem as fully as possible and send to:

The House Doctor Old-House Journal 199 Berkeley Place Brooklyn, N. Y. 11217

Because of the heavy volume of mail, letters cannot be answered individually. But all problems of general interest will be analyzed in these columns.

Sealing Leaky Windows

 $\mathbf{D}_{ ext{are}}^{ ext{OUBLE-HUNG WINDOWS}}$ found in many old houses are especially vulnerable to the winter elements. Through settling, warping and sagging, many gaps are created that provide entry points for both cold air and water.

Seeping water will initiate an irreversible process of rot. And cold air leaking in can increase your winter fuel bill by as much as

Keeping out water and cold air require two separate maintenance procedures. Let's start first with the water problem.

 $S_{\mbox{\ dow\ frame\ meets}}$ the joint where the window frame meets the building wall. There should be no gaps. If the old caulk has cracked or has fallen away, recaulking is a must. Here is the sequence of steps:

- 1. Renail any loose boards in the window frame.
- 2. With wire brush and putty knife, remove any loose caulk and accumulated dust and dirt.
- 3. Run a generous bead of caulk (about 3/8 in. across) into the joint. The caulk gun is a relatively simple tool to use; with a little practice you can run a smooth even bead anywhere.

If at any point the gap is so wide that it won't support the caulk, stuff the hole first with oakum. (Oakum—used by plumbers—is a tarimpregnated fibrous material that is available at hardware or plumbing supply stores.)

If you are using an oil-based caulk (the least expensive type) it should be painted to extend its life. Let the caulk dry for a couple of days to let a skin form;

then paint.

NEXT EXAMINE the condition of the window frames and sills. Are there any open holes or cracks in the wood? These should be brushed with linseed oil, then filled with putty. If the paint has started to crack and peel, all loose paint should be scraped off with a putty knife and wire brush. If the problem area is small, simple patch painting will do. If the en-

tire paint film is in bad shape, you'd better re-paint the whole window

If the paint has peeled to the extent that lots of bare wood is showing, you should consider waterproofing the frame before repainting. Use a wood preservative containing pentachlorophenol (sold under brand names such as "Wood Good"). Apply a

generous coating of this material—flowing on as much as the wood will absorb. This preservative not only acts to prevent rot, it also serves as a water repellant. It also seals the wood and provides better adhesion of the subsequent paint coat.

After allowing the wood preservative to dry for 24 hours, paint in the usual manner. You don't need a prime coat because the preservative acts as a primer. However, two thin finish coats are better than one thick one.

NEXT CHECK THE PUTTY around the window glass. The putty's function is not to hold the glass in (the glazier's points do that). Rather, the putty's job is to keep water for the putty for

ter from seeping into the wooden frame. To do this, there must be a perfectly tight seal between put-

ty and glass.

If any putty is loose or cracked, chip the loose material out with a putty knife. Then, using a wire brush, remove any dust and dirt from the putty channel. Next, paint the exposed area with linseed oil. (The oil in the frame will retard the drying and cracking of the new putty.)

Then lay in a bed of fresh putty and strike off cleanly with a put-

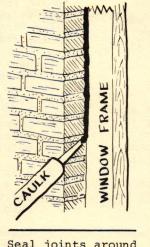
SILLS REQUIRE SPECIAL ATTENTION because they get the heaviest beating from water. If sills are completely bare of paint, start with the waterproofing treatment described above. If there are any cracks or holes, prime them with linseed oil and fill with putty. If there are areas that will need re-

painting, you can also use linseed oil to prime the wood. Allow linseed oil to dry for at

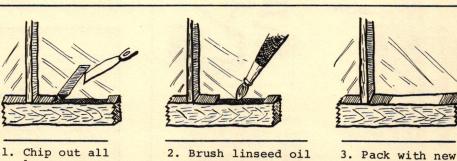
least 24 hours before painting.

on exposed areas.

While working on the sills, check their pitch with a level or a little water. Sills should pitch downward away from the window so that

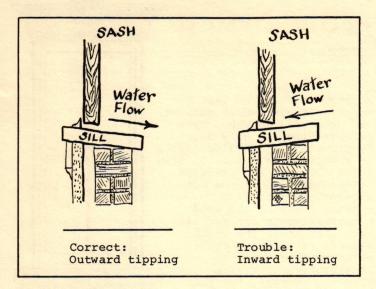


Seal joints around each window frame.



loose putty.

putty; smooth.



water flows away from the house. Sometimes settling and sagging results in sills that tip inward—and that means trouble. For temporary repairs, you can waterproof the sill with wood preservative and linseed oil—and seal cracks with putty and caulk to minimize leakage of water into the frame. But this condition will eventually require replacement of the sill—and possibly the entire frame.

