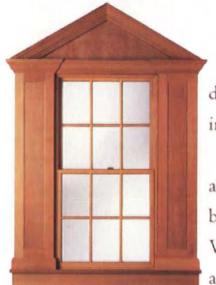




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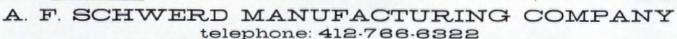
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ROOFING

Composition Shingles of the 1920s and '30s by Gordon Bock

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How To Preserve Your Marriage While Restoring Your Old House

by Joan Nyberg

When old-house living interferes with getting along

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Cover: In Cape May, New Jersey, a c. 1880 Gothic Revival gets a new cedar roof - but will it last? Photo: Gordon Bock

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EDITOR	AND	PUBLISHER	Patricia Poore
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SENIOR EDITOR
PRODUCTION EDITOR
ASSOCIATE EDITOR
EDITORIAL ASSISTANT
SUZARNE LA ROSA
GORDON H. Bock
Cole Gagne
Jeffrey Wilkinson
Lynn Elliott

CONTRIBUTING EDITORS John Leeke Sanford, Maine

> J. Randall Cotton Philadelphia, Pa. Jonathan Poore Gloucester, Mass.

CONTRIBUTORS James C. Massey & Shirley Maxwell

Strasburg, Virginia Scott Kunst Ann Arbor, Michigan

ART DIRECTOR Marshall Moseley

OFFICE MANAGER
CUSTOMER SERVICE
ASSISTANT TO THE PUBLISHER
Julie E. Stocker
Jeanne Baldwin
Brian Jacobsmeyer

CIRCULATION DIRECTOR Rosalie E. Bruno

ADVERTISING DIRECTOR William J. O'Donnell

NATIONAL SALES MANAGER Becky Bernie
ADVERTISING PRODUCTION MGR. Ellen M. Higgins

PRODUCTION ASSISTANT Joanne Orlando
SALES ASSISTANT Annemarie Mullan

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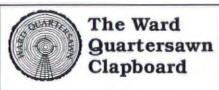
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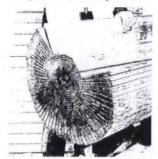
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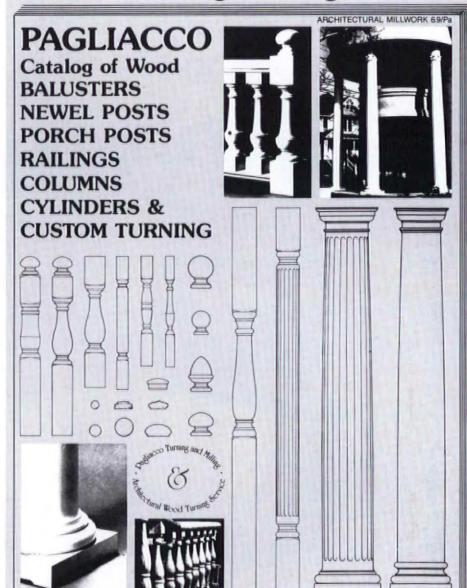
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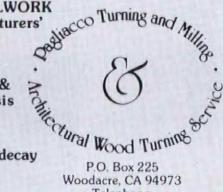
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EDITOR'S PAGE

I fell in love twice last winter, both times on ski vacations. The affairs were short-lived. They really couldn't measure up, you see, to that which I'd

left at home.

These bittersweet affairs were not with people. (That, actually, would be easier to confess to this audience.) Nor was I undone by the speed of the downhill, by suggestions of a bonnier life outside New York, or by the daring of a onepiece fuchsia bunny-suit.

It's hard for me to admit this, but I fell in love with the condos.

I couldn't have predicted my infatuation. Please remember that I had come from a house in the midst of renovation - over five years of it. Accustomed to dropcloths, I was greeted in the condo by plush blue carpeting. In place of broken plaster. I found walls that were unblemished and true. In the bathroom I found scented soap instead of degreaser.

At first, I loved returning to my condo after a cold day's skiing. I soaked in the Jacuzzi and padded around in

Seventy-nine years old and not even middle-aged, my real bouse is a solid place to call bome.



On a ski trip, a condo is temporary respite from restoration chaos. (You don't need workboots to walk through

bare feet. What infinite relief: Wherever I looked, my eyes met a finished surface.

But after a day or two, I started to notice things. That my nose was running and my eyes tearing because the place smelled like the chemicals inside a new car. That fingerprints showed up on the Sheetrocked half-

ut not for long

the living room.)

wall by the staircase because / it had neither a cap nor a handrail. That the rolling doors in front of the washer fell off their rollers. That

what I'd first seen as clean and unencumbered was simply cheap. That the place felt uncomfortably ...temporary.

I thought about my old house that I loved to hate. Even with its dirt and half-finished projects, it's more engaging than this condominium could ever be. It has a history, easily read. And because it's worthy of the work I am

putting into it, it will surely have a future. It's full of things - oak woodwork, brass hardware, and coved plaster — that will not only last long but will also age gracefully. (No one ever talks about the patina on vinyl, the glow of old fiberglass!)

Yes, newness has an undeniable appeal. But for me the appeal of the condo was mingled with sadness at its certain fate. Twenty years hence, it will be either a wreck or several times rebuilt. This sadness told me I'm an old-house person at heart,

irrevocably married to the idea that the place where I live should last

> longer than I, that my home should be worthy of my efforts to care for it. I know that I will leave it better than I found it, my family's memories part of the fabric within.



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LETTERS

Cornstalk Fence

Dear Ms. Poore:

The article "Architectural Iron Work: Cast & Wrought" in the January/February 1990 issue was most informative.

The General Phineas Banning Residence Museum is pleased to inform your readers that it is the owner of a third-known cast-iron cornstalk fence. Its fencepost bases are embossed "WOOD / MILDENBURG / CO. NEW ORLEANS, LA." Our provenance indicates that the fence originally stood on a site at the corner of St. Charles Avenue and Julia Street in New Orleans, before being purchased circa

1910 by Phineas Banning's son William for his home at 31st and Hoover Streets in Los Angeles (also demolished). It has been displayed at the Banning Residence Museum since its donation and installation in 1983-84.

We would be most interested in learning of any connections between the above-mentioned foundry and the Wood & Perot Foundry listed in the article. Also, are any of your readers aware of any other extant cornstalk fences?

 Ian I. Losi Curator, Banning Residence Museum Wilmington, Calif.



Dear OHJ,

The purpose of this note is to thank J. Randall Cotton and Matt Schultz for their great article, "Architectural Salvage to the Rescue" [March/April 1990]. The contents were a great uplift to me, because you included me in the Architectural Salvage Sources. My company's name has changed, however, from "Old Bright Used Lumber & Brick" to "Centre Mills Wrecking & Salvage." But I can still be reached at P.O. Box 16, Aspers PA 17304; (717) 334-0294 (between 7 and 9 PM, please).

Here's hoping for great success in your future endeavors.

> John R. Longanecker Gettysburg, Pa.

Owners Wanted

Dear OHI:

Please tell your readers that there are wonderful old homes here in Savannah. The lovely large houses that I see standing here for sale for months are unbelievable. Prices are cheap compared to other cities, and there is a nice peaceful atmosphere here. We badly need dedicated, caring, hard-working people to move here, buy and fix up these houses, and save the area from further deterioration. (Houses also go begging in Charleston, West Virginia - good ones sell for as low as \$40,000.)

> Caroline McDonald Savannah, Ga.

Native American Log House?

Dear OHI.

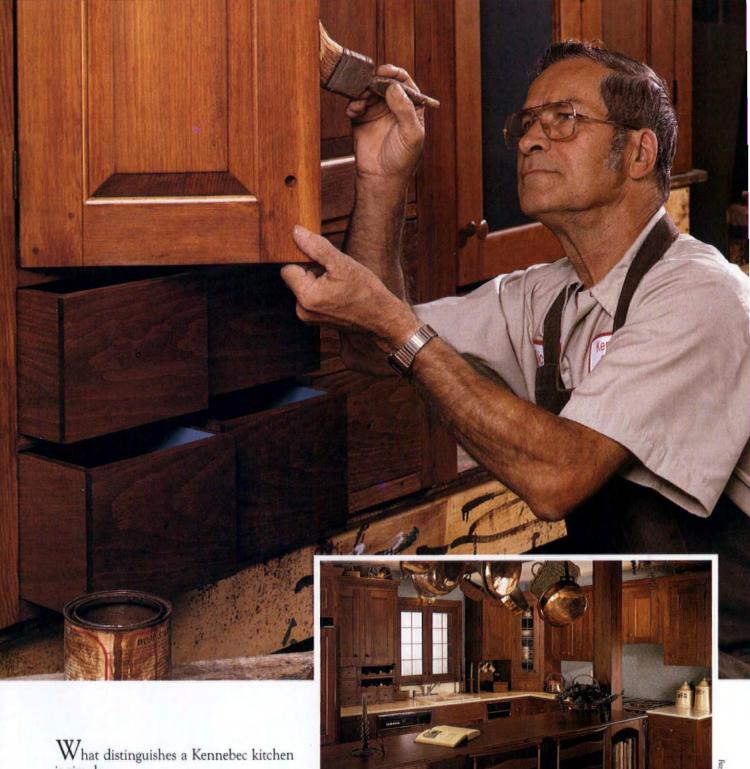
We enjoyed J. Randall Cotton's article, "Log Houses in America," and thought you might be interested to hear about the log house we live in. We bought the house in 1950 and during a repair, we discovered a log house hidden under the layers of remodeling. It had been used as a barn

continued on page 10



California's General Phineas Banning Residence Museum (left) sports a cast-iron cornstalk fence imported from New Orleans (detail below).





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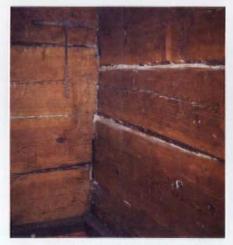
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LETTERS

continued from page 8 at one time, and the interior was whitewashed.

Our home is similar to Mary Jamison's "The White Woman of the Senecas," and identical to the "Seneca Council House," two log buildings on display at Letchworth Park in New York State. We have restored and exposed the interior of the original structure, and for the past 25 years have tried to find proof that it is a Seneca or Cayuta Council House. (We are located ten miles from Montour Falls, New York, which was the heart of the Seneca Nation.)

Our cabin has an east door, a west door, and a beamed ceiling with spacing of three feet between the beams. The central area of the beamed ceiling shows evidence of a smoke hole above where we believe the central fire would have been. The same area in the beams shows





These two glimpses of the interior of the Durnins' New York State log bouse demonstrate the precision and skill with which the logs were hewn and the ceiling beams squared and dressed.

notches where some form of ladder may have been used to reach the loft. The loft boards run north and south and appear to be original. The

second-storey logs, in the same area, are smoke darkened, similar to structures in Deerfield, Massachusetts,

continued on page 12

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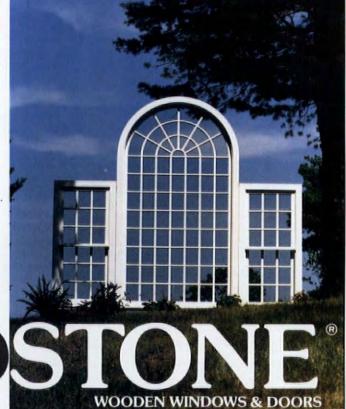
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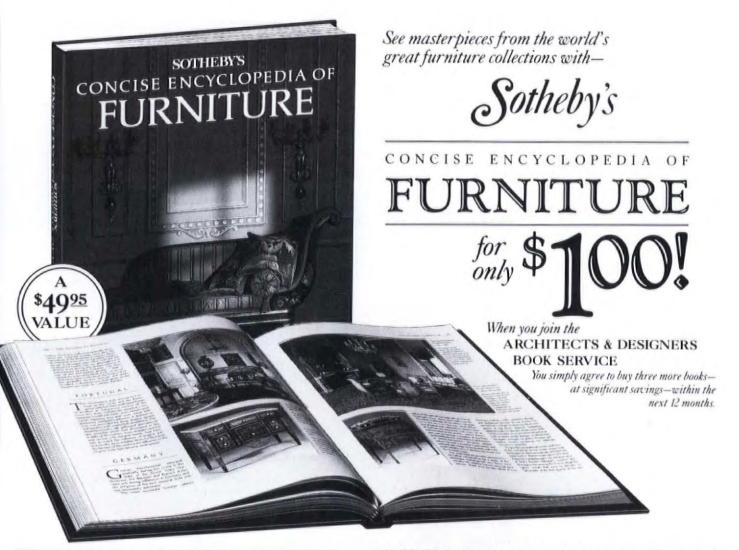
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LETTERS

continued from page 10 which were built in the 1600s. There is no evidence of any type of stove or chimney — not even a "ghost" or shadow of one.

The logs are hemlock, averaging 16 feet high, and were hewn with a broadax. The ceiling beams were squared and then dressed with an adze in a very workmanlike manner. They were set in the sidewalls in notches and locked with wedges to prevent the walls from shifting. All the work was done with precision, which leads us to believe that our house wasn't a settler's cabin: Settlers' cabins were more crudely built of unhewn logs.

Enclosed are some photos of the interior. We would appreciate any information that would prove that this cabin is of Seneca origin.

— John J. Durnin Beaver Dams, N.Y.

Utah Log Houses

Dear Editor:

We read with intense interest Mr. Cotton's article, "Log Houses in America," in the January/February 1990 issue. We wonder, however, if



The Andersons restored their Utah bouse, a former granary, and decorated it in the style of an 1860s log bouse.

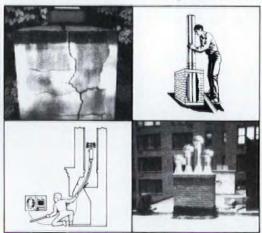
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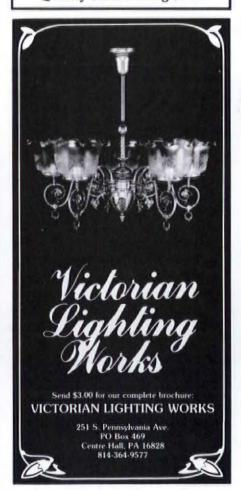
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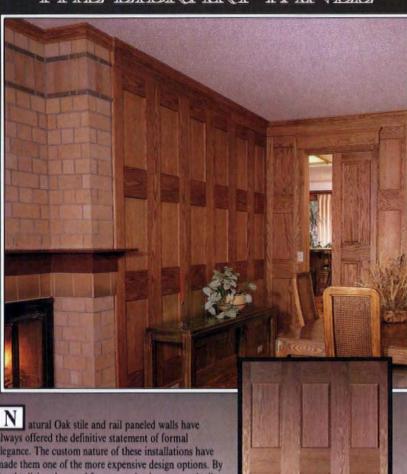
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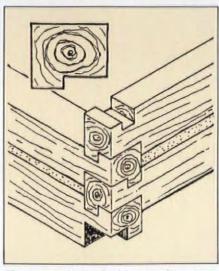
- LETTERS

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he is aware of yet another kind of log structure, many examples of which still stand in central Utah: the log granary (grainery), built by Mormon immigrants from Norway around 1865-70 and later. These almost fit Mr. Cotton's description of a log house (as opposed to a cabin), with hewn logs tightly and neatly joined together at the corners using yet-another kind of interlocking notch *[sbown at right]*:

Usually, these log granaries were windowless, the pitch of the shingle roof was 45 degrees, and there was a loft with an opening directly ahead of the front door as you entered. The gable ends were done three different ways that we've seen: vertical boards, horizontal boards, or horizontal logs.

Inside, the main room was typically divided into two identical storage compartments, one on either side with a passageway between, having an open doorway into each compartment. These dividing walls were built of wide planks, like the walls in



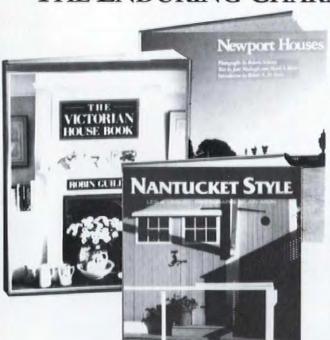
The granary's interlocking notches guaranteed a snug and solid joint.

the old log houses.

We have such a log granary, built circa 1865-70, on our property in Ephraim, Utah, which we have restored into a log house resembling some early Utah ones and furnished appropriately. The outside measurement is approximately $16' \times 20'$. We added 100-plus-year-old six-light windows (four upstairs, four downstairs) and kept one plank wall to divide a small kitchen and bathroom from the living room. We built another plank wall to divide the bathroom and kitchen. The loft has become one large bedroom. Everything we put into the building is about the right age and style; even the turning corner stairs are old pine ones, very shallow and steep and much worn down in the middle of the treads. We had a fireplace built of large old

continued on page 16

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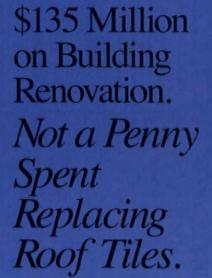
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LETTERS

continued from page 14 bricks from a torn-down 1860s adobe-and-brick house near ours. The fireplace is patterned after an old one in a log house in the Salt Lake City area. All in all, the little log house has great warmth and charm and evokes a feeling of the early days of Utah. We enjoy our log house ourselves as well as rent it out to travelers as a part of our bed-and-breakfast business here in historic Sanpete County. People have been utterly captivated by its charms. And so are

Just thought you'd like to know about this other style and use of an old log structure. If the author has any information he could tell us about these granaries, we'd love to learn more.

 Sherron and McKay Anderson Ephraim, Utah

Geography Lesson

Dear OHJ,

Your "Architectural Salvage Sources" map and address list [March/April 1990, page 36] are out of whack! Chicago and vicinity has five listings, yet the map indicates three. I suspect Milwaukee and Chicago were incorrectly identified on the map. (Chicago is in Illinois and Milwaukee is in Wisconsin.) Instead of "Architectural Salvage to the Rescue," perhaps the title of the piece should have been "Geography to the

— Richard Poltorak Oak Park, III.

(Oops is right! The callouts for Illinois and Wisconsin are reversed on our map. Thank you for setting the record straight. - eds.]

Blacksmith Update

Dear OHJ,

The listing of "Architectural Iron Sources" in your January/February 1990 issue included information regarding the publication The Anvil's Ring. But when I tried to contact them at the address given, the letter was returned to me because their forwarding address had expired. Do you have the new address for Artists, Blacksmiths Association of North America and their publication?

Your assistance in this matter will be most appreciated.

— Abraham Scherr Tampa, Fla.

(Yes we do. The new address for The Anvil's Ring is 268 Chambers Building, Dept. OHJ, University Park, PA



ever be loud. While it's highly unlikely we'd ever build a fan as loud as the one above,

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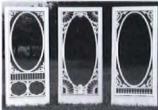
MAY/JUNE 1990

Everything Victorian









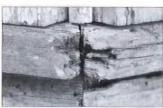
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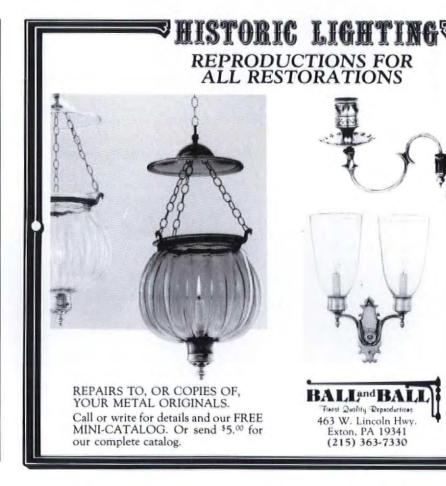
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RESTORER'S NOTEBOOK

Gauging Roof Pitch

Sometimes you need to know the approximate pitch of your roof, so you can plan for additions, order suitable roofing — things like that. Pitch can be calculated with a 6-ft. folding rule. Just stand across the street from your house, form a triangle with the rule and hold it at arm's length. Align the roof slope with the sides of the rule, making sure you hold the base of the triangle straight.

nails-through-boot-&-foot incidents. Here's the play: Draw around your bare foot on a piece of thin steel, such as the heavier grade of hot-air duct. (Some folks use a thick aluminum cookie sheet.) Cut out the piece and trim it to fit inside your boot. Glue felt on both sides for comfort. You now have nail armor.

Does it work? Ten years ago, I was helping take apart an old warehouse for its 26-foot-long, doug-fir, 4×14 metal liners had many dents, but no punctures. 'Nuff said. (And a lesson learned in momentum.)

— J. Baldwin Sausalito, Calif.

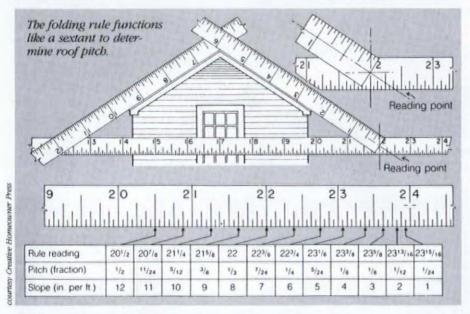
De-Glazing Shortcut

To salvage the glass in an old window, you must remove the glazing compound. My method is to build a box with 2×4 sides and a plywood bottom just large enough to hold one sash, and line it with 4-mil poly drop cloth (the kind that comes in rolls). I place two layers over the box with plenty of poly hanging over the sides, and press the plastic into the box, forming a shallow pan. Then I staple the plastic to the top edge of the 2×4s that form the side of the box, and pour in paint remover to a depth of about 1 inch. I carefully place the sash, glazing side down, in the box, cover the box with a piece of plastic, and let the sash sit for about four or five hours. When I lift out the sash, the glazing falls right off. (If yours should still stick, let the sash soak in the box a little longer, until the glazing compound is completely softened.) I brush the excess paint remover back into the box for the next sash and use the remover over and over.

If you're refinishing the sash, merely remove the glass and replace the sash in the box. Remove the paint just as you did the glazing; do one side at a time and let the sash stay in the box long enough to soften all the layers.

Paul Bennet
 Clarkson, Mich.

TIPS TO SHARE? Do you have any hints or short cuts that might help other old-house owners? We'll pay \$25 for any how-to items used in this "Restorer's Notebook" column. Write to Notebook Editor, The Old-House Journal, 435 Ninth Street, Brooklyn, N.Y. 11215.



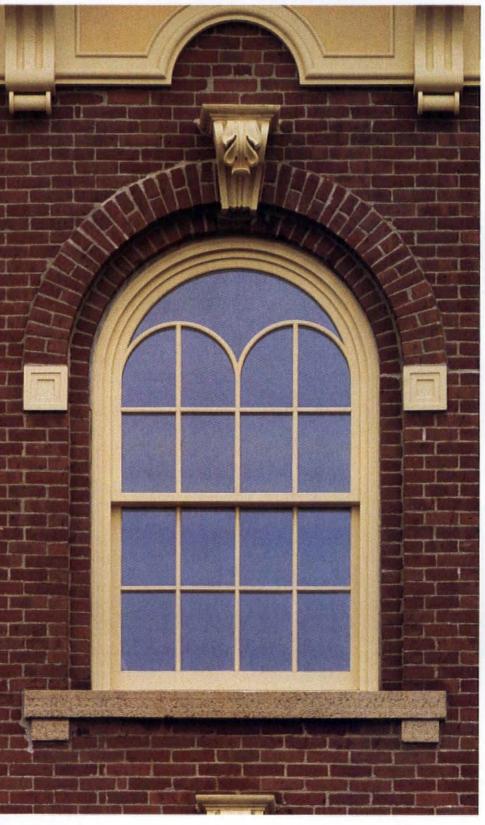
Take a reading on the base section of the rule by noting the reading point on the rule. Take this reading point and compare it with the chart above to get the approximate pitch and rise per foot of run. In this example, the reading point is 22. The pitch of this roof is designated as ½ or a rise of 8 inches per foot of horizontal run.

Joseph V. Scaduto
 Lynnfield, Mass.

Saving Soles

Bill O'Donnell's escapade in the January/February 1990 *OHJ* "Editor's Page" put me in mind of a trick taught me by an ancient Jamaican lumber-salvage man — a line of work that couldn't be worse for beams. I was busting out a secondstorey window frame with a ten-lb. sledge, swinging up from the floor full power to remove the header, when the entire window frame fell out. I had a stroke launched irretrievably, and hit only air where the header had been seconds before. Out the window I went, still clutching the sledge, doing an ungraceful Mary Poppins bit. Fortunately, the debris box was under that window, and, fortunately, it was nearly full. Unfortunately, it was full of splintery, nail-ridden scraps, upon which I landed hard, but on my feet. Friends rushed over to help, but I couldn't move - I was literally nailed to the debris by the soles of my jungle boots. No holes in me, though; the

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— OUTSIDE THE OLD HOUSE

by Scott G. Kunst

lovingly restored, furnished with a homey porch swing, a couple of wicker chairs, and a luxuriant fuchsia . . . in a tacky, modern plastic pot.

Though practical, plastic hanging pots can diminish the ambiance of any old porch. But there is an easy, historical alternative.

Moss-lined hanging wire baskets graced porches throughout the late-Victorian and post-Victorian eras. Unfortunately, they tended to drip muddy water all over and dried out so fast that twice-a-day watering was often required. Now, however, you can combine the antique look of a moss-lined basket with the convenience of a plastic pot. Here's how.

Assemble the Materials

If local garden centers and florists don't stock hanging wire baskets — or won't order them for you — try these mail-order sources: John Scheepers, RD 6, Phillipsburg Rd., Middletown, NY 10940 (catalog, \$3); and Mellinger's, 2310 W. South Range Rd., North Lima, OH 44452 (catalog free). Twelve-inch wire baskets are most common; yours will need to be at least an inch or two wider than your plastic pot.

Sheet moss usually can be found at garden centers and florists. A sphagnum moss harvested in sheets, it compacts and wears away over time, so purchase about twice as much as you will need to line your basket.

You will also need a brown-paper grocery bag, a few feet of small-gauge chain from a hardware store, and a plant in a plastic *banging* pot. The lower, broader profile of these pots fits into wire baskets better than their taller, window-sill cousins.

For plants, historical choices include fuchsias, ferns, ivy-leaved geraANGUE HANGUE BASKES

STORMARCH OF THE PROPERTY OF THE PROPERTY

icum 'Variegatum,' and mixed annuals, but almost anything looks authentic in a moss-lined basket (except impatiens).

Line the Basket
Starting at the bottom, first line the

exotics such as Abutilon megapotam-

niums, fancy begonias, Victorian

Starting at the bottom, first line the basket with a single layer of sheet moss. Cut or tear the sheets as needed, and moisten them if you find it helps. Don't aim for perfection; it's easy to patch gaps later.

Then cut open a grocery bag and line the basket with a second, inner layer of brown paper. This will prevent the white plastic from showing through any thin spots that may develop. Paper should overhang the edge of the wire basket by about an inch; trim where necessary.

Add the Plastic Pot

Remove the wire or plastic hangers from your plastic pot and set the pot inside the basket. (In a real mosslined basket, you would fill the prepared basket with soil instead.) Pull the paper up and tuck it in around the edge of the plastic pot. Patch

in moss as needed, and — voila! — the camouflage is complete.

Hang and Maintain the Basket

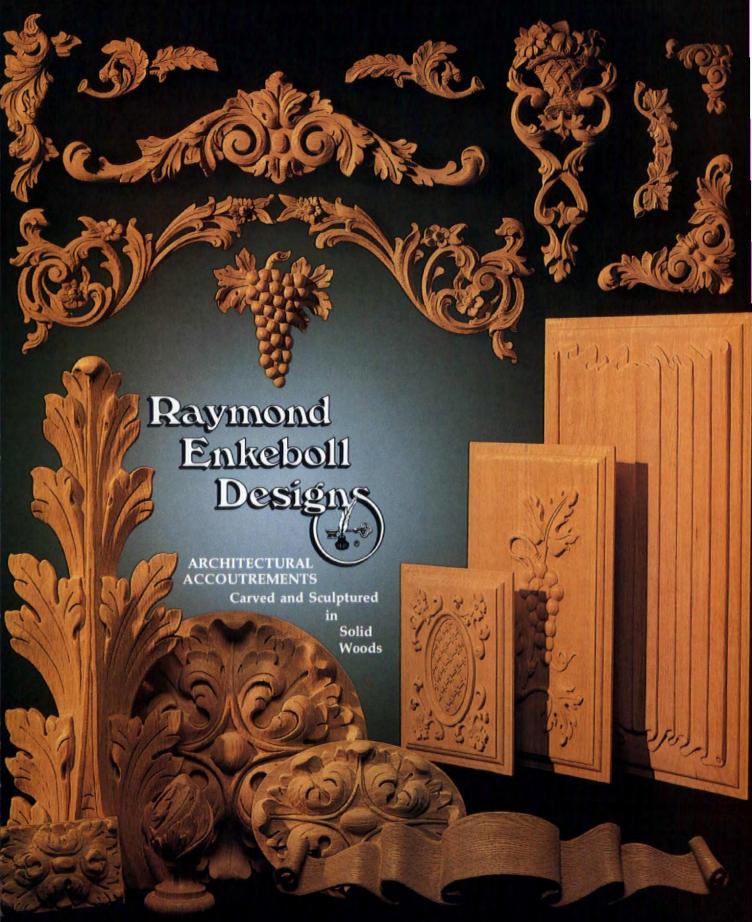
The wire hangers on most baskets tend to be quite short, so add a foot or two of chain before you hang it on your porch.

Be prepared to water the basket every day or two once the plant starts to flourish, and — as with any hanging porch plant expect a puddle if you overwater.

In late fall, remove the pot and hang your basket — moss, paper, and all — in a garage or basement. With a new plant and a little refurbishing every spring, it will grace your porch for years.



Above: A fancy-leaf begonia in a mosslined basket brightens the porch of a Greenfield Village bouse.



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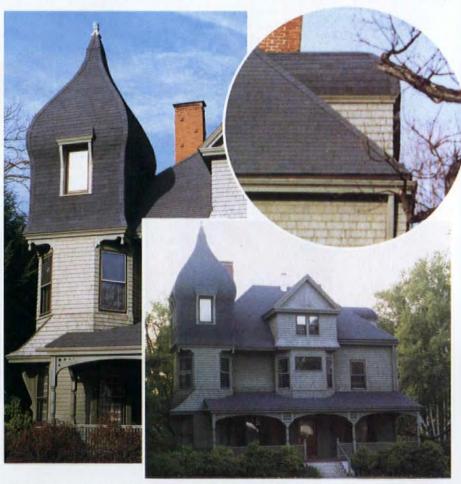
Tower Restoration

We bought our 1887 Queen Anne Victorian a year and a balf ago and would like to restore the tower this spring. Unfortunately, we bave been unsuccessful in our efforts to obtain an old photograph of the house which shows the tower as originally built. Therefore, we're writing in the hope that you might have some ideas as to the proper design and materials for the tower. Our choice for materials seems limited to (1) a cedar-shingle roof with decorative shingle sides below a new cornice, or (2) a copper roof with shingle sides. Because of the shape of the roof, we are concerned that shingles may not work at the four corners and around the curves. Any

ideas you might have would be most appreciated; in particular, we'd appreciate your directing us to sketches or photos of any similar tower designs.

> Richard L. Alfred Newton, Mass.

You'll probably find ample evidence of your original tower roof and siding when you remove the asphalt shingles, but a look at the underside of the tower roof right now may reveal clues. Don't be surprised if you discover that the tower walls were once shingled to match the body of the house, and the tower roof shingled like the rest of the roof. There also could have been decorative metal ridging or a hip-cap



The shingles and siding of the tower (left detail) of the Alfreds' 1887 Queen Anne (right) may have matched that of the dormer (right detail).

along the four tower ridges that met at the finial on top. In addition, it's likely there once was a cornice at, roughly, the top of the window, which served as a transition between the tower wall and the curved roof — perhaps much like your dormer, shown in the detail photo on the facing page.

For a better understanding of the structure, restoration, and reshingling of a tower, see *OHJ*'s "Building a Circular Tower," March and April 1984.

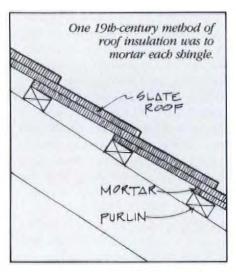
A Mortared Roof

I was recently in the attic of an old (approximately 1830) home in eastern Pennsylvania. A slate roof had been installed over purlins. At some point, someone had mortared between the slate and the purlins at the head of the shingle only; it was done thoroughly, rather than just a patch here and there. Have you ever run across this before? Do you know the purpose of it?

 William S. Merkle Slatington, Penn.

As far as we could find out, laying ½ inch or so of rough lime mortar under wood roof shingles was a not-uncommon practice in the 19th century, and was probably done with slate shingles as well. The intention was for the mortar to block the transmission of heat and cold through the roof and also to act as a fire-arrester. It's also likely that it served as an obstacle to moisture that might enter through wind-driven rain or capillary action between the shingles.

Whatever the intent, this technique had its problems. The mortar was usually of low quality and prone to cracking and breaking up, especially when there was any hammering done on the roof. In addition, it might actually wick up moisture and promote rot in the wood roof framing. In 1896, *Carpentry and Building* magazine noted, "We have never



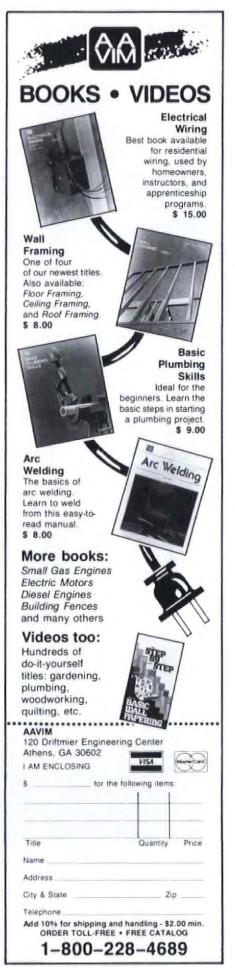
been quite sure that the mortar has ever accomplished either of the purposes for which it was intended [and] we are constrained to think it is about as expensive as good roofing paper."

Painted Sash

We recently purchased an old farmbouse, built in 1891, and plan to restore it close to its original style. We've noticed on several old bouses that the storms and/or the windows have been painted black. What purpose did this serve?

— Tom and Pegi Hoffman Fremont, Obio

It was popular in the late-19th A century to highlight, or "pick out," architectural elements, including windows and doors, through the use of paint. "The 'sunken' elements of a building - those voids that receded into the shadows from the main surface of the building would be darker than the main body of the building," according to Roger Moss, an authority on historic paints. If you're preparing to paint your windows, keep in mind Dr. Moss's observation that "virtually all wooden residential structures erected after 1876 (with the notable exception of Colonial Revival houses) are usually painted so that there is differentia-



ASK OHJ

tion between the window frames and sash. The frames will usually be painted the trim color, to match the cornice, porch, cornerboards, etc., but the sash will be even darker — usually deep reddish or chocolate brown, dark green, olive, or even black. This creates a sense of the windows receding into the facade, which is exactly the effect that was intended."

Unplated, Please

As an architect with a practice beavily involved in historic preservation and restoration, I am often

confronted with the problem of finding nuts and bolts which are to be exposed in the finished product. Today's builder's hardware (mostly imported) sports a plated finish, which is, to say the least, incompatible with historic work. To date, my sole recourse has been to have the contractor send these gleaming intrusions to a plating firm that can chemically remove the surface. I would appreciate any information you may have on obtaining unplated builder's hardware.

> — John Bruce Dodd Layton, N.J.

A good source for unplated steel nuts and bolts of all types is Warren Fasteners, 201 Morgan Avenue, Dept. OHJ, Brooklyn, NY 11237; (718) 417-4010. These folks also sell screws in many other materials. Unfortunately, other kinds of unplated builder's hardware, such as hinges and catches, are very hard to find today. But you might be able to locate them on an item-by-item basis large suppliers of industrial or commercial hardware, for instance, frequently offer a choice of finishes for their products, one of which may be plain steel.

Mystery Box

What do you make of the thing in these photos? This item is in my kitchen (I've seen them only in kitchens) and measures 13" × 13" × 10" deep. Has it got a name? Is it something unique to New York? To what era does it belong? I wish I could give

you the date of my apartment building — it's safe to say it's prewar. The six holes in back of this box are stopped up with paper, but they look like air holes — I can see into an air shaft through one of them.

Howard Kaplan
 New York, N.Y.





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Left, above and below: It's in the kitchen, it has a door, it has holes. What is it? We're not sure, but one plausible answer is offered at right by a 1930 ad for the Cunningham Electric Iron Receptacle.

It's hard to say for sure judging just from the photos, but the air shaft at the back rules out ice delivery as a function. Your device may well be a simple kind of pseudo-icebox or crisper. In the days before electric refrigeration, it was not unusual for apartment dwellers to position orange crates or the like outside a kitchen window as storage for items that would otherwise go into the icebox. In suitable weather, this saved both space and the cost of having ice delivered to the apartment. The metal box in your kitchen may be a manufactured version of this same idea.

Editor Patricia Poore has a similar box in her 1911 Brooklyn kitchen, only it opens from the top, like an incinerator chute, rather than from the side. Raised lettering on its cast-iron door makes it clear that the box was a "sanitary," ventilated garbage receptacle.

The ad from *American Builder* of February 1930 (left) points to another possible function: an iron receptacle.

If any of our readers have further information on this device, we would appreciate hearing from them.

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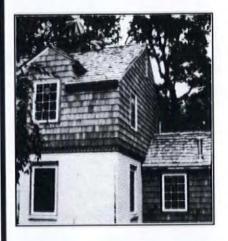
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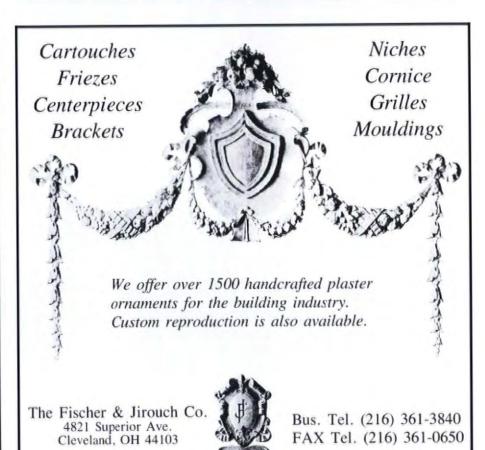


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by Jeff Wilkinson



ELGERT





It could be said that fate handed Elbert Hubbard a bar of soap. By the age of sixteen he was selling it for a living, and by the time he was 36 he was a partner in a successful soap company. But Hubbard would be remembered best as a philosopher, publisher, and founder of the Roycroft Press and shops.

Elbert Green Hubbard was born June 19, 1856, in Bloomington, Illinois. Life there was greatly shaped by Baptist and Methodist doctrine, which young Elbert managed to sidestep due to the influence of his father Silas Hubbard, an eccentric doctor whose interests included germ theory and phrenology.

Hubbard's first job was as a soap drummer for J. Weller Practical Soaps, and he quickly took a shine to the task. When the company divided four years later, Hubbard moved to Buffalo where he helped his brotherin-law, John Larkin, establish the Larkin Soap Co.

Hubbard proved himself an amiable and brilliant salesman, and soon rose through the ranks, having invented the gift premium (free products with orders of soap). He also pioneered group-buying plans (the forerunner of today's Christmas Clubs), and wrote one of the company's most memorable ads: "Factory to Family is the Larkin Idea."

For Hubbard, however, success was not synonymous with happiness. He longed for a life of beauty and art beyond marriage to his wife Bertha and his salesman's existence in East Aurora. And in mid-career, Hubbard sold his share in the company for \$75,000 and decided to try his hand as a novelist. He wrote two unremarkable books under the pseu-



"If fate hands you a lemon, set up a lemonade stand."

donym Aspasia Hobbs. He then enrolled in Harvard. But his midwestern frankness did not impress his professors and he barely lasted a semester.

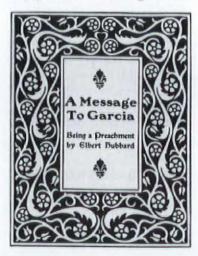
In 1899, Hubbard took a walking tour of England where a fortuitous meeting with William Morris at Kelmscott changed his life. Hubbard returned to East Aurora, dedicated to the idea of setting up a small Arts and Crafts-type press similar to the one Morris had established. Soon copies of *The Philistine* and *Little Journeys to the Homes of Great Men* were being printed by the Roycroft Press.

The Press quickly became a flourishing operation, but nothing had a more profound effect on its success than his untitled, 1500-word essay published in March 1899. Later reprinted as "Message to Garcia," the essay praised one soldier's dedication in obeying orders and hailed it as the sort of can-do attitude missing in corporations of the day. Within nine months the essay had been reprinted over nine million times.

Hubbard became an overnight success, which enabled him to develop his plans for Roycroft Press. He built a new print shop and an adjoining inn. As artists and craftsmen began to flock to East Aurora, Hubbard put them to work designing furnishings for the new buildings. Before long, Hubbard was advertising the furniture in his publications and every major city department store featured a Roycroft shop. It was also around this time that Hubbard re-married, this time to Alice Moore, an active feminist, who became his soulmate in the Roycroft venture.

By 1903, over 28,000 pilgrims had visited the shop to see the author of "Message." And Hubbard never let them down. He was often about, busily chopping wood or astride his horse overseeing the shops and handing out his witty sayings.

On May 7, 1915, Elbert and Alice died with the sinking of the Lusitania. One of the survivors described how the two courageously waved "Bon Voyage" before retiring to their cabin.



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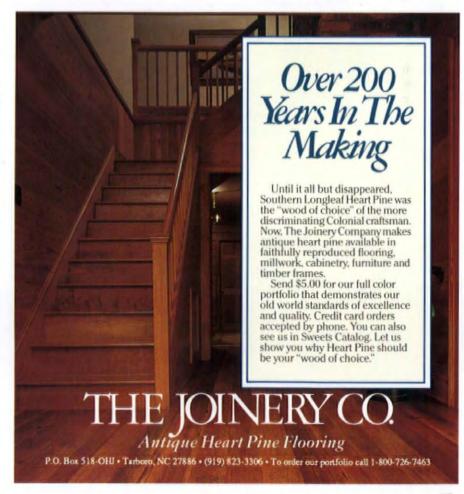


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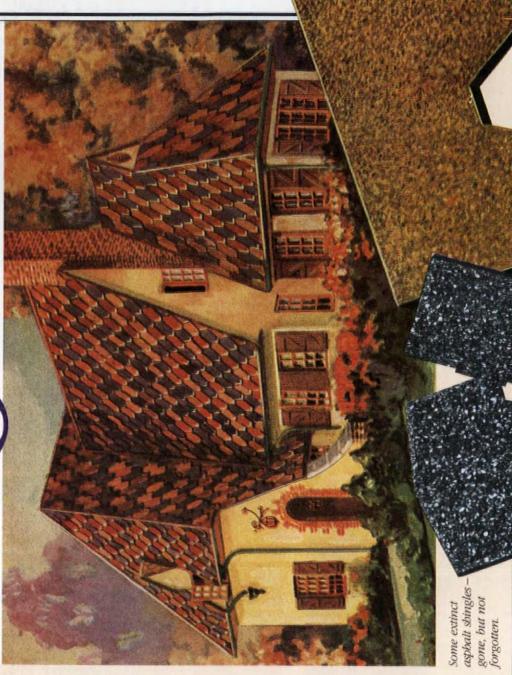
BUYER'S GUIDE 1990

by Gordon Bock

Singles OF THE 1920s AND 1930s omposition

they were joined by asbestos-cement products. These were made by laminating asbestos fibers and portland cement, then pressing the result. By the 1920s, both processes became the modern, economical, and fire-resistant way to roof a house. Asbestos-cement roofing was sold in the form of large, flat, slate-like shingles. Asphalt-based roofs might be multi-tab strip shingles, but were also commonly giant individual shingles. Both types were available in a variety of colors (blue, brick red, slate, purple, maroon, and green, to name a few), decorative patterns, and proprietary shapes designed to increase either wind resistance or versatility of installation.

pointment for many old-house restorers, because Today, the square-tab "standard" asphalt strip these products were the original roofs for a large is increasingly difficult, as many that were once or are being phased out of production. To help number of houses built after 1900. Their distinctive appearance is as much a part of the house's architecture as the porch posts or siding. Finding matching shingles to repair or replace these roofs commonplace are now sold only in limited areas lected information about current manufacturers and the selection of individual composition roof shingles has dwindled significantly — a disapof individual composition shingles, and we presshingle dominates the domestic roofing market, with these kinds of roofing projects, we've colent it in the following guide.



there was also a new crop of roofing materials to choose from: man-made

composition shingles. Asphalt-based roofing products, advertised

since the 1880s, were essentially flax or other fibers matted into felt sheets and

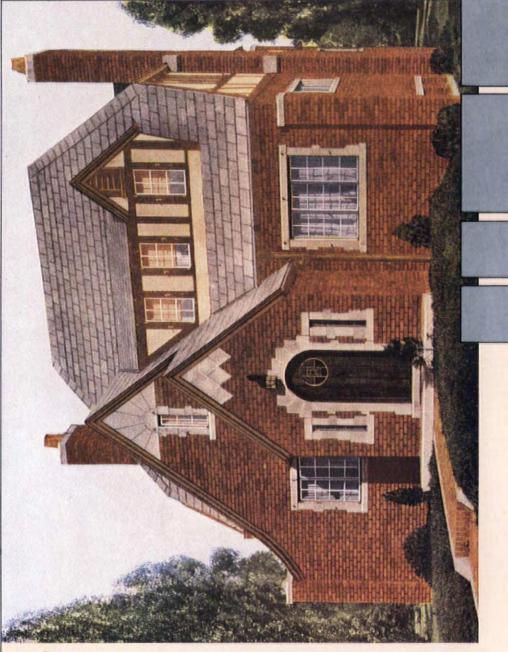
impregnated with bitumenous compounds. Soon after 1900,

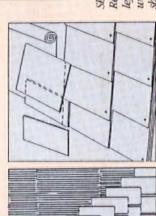
and sheet metal were still in wide use,

eventy years ago, when wood, slate, tile,

American-Method Shingles

method difficult. However, many shingle shapes in production today are good matches for those uring the 1920s and '30s, individual rigid shingles in square or rectangular shapes were categorized as straight or American-method shingles. Shingling with these products produced a conventional roof with gles or alternate nailing methods. Shingles with mitered corners gave an ornate or European look, and laying rectangular shingles horizontally accentuated the course lines. Square shingles were often manufactured so that they could be installed in a Dutch lap, a horizontal adaptation of the French method in which adjacent shingles overlap rather than butt. These and most other large shingles also required storm anchors. Today's manufacturers of reinforced cement shingles pre-drill most of their products, making alternative installations such as the horizontal strong horizontal course lines, but different effects were also possible by using modified shinused earlier in the century. SUPPLIERS: Eternit Inc., Village Center Drive, Dept. OHJ, Reading, PA 19607, (800) 233-3155, (Fiber-reinforced cement rectangular shingles, several sizes); FibreCem Corporation, 7 Woodlawn Green, Suite 212, Dept. OHJ, Charlotte, NC 28217, (800) 346-6147, (Fiber cement shingles with mitered corners, other patterns); Supradur Manufacturing Corp., 411 Theodore Fremd Ave., Dept OHJ, Rye, NY 10580, (800) 223-1948, (Fiber-reinforced concrete shingles, rectangular and Dutch lap).