One more word on sills. If you have a wooden sill meeting a stone or brick sill underneath, be sure the crack between the two is

well sealed with caulk.

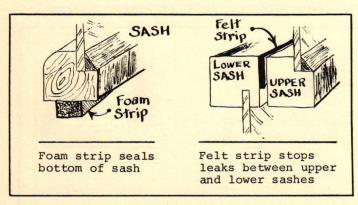
Keeping Cold Air Out

UNFORTUNATELY, PINPOINTING AIR LEAKS is most easily done in the winter when the air is cold. Merely passing your hand around the window frame will tell you where air is coming in. However, winter is an uncomfortable time to do anything about the leaks.

While the weather is still warm, you can spot potential leaks by looking for places

where the sash doesn't seal tightly:

- 1. Do sashes fit snugly in the side frames?
- 2. Does bottom of upper sash mate tightly against top of lower sash?
- 3. Does upper sash close tightly against top of frame?
- 4. Does bottom of lower sash shut tightly against the sill?



ANY PLACE where the windows do not fit snugly is going to be a place where you will have a cold air leak.

If it's a window that you will not have to open during the winter, the simplest way to cope with gaps is to use rolled caulking that is available at most hardware stores. Simply press this material into all the crevices around the inside of the window and forget it until spring.

If you have to operate the window, however, other procedures will be neces-

Weather-Stripping

Weatherstripping can be tacked in place without removing sash from frame

sary. Fabric weatherstripping can be tacked to the inside of the window frame—but the result is really ugly.

sult is really ugly.
For "invisible" weatherstripping, you can do the following:

- 1. Gaps at top and bottom of the window can be sealed by attaching adhesive-backed foam to the top of the upper sash and bottom of the lower sash. If you have trouble sticking on the foam strips because of dirt on the sashes, try putting a coat of contact cement on the sashes before pressing the foam in place.
- Gaps between upper and lower sashes can be sealed by tacking a strip of felt or spring bronze to the top of the lower sash.
- 3. Windows that have too much play at the sides can have weatherstripping tacked in the side channels—without having to remove the window from the frame. You can use felt strips, zinc fringed with felt, or spring bronze for this purpose.

In addition to these gaps in the window frame, a surprising amount of cold air can leak in from the inside moldings around the window casing. Often these leaks leave tell-tale dirt marks on the wall. These can be filled with spackle as they are located.

STRIPPING HINT: Steel wool used to scrape off paint remover during the stripping process frequently leaves fine slivers of steel that must be removed before applying the finish. Passing a strong bar magnet over the surface will usually pick up slivers that have escaped the dust rag.

Quieting A Steam Heating System

Many old houses have steam heating systems that were installed 50 or more years ago. Although steam heat is considered old-fashioned, these systems can be efficient, economical, reliable-and silent-when they're working properly.

When a steam system isn't adequately maintained, however, they can produce a veritable

symphony of thumps, gurgles and hisses when the steam starts to circulate. Even if you have a brand-new boiler, you're likely to have the thump-gurgle-hiss problem. That's because these noises usually originate in the steam distribution system (the pipes and the radiators). The heating plant (burner plus boiler) merely burns the oil or gas to generate steam. The job of the distribution system is to take the steam from the boiler to the rooms where you need the heat.

When the heating plant is replaced, it's usually hooked up to the old distribution system because of the heavy cost of replacing the pipes and radiators. And the old distribution system is the likely source of any noises that

you hear.

Anatomy Of A Steam System

To diagnose the cause of your particular noise, you need to understand the anatomy of a steam

Steam

Rising To

Radiator

STEAM

PIPE

Condensed

Returning To Boiler

Water

heating system.

The distribution system operates in what engineers call two-phase flow. That means there is a gas (steam) and a liquid (water condensed from the steam) both flowing in the same pipe
—and they're going in opposite directions. The steam is rising by convection from the boiler up to the radiators where it condenses-liberating the heat that warms the room. The condensed water flows by gravity from the radiator down through the steam pipe back to the boiler.