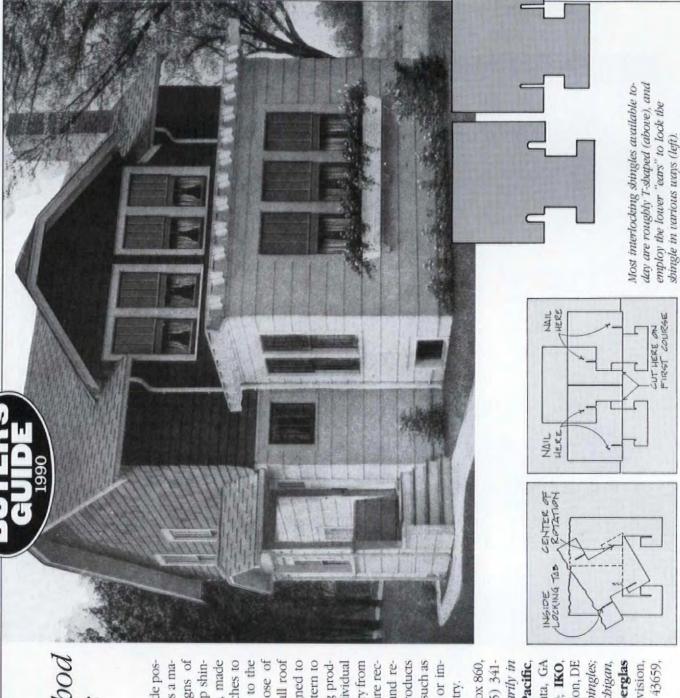


Shown above: American-method shingles of the past.
Rectangular shingles were commonly straight laid (far left), but could also be prepunched for laying the long way in the horizontal method (as in photo). Square shingles were designed for Dutch-lap installations (left).

Interlocking-Metbod Shingles

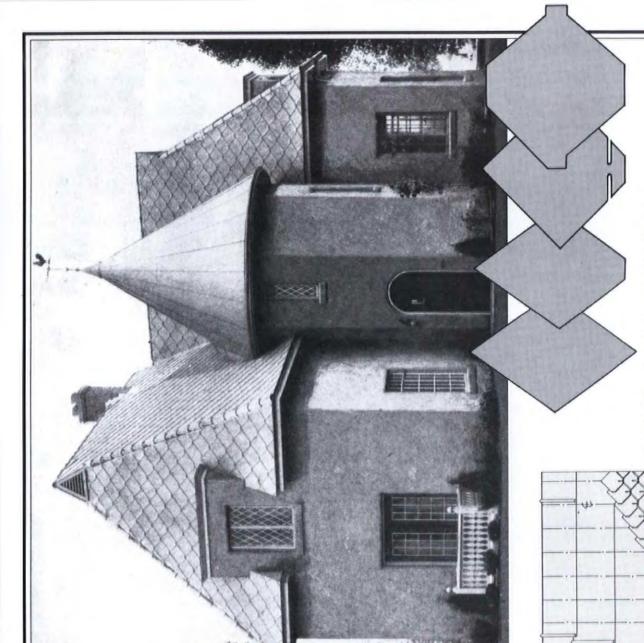
he increased wind resistance made posjor sales point for many designs of asphalt roofing in the 1920s and '30s. Strip shingles, as well as giant individual shingles, made use of inventive tabs, ears, slits, and catches to anchor the lower, free ends of shingles to the course below. While the primary purpose of these devices was mechanical (to attach all roof parts to the deck), most were also designed to add an attractive woven or basketlike pattern to roofing. The biggest call for for these products today, however, are in high-wind regions such as sible by interlocking shingles was a mathe course lines. The interlocking roofing prodshingles. Locking methods and patterns vary from manufacturer to manufacturer, and most are recthe Midwest, and they may be expensive or imucts that remain on the market are individual ommended for both new construction and repossible to get in other parts of the country.

SUPPLIERS: CertainTeed Corp., P.O. Box 860, Dept. OHJ, Valley Forge, PA 19482, (215) 341-7000, (Saf-T-Lok shingles; available primarily in Midwest, contact for details); Georgia-Pacific, 133 Peachtree St., NE, Dept. OHJ, Atlanta, GA 30303, (404) 521-5683, (T-lock shingles); IKO, Hay Road, Edgemoor, Dept. OHJ, Wilmington, DE 19809, (800) 435-7456, (Armor Lock/20 shingles; available primarily in Northeast and Michigan, contact for details); Owens-Corning Fiberglas Corp., Roofing Products Operating Division, Dept. OHJ, Fiberglas Tower, Toledo, OH 43659, (419) 248-8000, (Glaslock shingles).



French-Method Shingles

tos-cement French-method shingles were also as strong as for new construction. Most of today's facturers recommend their products for use on tabs to minimize the chances of shingles blowing create a diagonal or honeycomb pattern and sales for this kind of roof "updating" were French-method shingles — both modern cement plicable to reroofing, but not all asphalt manuinany designs also employ storm anchors or wind nal- or diamond-shaped, are designed to ically 12" \times 12" and 16" \times 16") made for efficient installation as well as striking appearance on large, open roof areas. The original rigid asbeswell adapted to reroofing over wooden shingles, a new deck. Because of the large shingle area, rench-method shingles, roughly hexagoon the roof when installed. Their large size (typformulations and asphalt-based — are also apoff in bad weather. SUPPLIERS: Globe Building Materials, 2230 Indianapolis Blvd., Dept. OHJ, Whiting, IN 46394, (219) 473-4500, (Organic asphalt Klip-loc bexagonal shingles); Owens-Corning Fiberglas Corp., Roofing Products Operating Division, Dept. OHJ, Fiberglas Tower, Toledo, OH 43659, (419) 248-8000, (Asphalt-fiberglas French method shingle, available only in certain locales, call for details); Supradur Manufacturing Corp., 411 Theodore Fremd Ave., Dept. OHJ, Rye, NY 10580, (800) 223-1948, (Fiber-reinforced concrete bexagonal shingles).



Early French-method shingles were rigid and basically diamond-shaped (above left), but modern asphalt-based types may be more elaborate (above right). Typical installation with rigid shingles is pictured left.

Answers to often-asked maintenance questions

by GORDON BOCK

My gutters seem to back up every year. What's the first thing in maintaining them?

Cleaning them! Regular inspection and cleaning not only prevents blockage (and subsequent water backup), but it also extends the gutter's life, whether wood or metal. The accumulations of leaves and organic debris from overhanging trees, as well as loose mineral from man-made roofing, traps moisture in the gutter trough, preventing it from drying completely. This constant moisture promotes decay of wood fibers and rusting of ferrous metals.

Do I have to get up there and clean every season - or just once a year?

It depends upon the gutter and the house. As with any maintenance chores, annual inspections are good practice, but buildings with a lot of overhanging trees, say, frequently need attention twice a year. Old gloves and a small child's rake are favorite tools for cleaning gutters. Some folks also gather up leaves and muck with a large rubber pastry spatula. Wire strainers that fit in the trough drain have been used for years to keep sticks, baseballs, and other large objects away from the downspout, but the jury is still out on the value of wire or plastic screens that cover the entire gutter. On some houses, these screens collect leaves rapidly, which form a partial "roof" over the gutter. This roofing effect not only defeats the purpose of the gutter by allowing rainwater to run right off the eaves, but it also shades the trough from sunlight. Drying then becomes difficult or impossible, and the water and fine debris that do pass through the screen create an ever-moist sludge that attacks the gutter.

Should gutters be painted? Inside or out?

The outside of wood gutters should be painted to protect the wood; copper and galvanized gutters generally do not require an exterior coat, but you might want to paint them to match exterior trim. When it comes to paint-

ing the inside of the gutter, the question gets harder to call, and depends primarily on the construction.

For wood gutters of any type, painting the trough was not recommended by any manufacturers or tradespeople we spoke with. In order to have a long life, wood gutters must "breathe" through the trough surface to dry out (when not conducting water), and paint presents a barrier: Water vapor collects under the paint film and ultimately lifts it, or moisture migrates through the wood, causing the paint to "blow off" (peel off) the exterior. Either way, the gutter becomes prone to rot.

What is recommended seems to fall into the category of a highly breathable coating or none at all. In the northeast, Douglas-fir gutters are usually maintained with a treatment that resists liquid water but is permeable to water vapor. This can be a commercial (toxic) wood preservative (Cuprinol Clear or Woodlife, for example) or raw linseed oil



Soldering seams in a built-in copper gutter.

thinned between 1:1 and 3:1 with mineral spirits or turpentine. (Some people thin linseed oil with a preservative.) Treatments should be applied annually when the wood is thoroughly dry; multiple coats may be required. This treatment also works for cypress and redwood gutters (although one West Coast manufacturer reported redwood needs only to be kept clean and allowed to dry).

Galvanized steel gutters are another story, and benefit greatly from trough coating with a good quality metal primer or metal roof paint. Popular products are Tin-O-Lin Red Iron Oxide Linseed Oil paint, MAB Check-Rust primer, and Rust-Oleum primer. Coatings should be touched-up or renewed every year. New gutters, though, should not be painted until after their first or second season. The galvanizing process produces a smooth and oily, "toothless" finish on the new gutter, which will cause paint to flake off shortly after it's applied. Once the gutter has been exposed to the elements, however, its surface becomes slightly etched, so that after a full cleaning and wash with a mild acid (vinegar works well) the paint can grab the metal.

Copper gutters are essentially maintenance free and should not be trough-painted. While the metal takes paint well (better than galvanized steel), painting is not required for longevity. In fact, one of the beauties of naked copper is that it shows its flaws. On bare metal, small leaks leave watermarks or trails where they have originated; problems are not so apparent when the metal is painted. Repairs, too, are much simpler on an unpainted gutter. The natural verdigris oxidation (that also helps preserve the metal) is easily cleaned with flux after light sandpapering. Most punctures or broken seams can then be soldered shut again by a competent craftsman. A painted surface, however, complicates cleaning and makes repairs more difficult and less sure.

If I treat my wood gutters with tar or motor oil, will this protect them without inviting peeling paint?

Coating any gutter with roofing tar, asphalt products, or elastomeric compounds causes problems. These materials eventually break, trapping water between coating

and gutter, and wood or metal starts to deteriorate.

Painting wooden gutters with used engine or gear oil is inexpensive, but a poor idea. Not only can these oils cause paint-adhesion problems once they saturate the wood, but they also carry acids and combustion waste products in suspension — no better for wood than for engines.

Is caulking joints in wood gutters recommended?

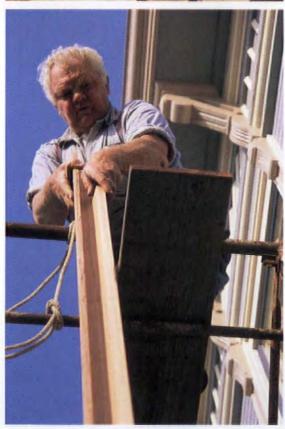
Butyl rubber caulks are popular all-around exterior seal-ants and work well on wood gutters. They have good adhesion, water resistance, and a life of 5 to 10 years. Polyurethane caulks cost more but last longer (15 to 20 years) and are preferred by some people. Both products clean up with paint thinner.

I clean every year, but my gutters virtually always have standing water in them. Why?

Check their pitch. Ice, fallen limbs, or settling of the house may have shifted the gutter so that it does not drain quickly or completely. Strictly speaking, ideal pitch is a function of gutter size, roof area, and average rainfall, but many builders and gutter tradesmen use a rough rule-ofthumb for minimum pitch (1" drop per 10' of length, for instance). Adjustments often have to be made to this guideline if the gutter is very long or the eave is not level. To check the operation of a gutter system, get up on a ladder and run a hose in the gutter or do a "bucket test" to see how water flows.

Check the location and number of drains and downspouts as well. Older buildings (particularly Victorians) are often underspec'd in this regard, and adding outlets may improve drainage or spillover problems. For example, gutters over 35' long may be better served by downspouts at each end rather than a single outlet. The gutter is rehung with the highpoint at the center and a drop towards either downspout — also making steeper pitch more feasible for long gutter runs.





Top: Running a bose at the high point helps check the performance of this double-drain gutter installation. Bottom: new redwood gutter on its way to the eaves.

Special thanks to the following companies for their assistance with this article: Blue Ox Millworks, Eureka, Calif.; Conklin Metal Industries, Atlanta, Ga.; Copper Sales, Minneapolis, Minn.; Davenport, Peters Company, Quincy, Mass.; J.C. Lauber Company, South Bend, Ind.; Albert J. Wagner & Son, Chicago, Ill.

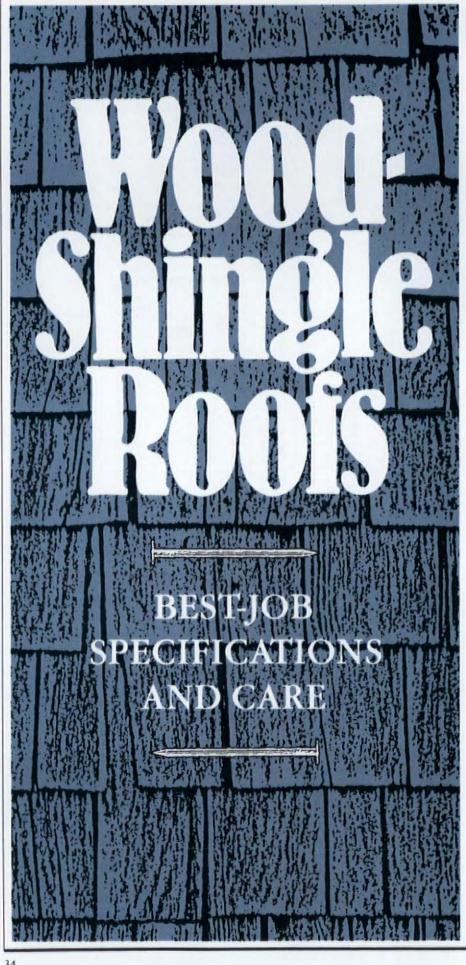
by OHJ Technical Staff

Wood-Shingle Roofing Specs

ood has a long history as a near-universal building material in North America, and wood roof shingles have been made from species as diverse as eastern white cedar, cypress, pine, spruce, hemlock, and oak. From the colonial era until well into the 19th century, they were hand split from logs and then tapered and dressed smooth with a drawknife, sometimes into unique shapes or patterns. By the late-19th century, shingle-making machines were being perfected and after 1900 the sawn shingle became common.

Today, western red cedar is widely used, and roof products made from this type of wood are categorized as either shingles or shakes, depending on how they are manufactured. Red cedar shingles are sawn on both faces, and are available in standard lengths (16", 18", and 24") and several grades. These shingles closely resemble those produced by the first shingle-making machines. Red cedar shakes are a type of shingle that is hand- or machine-split. They are then either resawn to produce a textured face on one side and a smooth back on the other, or simply split on both faces. Shakes became popular in the 1950s with the fashion for a contemporary rustic look on roofs.

Less common wood roofing products are shingles cut in decorative patterns (often used in the Victorian era) or steam-bent into curves (for the "thatched" shingle roofs in vogue in the 1920s). There are also a few specialty manufacturers making historical shin-



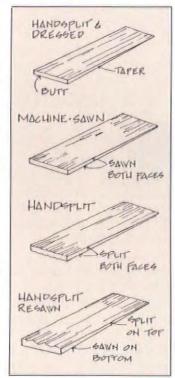
gle types once again in white oak and eastern white pine. Lately, a completely new industry based on preservative-

treated yellow pine shingles has appeared as an alternative to the rising costs of red cedar products.

Most books on roofing contain a chapter or so on installing a wood-shingle roof, but some of the specifics for doing a quality job don't always make it in. Here, we highlight some of the details that give wood-shingle roofs long life.

Long-Lasting Materials

Shingles: Vertical-grain shingles with a minimum of sapwood and defects and no wider than 6" are a must (for further discussion, see "Making Wood Shingles Last," page 39). While it is tempting to use wide shingles because they go up fast (especially in our age of expensive labor), inspection of old roofs shows

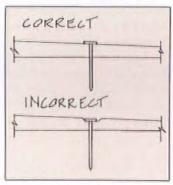


Shingle shapes, top to bottom: bandmade, machine made, and two types of shakes.

they were rarely used because it was known wide shingles split with age and service.

Nails: Hot-dipped, galvanized nails are best. They are the most rust-resistant and their rough coating helps anchor the nail. Aluminum or stainless-steel nails are acceptable but expensive and, unless ribbed, do not grab the wood as well. Never use electro-coated nails; when the coating fails, the heads rust off leaving the shingles unsecured. Copper nails, too, can fail prematurely on cedar shingles when the tannins in the wood react with the copper. Some literature recommends using nails as short as 3d (1½"), but many restoration roofers prefer 5d box nails (1¾"), especially for a quality, four-ply job (see "Exposure," right).

Installation Craftsmanship



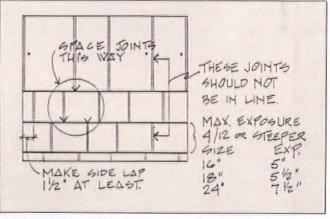
Proper nailing allows for wood movement.

Nailing: A maximum of two nails per shingle should be used (so that the shingle lies flat), positioned no more than 3/4" in from each edge. Nails should be driven so that the head comes close to the wood, but does not crush or dimple the surface (shingles should "hang" on the nails). The wood of the shingle must be free to shrink and swell with

weather conditions or it will split. The best jobs are still hand-nailed; pneumatic nailers are designed to drive nails in deeply and can actually punch through a shingle if set incorrectly. It is common practice to nail shingles roughly 1" higher than the butt line of the course above. With some exposures and shingle lengths, it also may be possible to nail two courses up, so that the nail heads are completely protected from the weather.

Spacing: Sufficient space must be left between shingles (the keyway) as they are nailed up. Wood shingles swell in wet weather nearly closing these gaps, but if they are layed up tight when conditions are dry, they will buckle and roll up on each other. In earlier times, roofers were known to have soaked their shingles first in warm water (in an old bathtub, say, over an open fire) to swell them to full size before laying them up tight. Barring this technique, one should try to judge the moisture content of the shingles as they come from the bundle (which may be quite damp if stored uncovered) and then space accordingly. The typical keyway for today's shingles (even less stable than those cut from old-growth timber) varies from 1/8" to 3/8" — often the width of a pencil or 20d nail. Spacing also should be influenced by overall climate and whether the sun is shining on the roof as the work is done.

Sidelap: The joints between shingles should be offset in succeeding courses by no less than 1½", and for a quality job should be "three-stepped" — that is, not in line for at least three courses. The better this sidelap, the slimmer the chances water will ever find its way through the roof. In addition to avoiding the use of any flat-grain shingles, joints should not fall over any semblance of "flame-pattern" grain in the shingles below as the water channeled over this weak spot increases the odds that the shingle will



Spacing is not random in a quality job. Joints should never be positioned directly over each other and, in the best work, they are "three-stepped" — not in line for three courses.

deform or split.

Exposure: Maximum weatherface exposure is generally a function of the pitch of the roof and the length of the shingle, as well as the "look" of the roof. However, use of smaller exposures can improve the roofs integrity by not only reducing the amount of shingle exposed to the elements, but increasing the "ply" of the roof as well. For example, 4" exposure with 18" shingles will yield a 4-ply

roof (four shingle layers thick).

Roof Pitch: While seldom a problem on old houses, no type of roof shingle fares well on a low-slope roof, and wood shingles can deteriorate quickly if used on a pitch



Above: new nailers on an open-deck reroofing project.

lower than 4 in 12. In addition to not shedding water rapidly, roofs lower than this pitch make capillary action possible between the sandwiched shingle faces so that water is actually drawn in under the roof.

Air Circulation

Open Deck: Traditional wood-shingle roofs were supported on frameworks that allowed the shingles to breathe under the roof (through the attic space) as well as outside the building. The most common systems used skip sheathing (boards 1×6 or wider

spaced with the courses) or nailers (typically, 1×4 stock). When shingles are installed using either of these systems, roofing felt, building paper or housewrap products should *not* be added between shingles and roof framing. No matter how vapor-permeable these materials are, they trap moisture on the underside of the roof and shorten the life of the shingles.

Closed Deck: Houses with finished attic spaces and roof insulation invariably have a closed roof deck of full sheathing. Installing wood roof shingles on this unventilated surface also invites deterioration because the shingles can-

not breathe. The solution popular today is to get the shingles "off the roof" by nailing them to 1 × 4 nailers or sleepers which are attached to the roof deck. This method allows for air circulation under the roof and across the shingles, similar to that of an open-deck system. Many roofers use pressure-treated lumber for nailer stock, sometimes leaving a small gap between butting boards to increase ventilation and allow any condensation to run out. Roofing felt (some advocate housewrap) should be ap-

plied to the deck before the nailers are installed so that it does not come in contact with shingles. To keep insects out of the vent space at gable ends, run a strip of quality metal screen under and over the nailer ends before shingling.

by Gordon Bock

Wood-Shingle Roof Care

ood-shingle roofs require care. Unlike, say, slate or tile roofs, wood shingles cannot be left unattended in the weather for decades. They are assaulted constantly by moisture and sunlight, which break down wood fibers, and by wood-eating organisms. Regular attention increases their life — very likely multiplying it — from the paltry ten or 15 years to which many wood roofs are doomed without maintenance.

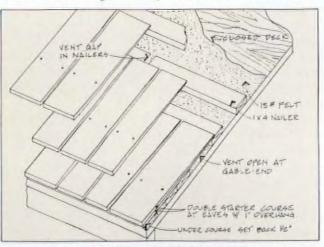
Popular wisdom has always advocated "something" for wood-shingle upkeep (linseed oil in one form or another is a favorite), but in recent years, the high material and labor costs of wood roofs has focused new attention on the *best* methods for keeping these shingles in good condition. The following summary is not the last word in wood-shingle maintenance, as better products and methods are developed each year. But it is a useful guide to current, effective methods and products. The treatments listed have seen much use on western red cedar shingles, but will work for other wood species, such as oak or cypress, as well. (Test first in an inconspicuous spot before proceeding with an entire roof.)

Housekeeping and Cleaning

Preventive maintenance for wood-shingle roofs begins

with regular "housekeeping." First and foremost, all roof surfaces should be kept clear of leaves, pine needles. and other debris as these accumulations both prevent the roof from shedding water effectively when it rains, and trap decay-promoting moisture near the shingles after rain or snow. Mosses, lichen, and fungi need water as well as air and food (the wood) to survive, and keeping the moisture level of the roof below the threshold organisms require keeps them in check. Valleys, of course, tend to collect debris and

should be cleared with a broom regularly, but the same is true of the keyways between shingles, which may need cleaning with a stiff brush. In heavily wooded areas, overhanging branches may also have to be trimmed back to



Opinions vary on the best materials for roofing with wood on a closed deck, but getting air circulation under the shingles is the top priority.

reduce the amount of shade on the roof and increase air circulation and drying. (In addition, keep tree limbs from touching the roof; constant rubbing and sweeping can loosen shingles or literally wear grooves in them.)

Cleaning methods improve the appearance of old or neglected roofs. Chemical cleaners are primarily bleaches used to remove many difficult stains and discolorations. They are also effective for restoring natural wood tone to cedar shingles and for killing mildew and algae. Popular bleach solutions are listed below. They can be applied to a clean roof either manually (for localized cleaning) or with corrosion-proof garden sprayers having plastic or stainless-steel parts. (Note: After spraying, clean all equipment with two tablespoons of household ammonia in a gallon of water to prevent corrosion.) Generally, solutions do not have to be scrubbed once they are applied, but they should be allowed to stand for 15 to 30 minutes before being rinsed off with a garden hose or pressure washer. Do not allow bleaches to remain on the wood much longer than 30 minutes, however, or apply them in direct sunlight. Chlorine solutions can corrode metal roof parts and burn shrubs or other plants that surround a house, and these items should be rinsed thoroughly if exposed to cleaners.