Understanding this flow scheme is essential to tracking down the various noises you hear.

Now let's see how you actually go about finding and silencing the sources of your steam

symphony. Curing Thumps And Gurgles

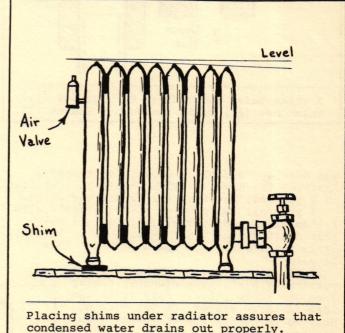
Thumps and gurgles are caused by bubbles of steam slugging through pockets of water. The cure is merely finding where water is collecting

and eliminating these pockets.

First thing to check is water level in your boiler. If it's too high, water can be entrained in the steam and carried up into the distribution pipes amid much sloshing. There's a sight glass on your boiler, and water level should be no higher than the indicated line when the boiler isn't firing. If you fill to

this line while the boiler's firing, you'll end up with too much water when all of the condensed steam returns.

If the gurgles aren't caused by boiler water level, chances are the trouble is in one or more of the radiators. Probably the radiators are tipping the wrong way; i.e., sloping away from the steam valve. This will cause condensed steam to collect at the far end of the radiator, with resulting gurgling as steam bubbles through this little puddle.



condensed water drains out properly.

Cure: Put wooden shims under the two feet farthest away from the steam valve. This makes the radiator tip slightly toward the valve (check with a level). Result: All condensed steam will drain back to the boiler.

Silencing Those Hisses

The only time a radiator should hiss is from the air vent valve—just as the steam is starting to rise. But after

two or three minutes the air valve should close with a notice-

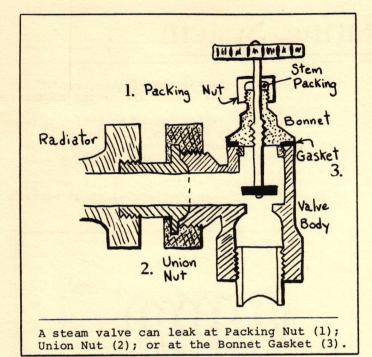
able pop.

Any continuous hissing means trouble somewhere. If the continual hissing comes from the air valve, it's a signal that the valve is shot and should be replaced.

An air valve is an inexpensive hardware store item, and replacement is as simple as twisting the old one out and threading the



An air valve can be stuck open or stuck closed.



new one in. Usually a wrench isn't needed. Caution: The new air valve should be installed in a vertical position for proper operation.

If your air valve never hisses, that's also a sign it should be replaced. An air valve that doesn't hiss isn't venting air. Steam can't enter and radiator won't heat properly.

If the air valve isn't the source of your

particular hiss, it's probably coming from the steam valve. This valve can leak at three places: At the packing nut, union nut or bonnet gasket (see

diagram above). A leak at the packing nut is most common-and easiest to fix. First, try tightening the nut with a wrench. (Be gentle! Those are brass threads.) By tightening, you compress the stem packing a little more and this usually seals off the leak. But there comes a time when the stem packing is so old that no amount of tightening is going to stop the leak. Then it's time to

repack the stem. First, be sure the boiler is turned f. Do this by either throwing the Off/On switch or by turning the thermostat to its lowest setting.

Stem packing is a special graphiteimpregnated cord available at hardware stores. To replace the packing, back the packing nut off completely and remove all of the old packing.

Wrap two or three turns of the new packing around the stem clockwise. Tighten packing nut snugly—but not too tight.

After you've turned the boiler back on, wait a see if the new stem packing leaks. If it to see if the new stem packing leaks. does, tighten down on the packing nut until the hissing stops.

You may also find steam leaking at the union between steam valve and radiator. (And water will probably be dripping on the floor.) First try tightening the union nut with a monkey wrench. Don't tighten too hard, though, because the threads are brass and it's fairly

easy to strip them.

If the hiss doesn't stop, it means somebody else has already stripped the threads. At this point, you really should replace both the steam valve and union. For a do-it-yourselfer this is quite a production. But if you don't want to spend the money for a plumber to do it, you might get by with the following stop-gap:

Back the union nut off completely with a monkey wrench. Then wrap threads on the union with plumber's twine (available at hardware stores). Use only one strand from the multi-stranded twine, running it in the groove of the thread. Apply generous amounts of pipe dope to the threads, then tighten union nut snugly.