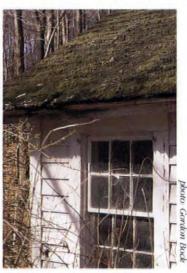
Power washing with high-pressure rigs also has come into its own (especially on the West Coast) as an effective mechanical method for occasional cleaning of wood-shingle roofs. Here, the water stream loosens and washes the top fiber layer away from the shingles, taking weathered or discolored wood and growth (such as moss or lichen) with it. The process is time-consuming (and can erode shingles or drive water under the roof if not done correctly), but on some roofs it is the best method for removing the heavy buildup of dirt or plant growth. Cold, clear water alone is used, usually at moderate pressures of 1,000 to 1,500 psi (pounds per square inch) and a flow rate of 4 to 6 gpm (gallons per minute). Power-washing equipment, widely used to clean boats and cars, can be rented by the day from tool-rental companies.

Treatments

Growth-Control Treatments: Live organisms are a major threat to wood-shingle roofs. Colonies of moss, mildew, and algae trap water and create a natural site for wood-destroying fungi. Where bleach solutions are not successful in killing plant growths, more specific methods may be tried. Preparations containing copper or zinc will inhibit plant growth (for example, these organisms seldom grow in the path of rainwater that travels over copper or galvanized roof flashing). When these metals are incorporated into water-based solutions, they can be sprayed onto wood-shingle roofs to kill moss, lichen, and the like with limited long-term effectiveness. In addition, certain types of garden products intended for controlling moss on the ground also have been useful for arresting it on roofs.

Growth-control treatments are sometimes applied over small areas with a watering can, but a pressure sprayer is usually employed for large jobs. If dry, moss and similar large growths should be watered before spraying to maximize absorption of treatments. Once again, many of these chemicals are corrosive and/or harmful to plants, animals, and humans, and should be handled with care. Some zinc compounds, in particular, can corrode copper roof parts and should be used only near galvanized metals. (The reverse is generally true for copper compounds.) Follow manufacturers' directions and use proper safety precautions when applying. Choose a calm day to spray, and stand upwind. To minimize runoff, apply only when rain is unlikely. Keep spills, contact with metals, and accidental sprayings to a minimum, and rinse liberally when they occur. Preservative Treatments: Treatments that can inhibit plant growth on wood for extended periods of time are frequently classed as preservatives. Many products (sometimes making use of the toxic effects of zinc or copper) are available as either water-borne or oil-borne preparations. The long-term effectiveness of preservatives is strongly influenced by both the concentration of active ingredients in the preparation and the amount of preservative that penetrates and is retained by the roof. The condition of the roof is also a factor — it's hard to preserve shingles that have little "life" left in them. In addition, the

ability of a preservative to control the drying effects of the sun (which promotes cupping, curling, and checking) is usually dependent upon its containing some amount of napthenic or paraffinic oils to replace those lost from the wood by weathering. All preservatives should be renewed as recommended for maximum long-term protection. Apply preservatives to a clean roof by brushing, rolling (with a thicknapped paint roller), or spraying, depending upon the size of the roof, the texture of the shin-



On this roof, lichen has led to moss, which has trapped water and started rot at the eaves.

gles, and the manufacturer's directions. Best results are achieved when coatings are uniform and maximum penetration is achieved (two or more light coats works better than one heavy coat). Pay attention to the keyways and the end grain of shingle butts — areas where decay tends to start. Many preservatives are also toxic to plant and animal life and all should be handled with care. Some preservatives once widely used (pentachlorophenol among them) are now restricted by the Federal Occupational Safety and Health Administration (OSHA) and should not be considered. (See suppliers list, page 38, for a sampling of effective treatments available in project-sized quantities.)

Finally, though not a cleaner or preservative, an often requested treatment for giving new cedar shingles an aged ash-grey color after making repairs: Dissolve 1 lb. baking soda in 1 gallon of water and spray on. Shingles will grey in sunlight in several hours.

Special thanks to Brian Buchanan of the Texas Forest Service, and the Oregon State University Extension Service. For further reading on wood-shingle-preservation treatments, contact the manufacturers listed or Oregon State Univerity, Publications Orders, Agricultural Communications, Dept. OHJ, Administrative Services Bldg. 422, Corvallis, OR 97331-2119; ask for publication EC 1271; cost and mailing: \$1.

SUPPLIERS

(Contact each manufacturer for a list of distributors.)

American Building Restoration Chemicals, Inc.
9720 South 60th St., Dept. OHJ
Franklin, WI 53132
(414) 761-2440

Natural Seal Clear X-100, Cedar-tone 101 oil-based pre-

servatives (specify "roof grade")

AMTECO, Inc.

815 Cass Ave., Dept. OHJ St. Louis, MO 61306 (800) 969-4811

TWP roof and deck sealant, oil-based preservative available in clear and cedar-tone formulas

Chapman Chemical Company

P.O. Box 9158, Dept. OHJ Memphis, TN 38109 (901) 396-5151

Cunapsol 1 ("Wood Green"), pigmented water-based copper napthenate preservative

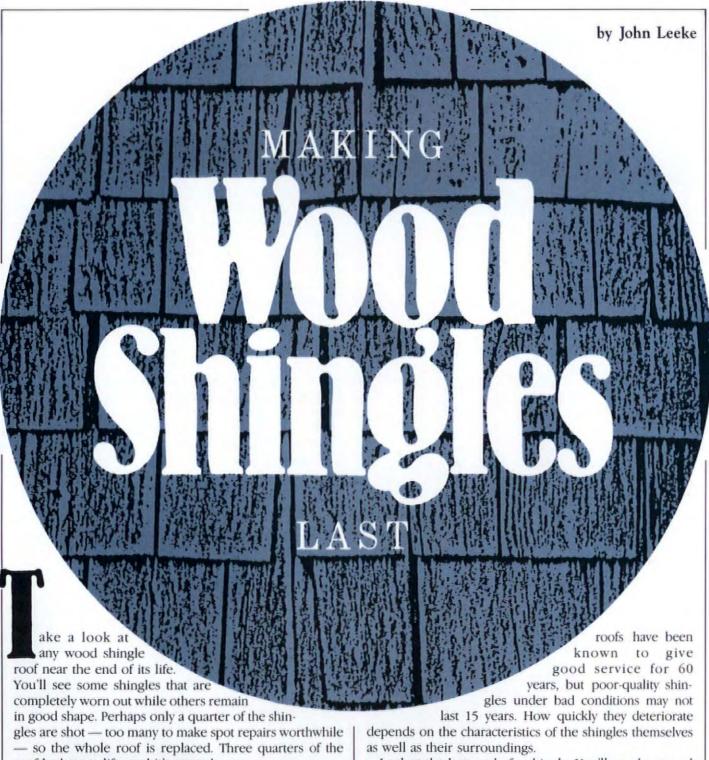
Safer Chemical Company

189 Wells Ave., Dept. OHJ Newton, MA 02159 (617) 964-2990

Environmentally safe moss and algae killers



-		COMMON			
	ACTIVE INGREDIENT	OR TRADE NAME/SOURCE	APPLICATION	ADVANTAGES	DISADVANTAGES
PRESERVATIVE GROWTH-CONTROL BLEACHES TREATMENTS TREATMENTS	Sodium Hypochlorite	Laundry bleach (Clorox, Purex, etc.)	Mix liquid laundry bleach (5% sol.) 1:1 with water; Use commercial bleach (12-15% sol.) diluted	Inexpensive, easy to use	Temporary cleaning and growth kill; corrosive
	Calcium Hypochlorite	Dry pool chlorine (HTH, etc.)	Mix 4-8 oz. per gallon of water	Same as above	Same as above
	Oxalic Acid	Wood bleach (available at paint stores)	Mix 4 oz. per gallon of water	Same as above	Poisonous — should be use sparingly
	Sodium Hydroxide	Flake caustic soda	Mix 1-2 lbs. per 5 gallons of water	Same as above	Strong caustic (use safety precautions); may darken wood
	Zinc Sulfate (monohydrate)	Available at garden or farm supply, hardware store	Mix 3 lbs. powder in 5-10 gallons of water	Inexpensive	Toxic; corrodes cop- per (use with galva- nized roof metal)
	Copper Sulfate	"Blue stone"; available as above	Mix 1/4-1/2 oz. per 10 gallons of water	Same as above	Toxic; corrodes zinc (use with copper roof metal)
	Zinc Chloride	Available as above	Mix 1 pint in 3 gallons of water	Same as above	Toxic; corrodes cop- per (use with galva- nized roof metal)
	Potassium Salts of Fatty Acids	Available at garden supply (see sup- pliers list)	Follow manufacturer's di- rections (These products work by breaking down cell walls)	Non-toxic; biodegrada- ble, non-corrosive	Avoid contact with plants; rinse over spray
	Copper Napthenate	Widely available	Most effective when contains at least 1-2% copper. Follow directions for coverage	Effective (up to 5 years protection with some products)	Has green color in pure form; tinting may be desired
	Zinc Napthenate	Widely available	2-3% solutions best for 3- year protection; higher (i.e., 4%) may yield longer protection	Good color match for silver weathered roof	Less effective than copper solutions; frequent renewal possible



roof had more life, and it's wasted. The old-time wood-shingle roofer knew that labor was

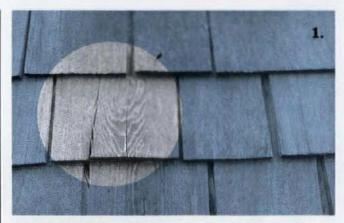
the major expense, so he had no compunction about rejecting inferior shingles up on the roof. Here's a quick but crucial education in how a tree becomes shingles, and how to cull your shingle pile to get the longest life for your new roof.

Defects and Deterioration

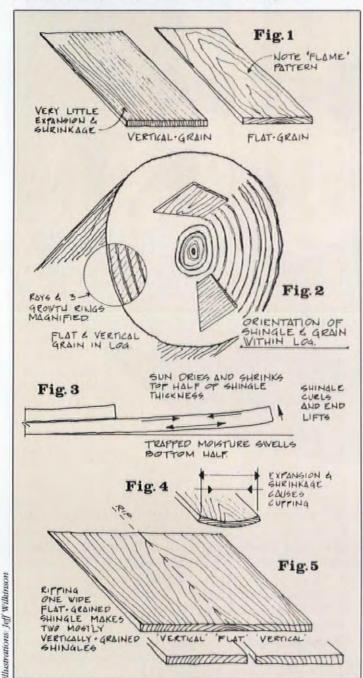
Wood roof shingles break down through a combination of weathering, physical damage, and decay. Wood-shingle

Look at the butt end of a shingle. You'll see the annual growth rings of the log from which it was cut. The ring itself is hard dense tissue. Tissue between the rings is much softer. On vertical-grain shingles the growth rings are perpendicular or vertical to the face of the shingle (see Figure 1). They pass from one side of the shingle to the other. On flat-grained shingles the rings are generally parallel to the face of the shingle.

Checks and Splits Checks are separations of the wood fibers, which occur along the grain and across the growth rings. Weather checks develop in bare flat-grained wood



This shingle is suffering from two kinds of defects: a wind check on the left, and a weather check on the right.



exposed to the weather for many years. They start due to an inherent weakness in the structure of the wood: the rays. Looking at the microscopic structure of wood, rays appear as plates of dense tissue that radiate from the center of the log out to the bark (see Figure 2). Softwoods such as cedar and redwood have rays too thin and small to see. The wider rays of hardwoods are easy to see (in quarter-sawn oak, they are the flash of light grain). In vertical-grain shingles, the rays are parallel to the width of the shingle and not a source of problems. In flat-grain shingles, however, these rays meet the surface of the shingle at a vertical angle — and that makes them susceptible to becoming checks.

A flat-grain shingle exposed to the weather expands and shrinks, stressing the rays. In time, tiny checks develop along the rays. Sunlight shines into the check where the ultra-violet light decomposes the newly exposed surface inside the check. More light shines in and the check deepens and widens. Eventually, the check grows deep enough for stresses to crack the shingle.

You'll usually find weather checks near the center of the flame pattern on flat-grain shingles (see the smaller split on the right in Photo 1). Wide shingles are more susceptible to splitting. In Photo 2, almost all of the flat-grained shingles wider than 6" are split due to weather checks and expansion.

Wind checks are caused by high winds that stress the tree when it's still standing in the forest. In new shingles they show up as light streaks ending in crinkled-looking

grain (see the left split in Photo 1). Bark inclusions are caused by damage to the cambium layer and appear as dark streaks along the grain in a new shingle. Both of these defects cause a weakness along the growth rings which can cause cracks in the vertical-grained areas of shingles.

Weathering When wood is exposed to the weather, several forces attack it. Ultra-violet sunlight breaks down the fibers of the wood. The freeze-thaw cycle loosens the fibers, leaving a characteristic fuzzy surface. Rain softens the fibers and washes the loose ones

away, exposing the next layer of wood.

Flat-grained wood weathers away unevenly because larger areas of the soft grain are exposed and water penetrates deeply into weather checks. The softer wood be-

The bulk of these shingles are wide and flat-grained, and now plagued by weather checks.





Curl in a flat-grained shingle.

tween the rings weathers away first, leaving a grooved surface that shows the grain pattern of the wood. Vertical-grain shingles have a minimum of soft grain exposed to the elements, and so stand up much better to weathering. **Curl and Cup** As the moisture content of a wood shingle changes, it expands and shrinks in the direction of the growth rings much more than across the rings. After a long rain, the sun dries and shrinks the top face of a shingle, while the bottom face remains soaked and swollen. This action can cause the end of the shingle to lift and curl as in Photo 3. Flat-grained shingles are more likely to curl because the dense growth rings slow down the movement of moisture through the shingle more than in vertical-grain shingles (see Figure 3).

Flat-grained shingles are also much more prone to cupping, because the curved rings are shrinking and trying to straighten out (see Figure 4). Vertical-grained shingles are much less susceptible to cupping because most of the shrinkage is through their thickness.

Sapwood Decay Sapwood, the outer wood in a tree, is much more likely to be attacked by decay-causing plants (moss, fungus, lichens) than heartwood is. Sapwood lacks the natural chemicals found in heartwood, which resist fungal decay. You'll recognize sapwood in a new shingle by its lighter color, usually along one or both edges. An entire shingle could be sapwood, so you'll have to compare shingles to notice the difference.In Photo 4 (second course down), fungus has eaten two inches off the edge of this shingle.

Solutions

Armed with this knowledge, you can minimize many of the causes of wood-shingle deterioration. The basic strategy is to make the roof last as long as possible and then wear out all at once. This makes sense because roofs are hazardous and inaccessible to work on; you want to be up there making repairs or reroofing as little as possible.

To make the shingles last, upgrade the quality. To make the shingles wear out all at once, make sure the shingles are all of equal quality. Starting with high-grade shingles puts more money into materials; starting with a lower grade puts more into labor.

Upgrade Quality Installing shingles that have the least chance of becoming defective is the simplest way to extend

the life of the roof. Even the best grade shingles contain some defects. Most roofers will toss out the occasional bad shingle, but I'm talking about going much further than that.

1) Sort the shingles into three piles: *ideals*, ready to be installed on the roof; *reworks*, those that can be made into ideals; *culls*, those not worth reworking.

Use the "Defects" section above to recognize the ideal shingle. The closer you get to ideal quality with each shingle, the longer the roof will last. Cull out shingles that can't be reworked. If you're using a lower-grade shingle to begin with, you might be culling out 20 to 40% or more. You don't have to throw out culls: These shingles won't last as long as ideals, but they can be used on walls or sheds that are more accessible than your main roof, making them

easier to replace when they fail.

2) Remove sapwood from the edges of shingles. Some roofers chop the sapwood off a shingle just before they nail it down. If a lot of the shingles have sapwood, set up a jig to rip it off on a table saw. This is much more efficient than doing it up on the roof.

3) Also on the table saw, rip shingles wider than 8" into two narrower ones. On flat-grain shingles, rip as close as possible to the peak of the flame grain pattern, where it's most likely to split (see Figure 5). Don't make



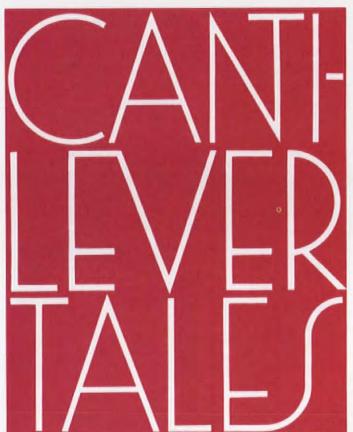
Sapwood decay has eroded enough of this shingle to expose the nail in the course below it.

shingles less than 4" wide. Ripping down shingles narrower than 8" may produce a surplus of narrow shingles.

As you've already guessed, all this means handling a lot of shingles. Set up a shingle-processing operation to get this work done effectively. Invite your friends or volunteers to help, and train them to recognize defects as well as ideal shingles. Have plenty of boxes ready to ease handling. Fruit lugs from the market are just the right size. After sorting, keep the shingles packed in neatly, standing on end, ready for installation. As you wrap up your roofing project store away a supply of shingles for future repairs.

Once you know how shingles deteriorate, it becomes clear what you can do to prevent it. Spending extra time or money up front on a project is an investment that pays the dividend of a good-looking, long-lasting roof.

Contributing Editor John Leeke is a consultant and contractor who belps bomeowners, contractors, and architects maintain and understand early buildings: RR 1, Box 2947, Sanford, ME 04073; (207) 324-9597.



AN OLD MODERN GETS A NEW ROOF D BY DON PRICE

A flat roof is often a challenge in a northern climate even if the building is a home by Frank Lloyd Wright. So discovered Elizabeth Halsted, the owner of a late-1930s Wright house that needed roof repairs. In the summer of 1988, Elizabeth asked me to examine her home - especially the roof. So with Ann Arbor architect Marc Rueter, I investigated and found three areas of concern: 1) Framing for the southwest-facing studio windows was considerably out of plumb; 2) the tar and gravel roof showed cracks and some leakage, and Marc also noticed a considerable sag in the cantilevered roof over the carport; and 3) the brick foundation for the garden wall (called "lanai wall" on the plans) showed deflection and some cracks. Unlike some Wright restorations, where large sums are spent on a rebuilding effort, Elizabeth's budget was modest, and Marc and I had to come up with reasonable, buildable solutions. In fact, the budget did not allow us to pursue the third item on the agenda, which was not as critical as the first two.

To begin work on the roof, we first had to make repairs to the south wall. The large window series at the southwestfacing studio is composed of custom millwork casements, with the frames of the narrow windows supporting the higher of the two roofs. Harold Turner, the contractor who built this structure in the '30s, provided a very clean job both in framing and interior finish. The framing that backed the single brick planter box, however, had separated from the brick, breaking the top soldier course and forcing it down as the windows began to tilt in toward the room (see Wall Section, page 45).

RAISING THE ROOF

We raised the roof slowly from both the inside and outside, using long screw jacks and wood blocks. Once everything checked out with a taut mason's string at the sill level, and all the windows were plumb, we temporarily supported the base of the window, and completely removed the lower framing. With the two-by-four knee wall gone, we laid up 4" cement-block piers under each window jamb. Each was a substantial 2½" thick; only the rabbeting for the screens and windows made the jamb appear small. The piers were lag-bolted to the back of the planter box with 6" screws and mollys set into the brick. The screws could be set in the joint of the concrete block as we went up another course. We grouted the piers with the same type-M mortar used to lay up the work. And as long as we had this wall open, we set conduit through the block work,



as the house was short on electrical outlets. Once the lower structure was stabilized, we added extruded polystyrene insulation and reinstalled the 1×12 redwood interior boards.

☐ THE NECESSITY OF ☐ DESIGN IMPROVEMENTS

The roof was ready for attention. Elizabeth wanted a warranty on the work when finished, and Marc suggested Duralast of Saginaw, a local Michigan vendor who supplied a tough membrane covering and would guarantee installation and materials. Elizabeth, a former newspaper reporter, went to the company to check it out. Impressed with the people and the conditions, she gave us the go-ahead to find a good local roofer. We chose Mike Mason, and after writing a basic agreement, we were ready to begin.

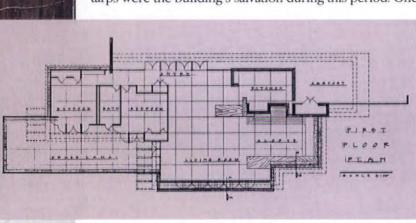
As the house consists of an upper and lower roof (see Roof Plan, page 44), we devised a plan of attack that called for first using the lower roof as a platform for working on the upper. Then we'd tackle the lower roof in stages. This plan worked quite well. We began stripping the roof felt, tar and gravel, and recovery board. The old roof decking, laid diagonally on the framing, was full of nails from the roofing felts, so all of it went to the dumpster. Once the sheathing and the old insulation had been removed, we

could see that much of the roof framing needed to be either repaired or replaced. The upper roof was framed in $2 \times 12s$ with a steel flitch plate bolted to the side of every other rafter. This detail does not appear on the original drawings and was probably devised by the builder. (It is

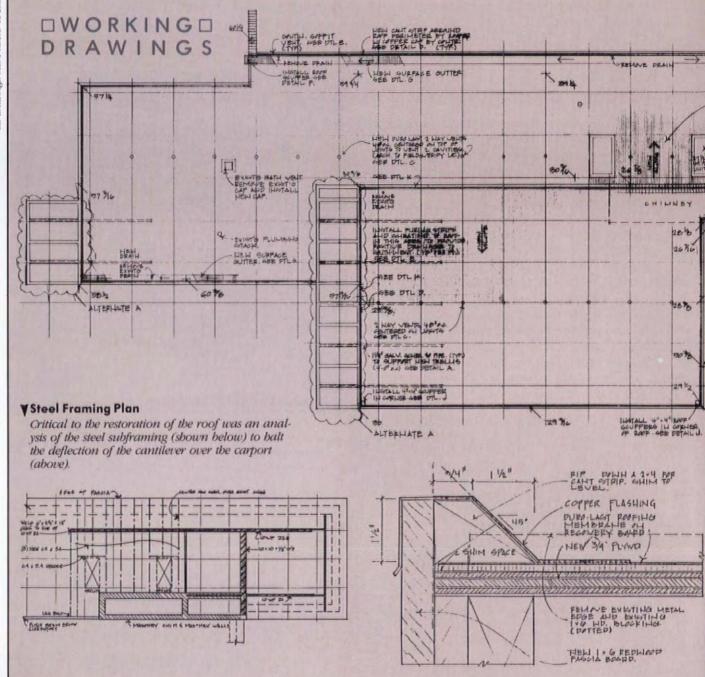


As we began stripping the decking, we were surprised by the fact that some of the actual construction, such as the 10"-wide flanged steel beam pictured above, was different from what appeared in Mr. Wright's original architectural drawings.

worth mentioning that Mr. Wright did not make site visits during construction.) We stripped all the outside fascias on this higher roof except for the northwest-facing structure. Much of the framing material supporting the fascias was rotted and we replaced it all. Rot also existed where the chimney met the roof, and some of the rafters in this area needed to be replaced. This area was tricky as it involved carefully removing the interior fir plywood. Poly tarps were the building's salvation during this period. One

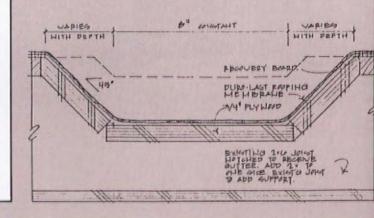


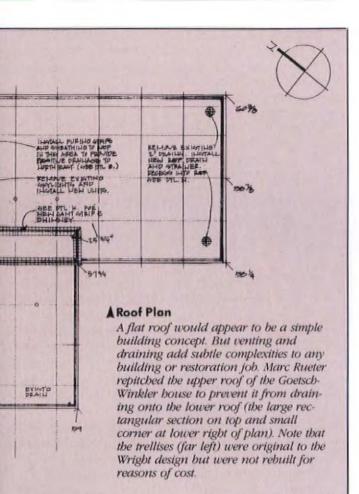
Left: Frank Lloyd Wright's Goetsch-Winkler House. Mr. Wright termed the bouse "Usonian" (derived from United States of America), which designated low-cost, high-design buildings intended for middle-class buyers.



he Goetsch-Winkler house in Okemos, Michigan, was one of Wright's most successful Usonian designs. Built in 1939, it was experimental in its construction, and it has undergone several repairs — the first in 1957, when the carport roof was reframed and 4" steel channel was added.

In 1986, when Elizabeth Halsted purchased the house from its original owners, the roof under the northeast clerestory was resupported with additional framing. The wood siding was also sanded and revarnished at this time.





◄ Cant Strip Detail

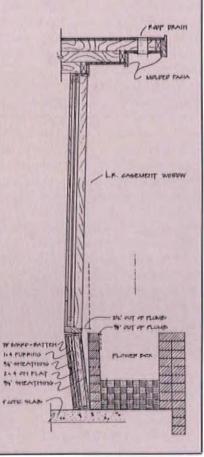
This detail is a modification of a 1950s repair. Marc Rueter chose not to follow the original Wright specifications, which unnecessarily exposed the top edge of the fascia to the weather.

Wall Section ➤

The illustration, right, shows the condition of the southwest wall. Note the soffit detail, which called for three 2×4s toenailed together to create the stepped-back effect.

∢Gutter Detail

Marc Rueter designed a built-in gutter by cutting a trough into the existing rafters.





Mr. Wright's original framing along with the new framing is visible in this view of the lower roof over the carport (see Steel Framing Plan, far left).

large tarp completely covered the upper roof over the clerestory.

When all of the framing had been repaired, new 8" insulation was installed as well as the new \(^3\k'_4\)" plywood sheathing. We made cant strips from 2 \times 4s, ripping them on a 45-degree angle to provide two cants per board, and leveling them with cedar shims (see Cant Strip Detail, page 44). The original fascia detail for the tar and gravel roof had been modified when the house was reroofed during the 1950s. Marc designed the fascia to accommodate the new membrane roof, and used copper flashing throughout,



Four-inch steel channels are added to existing wood joists for support to the roof.

as Mr. Wright had called for in his original plans.

Drainage was another problem that had to be addressed. The original prints showed a large number of 2" drains, but pine needles and leaves had plugged them, turning the roof into a pond. We replaced the drains with quick-draining, 4" PVC pipe. Marc designed a built-in gutter system for the southwest side (see Gutter Detail, page 44), which was cut into the framing and pitched to either end. (A similar gutter was designed for the lower roof.) The

noto: Ralph Turn



The membrane roof was on, above, but we went back when weather permitted to level and repair the fascia (see detail, page 44).

plane of the upper roof had been pitched slightly to push water to this gutter.

Codes required fireproof lumber at the chimney extensions, as a base into which we could screw the terminating bar, or finishing strip. We used fire-treated 2×4s around the existing flue tiles, and then added 6" flue extensions in clay (see photo far right, page 47). The clay extensions were mortared to each other with refractory cement. This allowed both the flue from the chimney that supplies the fireplace and the smaller furnace flue to stand slightly above the roof with the terminating bar covering the mem-



Mike Mason makes a field seam using a roller and Duralast's seam sealer which fuses the material with heat.

brane. We caulked the screws with a very sticky urethane sealant (Vulkem Sealant) that was also used to seal the flashing joints where the copper covered the terminating bar on a vertical brick surface.

The upper roof was now ready to receive the membrane covering. Installation is much smoother than with a gluedown system because the fasteners screw through a flap covered by the membrane. The screw is mounted through a large flat washer, spreading the load and recessing the head of the screw. The recovery board used in the Duralast system is a dense white foam, 1/4" thick. The entire upper roof was covered with one piece of membrane without any field seams. We were now ready for the lower roof.

SUPPORTING THE CANTILEVER [



e proceeded with the same sequence of steps we used to repair the upper roof: stripping the old material, repairing the framing where necessary, straightening the fascias, making the built-in gutters, and putting in new insulation, cant strips, and plywood sheathing. The work progressed more slowly near the clerestory windows, above the kitchen, and near the car-

port. With the original material removed from the clerestory windows, we had to fit the plywood to them — lots of scraping and hand work required here. The kitchen originally had two flat, site-built skylights; the existing ones were slightly larger than called for on the original prints. We replaced these with a pair of domed units, for reasons of cost. The size of the units worked out so that alterations to the interior were not needed.

By the time we arrived at the southeast corner of the carport and stripped the sheathing, we could see that we were in for more than we had bargained: The sag Marc had noticed earlier was worse than it had at first appeared; we determined it was actually due to insufficient framing, both wood and steel. Once again the as-built situation proved to be different from the architect's drawings. Mr. Wright's plans are unclear as to the size of the steel needed to support the large cantilever. It seems reasonable to conclude that the builder, Harold Turner, sensed that the house could not be constructed as drawn, and made several variations (much to his credit) to make it work. Structural failure is seldom a cut-and-dry situation, and the case of the sagging cantilever was due to fifty years of deflection.

At this point, work was halted for a few days while we consulted with structural engineer Gary Caspry. Basically, what was needed but had never been specified was a steel diaphragm solidly anchored to the chimney mass, which could support the cantilever. Our plan would be to sufficiently tie the large 10WF beam (the one Harold Turner had installed) that ran over the kitchen clerestory to the chimney using steel channel (see Steel Framing Plan, page 44). This would also minimize the tendency of the beam to twist. We further stabilized this beam by adding more steel and welding it above the entry doors (see photo, bottom right page 45). We also used more steel above the kitchen in low-profile channel-shapes, making a triangular truss within the stepped-back soffit. (Harold Turner had attempted a similar solution using wood members.) After the steel was in place, we resumed the roofing sequence.



Water near the front doors was eliminated by taking the builtin drain over the brick wall and ending it at a scupper. Water spills into a gravel crock below, filled with 2" stone, Japanese-Great Lakes in appearance.

THE ARGUMENT FOR MEMBRANEROOFING

The membrane materials gave the building a new lease on life, especially considering the energy demands we make on dwellings nowadays. As Marc Rueter pointed out to the client, flat or low-slope roofs had good felt and substantial oil in the tar. But after World War Two, roofing suffered because the oils were more refined, which weakened the saturating ability of the tars. The felts used also became



A roof, flat or otherwise, must breathe in order to last. The Duralast system includes venting boots to keep moisture from the bottom of the membrane. We used them to straddle each framing interval at the rafter, venting two joist spaces at the same time.

less substantial. With energy-conscious homeowners placing insulation close to the top of the roof or using every portion of the building as a heated space, the heavier felts' fate was in question — they would have to move because of thermal change more than their heavier structure would

allow. Membrane roofing is a good solution from this standpoint, provided adequate ventilation at the soffit and on top is included. We found the Duralast system very workable with its limited number of field seams, pleasant brown color, and quick installation (if roof decking is sufficient). Setting in place is essentially a carpeting exercise, although detailing takes time. Another side benefit of the material is its tendency to shrink slightly in sunlight, which removes minor wrinkles. The material is copper-friendly and will not corrode flashings.

All in all, this may be the type of material for which Mr. Wright's flat-roofed buildings were waiting. It worked well for Elizabeth Halsted's house. However, to secure Duralast's warranty, we had to add a wire chimney cap — referred to as a "pup tent" — to keep sparks off the



Above: a view of how the membrane is treated around the chimney flue as well as the copper cant and chimney flashing.

membrane. Because the cap is decidedly un-Wrightlike, we're working on a flat copper replacement, with slits in the base resembling the perforated detail above the toolroom door. If this proves too complicated, a flat screen may be adequate, although we've been careful to look for a replacement that sheds leaves for fire safety and chimney-draw considerations. The original chimney carried a nice deep smoke shelf that served as an effective barrier against rain water. The firebox was surprisingly high and shallow, showing more Rumford-like principles than I had expected to find. In any event, a solution to the chimney-cap situation is near.

All this repair, including the large window-wall stabilization, cost somewhat more than the \$30,000 budget. For this reason, the brickwork repairs are still waiting. But despite Elizabeth having to put this work on hold, it is my observation that interesting houses such as this one are much better lived in and managed by an owner than hermetically maintained by the museum world. The light in the building changes very subtly throughout the day, and this would be lost on an absentee or institutional owner. Elizabeth is doing very well by the house and its roof, now repaired to late-20th-century standards.







by James C. Massey & Shirley Maxwell

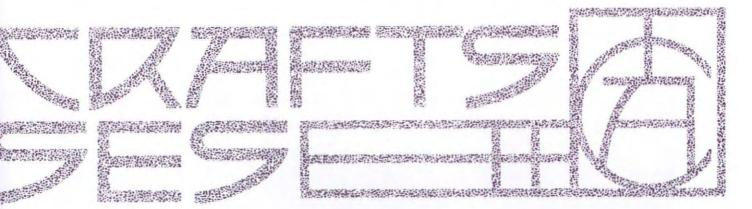
数据。约别

he Arts and Crafts may be the only house type that developed entirely from the inside out. Whether the building was a Prairie-style masterpiece or a Craftsman Foursquare, the emphasis was on the interior, artfully made with native wood and stone and a concern for life within.

The Arts and Crafts Movement got its start in England during the 1850s with John Ruskin and the Gothicists, although the term "Arts and Crafts" was not used until 1888, when an Arts and Crafts Society was formed. It developed with Ruskin's philosophical heirs, especially the designer William Morris. Books by both Ruskin and Morris were taken up by a wide audience in the United States as well as in England and Europe.

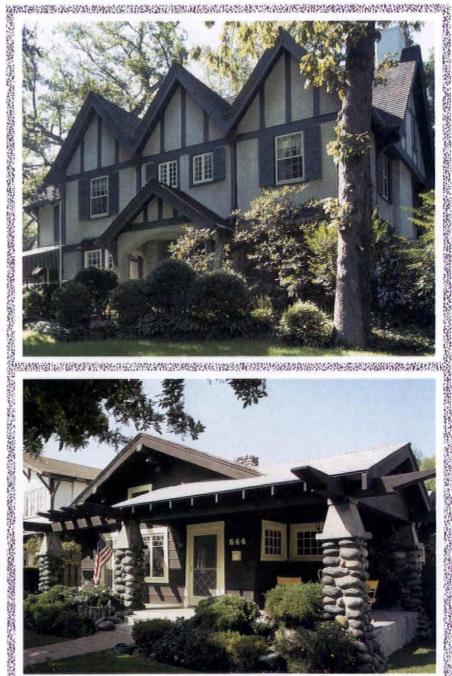
In Britain the movement was a protest against Victorian fussiness. Its adherents hated the overwrought, machine-made ornament that covered

Above: An Alexandria, Virginia, bungalow — the house type America found easy to love. Shed roof dormers give a surprising amount of light and air to rooms that look like dim garrets from the outside. Below: Stickley's own house at Craftsman Farms in Morris Plains, New Jersey. It was originally built as the community center.



and "defaced" architecture and the decorative arts. As socialist thinkers and reformers, they deplored the industrial processes of the period, which they considered dehumanizing to the laboring class. They found the products "dishonest" and "insincere" in the way materials were used. The solution to all these problems would be a return to the medieval guilds' principles of honest craftsmanship and comradeship. The way to improve the popular taste and restore dignity, joy, and morality to work and home was to reorganize craftsmen into guilds that produced handmade items under humane working conditions.

Consequently, Morris and others, such as the architect C.R. Ashbee, set up a number of guildlike establishments, in which many beautiful and tasteful objects were made and sold to those who were rich and discerning enough to buy them. Delightful brick





Because and a second contract of the contract

Above: Half-timbered and stuccoed bouses were a big favorite with East Coast architects; this one is in Madison, New Jersey. Note the mix of casements and double bung sash. Below: An Arts & Crafts bouse in Coronado, California, with massive stone pillars. The pergola, once a free-standing garden structure, is now a built-on feature.





Left: Respect for natural materials is evident in the dark wooden walls and stone masonry of this substantial Pensacola, Florida, bungalow. Deep eaves shade an astonishing number of windows. Below: The porte-cochere at the Blacker House in Pasadena, California, built by Greene & Greene in 1907-09.

and half-timbered country estates were built for the landed gentry. But the lot of the laboring man was not much improved — and neither was his aesthetic sense.

From the late 1890s until World War One, the Arts and Crafts Movement received enthusiastic support from groups of forward-thinking young American architects, furniture makers, and social reformers. Americans made pilgrimages to England and Scotland, and British Arts and Crafts lecturers such as Ashbee visited the United States and formed lasting friendships among their American counterparts. While the dream of returning to an earlier ethic of work and art may have been the same on both sides of the Atlantic, the practical effects were very different.

In Britain the interest remained in the hands of professional architects who catered to a small, upper-class clientele. In the United States, however, it was a widespread and highly successful response to middle-class demand for affordable, efficient, and attractive suburban homes. One of the chief differences is that many of the American adherents embraced machinery and sought to exploit the manufacturing possibilities of mass production.

Distinctive regional variations in the United States soon appeared. In the Northeast, architects such as Philadelphia's Wilson Eyre designed mansions with half-timbering and steeply pitched roofs in the British manner for their wealthy clients. In the Midwest, Frank Lloyd Wright and his colleagues of the up-and-coming Prairie School (such as Walter Burley Griffin and Marion Mahoney) led the way, building low, sweeping, horizontal houses for wealthy Chicago suburbanites that seemed worlds removed from the skyscrapers being built downtown. On the West Coast, Charles Sumner Greene and his brother Henry Mather Greene blended Spanish and oriental elements to produce a high-style wooden architecture unique to California. But it was a furniture-makerturned-publisher named Gustav Stickley who brought Arts and Crafts architecture to the middle class, and the results are still visible nationwide.

Gustav Stickley was born in Wisconsin in 1857. The son of a German im-

migrant stonemason, he was put to work at a tender age as his father's reluctant assistant. When he moved with his mother and brothers to Brandt, Pennsylvania, young Gustav gladly switched to the less strenuous career of chair-making. Later, he ran a furniture shop with two of his younger brothers, Charles and Albert, before leaving to set up shop in New York State. Two other brothers, Leopold and J. George, became well known in the early-20th century as the furniture firm of L. & J.G. Stickley, Gustav's competitors. By 1898, Stickley was a successful businessman with a strong interest in the Arts and Crafts Movement. He visited England that year, met with Ashbee and other movement leaders, and came home to begin his new life as a central figure in the Americanization of Arts and Crafts.

Stickley began publishing *The Craftsman*, a popular magazine filled with philosophy and furniture designs, in 1901. The magazine, which continued until 1916, was intended partly to advertise his company's line of simple, blocky furniture with good proportions and solid construction. But just as important, to Stickley's mind, it was an opportunity to spread the Arts and Crafts creed. Stickley hoped that Arts and Crafts furnishings — and, almost as an afterthought, appropriate houses for them — would lead to simpler values and a happier life for the common man.

Stickley hired professionals (usually not identified in

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print) to design houses for the magazine. He also ran articles and house designs by architects in other parts of the country, such as the California firms of Greene & Greene and Irving Gill. The heyday of *The Craftsman* began when Harvey Ellis, a brilliant but hopelessly alcoholic architect and designer, joined its staff. Although Ellis was with the magazine for just seven months, from May 1903 until January 1904, his beautifully rendered designs of houses and furnishings brought a poetic sense of color and life to its pages. None of Ellis's house designs are known to have been constructed.

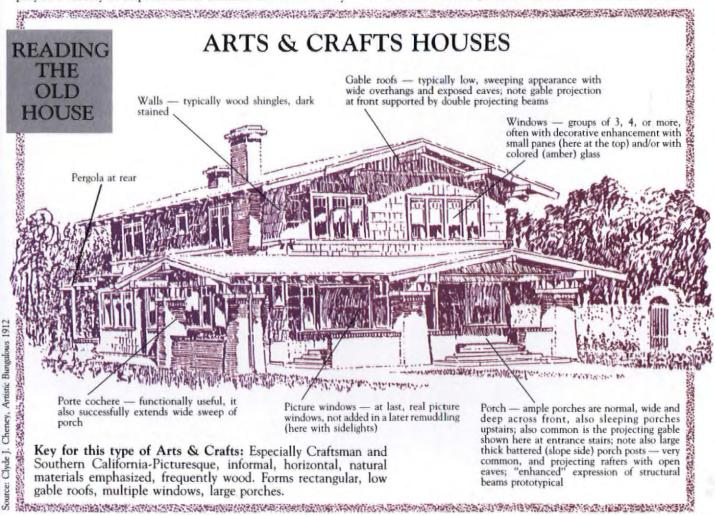
In January 1904, the first in a long series of monthly house plans was offered, free of charge, to subscribers to *The Craftsman*'s new Home Builders Club; these plans would eventually number over 200. The houses, which were expected to cost between \$2,000 and \$15,000, featured open interior floorplans and were clearly aimed at the middle-class family. *The Craftsman* had entered the competitive world of the mail-order architect — with the important difference that Stickley was *giving* his designs away. He even offered free advice to homebuilders who wanted to modify the plans. He also published detailed plans for furniture similar to those his company sold and gave free advice to woodworkers who used the designs.

"Style" is almost too strong a word for the exterior design of many Craftsman houses. On the outside, they displayed a variety of unpretentious architectural forms. They borrowed from the English Arts and Crafts, the American Shingle Style, and the Colonial Revival. However, Stickley and *The Craftsman* did play a major role in popularizing the Bungalow, by far the hottest house type of the early-20th century. (Among the other Bungalow promoters were William P. Comstock, *Bungalows, Camps, and Modern Homes*; Henry H. Saylor, *Bungalows, Their Design, Construction and Furnishings*; and Frederick T. Hodgson, *Practical Bungalows and Cottages for Town and Country.*)

The important thing was that the Craftsman house had to be perfectly suited to the use for which it was intended. The exterior design followed as a matter of course and was always simple, appropriate to its suburban or rural setting, and honest in its use of materials. Consequently, there were a lot of Foursquares, some very simple T- and L-shaped houses, and an occasional U built around a patio, popular in California.

The small amount of decoration that was used expressed structural consideration. Exposed rafter ends were almost a Craftsman trademark. Symmetry for symmetry's sake was frowned upon; symmetry for simplicity's sake was encouraged. Enormous stone or brick exterior chimneys suggested a broad hearth and a warm and happy family life within — very, very Craftsman!

Fresh air and sunshine were considered essential to health and comfort, and so there had to be at least one



outdoor "room" for fair-weather dining, sitting, or visiting — a porch, often recessed or sheltered by solid parapet walls, most likely a verandah and often a pergola as well. Frequently there was a sleeping porch or several. Gardens and landscaping were integral to the design.

Although Craftsman plans always suggested appropriate building materials, the homeowner was expected to make his own choices from what was readily available and economical in his own area. Ideally, he would use materials found or produced near the building site. He was urged to use the best he could afford and to finish them with care. "Natural" Craftsman materials included wood-shingled walls and wooden rafters, sturdy stone foundations and lower storeys, often of smooth rounded stones, stuccoed or cement wall finishes, concrete walls and columns, rough-textured, multi-colored brick, Spanish or flat-tile or slate roofs. Stickley himself had a weakness for log houses, which he indulged in the house he designed and built for his own family's use in 1904.

But it was the interior that mattered most. An open floorplan brought family and guests together in combination stairhalls/living rooms, while inglenooks, windowseats, and artfully planned recesses encouraged private activities such as reading and thinking. To minimize maintenance and housekeeping, the rooms were sparsely furnished, preferably with built-ins and a few freestanding pieces purchased from Stickley's firm or built by the homeowner from the free plans published in *The Craftsman*. Again, decorative interest was supplied by the use of natural materials — stone, brick, glazed tiles, copper, bronze, and lots and lots of richly colored wood in paneling, floors, and built-in furnishings.

Craftsman houses also brought kitchens into the twentieth century. Declaring that "drudgery is partly due to our fussy, artificial, overcrowded way of living," *Craftsman Homes* (1909) offered plenty of shelves and cupboards, a

hooded range to carry out kitchen odors, and a refrigerator that could be filled from the outside.

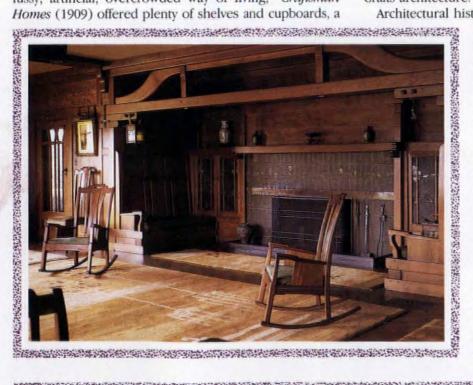
Although Stickley was the most important popularizer of the Arts and Crafts, he was far from the only one. Elbert Hubbard (see "Who They Were," page 26) was among the best known figures in the movement. Hubbard was a promoter and publisher, not an architect, but his name is associated with two monuments to the Arts and Craft ethic: the Roycrofters Inn and campus in East Aurora, New York, and the Grove Park Inn, a stone hotel built by an admirer in Asheville, North Carolina.

The work of Charles and Henry Greene appeared regularly in *The Craftsman* from May 1907 until June 1915. When the two brothers first began their practice in the 1890s, they mixed elements from Old English, Spanish Mission, Queen Anne, and Colonial Revival styles. They finally found their niche when they began building a special type of wooden California Bungalow incorporating Japanese influences—the "ultimate bungalow," it has been called. Ralph Adams Cram admiringly declared of it: "There are things Japanese; things that are Scandinavian; things that hint at Sikkim, Bhutan, and the frontiers of Tibet, and yet it all hangs together, it is beautiful, it is contemporary, and for some reason or other it seems to fit California. It is a wooden style built woodenly."

Irving J. Gill, a contemporary of the Greenes whose work was published in *The Craftsman*, was a San Diego architect who had been trained along with Wright in the Chicago office of Adler and Sullivan. He built Mission-style houses in reinforced concrete, sometimes using prefab-barracks machinery purchased from the U.S. Army after the Spanish-American War. In contrast to the austere style used by Gill, Bernard Maybeck's houses in the San Francisco Bay area used an uncommon amount of decoration for Arts and Crafts architecture.

Architectural historian Reyner Banham reminisced that

the international Arts and Crafts movement represented "the last, brief, and almost perfect flowering of that striving bourgeois ethic of plain living and high thinking that had contributed so much to the life of the Victorian epoch, whose members had now discovered how to live high as well as think high by ... buying luxurious comfort that could be excused as [socially responsible] art."



Left: In the living room of the Pasadena Gamble House by Greene & Greene, everything is architect designed — lighting fixtures, stained glass, and, of course, the marvelous furniture.



by JOAN NYBERG

How To Preserve Your

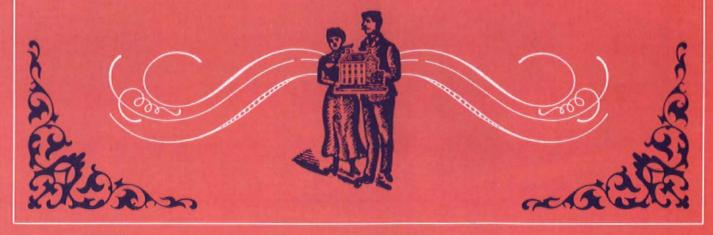
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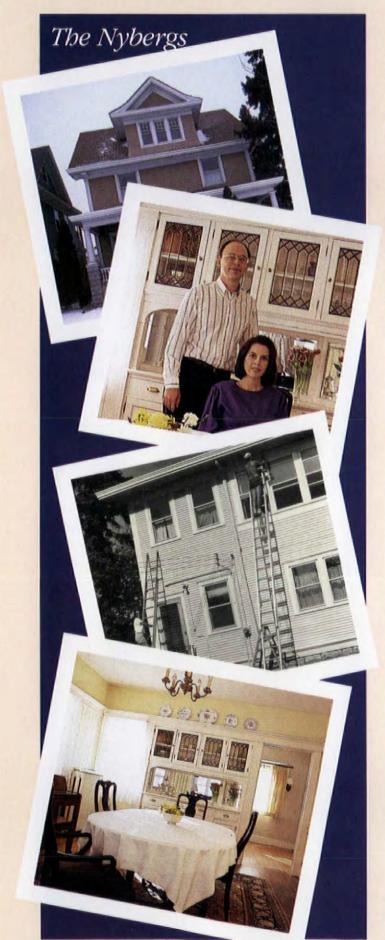
While Restoring Your Old House

August 28, 1989: I'm sitting on the front porch steps with head in hands and mouth hanging open, staring at a piece of paper.