Although this is a stop-gap, a repair like

this can last many years.

Other Gurgle-Causers

Improper operation of the steam valve can also lead to gurgles and bangs.

Frequently people try to regulate the heat in a steam radiator by partially closing the valve. This practice will only lead to grief. A steam valve is meant to be completely on or completely off.

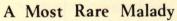
A partially closed valve may impede the return of condensed steam back to the boiler. As a result, you get hammering when the upcoming steam bubbles through the accumulated water adjacent to the partially closed valve.

 $\mathbf{Y}^{ ext{ou}}$ may inadvertently have the same thing happen with an old steam valve that has a worn-out seat. Result is that the valve won't shut off steam-tight. So when the valve is

closed, rising steam can seep in, but the condensed water can't flow out. Water accumulates inside the radiator, and the steam leaking by the worn-out seat through the condensate can create quite a racket.

The only cure-short of replacing the valve entirely-is to leave the valve fully open all the

time.



Most rare type of problem with a steam valve is a leak between the bonnet and valve body. Cause: The gasket between these two parts has deteriorated.

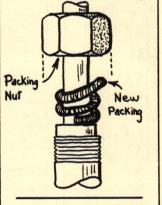
You can make a satisfactory replacement gasket out of stem pack-ing. Here's how:

1. Back bonnet off, using a large adjustable wrench, so there is a 1/8" gap between the valve body and bonnet.

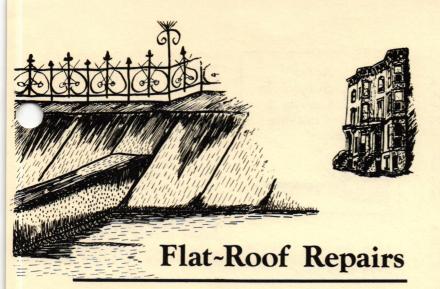
2. Remove what's left of the old gasket.

3. Wrap one turn of stem packing—liberally daubed with pipe dope-around the bonnet threads, overlapping the ends of the packing about 1 in. Be sure to wrap the packing clockwise.

4. Tighten bonnet down snugly.



Leak at valve stem can be fixed with two turns of stem packing. Retighten Packing Nut after installing packing.



WHILE MUCH IS PRINTED in magazines about fixing shingle roofs, little is said about repair of flat roofs—the type found on many old row houses.

A flat roof is usually constructed of one of two types of materials:

- a. Tar-and-Gravel
- b. Roll Roofing

Roll roofing is the type more frequently found today; tar and gravel is an older type of construction. Since roll roofing is more common, we'll look first at fixing this type of roof.

Roll roofing—which basically is felt impregnated with tar—is subject to cracking and blistering due to action of the sun and wind. By checking your roof a couple of times a year you can locate potential trouble spots before they become actual leaks.

Flat-roof repairs are based on generous use of roofing asphalt (compound). There are two basic grades:

- Trowelable Asphalt—This is the thickest type. It contains asbestos fibers to give the coating more body. As the name implies, it's applied with a trowel. It's the type used in most roof repairs.
- Brushable Asphalt—Thinner in consistency,

this is made to be applied with a long-handled brush. It's used mainly in preventive maintenance coatings.

The most serious problem with roll roofing is cracking and blistering.

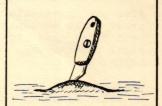
In blistered areas, the roofing felt has separated from the lower layers and thus is more vulnerable to cracking and leaks. Blisters can be repaired as shown at the right.

If the patch is large (over 8"), it's advisable to cover the patch with a new piece of roofing felt, which is nailed in place and covered with asphalt.

If the area is too badly worn or frayed for the slit-and-patch technique, then part of the roofing has to be replaced. Carve out a square-shaped section as shown in the diagram—lifting out only as many layers as are damaged.

Shape matching patches from new roofing felt, cutting out as many as there were layers removed. Each patch should be firmly embedded in asphalt; stamp on them with your feet to ensure firm anchoring.

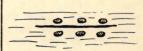
PATCHING BLISTERS



Slit blister down the middle.



Force asphalt under slit.

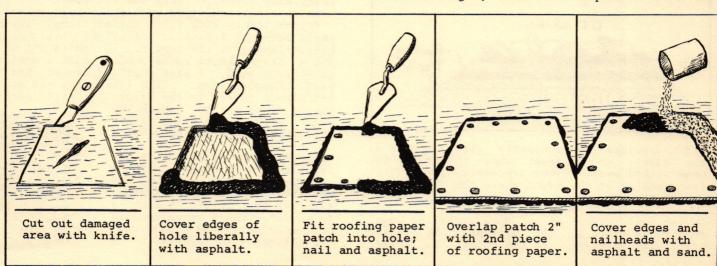


Nail on both sides of cut.



Cover nails with asphalt.

Cut a final patch that is 2" larger than the opening cut in the roof. Spread asphalt under all the edges, then nail in place. Cover all



nailheads and patch seams with roofing asphalt.

DURING YOUR ROOF INSPECTION, you should also check the edge for any signs of curling that would allow wind-blown rain to be forced under the roof. If edge is curling, nail down and cover nailheads with asphalt.

Also pay particular attention to the flashing areas where skylights, chimneys, hatches and vent pipes meet the roof. If you detect any signs of cracking, daub liberally with roofing asphalt.

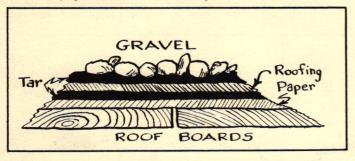
When applying roofing asphalt, brush well with a whisk broom to remove all dirt and dust in order to ensure good adhesion. If after brushing the surface still seems exceptionally dry and dusty, you can brush on a thin coat of benzine paint thinner or turpentine to increase adhesion of the asphalt.

The roofing asphalt you use for patches is also subject to drying and cracking from the sun. To retard drying, you should cover the final layer of roofing compound with sand or gravel. This material helps reflect the sun's rays. Alternately, you can paint the patch with brushable roofing coating every year or so. This helps restore the oil to the asphalt.

NAILS USED in roofing work, of course, are the broad-headed galvanized roofing nails. The broad heads provide maximum holding surface for the roofing felt, and the shanks have serrations that make them more resistant to working loose. These nails are driven down flush with the top of the roofing felt, but never so deeply that they cut into the roofing material.

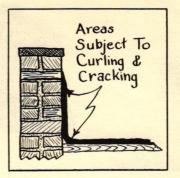
If YOU HAVE A TAR-AND-GRAVEL ROOF, it's probably many years old and should be treated gingerly. If you call in a roofer to repair it, he will probably want to replace it with roll roofing. This will be doubly expensive because they first have to cart away all the gravel.

However, a tar-and-gravel roof—properly maintained—can last indefinitely. This type of roof is composed of several layers, as shown in the diagram. The gravel's function is to reflect the sun's rays and retard the drying and cracking of the tar layers. It's the tar that actually provides the waterproof seal.



Tar-and-gravel roofs usually give trouble at the edges, and in areas where the gravel has been washed away. They are especially subject to cracking at the edges where the roof curls upward at a parapet.

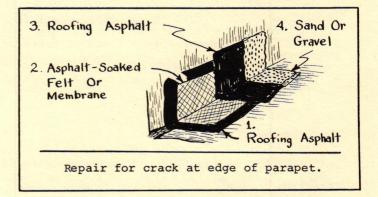
If you find cracks at an upward-curling edge, repair as shown in the diagram. To provide structural integrity to the patch, use either



roofing membrane (available at building supply stores), or ordinary felt thoroughly soaked with asphalt. (Regular roofing felt is too stiff to adhere tightly to the curve.)

If there are any places where the gravel has washed away, that area should be coated with brushable roofing coating, then covered with

loose gravel scavenged from another section of the roof. If there's no loose gravel you can find, then sprinkle the area with sand.



No matter how careful you are during these roof repairs, you and your tools are going to come down covered with asphalt roofing compound. Both you and your tools are readily cleaned up with benzine paint thinner, however.

Chimney Check-Up

WHILE you're inspecting the roof, check on the condition of your chimneys. Are flashings watertight? If not, coat liberally with asphalt roofing compound.

asphalt roofing compound.

Also check condition of the mortar joints.
Any soft or loose mortar will admit water during the winter, and when it freezes more loosening will result. Chip out all loose mortar with an old screwdriver or a small cold chisel.

Repack joints with fresh mortar, employing a small pointing trowel. Wet bricks thoroughly before laying in the mortar. If you're not using a pre-packaged mortar mix, make a mortar of 3 parts sand, 1 part portland cement and ½ part hydrated lime. (The lime makes the mortar adhere better to the bricks.) After packing in fresh mortar, smooth the

White Malada

joint with a pointing tool ("slicker") or a wooden dowel.