'I'm sorry it's not less, ma'am,'' says the sandy-haired college kid who just handed me a painting estimate. 'But it's a big house.''

The estimate is more than twice what I expected. But that's not what's troubling me. What this means, I realize with horror, is that my husband and I are going to have to paint the house ourselves... together.





When Dick comes home, I show him the estimate. As his eyes reach the bottom line he lets out a low moan.

Like many couples, Dick and I have a hard time working on house projects together. As newlyweds, we spent a few weekends stripping, sanding, and painting the kitchen of our turn-of-the-century apartment, and the tension in the air was thicker than the Zip Strip fumes — and just as toxic.

That was the last project we tried together. Keeping our marriage intact was more important than restoring the apartment, so we lived with the peeling green wallpaper, the painted woodwork, and the bathroom from hell.

When we bought a 1906 American Foursquare in an old St. Paul, Minnesota, neighborhood, it satisfied our love of old houses. Just as important, it didn't need much work. In the three years we've lived here, we've kept the place standing and avoided major battles by keeping our projects "separate but equal": Dick fixed the leaky roof, I stripped and wallpapered the dining room; Dick repaired the sidewalks and tuckpointed the chimney, I painted and papered the kitchen. House painting, however, is a big job. To get it done before winter, we'd have to do it together.

Partners in Grime

estoring an old house is the kind of project that binds some couples and tears apart others. Many couples work together effortlessly and actually enjoy themselves. They tackle immense tasks, live with chaos for months, devote every free moment and available dollar to the cause, and emerge from the ordeal with a beautiful home and a strengthened relationship. Take Angie and Charlie Nelson of Minneapolis. They've restored seven old houses together. What's their secret? "We don't live in the house we're restoring. And we don't try to hang wallpaper together," says Charles. But there are also harrowing tales of couples who fought constantly during the restoration of their homes — even stories of house-induced divorce.

"Many couples find home restoration a real challenge," says Dr. Victor Klodin, a clinical psychologist. "That doesn't mean they have a 'bad' relationship. They just find this particular situation to be especially stressful." A lack of communication is perhaps the main problem, says Dr. Klodin. "When couples are involved in restoring a house, the project is typically all they discuss. Because they're *talking* to each other all the time, they feel as if they're communicating. But the real issues often are sidestepped. So it's important to express how you are feeling."

At some point, you'll probably be disgusted with the project, doubtful about ever finishing, and angry for having agreed to start. Every house-restoring couple feels this way sometimes. Just try not to blame each other. Instead, talk about what you need to do to get through the worst of it:

From top to bottom: the turn-of-the-century Foursquare that is home to Joan and Dick Nyberg, also pictured; the housemates house-paint — and live to tell about it — but "to avoid hassles," Joan restored the dining room herself.

a night out, a weekend away, a promise never again to strip woodwork as long as you live.

Often, one person is more committed to the project than the other. Says Dr. Klodin, "It may not show at first. But as the work drags on, the less-committed partner may begin to feel resentful or betrayed." Before you dig into any project, discuss why you are doing it and how committed — or uncommitted — you are.

Control is another issue couples often face. Who gets to pick colors for the living room? Who establishes the schedule and outlines the day's work? Alternate giving in and getting your own way. Take turns being "boss."

Finishing the house shouldn't become your only source of happiness. Keep in touch with friends, work, and activities you enjoy. "Too often, people become consumed by the project and neglect the rest of their lives," says Dr. Klodin. "They think, "When the house is done, we'll spend more time together, we'll entertain more, we'll be happy." And then, when the house is completed and life isn't perfect, they are very disappointed."

Who's the Boss?

eptember 10: Dick and I have decided to paint just the south side of the house this fall. We've almost finished the wearisome task of scraping off the loose paint. Yesterday, Dick started caulking — and we started getting in each other's way.

"We need to plan our attack," I say as we get out our tools this morning. "Why don't we try this: You be the boss today, and I'll do whatever you say."

"Why, Joan," says my slightly astonished husband. "Are you saying that you want to be my love slave?"

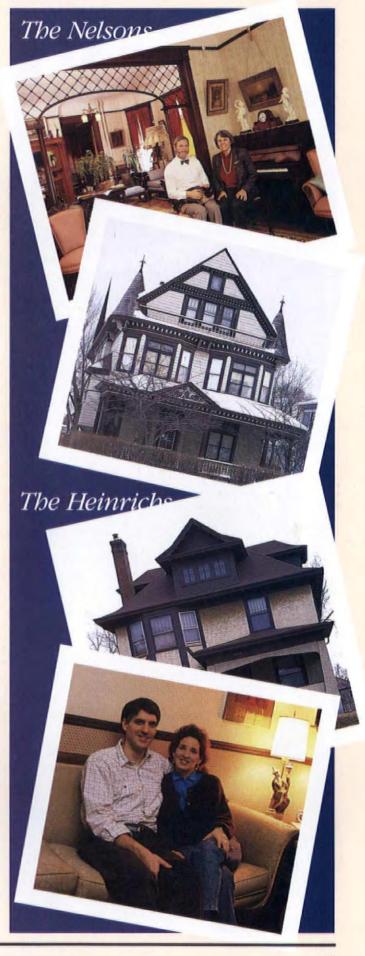
I make a point of dropping paint chips on his head for the next four hours, then go visit the neighborhood experts on home restoration, Pam and Tom Heinrich.

The Heinrichs, whose previous restoration experience totalled one wallpaper job, spent four or five hours every night after work, unremuddling their 1908 builder's plan house. Within two years, they completed the major projects. "We agreed on how we wanted things to look at the end. And our abilities complement each other," says Tom. "When we wallpaper, I'm good at cutting around the woodwork. But I can't get it to lay flat. Pam can."

Another trait that helps the Heinrichs work together is their ability to tolerate a mess. "It was pretty bad at times, but neither of us became too upset," says Pam. Tom adds, "It helped us to get one or two rooms done right away, so that we had a place where we could escape."

But even the Heinrichs' relationship didn't entirely escape the strains of restoration. "There's always a point when you hate the project and you hate each other," Pam says. "It's important to let go of the schedule if you see

From top to bottom: Angie and Charles Nelson seated in the richly appointed parlor of their Queen Anne house; the Heinrichs' Prairie-style Foursquare home and the owners themselves, postng in their newly restored parlor.





that stress is building." She and Tom work through the low points by taking time off: They see friends, go to a movie, or spend a decadent evening eating pizza and watching TV, like "normal" people.

"House projects are really a lot like having a baby," she insists, cuddling their nine-month-old, Julia. "There's a lot of satisfaction in the result. And you tend to forget how awful it was in the middle of it. The pain fades and after a while you're saying, 'Sure, I'd do it again.'"

Responsibilities & Results

ctober 1: The wind is blowing at 25 miles per hour this morning as I struggle with the 24-foot extension ladder. It seems heavier than it did yesterday, but maybe I'm just getting tired of moving this metal monster around. A gust of wind sways the ladder toward the overhead power lines. I let go and the ladder falls noisily to the ground.

Dick appears at the back door. "Need help?" he asks.

"No. I'm doing just fine," I answer testily. Actually, I'd love some help, but some primitive urge makes me believe I must do this myself. I finally get the ladder into position and start painting.

Minutes later, Dick starts setting up his ladder, a heavyduty, 32-foot brute. Clanging metal and mild profanities mix with paint fumes in the cool morning air. When the big ladder sways toward me and the neighboring power lines, I make a bee line for the ground.

"Want help?" I ask.

"No," he says firmly.

After this rocky start, we paint like demons for the rest of the day. By 7 PM, it's finished. And it looks fabulous. The fresh yellow paint glows in the fading sunlight.

We spend the evening admiring our work and planning next spring's assault on the rest of the house. I'm slightly disappointed that we can't start on it right away.

"What would you think of putting dark green awnings on the double windows?" Dick inquires tentatively.

"I think it would look wonderful. I'd like to get a new storm door that we could paint green," I say, half-expecting to hear The Moan again.

"Yeah, I've always hated that aluminum storm," he says. I can't believe we're having this discussion — talking about home improvements has always been the surest way to start an argument in this family.

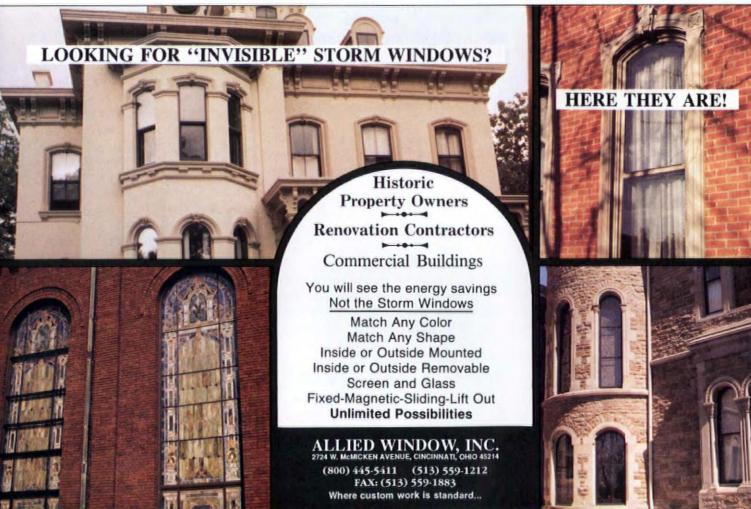
Something has changed. I'm beginning to understand how couples such as the Nelsons and the Heinrichs can actually enjoy working together. After completing this project without any major battles, I'm feeling encouraged and empowered. I think Dick feels the same way.

"If we can do this," he says, pointing to the newly painted side of our house, "we can do anything."

From top to bottom: two "before" shots — "as bad as it gets," comments Tom — showing the Heinrichs at work in their unrecognizable dining room; and two "after" shots of the living and dining rooms as they appear today.



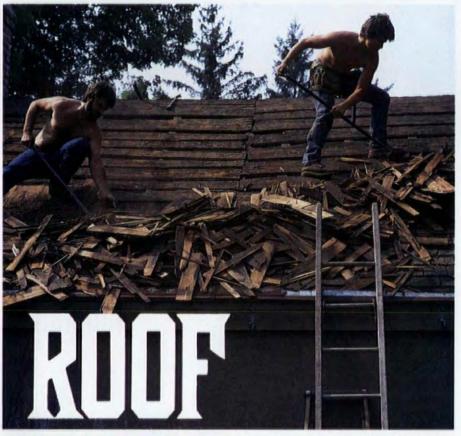




Over the years, specialized tear-off tools have evolved from some of

spades are nursery spades specially adapted for roof work by the addition of serrated teeth to the blade and a heavy-duty fulcrum (such as a piece of angle iron) at the back. The fulcrum improves leverage when prying up shingles, and the teeth are designed to grab nails and pull them up along with the shingles. (They're also handy for cutting the roofing by bites when only doing a partial tearoff.) Roof-nail spuds are forklike prying tools designed to lift the old roofing and comb up most of the nails as well. Today, as nail guns and other pneumatic tools become increasingly a part of roofing and other construction, air-powered tear-off devices are also starting to appear on

one pass.



Let gravity belp remove old roofs: Work from the ridge down.

Roof work may always be "on the house" (as somebody inevitably points out), but it doesn't start with installing the first shingle and nail. You have to get up there, and often, you have to get some - or all - of the old roof off.

Tearing off old shingle roofs (or any roof) is hot, dirty handwork. There's not much art to it - the object is to get up as many nails with the shingles as you can - but people have gotten clever when it comes to tools to get the job done efficiently. Wrecking bars and pry bars are adequate for tear-offs of a few square feet or so, but for an en-

tire roof, a long-handled tool is the only way to save your back. Garden tools of all sorts have been used for years. Some folks like hoes or edgers because they're light and small. Others swear by a pitchfork or heavyduty garden fork because the tines slip past nails (unlike a blade) and can get under more shingles. Shovels have their fans too, but only those with flat, straight blades (it's difficult to work a curved or pointed blade under flat roofing). Many fulltime roofers use nursery spades they're strong, blunt, and the handle meets the blade at a good working angle. A non-garden shovel that's also popular is a coal shovel or

scoop. These tools have flatbottomed blades as wide as 14"

the market. Repair jobs on shingle roofs don't regularly involve large-scale tear-offs, but they often do mean removing and replacing an individual shingle or two without disturbing the surrounding roof. In a pinch, defective wood shingles can be split out with a hammer and chisel. But if a lot of repairs are in sight, it pays to invest in a shingle ripper. These long, flat, blade-like tools are hand-forged so that the tip has small ears that can cinch a nail shank. In use, a shingle ripper is maneuvered under the problem shingle so that it hooks one of the nails securing it. Then, the ripper is tapped out with blows from a hammer, drawing the nail — and the shingle - with it. To install a new shingle without face-nailing, slide the shin-

Specialized tools speed tear-offs. Roof-nail spuds (left) lift nails as well as roofing, and tear-off spades improve shoveling up of shingles.

continued on page 60

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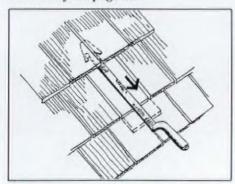
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OLD-HOUSE MECHANIC

continued from page 58



Shingle rippers slide between courses to book hidden nails, then drag out shingle and nails when tapped down.

gle into the course until it is within an inch or so of being in line. Next, toenail the shingle with two nails (at roughly 45 degrees) right at the butts of the upper course, and recess these with a nail set. Then tap the shingle home with a block and hammer so that the nails disappear under the upper shingle.

riless you're part mountain goat, keeping a footing while walking and working on a shingle roof (especially a steep one) is a constant concern. Wood-shingle roofers of the past solved this problem by building toeholds in strategic places around the roof. One method was to nail a 2×4 between the butts of two extra-long shingles. These would then be shingled into a course so the lumber was left hanging like a ladder rung. When no longer needed, the shingles were trimmed and the toehold discarded.

Today, only historical purists (or the most frugal) would use such an approach — most of us buy **roof jacks** (see Restoration Products, page 66). These are inexpensive, reusable (and often adjustable) metal brackets that are nailed with the shingles to the roof

deck. When used in pairs, they are strong enough to support a 2×6 toe-board, yet slim enough to be shingled over and later unhooked and slid out from under the course. For the steep roofs often encountered on old houses, it pays to buy roof jacks that can hold the toeboard nearly perpendicular to the roof (some jacks are angled permanently for the low pitch of ranch house roofs).

The other commonly used scaffolding tools that get you "up in the eaves" to do roof or gutter work are also called jacks. **Ladder jacks** are devices that suspend planks horizontally off a pair of ladders as they lean against the building. The ladder jacks used for decades are triangular affairs with adjustable steel arms that hook onto the ladder rails. Most models can be hung from either side of the ladder to accommodate the job. Some new versions are made from aluminum and are simpler and

Ladder jacks (inset) will support scaffolding when used in pairs. Pump jacks (below) ride on 4×4 columns braced to the building.

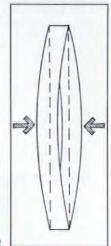


lighter, but not always as adaptable.

Pump jacks are mechanical brackets that also carry planks to form a versatile, light-duty scaffold system. The jacks ride on vertical columns (two 2×4s nailed together to make a 4×4) that are secured to the house with standoffs, and can be

ratcheted up by "pumping" a lever with one foot. They're fairly expensive (\$250 a pair and up), so they're often rented for short-term projects.

For safety, it's important to use good quality lumber for making pump-jack columns. But when the 2×4s available aren't perfectly straight, an old technique for utilizing lumber with crooks comes in handy. First, the



Join slightly crooked 2×4s (exaggerated here) by nailing ends first, then drawing bows together.

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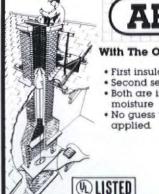
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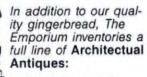
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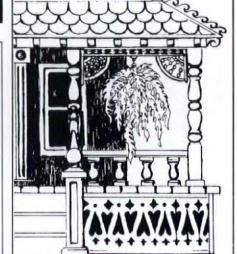
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by Lynn Elliott

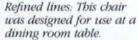
L. & J.G. Stickley

One of the highlights of this year's Arts & Crafts Conference at the Grove Park Inn in Asheville, North Carolina, was news of the reissue of L. & J.G. Stickley's Mission Oak Furniture. The owners have assembled a

line of some of the best of Gustav and Leopold Stickley's furniture, including the elegant Spindle line.

The Spindle Arm Chair, shown left, was first introduced in 1905, and was advertised as a "quaint refinement"

over the Stickleys' sturdier slat-board designs. The chair is made of solid quartersawn white oak. and measures 49" H × 28" $W \times 26''$ D. It is available in either a light or dark (shown) finish, with a choice of leather or fabric. The fabric (#704-2) shown is not an historical reproduction, but was chosen for its tapestry-like texture and for colors reminiscent of the Arts and Crafts period. Prices range from \$920 to \$1,050. The catalog is available for \$5. Call for the dealer nearest you: L. & J.G. Stickley, P.O. Box 480, Dept. OHJ., Manlius, NY 13104; (315) 682-5500.





Tiles made for the Saarinen House.

Pewabic Pottery

The kilns are being fired at Detroit's Pewabic Pottery, where hand-made ceramics as well as Pewabic's iridescent signature tiles (see above) are once again being turned out.

Founded by Mary Chase Perry Stratton in 1903, Pewabic Pottery developed a reputation for its unrivaled glaze formulations and firing techniques.

As work is custom-ordered, pricing varies. For information and prices, call or write: Pewabic Pottery, 10125 E. Jefferson Ave., Dept. OHJ, Detroit, MI 48214; (313) 822-0954

Roycroft Associates

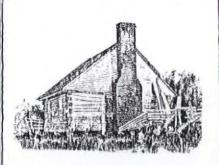
Robert Rust and Kitty Turgeon have been responsible for many of the fine efforts connected with the preservation of the Roycroft Inn and Campus. They recently received National Historic Landmark status for the 14 original campus buildings. They have also helped assemble Roycroft Associates, a group of artisans reproducing original Roycroft designs, including fine furniture, wall-paper, and lighting fixtures.

Founder Elbert Hubbard would be proud of the Roycroft Rennaissance china, shown here, which was originally designed for the Inn in 1907 and produced by Buffalo Pottery. Today, the same team is producing the durable china with its distinctive terra cotta and forest green trim. A six-piece place setting costs \$59.95, plus \$5 shipping per place setting.

For information concerning Roycroft products, contact Roycroft Associates, 31 South Grove St., Dept. OHJ., East Aurora, NY 14052; (716) 652-3333.

Detail of the Roycroft Renaissance china motif.





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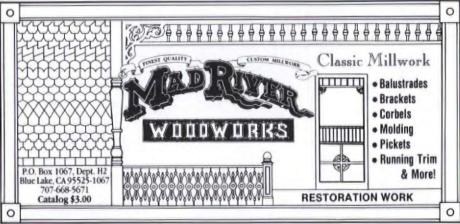
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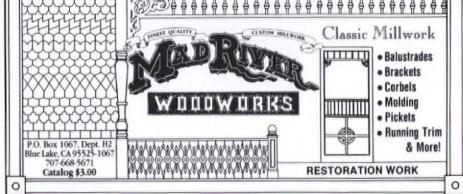
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Pella's new line of stock replacement windows pays homage to four different historical architectural styles: Prairie, Mission, Colonial, and Palladian. (In the spirit of the Midwest. the Prairie casement windows, right, emphasize the house's horizontal lines.) All of the windows in the Architect Series combine the beauty of divided light with narrow-width muntins and the energy efficiency of insulating glass. For more information and a free catalog, contact Pella Rolscreen Company, 102 Main Street, Dept. OHJ, Pella, IA 50219; 1-800-524-3700.

Queen Anne houses, in particular,

often feature unique-shaped windows, which today can be difficult or expensive to replace. Hurd Millwork Company may make your search easier. They offer circles, trapezoids, half rounds, and triangles with energy-saving glass. Heat Mirror 66, a high-performance glazing system, protects homes from wide temperature swings and minimizes the UV rays that fade furnishings. Hurd's line of window shapes also features removable grilles for easy cleaning. For more information, contact Hurd Millwork Company, 520 S. Whelen Ave., Dept. OHJ, Medford, WI 54451; (715) 748-2011.



Pella's Architect Series can also accommodate custom window designs.

The custom-Once used on barns for ventilation, made cupola cupolas became equally important as bere is crafted decorative house elements by the in redwood 1800s. Where to go to find one that's with a standsuited to your home? Webb Manufacing seam turing has introduced five new cupocopper roof. las in a variety of styles. Collectively From the Estate Series: the Richmond, a Georgian-type cupola with an unusual bell-shaped roof.

Cupola Hoopla

called the Estate Series, they feature newly designed louvers that deflect rain even during severe storms, vet still allow air to ventilate the interior. Although the cupolas are made of high-performance plastic rather than wood, readers find them useful for roofs over three storeys where maintenance is a problem. Prices range from \$800 to \$1000. Contact Webb Manufacturing, Inc., P.O. Box 707, Dept. OHJ, Conneaut, OH 44030; (216) 593-1151.

Of course, a custom cupola is often the most authentic. Alfred and Beth Denninger custom-make cupolas to suit a variety of house styles, from Victorian with gingerbread millwork to a Mission-style ranch. The Steuben cupola with Greek Revival elements (shown far left) was crafted for a barn. Depending upon size, the Denningers' cupolas range in price from \$245 to \$775. The handhammered copper Arrow weathervane shown is also available. Price: \$120. Contact Denninger Cupolas & Weathervanes, Inc., RD 1 Box 447, Dept. OHJ, Middletown, NY 10940; (914) 343-2229.

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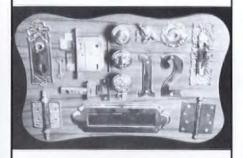
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Step Up To The Right Ladder

"A good ladder is like having life insurance," says *OHJ* contributing editor John Leeke. And the heavy-duty work restorers do surely requires a ladder stronger than the ordinary household type. A do-it-yourselfer's best bet is a Type 1, industrial wood or aluminum ladder with a 250-pound duty rating. (A duty rating is

the maximum load a ladder can bear.)

Because wood ladders don't conduct electricity. they are excellent for electrical work. Putnam Rolling Ladder Co.'s Alpine Step (pictured right) is a Type 1 industrial stepladder made of southern pine. All the hardware is corrosion- and weather-proof. A six-foot Alpine Step weighs 28 lbs. and costs \$55. It is available through Putnam Rolling Ladder Co., Inc., 32 Howard St., Dept. OHJ, New York, N.Y. 10013; (212) 226-5147.

The lighter construction of aluminum ladders makes them better for odd jobs because they require less effort to move. Model 376 in

Always check that the stringer nuts are tight on wood ladder steps.

the Werner Company's 370 Series is a sturdy, industrial, 15-pound, six-foot aluminum stepladder with an "H"-type spreader for easier one-hand operation. It retails for \$77.50. For more information, contact Werner Co., Inc., P.O. Box 580, Dept. OHJ, Greenville, PA 16125; (412) 588-8600.



Roofing Brackets

If our articles this month have inspired you to tackle your own roofing job, you'll find a roof bracket — also called a roofing jack — to be an especially useful item. A pair of roof brackets and a plank provide secure footing on shingled roofs. Murray-Black Company offers fixed angle roof brackets that are easily installed and dismantled without your having to remove the roofing nails. The

brackets will hold up to a 2" × 8" plank and retail for \$10.25 per pair. Steep-pitched roofs need adjustable roof brackets.

Qual-craft makes a roof bracket that fits most roof pitches. Each bracket costs \$9.69; they are sold

only in packs of ten. For a list of distributors, contact each company respectively: Murray-Black Co., 1837 Columbus Ave., Dept. OHJ, Springfield, OH 45501; (513) 323-3609, and Qual-craft, P.O. Box 559, Dept. OHJ, Stoughton, MA 02072-0559; (800) 231-5647.