Once all the mortar joints are dry, coat the chimney with a colorless masonry sealer to prevent further water penetration. Alternately, if the chimney is in an area where appearance is not important, you could coat the chimney with asphalt.



Ceramic Tile Installation

THIS IS THE BASIC REFERENCE used by tile contractors and builders for installing ceramic tile. Although intended for professional use, the information in it is valuable for the competent do-it-yourselfer who wants to make his own tile installation. Handbook covers both the "glue job" (setting tile in adhesive) and the "mud job" (setting tile in mortar). Shows basic construction of both interior and exterior floors, patios, bathtubs, interior and exterior walls, and countertops. Reviews all basic materials used for setting and grouting tiles. Does not, however, get into techniques for tile cutting, setting or grouting. Free. "1973 Handbook For Ceramic Tile Installation," from Tile Council of America, P.O. Box 326, Princeton, N.J. 08540.

Home Security

SOME SENSIBLE SUGGESTIONS for increasing home security is contained in this handy 20-page booklet. Outlines 10 basic steps you can take so that your house doesn't present a tempting target for burglars whether you're at home or away. Also contains a brief review of locks and electronic security systems. Emphasizes the need for creativity in applying these principles, because the would-be intruder is often ingenious. Free. "How To Make Your Home Secure" from Eaton Corp., Lock and Hardware Div., Yale Marketing Dept., P.O. Box 25288, Charlotte, North Carolina 28212.

Wood Paneling

CREATIVE WAYS TO USE WOOD PANELING is set forth in two companion booklets. In one, 21 color photographs show the different varieties of wood paneling available and the effects that can be achieved. Companion booklet gives clear directions for installing wood paneling, plus materials needed. Diagrams make the directions easy to follow. Price: 25¢ in coin. "What You Can Do With Paneling" from Western Wood Products Assn., Dept. 504-12P, Yeon Building, Portland, Oregon 97204.

Spiral Staircases

SPIRAL STAIRCASES ARE GREAT SPACESAVERS, indoors or out. 14-page brochure shows newest twists in cantilevered iron spiral stairs. Units are delivered completely assembled to ensure rigidity and speed of installation. Shows various decorator ironwork options that are available. Contains specification form that enables you to get a free quotation. Price: 25¢. "Spiral Staircases," from Whitten Enterprises, 160 Ben Mont Avenue, Bennington, Vermont 05201.

How To Do Electrical Wiring

WHETHER YOU WANT TO TACKLE WIRING jobs yourself, or just want to be able to talk intelligently to an electrician, this 50-page booklet is a

good starting point. It starts with sizing of the entrance panel and goes on to cover such things as: wiring tools; boxes and cables; replacing a wall switch; replacing an outlet; mounting new boxes in old walls; connecting wires and cables; adding wall and ceiling fixtures; adding a wall switch to a ceiling light plus a number of other wiring tips. Mastering the contents of this booklet provides a good grounding in basic principles for the do-it-yourselfer who plans to go on to more sophisticated wiring manuals. Price: 85¢. "How To Do Electrical Wiring" from National Plan Service, 1700 West Hubbard St., Chicago, III. 60622.

Electrical Built-Ins

COLORFUL ILLUSTRATIONS OF BUILT-IN electrical products can be valuable on remodeling projects. This 72-page product guide contains illustrations of an extensive line of intercom systems, door chimes, exhaust fans, range hoods, electric heaters, alarm systems, central cleaning systems, bathroom cabinets and mirrors, decorative lighting, recessed lighting fixtures. Accompanying articles give design and planning tips on how to use these products. Price: \$1.00. "Built-In Products Guide" (AP-73) from NuTone, P.O. Box 9050, Cincinnati, Ohio 45209.

Bathroom Planning

FULL LINE OF BATHROOM FIXTURES and how to integrate them into your overall planning concept is shown in an attractive 35-page color booklet from Eljer. Contains photos and plans for 10 different bathrooms, ranging from a 4' x 4' powder room to a 15' x 16' luxury bath. Also contains some helpful hints on bathroom planning: Wall materials, floor materials, color selection, medicine cabinets, lighting, towels and accessories. Gives details on fiberglass bath and shower units, types and styles of toilets available, lavatories, and bathroom fittings. Includes helpful glossary of plumbing terms. Price \$1.00. Ask for "The Eljer Plan" (Form #201) from Eljer Plumbingware, 3 Gateway Center, Pittsburgh, Pennsylvania 15222.