Roof brackets are an asset when laying composition and wood shingles.

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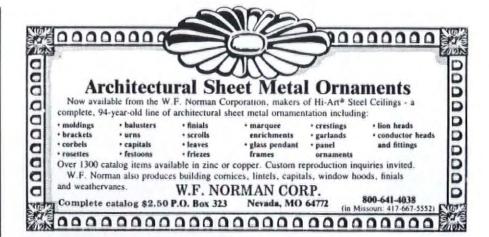
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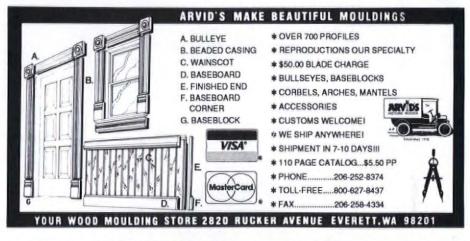
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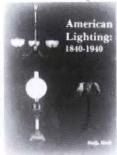
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Heat Tools for Stripping Paint

These are the tools OHJ editors reach for when we strip paint from our own houses.

We can't count the number of times we've been asked which method is *really* best for removing paint. Well, we've seen "miracle" paint removers come and go. We've watched chemical paint strippers almost triple in price in the past 15 years. We've tried just about every heat tool on the market. In our opinion, if you've got more than a door or two to do, heat is the way to go. And the heat tools we reach for when stripping paint from our own wainscot and newel posts are the Heavy-Duty HG-501 Heat Gun and the Warner Heat Plate.

Heat is a fast method because all the paint bubbles and lifts as you go along. There's no waiting for chemicals to soak in, no multiple recoatings, and far less clean-up. Unlike stripping with chemicals, you can remove all layers of paint in a single pass. And because these tools are longlasting, industrial products, their initial expense is more than made up in savings on the \$18- to \$25per-gallon stripper you're no longer buying in quantity.

The Heat Gun is the most efficient paintremoval tool for heavily painted porch parts, mouldings, or other ornamental woodwork. Some chemical stripper is needed for clean-up, but 95% of the paint comes off during the heat-and-scrape. The Heat Gun is not recommended for use on hollow partitions (to avoid smoulders and fire) or for stripping entire exteriors (too slow).

The Heat Plate is the most cost-effective and easy-to-use tool for stripping paint from broad, flat surfaces: doors, panelling, baseboards, and exterior wooden clapboards. And it's safer for use on hollow partitions and exterior cornices because there's no blown hot air that could ignite hidden dust. (Fire is a hazard with any heat method, however.) Neither the Heat Plate nor the Heat Gun are recommended for removing varnish.

Both the Heat Gun and the Heat Plate come with complete operating and safety instructions, including information on lead poisoning. They're backed by the Old-House Journal Guarantee: If your unit should malfunction for any reason within two months of purchase, simply return it to us and we'll replace it.

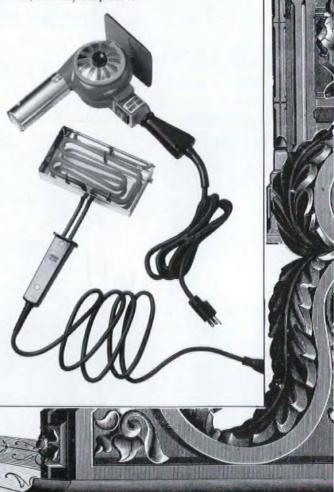
To purchase either or both heat tools, use the envelope order-form. The Heat Gun costs \$77.95 ppd; the Heat Plate, \$47.95 ppd.

Specifications for the Heat Gun:

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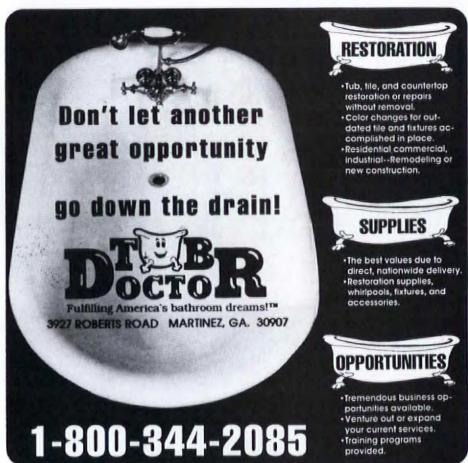
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- Foundation plan for basement or crawlspace. (Crawlspace plans can easily be adapted for full basements by your builder.)
- Detailed floor plans showing all dimensions for framing, plus detailed layout and location of electrical and plumbing components.
- Interior elevations are included in some plans, showing interior views of kitchen, bath, fireplace, built-ins, and cabinet designs.
- A window and door schedule.
- Building cross sections: cornice, fireplace, and cabinet sections when needed to help your builder understand major interior details

Mail-order plans have a long history in shaping the residential architecture of the country. Of the thousands of house plans available today, few exhibit good design and a grasp of historical proportion and detail. So, in response to requests from OHJ readers, the editors have "done the homework": We've hand-picked plans. In each issue, we offer the most attractive, authentic, and buildable of the historical designs, from all periods of American architectural history. Let us know what plans you're looking for.

You can order actual blueprints for all the houses featured. Plans conform to national building-code standards — however, modifications are usually necessary for your site and local requirements, so you'll probably need the assistance of a professional designer (your builder may qualify) or an architect.

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Other notes: (1) Plans are copyrighted, and they are printed for you when you order. Therefore, they are not refundable. If you order additional sets of the same plan within 30 days of your original order, you can purchase them for \$15 each. (2) Mirror-reverse plans are useful when the house would fit the site better "flopped." For this you need one set of mirror-reverse plans for the contractor; but because the reverse plans have backwards lettering and dimensions, all other sets should be ordered right-reading. (3) Heating and air-conditioning layouts are not included. You need a local mechanical contractor to size and locate the proper unit for your specific conditions of climate and

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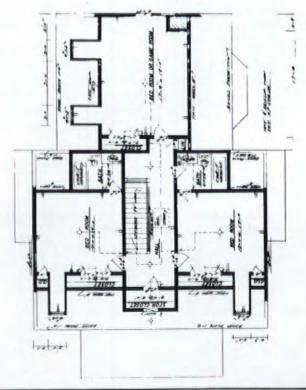
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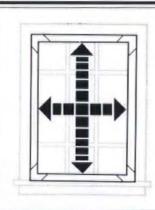
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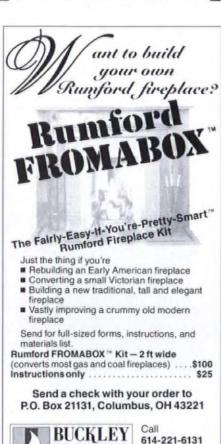
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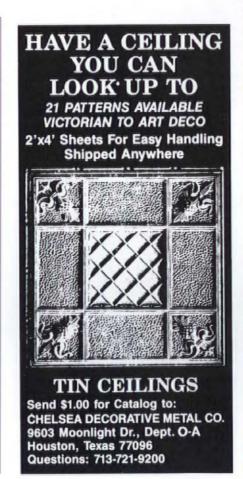
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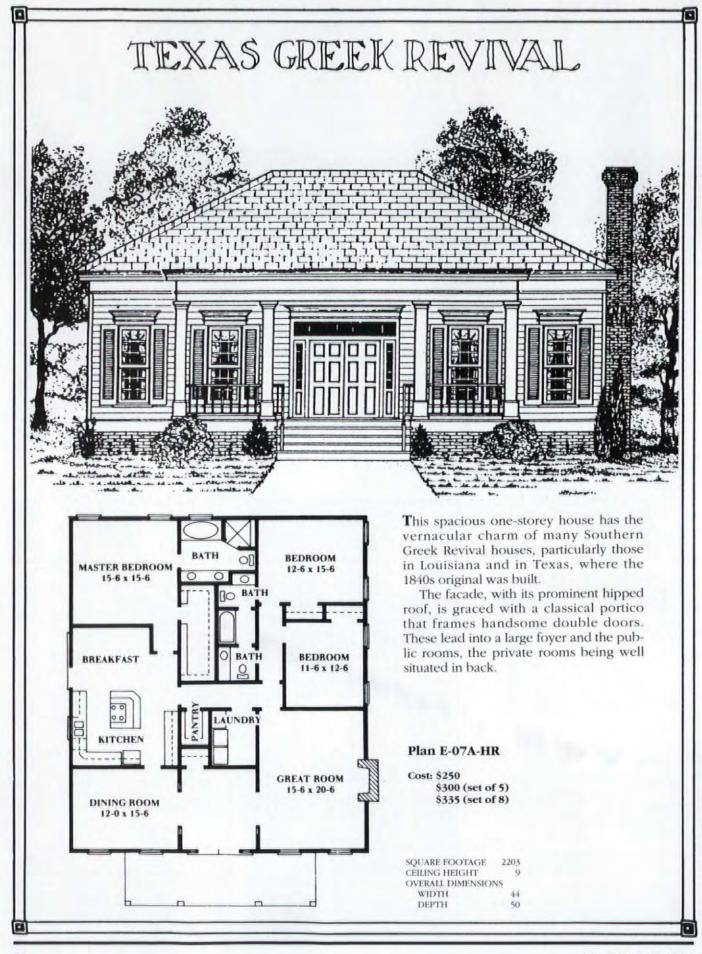
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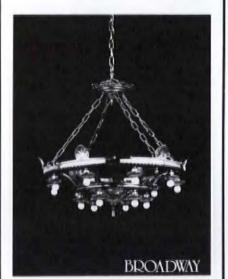
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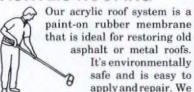
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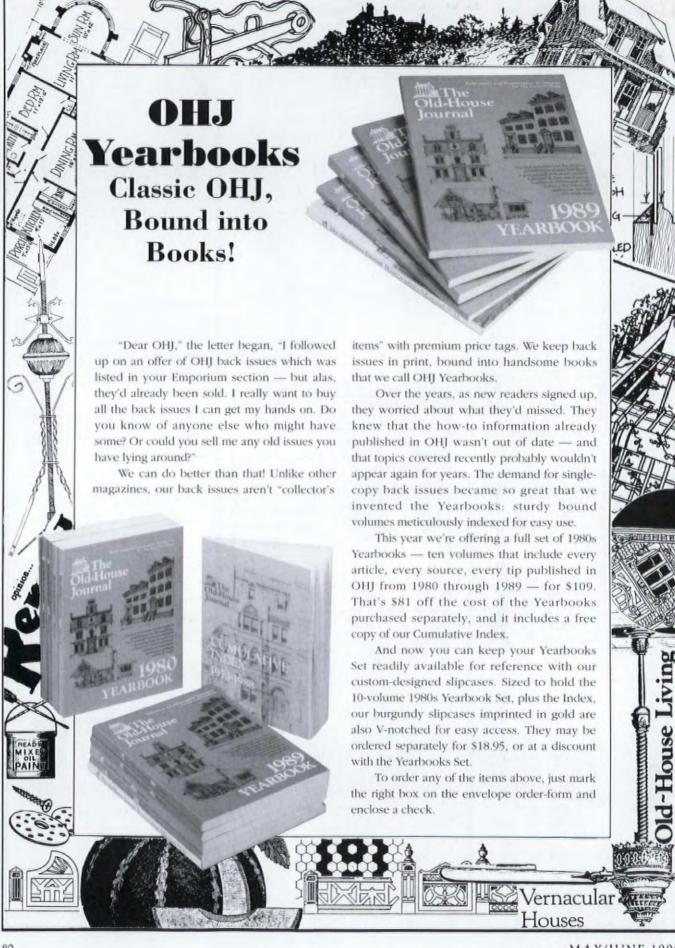
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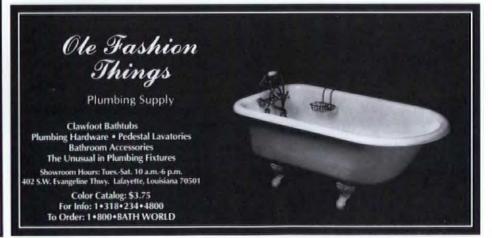
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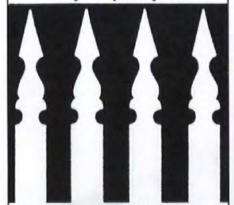


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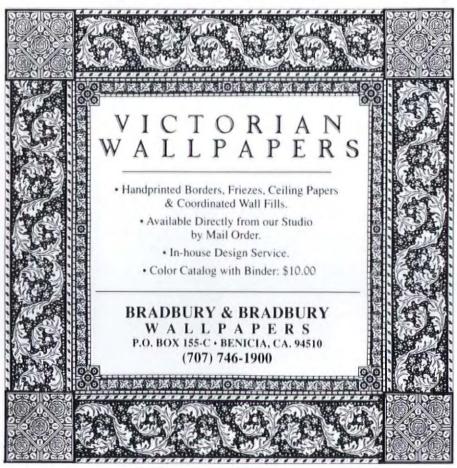
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FREEHOLD, NJ — Circa 1850. Restored Federal and new addition. 4 bedrooms, 2-1/2 baths, large living room, fireplace, dining room, solarium. 2 kitchens; 1 large and 1 small. Located on 1/4+ acre; perennial gardens. In historic town. Commuting distance to metropolitan area. \$299,000. Call Sandra: (201) 462-2934.

DANBURY, NH — Circa 1832 church with steeple nestled in pristine New Hampshire town, 40 x 50 structure, original beams, interior tin walls and ceiling, fur wood floors. On 1-1/2 acre double lot near up and coming ski area and proposed golf course. Call (603) 768-3395.

ENGLEWOOD, NJ — 95-year-old Queen Anne Victorian with tower and clapboard siding. Original details intact. Pocket doors with etched glass. New plumbing, furnace, and kitchen with tin ceiling. Refinished floors, 5+ bedrooms, 2.5 baths, full unfinished attic. 2-car garage. 1/2 acre. Lovely residential neighborhood. Close to NYC. \$310,000. (201) 567-1049.



STAMFORD, NY — Queen Anne in the Catskills. 3 storeys, 15 rooms, porte cochere, 2-car garage. Located in village center on 1/2 acre. New period paint, roof, heating systems and insulation. Currently 2 apartments and commercial offices. Many original details. \$150,000. Call: (607) 652-6778.

NORTHEAST, PA — Stately 1870 Victorian. All original details intact. 12-1/2 ft. ceilings, slate fireplace, 4 bedrooms, 2-1/2 baths. Located in heart of 4-season recreational area. Immaculate condition. 3-car garage. 1 hr., 45 min. to NYC. \$164,900. Call (718) 435-9477.

KUNKLETOWN, PA — Circa 1850s farmhouse. 4 bedrooms, 2 baths, formal dining room, upstairs sitting room, large kitchen. Slate roof, wide plank floors, 1/2 acre with stream and outbuildings. \$125,900. Call (215) 381-2564.

RED WING, MN — 1868 historic bed and breakfast with many unique architectural characteristics. Located in scenic Mississippi River Valley with many recreational activities, theater, and arts within walking distance. 1 hour from Twin Cities metropolitan area. High income potential. Listed on National Register, in

historic neighborhood district. \$325,000. Call: (612) 388-3115.

COTTAGE GROVE, OR — 1901 Victorian home in quaint historic town just 20 minutes from Eugene. 1850+ sq. ft., 2 storeys, 3 bedrooms. Big wrap-around front porch, huge kitchen with bakery raising racks. Southern exposure. Detached oversized garage, garden space, hot tub. \$58,000. 1142 Ash Ave., Cottage Grove OR 97424, (503) 942-0868.

ATLANTA, GA — 1890, 4-storey, 24-room Eastlake Victorian. Restoration/reconstruction in progress. 6000+ sq. ft. Possible B&B or income units. New slate roof, panel wainscot bedrooms, office, staircase. 15 fireplaces, carved glass and walnut entry doors from Sutherland Studios, front fence from Lowe's Grand Theatre. Stained glass doors and windows, carved oak trim, remilled heartpine, polished granite. \$150,000 as is. Owner/restoration contractor could complete. (404) 577-2621.

BALDWIN, NY — Turn-of-the century (circa 1896) Victorian Colonial on 1/2 acre landscape. 3 Bedrooms, sitting room, 2 full baths, living room, dining room, large eat-in kitchen. 3 fireplaces, finished basement, oak floors, stained glass windows, detached-garage (plus 2 buildings attached). All in excellent condition. \$225,000 or best offer. Call: (516) 867-2091.

UXBRIDGE, MA — Old taft tavern, antique gambrel, on the Register of Historic Places. Built in 1748, tastefully restored. Features: 4 functional Rumford fireplaces, wide-plank floors. hand-hewn beams, handmade nails, landscaping includes a period garden. George Washington stayed here in 1789. Call DeWolfe New England: (508) 520-0500.

SANDWICH, NH — Unspoiled 1830 farmhouse with central chimney, 3 fireplaces, brick oven, kitchen, 2 baths, sleeping porch added carringly. On maple-crowned knoll overlooking meadows and mountains. 90+ acres. Near Bear Camp Pond. \$375,000. Call: (207) 773-6243.

INVER GROVE HTS., MN — 4-bedroom four-square farmhouse on 6 acres. Original woodwork, stained glass, and barn. Newer roof, 200 amp. electric, gas F/A heat, and insulation. Fenced for horses. 10 minute commute to downtown St. Paul or Minneapolis. \$155,000. Call: (612) 457-4390.



LOCKHART, TX — 1890, 2450 sq. ft. Victorian on .37 acres. 4 bedrooms, 2 with fireplaces, or

3 and sitting/sewing/nursery. 1-3/4 baths, living/dining, screened porch, and trees. 3 balconies. Separate apartment. Fenced. Texas Historical Society eligible. 2 blocks from square/shopping. 30 miles to Austin, 70 to San Antonio. \$85,000. P. Stivers, 401 S. Main, Lockhart TX, 78644, (512) 398-6713.

SETAUKET, LONG ISLAND, NY — Circa 1850 historic landmark. Built by Nehemiah Hand, shipbuilder. 4+ bedrooms, 3 baths, 2 parlors, 5 fireplaces (1 working), beehive oven, beautiful moulding, wide floor boards, some parquet. Bay window, new roof. 1 acre partially wooded, historic black walnut. Near harbor. Convenient to NYC. \$380,000. Call: (516) 751-3039.

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OAK HAND-HEWN LOGS — Salvaged from cabins and barns. Up to 20 feet long. For more information, call: (919) 578-1496.

KITCHEN SINK — Pre-WWII large white double bowl, double drainboard cast iron sink, on morton metal kitchen cabinet with multidrawers and doors. 5-1/2 feet long. \$75. Write or call: Ron Morin, PO Box 1169, Sanford ME 04073, (207) 324-8284.

DISMANTLED HOME — Early 1800s Vermont post and beam cape. 30' x 40', center chimney. Price includes frame, blueprints for reconstruction and delivery. \$21,000. Call: (802) 886-8297.

POCKET DOORS — Beautiful Victorian cherry and butternut. Never painted, hinged doors. 3 pairs or 6 individual; 30" x 89". Beveled glass cherry front door; 36" x 94". Included: hinges, porcelain knobs, plates, and rosettes. Approx. 500 board feet of matching trim: door and window casings, corner blocks, base and shoe molding. \$2000 for entire lot. Contact: Tom Brown, 55063 Bittersweet Rd., Mishawaka IN 46545, (219) 259-9567.

VICTORIAN OAK MANTEL — Stripped, 5' wide, 5'-6" high with 42" x 35" opening and 21" x 13" beveled mirror, \$500. Pair of oak panelled doors, 33" wide x 82-1/2" high x 2-1/4" tall, \$500. Single oak door, 84" high x 34" wide x 2-1/4" tall with opening for 22" x 44" glass panel, \$300. Both stripped. Contact: A. Pettit, 44 W. 76 St., New York NY 10023, (212) 787-7723.

METAL CASEMENT WINDOWS — Circa 1900. Similar to pg. 425 of Nov. 86 OHJ. Bronze hardware, lead mullions. Frame OD 58" x 27". 24 panes, 4-W, 6-H. From CT College. 18 clear, 2 opaque. \$75.-\$225. each, best offer or trade. Contact: Craig Humphrey, 94 Hempstead St., New London CT 06320, (203) 443-7150.

MANSION ITEMS — Large mahogany door. 45" w., 85" h., 2-1/2" t. with 5 panels plus 3 small windows at the top with all hardware, \$350. Interior 6 panel doors, \$10. each. Oval sink (27 x 19), \$50. High back sink (23 x 19), \$25. Marble sink (30 x 20), \$150. Marble bidet (17 x 27), \$25.

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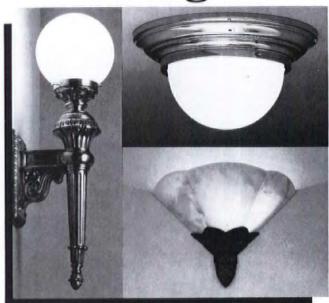
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Contact: Ron McClellan, 201 W. Boot Rd., West Chester PA 19380, (215) 363-5637.

ELECTRIC/WOOD STOVE — Early Westinghouse. 3 electric burners, 2 wood. Pots drawer and clock. Light grey and white enameling. 45" H x 23" D x 61" L. Attractive appliance in very good condition. Needs rewiring. \$425. Contact: B. Meyer, RR 2 Box 258, West Winfield NY 13491, (607) 965-9892.

FOOTED TUBS — One is 4 foot, the other is 5 foot. Both in very good condition. \$50 each. Matching old 3 piece wicker settee and chair which need work, \$150. Odd close weave deco-look wicker rocker, \$85. 2 matching wicker porch chairs with new upholstered cushions, \$175 both. Call: (718) 948-3626.

ANTIQUE WOOD BURNING STOVE — Circa 1900. Green and white porcelain with warming oven, hot water reservoir, 4 burners. "Mayflower Kalamazoo". \$250. Contact: R. Steeh, 47 Lincoln, Mt. Clemens MI 48043, (313) 463-6675.

CAST IRON GARDEN FURNITURE — Fernpattern, extremely heavy, and guaranteed old. Settee and chair similar to picture shown on pg. 19 of the Jan/Feb 90 OHJ. Also fern-pattern settee with wood slat seat. Authentic and charming. Not reproductions. Contact: R.A. McGeary, 613 San Antonio Ave., Coral Gables FL 33146, (305) 661-6197.

POST OFFICE BOXES — 100 individual old brass/combination brass. Door size, 3" x 5". Lot sale only. Call: (201) 542-3112.

1920s WRINGER WASHER — Green enamel spatterware tub and lid. Appears to be in good working condition. Legs need new paint. \$100. Call: (919) 929-9136.

HAND-CUT GRANITE COBBLESTONES—Circa 1858. Red, pink, and purple. Uses include driveways, sidewalds, fireplaces, etc. Also paving and hard common bricks. Large projects welcome. Contact: Tim Borron, 302 Hazel, Buckner MO 64016, or call for information: (816) 249-3700 evenings.

S-CURVE ROLL-TOP OAK DESK — Double pedestal, raised panel sides and back, cubbies. 51"W x 50"H x 29"D. Good condition. \$2000. Oak card file for tall cards which can be used for letter or legal files. Original finish. 14.5"W x 26"D x 49"H. \$100. Treadle sewing machine in excellent condition and it works. \$150. Call: (215) 729-3733.

ANTIQUE HARP — Made 1912 by Lyon & Healy, Chicago. Gold leaf, 45 stringes, pedals. Nice tone. \$1500. Call: (203) 453-1973.

ONE WOOD COLUMN — Excellent condition. 30" diameter with shaft height of 21'7-1/2". Attic Doric base height is 1'3" made in fiberglass. Choice of Doric or Corinthian cap. Available in wood, fiberglass, or composite material. Best offer. Call Ellie or Michelle: (803) 646-9990.