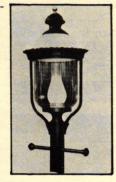
Guide To Government Publications

A PRODIGIOUS AMOUNT OF INFORMATION on home maintenance and improvement, gardening, health, food and nutrition is available from the U.S. government. The only problem is knowing what's available. This 14-page booklet gives capsule descriptions of 91 consumer-interest pamphlets. Some sample booklets available: Construction Guides for Exposed Wood Decks; Making Basements Dry; Home Heating Systems; Interior Painting; Planning Your Home Lighting; Wood Decay in Houses—How To Prevent And Control It. Booklet also contains convenient order form. (Note: The fulfillment of mail orders is not noteworthy for its speed, however.) Price: Free. "Consumer Product Information" from Public Documents Distribution Center, Pueblo, Colo. 81009.

Products For The Old House

Gas Lamp Reproduction

An authentic reproduction of a Philadelphia street lamp has been produced by the Progress Co. Lighting Electric....the globe is onepiece and shatresistant ter with clear bottom and white Fixture is 13½ in. dia.



and 28½ inches high. Price is approximately \$109.25 at retail lighting stores.



Outlet Tester

It's easy to tell if your home has any ungrounded electrical outlets with this new plug-in tester. When plugged in, red light glows if outlet isn't properly grounded—alerting you to possible need for electrical work. Plugs directly into three-prong receptacle; can be used on two-prong outlets with standard adapter. \$6.95 from Alco Electronic Products, 1551 Osgood Street, North Andover, Mass. 01845.

Remodeling Plan Kit

There's a "home-a-minute" kit you can use to visualize your home remodeling plans. Kit contains floor grid plus 3-dimensional cutouts for partitions, doors, windows, cabinets, furniture and fixtures. Build, dismantle and reassemble any number of floor plans at 1/4 scale. Kit includes 65-page book to help figure remodeling costs. \$3.95 plus 50¢ postage from J. W. Holst, 1005 E. Bay St., East Tawas, Mich. 48730.

The Care And Cleaning Of Brass

RASS HINGES, door handles, brass beds, lamps—a joy to behold when they are polished and shiny, but it's a real job to keep them that way.

Your house probably has its share of tarnished brass right now—so what's the best way to get it back to looking like new?

If the piece is terribly tarnished, or terribly convoluted so that it's difficult to use brass polish, consider dipping. Make a dipping solution consisting of ½ pint of vinegar and 4 tablespoons of salt for every quart of water used. (The vinegar and salt combine to make a dilute solution of hydrochloric acid that dissolves the tarnish.)

Since the dipping solution is acid, it's best to place it in a plastic container. Leave the brass object in the solution overnight. Rinse with plenty of clear water, then finish with a light once-over with a commercial polish such as Hagerty's.

If the brass piece is too big to be dipped, you can apply a brass polish and lots of elbow grease. Or, to speed matters, you can use a fine circular wire brush chucked into an electric drill to rub in the polish. This will make short work of the tarnish. The wire brush will leave very tiny scratch-

es on the surface of the brass. but for most items of bras hardware this will not matter. Finish the job with a light rub of polish, using a soft cloth.

Once your treasure is bright and shining, you must make a strategic decision: To lacquer or not to lacquer? Lacquer greatly retards the tarnishing process. But brass will eventually tarnish under the lacquer—and then you have to remove the lacquer before you can get at the tarnish.

Most brass aficionados opt for the clear lacquer finish. A properly applied finish will last for several years before it has to be stripped off.

The simplest way to apply a lacquer coating is to use the clear acrylic spray that comes in an aerosol can. They are sold under a number of trade names, such as "Krylon." Before spraying, make sure that any traces of dried brass polish have been removed by dusting with a soft cloth.

Several thin layers of the acrylic are far superior to one

coating, providing a much denser barrier against the air. Apply 3-4 thin coats, allowing at least an hour's drying time between coats. When the time comes to strip off the acrylic coating, any commercial paint remover will do the job.



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The Old-House Journal, Dept. 7, 199 Berkeley Place, Brooklyn, N. Y. 11217 Maybe you have a friend who's thinking about buying an old house—and needs encouragement.

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