OAK QUARTERSAWN RAISED PANELS — Circa 1903. 12 pieces, total 42°L, 40°H. 5 similarly matched pairs, chair rail, door jam, window facing material also. Will deliver with 75 miles. Contact: David Wike, 505 Wynngate Ct., Chesapeake VA 23320, (804) 547-1128.

TIN CEILING IN OLD STORE — 25 feet by 40 feet. Located in Leeds North Dakota. Cheap. Contact: Dale G. Niewoehner, 213 Second Avenue SW, Rugny ND 58368, (701) 776-6222.

CIRCA 1790 BRICKENDER — Antique Federal hip-roofed house disassembled and ready for reconstruction. Beautiful room proportions with original fireplaces, wainscotting, windows and superb salmon-colored brick. \$29,000. Call: (617) 659-2237.

WROUGHT-IRON FENCE — 5/8-inch pickets on 5 centers. 46 inches high. Horizontals 35 inches apart. There are 34 sections 98 inches long, some short pieces and a 46 inch x 46 inch gate. Sold as one lot, \$4000. Contact: Parker, 37 Ellicott Ave., Batavia NY 14020, (716) 343-7435.

GAS WALL SCONCES — Solid brass, complete with glass shades. 3 different. \$95 each. Contact: Jeff Humble, 1006 N. Baylen St., Pensacola FL 32501, (904) 432-7935.

STONE MANTEL PIECE — Exquisitely detailed. Excellent condition. Approximately 5 feet wide by 9 feet tall. Photos available upon request. Please call Tony at (201) 823-1287.

ELEGANT HAVILAND LIMOGES CHINA—1891. Feu de four pattern. Complete place settings for 10+. 8 beautiful serving dishes, three platters. Call: (516) 747-7560, 8-10 pm.

150-YEAR-OLD LOGS — Oak, poplar, and heart pine. 6" x 14" average and up by 18' to 20' long and longer. Also, 200-year-old cabin, 1200 sq. ft. \$10,000. Call (615) 892-2638.

MARBLE SLABS — Various sizes and thickness. Light brown color. Many small pieces. Best offer or trade for any old interesting things such as tools. Contact: Al Groothuis, 425 Pleasantview Dr., Battle Creek MI 49017, (616) 964-7472 after 5pm EST.

COAL-BURNING KITCHEN STOVE — From 1930s. Cream and rose colored Columbian Epoch with warming oven, coasters for under base, and tools. Manufactured by the Keeley Stove Co., Columbia PA. Good working condition; recently rebricked. For more information, call: (215) 545-4573.

EASTLAKE OAK CANE BOTTOM CHAIRS — 4 chairs in all. 1 needs cane. \$180. Write: C. Rhymer, 11 Carey Circle, Burlington NJ 08016, or call: (609) 386-1058.

OHJ BACK ISSUES — 1981 to present. Preglossy: 10 for \$10. Glossy cover: 6 for \$12. Contact: C. Rhymer, 11 Carey Circle, Burlington NJ 08016, (609) 386-1058.

OLD GLASS — 33 pieces approx. 24 x 26, still in wooden sashes. Has waves, bubbles, and character. Some of the wood is rotten, but the glass can be used for windows or replacement glass for antiques. There are also 5 to 9 lb. window weights and pulleys. Reading PA area. (215) 944-8613.

HAMMOND NOVACHORD — 1939. Supposedly the first electric organ. From a dance hall in Detroit. Service manual available. Write: K. Herron, 322 N. Lewis, Saline MI 48176, or call: (313) 429-5810.

2 CHINA CABINETS — Built around 1900. 13" d, 24-1/4" w, 50" t. Each has 2 shelves, 9 panel glass doors, silver drawer and glass knobs. Both need refinishing. Photo available. Best offer. Call: (603) 529-2904.

1950s DUMONT CABINET TV — Not working. Includes FM radio band between channels 6 and 7. Wood cabinet is 42"h x 32"w x 24"d. Best

offer. Located in Brooklyn NY. Call Stephen: (212) 924-2324.

VICTORIAN CHERRY STAIRCASE — Circa 1875 with bulbous newel, turned balusters and massive rail. Complete and original. For sale or trade for federal furnishings. Contact: Chris Ohrstrom (607) 432-7009.

WANTED

1920s-1930s ANTIQUE GAS COOK STOVE — In good working condition. Prefer green/cream colored but will consider others. Also, clawfoot bathtub up to 60° long in good or better condition. Prefer midwest location. Pictures appreciated. Write or call: Box 98, Rutland IA 50582, (515) 332-1503.

FEET FOR CAST IRON TUB — The more ornate the better. Send price and description to Suzi Ciupitu, PO Box 308, Denton NC 27239.

THE COTTAGE SOUVENIR NO. 2 — By George F. Bailer. The 1982 reprint edition. For more information, write: Keith Buss, 503 Lake Avenue, Gothenburg NE 69138.

TELEVISIONS AND RADIOS — Collector looking for old and unusual televisions and radios, especially those manufactured prior to WWII. Also need old steam heat radiators to help restore foursquare-style house. Write: Dave Sica, 1459 St. Georges Ave., Rahway NJ 07064. Or leave message at: (201) 382-0618.

DOUBLE BASIN SIDE-BY-SIDE porcelain Mott sink. This unit was called the Grandville and was manufactured by Mott around the turn of the century. Any parties having access to this unit, please contact: Jamie Flora, 165 W. Liberty, Plymouth MI 48170, (313) 453-4296.

OVEN DOOR for 1934 vintage "quality" gas range manufactured by the Roberts and Mander Stove Company, Philadelphia PA. Call: (516) 421-2034.

ANTIQUE CHANDELIERS or light fixtures. Ornate but not formal. Iron, brass, brass plate, etc. Willing to restore or wire. For 1904 Victorian farmhouse. For more details, contact: Mary Fritz, 9531 Donges Bay Road, Mequon WI 53092, (414) 242-8035.

INTERIOR COLUMNS — 60" H x 8" D, oak or mahogany, preferably unpainted, fluted with Ionic capitals for craftsman house. Contact: Sarah Adams, 112 Marshall St., Ithaca NY 14850, (607) 273-5796.

INFORMATION OR PHOTOS of my childhood home of the 1920s located at 3446 Perrysville Ave., Pittsburgh PA. A 3-storey brick with terraced lawns. I would greatly appreciate any information or photos and will reimburse all film/postage costs. Sharon Sansom, 260 E. Bradley Ave. #38, El Cajon CA 92021.

DUMBWAITER — Whole, hardware, or plans. It does not need to be large or elaborate; just functional. Manual operation is okay. Contact: Charlotte Cross, 122 1st Street, Hermosa Beach CA 90254, (213) 376-7620.

PAINTINGS — Serious collector seeks any old oil or watercolors. Framed or unframed. Also empty ornate frames. Condition is not important. Contact: Michael C. Hinton, 19 Grieb Ave., Levittown PA 19057, (215) 946-7636.



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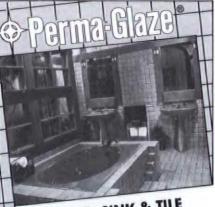
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MEETINGS AND EVENTS

CHINOISERIE, GILDING AND RESTORATION CLASSES — Peter and Frances Binnington of London, England bring their classes to New York in May and October. To be held at Garrett Wade Company, 161 Avenue of the Americas, NYC. For information please contact: Kelly Ingram (609) 392-5252.

COUNTRY WORKSHOPS 1990 — Classes in woodworking with hand tools include ladderback chairmaking, Scandinavian woodcraft, Windsor chairmaking, and Swiss cooperage. Summer workshop tuition is \$300 for 5-day classes and \$360 for 6-day classes. For more information contact: Drew Langsner, Country Workshops, 90 Mill Creek Road, Marshall NC 28753, (704) 656-2280.

TIMBER FRAMERS' GUILD OF NORTH AMERICA — 6th Annual National Conference. Builders, homeowners, and craftsmen are all invited. June 14, 15, 16, 17, 1990 at the Rensselaer Polytechnic Institute, Troy NY. For more information write: Julie Benson, Timber Framers Guild, PO Box 1046, Keene NH 03431, or call: (603) 835-6170.

WRIGHT PLUS TOUR — The Frank Lloyd Wright Home and Studio Foundation is holding the 1990 housewalk on Saturday, May 19 from 9:00 am to 5:00 pm. This guided tour will feature 10 architecturally significant homes, 5 of which were designed by Wright himself. Tickets are \$25. For more information call: (708) 848-1500.

HISTORIC PRESERVATION COURSES — The University of Vermont's Historic Preservation Program's Summer Institute gives you the chance to expand your knowledge of how to conserve the nation's historic buildings and landscapes. All courses emphasize field work and use the rich cultural landscape of Vermont as a learning laboratory. For more information call: Jean Kennedy (802) 656-4435.

VICTORIAN HOUSE TOUR, DUBUQUE IA — 5 beautiful Victorian mansions will be open to the public on May 19 and 20 from 10:00 am to 5:00 pm during the city's DubuqueFest/Very Special Arts celebration. For more information call Ruth Nash (319) 588-9751.

HEART OF PRESERVATION CONFERENCE—Professional seminars and workshops for the hands-on preservationist. May 12-16, 1990 at Everedy Square, Frederick MD. The conference will help participants assemble a logical plan of action for restoration as well as provide them with hands-on instruction in such areas as masonry, carpentry, furniture stripping, and interior decoration. For more information contact: Leah King, 321 East Church St., Frederick MD 21701, (301) 695-4571.

SOCIETY OF INKWELL COLLECTORS — 1990 International Convention and Auction on June 2 and 3, 1990 at the Embassy on the Park/Days Hotel, Kansas City MO. Featured will be varied collections of antique and modern inkwells and related accessories. There will be demonstrations in papermaking, quill cutting, and calligraphy. Open to the public. Admission is 3. For more information call Pat Dennis (612) 866-7422 or Vincent McGraw (612) 922-2792.

INTERNATIONAL GLASS CRAFT EXPO — The trade show includes all major suppliers and manufactures in the art glass fields. The seminars include educational hands-on workshops

and internationally recognized speakers. The show will be held June 27-30 at the Hyatt Regency in Cincinnati OH. For more information contact: Expo, PO Box 9193, Naples FL 33962, (813) 775-9504. For booth information call: Hank Siesel (314) 968-8379.

LEXINGTON NORTHSIDE HISTORIC WALK-ING TOUR — June 3, 1990 from 1:00 pm to 6:00 pm. Self-guided tour of over 30 beautifully restored homes and gardens. Entertainment and refreshments will be served. Tickets are \$5 before June 1st and \$6 after June 1st. For more information contact: The Northside Neighborhood Assoc., PO Box 622, Lexington KY 40586, (606) 252-2272.

HYATTSVILLE HISTORIC HOUSE TOUR 1990 — Sunday, May 20, 1990 from 1:00 pm to 5:00 pm. Includes ten homes, mostly in the National Register Historic District. Tickets are \$5. For more information contact: Hyattsville Historic Preservation Association, PO Box 375, Hyattsville MD 20781, (301) 927-4514.

HISTORIC EASTON'S SPRING HOUSE TOUR — Seven gracious homes and the 1895 Lafayette Inn will be open to the public in Easton PA. Saturday, May 19th from 11:00 am to 4:00 pm. Tickets are \$8 in advance and \$10 on the day of the tour. For more information contact: Nancy Lloyd, Publicity Chair, 43 N. Sitgreaves St., Easton PA 18042, (215) 252-1686.

8TH ANNUAL HISTORIC HOME TOUR — The Monrovia Old House Preservation Group is holding their tour on Mother's Day, May 13, 1990 from 10:00 am to 4:00 pm. Six homes and the Anderson House Museum will be open to the public. Tickets are \$8. in advance and \$10. on the day of the tour. For more information contact: Monrovia Old House Preservation Group, PO Box 734, Monrovia CA 91016.

CENTER FOR HISTORIC HOUSES — National Trust for Historic Preservation is sponsoring a conference June 7-10, 1990 entitled "Homes Along the Hudson: Models for Preservation Planning." Included are visits to historic house museums; lectures about regional history, architecture and landscape; a cruise up the Hudson River, and overnight accommodations a Mohonk Mountain House. For more information call: (202) 673-4025.

HISTORIC RUGBY'S 16TH ANNUAL SPRING MUSIC & CRAFTS FESTIVAL — The restored Victorian village will be filled with British Isles and Appalachian music and dancing, traditional crafts demonstrations, historic building tours and more on May 12-13. For more information contact: Historic Rugby, PO Box 8, Rugby TN 37733, (615) 628-2430.

PERIOD PORCHES AND PARLORS — The Cape May County Art League will be sponsoring its 42nd annual house tour June 23 and 24, 1990 from 11:00 am to 4:00 pm. A reception will be held on the evening of June 22 to honor the tour house owners and welcome the visitors. For more information write: The Art League, 1050 Washington St., Cape May NJ 08204, or call: (609) 884-8628.

10TH ANNUAL MOSS AVENUE SALE — Saturday, June 16, 1990 from 9:00 am to 4:00 pm in Historic Peoria, IL. 60-100 dealers and residents will be selling antiques, collectables, and renovation items. Wander along 6 blocks and find that "treasure" you can't live without. Free admission. Food and refreshments will be available. Call: Jonette Schue (309) 671-3740.

SUMMER ARTS & CRAFTS WORKSHOPS — Brookfield Craft Center in western Connecticut is offering unique education and recreational opportunities for summer vacation fun designed to recharge creative skills and artistic energies. Some of the popular topics this season include: boatbuilding, glassblowing, photography, woodworking, weaving, basketmaking, surface design, arts marketing, papermaking, and dozens of other specialized visual arts skills. For more information contact: J. Russell (203) 775-4526.

LAFAYETTE SQ. 21ST ANNUAL HOUSE & GARDEN TOUR — 16-20 houses with Victorian exteriors and a diversity of interiors. June 2,3,9 &10 from 10:00 am to 5:00 pm. For more information contact: Lafayette Square Restoration Committee, 2023 Lafayette Ave., St. Louis MO 63104, (314) 772-5724 from 12-3 pm.

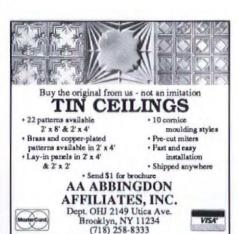
THE IMPORTANCE OF KNOWING YOUR ROOTS — Colonial Williamsburg, VA. Author Alex Haley will be the keynote speaker for a new forum on colonial black history on May 4-5. The seminar will focus on the newly-opened slave quarter site at Carter's Grove and interpretation of the black experience in the 18th century Chesapeake area. Panel discussions, tours, receptions, and other events will be held. For information or registration write: Special Events Registrar, Colonial Williamsburg Foundation, PO Box C, Williamsburg VA 23187.

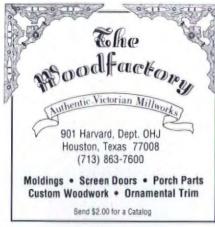
FESTIVAL OF HISTORIC HOUSES — Tours of Providence Rhode Island's 18- and 19-century public and private homes. Candlelight tours on June 1 & 2 from 6 to 10 pm. Daytime house and garden tours on June 2 & 3. Advance ticket purchase recommended. Contact: Providence Preservation Society, 21 Meeting St., Providence RI 02903, (401) 831-7440.

BOOKS AND PUBLICATIONS

MARBELIZING, WALL GLAZING, STENCILING—Re-create the splendor of original Victorian/Edwardian decor yourself. Compressive vide-tape demonstrates simple techniques which can be performed quite inexpensively. No special tools or artistic ability required. Full length instructional video, \$29.95. Tri-State Video, 119 Davis Street, Beaver Falls PA 15010, (412) 843-4217.

Classified ads in The Emporium are FREE to current subscribers for one-ofa-kind or non-commercial items, including swaps, things wanted or for sale, and personal house or property sales. Free ads are limited to a maximum of 50 words. Free ads and b&w photo or drawing printed on space available basis. For paid ads, rates are \$100 for the first 40 words, \$2.00 for each additional word. Photographs will be printed for an additional \$75. Ads are reserved for preservation-related items: restoration services, real estate, inns and B&Bs, books and publications, etc. Deadline is the 1st of the month, two months prior to publication. For example, January 1st for the March/April issue. Sorry, we cannot accept ads over the phone. All submissions must be in writing and accompanied by a current mailing label (for free ads) or a check (for paid ads).







Our low maintenance and high durability Western Red Cedar shingles will make your home beautiful and energy efficient. Seven historical patterns; fire treated available. Since 1946. Call or write for information.

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Our New Catalog is the "Yellow Pages" for your pre-1939 house.

Used to be, old-house folks had to waste an awful lot of valuable time tracking down the right trowel or terra-cotta tile — time that could be better spent actually plastering or repairing the leaky roof! But the days of fruitless phone calls and wild goose chases are over: You'll find more than 10,000 products and services in the revised and updated 1990 edition of **The Old-House Journal Catalog** — including all those things hardware store clerks insist "just aren't made anymore."

The Catalog is the most complete, up-to-date, authoritative guide to high-quality restoration items around. It

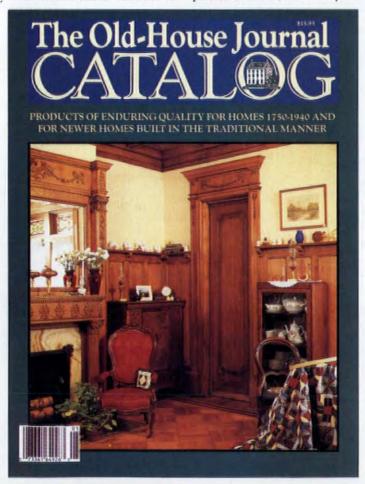
includes house parts you won't find anywhere else: push-button light switches, porch ornament, iron roof crestreproduction lighting fixtures, handblocked wallpaper, Victorian tile. Unusual services too: Where else could you find companies who will custom duplicate your millwork and hardware, paint your house in historic colors, repair your stained glass, reline your chimney, and recreate a period garden? What's more, most of the companies listed sell or distribute nationally, so you can do business with the firm that meets your needs, whether you live in Manhattan or North Dakota.

The 1990 edition of The Old-House Journal Catalog is crammed with important *new* information: There are more than 100 *new* companies which didn't appear in the 1989 edition. Also, hundreds of the other listings contain *new* products, prices, literature, addresses, and phone numbers which were added or changed since the previous edition. We spent a good part of the summer of 1989 personally contacting each and every company listed to make sure that our Catalog is as accurate as it is useful.

The Old-House Journal Catalog is organized for easy use. Each company entry includes complete address and phone number, and lets you know what kind of literature

is available (and the price, if any). The Catalog Index has been meticulously crossreferenced; you won't go crazy trying to find "bulls-eye windows," say, because the Index tells you they can be found under "windows, special architectural shapes." Another great feature: a State Index that groups companies by city and state, so you can locate old-house suppliers nearest you.

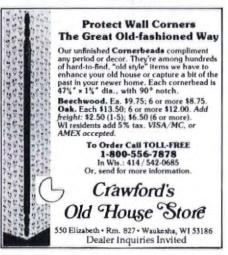
To order this 8½-×11-inch, 256-page, softbound book, enclose a
check for \$13.95 (a special subscribers' price
which includes postage)
in the envelope orderform. **The Old-House Journal Catalog** has
got what it takes to bring
your house from "has
lots of potential" to
"looks great!"



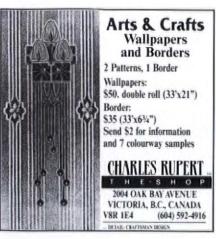


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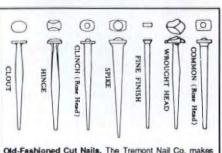
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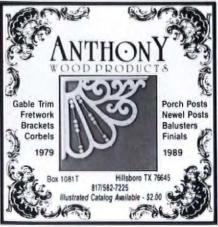




Old-Fashioned Cut Nails. The Tremont Nail Co. makes 20 varieties of cut nails using the old patterns, including rosehead, oval bung, and wrought-head. Sample kit containing one of each of the 20 patterns, a history of nails in America, and a price list is \$4.50 ppd.

Tremont Nail Co., Dept. OHJ50, 8 Elm Street, Box 111 Wareham, MA 02571





PRODUCTS NETWORK

Here are company catalogs and brochures worth writing for. And with the Request Form, you have a handy way to get as many catalogs as you need — just by filling out one form.

BUILDING COMPONENTS

- Traditional Wood Columns Wood columns from 4" to 50" dia. up to 35 ft. long. Matching pilasters and 6 styles of capitals. Ventilated aluminum plinth and column bases. Custom work done. Free catalog. Schwerd's.
- 23. Chimney Flue Liner Poured-in-place, twoliner system; no-mess one-day process. First liner strengthens and insulates; second liner seals & protects. UL listed. Nationwide. Free catalog. Ahren's Chimney Technique.
- 38. Chimney Liner Ventinox continuously welded liner connects chimney-top to heat source without joints or breaks. Reduces condensate formation, increases heating appliance efficiency, improves safety. Nationwide dealer network. Free catalog. Protech Systems, Inc.
- **45. Ceramic Roofing Tiles** Full color, 24 page brochure featuring residential, commercial and institutional clay roof tile installations. A color selection chart displays 24 standard tiles. Order the roof tile in standard or custom designs. Free. **Ludowici Celadon.**
- 56. White Oak Shakes Authentic hand-split white oak shakes, split sawn shingles, and smooth sawn shingles: the original Early American roofing and siding. Hand-split white oak shakes have been documented to last 75-100 years. Will ship. Call; (800) 678-3145. Oak Crest.
- 71. Wood Columns Ponderosa pine columns in many styles, from Doric to Corinthian. Also: pedestals, table bases, and architectural elements. Custom shapes and widths. Catalog. Worthington Group. \$3.25.
- 73. Restoration Glass Imperfect glass is perfect for restoration work. Each sheet is made using the original cylinder method. Call: (800) 221-7379. In N.Y., call (212) 226-6370. Free. Bendheim Glass.
- 117. Library Ladders Old-fashioned oak rolling library ladders can be made to order and finished to customer's specifications. Other woods available. Many other ladders and garden furniture available. Catalog. Putnam Rolling Ladder. \$1.25.
- 125. Architectural Roofing Tiles Tile roofs get better with age, and never need maintenance. Positively can't burn, and can last 50 to 125 years. Color catalog shows 6 styles and 20 colors. Free catalog. Vande Hey Raleigh.
- 212. Extra-Wide Boards Pine boards for flooring or panelling in widths from 12" to 24" Wide oak flooring from 4" to 9". Custom mouldings & millwork. Literature. Craftsman Lumber. \$.75.
- 219. Lighting Reproductions Genuine antique reproductions with authenticity on any scale. Master works often of brass, bronze, and aluminum, to complement your home/business. Art Directions. \$2.25.
- 284. Dumbwaiters Residential and commercial hand-operated dumbwaiters with lifting capacities from 65 to 500 lbs. Clerestory operators for awning and casement windows in hand-operated/electric models. Professional consultation. Free literature. Whiteo/ Vincent Whitney.
- 297. Raised Panelling Oak stile and rail panelling for wainscoting, walls and boxed columns. Redoak veneers, trimmed with solid oak. Free flyer. States Industries.
- **383.** White Oak Shingles Enduring and beautiful northern white oak roofing shingles to beautify your home. High quality, subtle texture with beautiful tones. Free literature. Shamokin Trail Shingle Co.

- **389. Building Materials** Parts from loghouses and barns, including antique glass, hardware, shutters, flooring, doors, and hand-hewn logs. Also, millstones and equipment. Call for information: (717) 626-4520. **Sylvan Brandt.**
- 408. Rumford Fireplace Kit If you're rebuilding or converting a fireplace for any reason, this easy-to-do kit will make your project a success. Kit converts most gas and coal fireplaces. Call (614) 221-6131 for technical information. Buckley Rumford Fireplace.
- 409. Solid Soapstone These airtight, highefficiency stoves are individually crafted with detailed iron castings and hand-polished stone. Call factory: (603) 298-5955. Free catalog. Woodstock Soapstone Company.
- **470. Victorian Mantels** Turn-of-the-century fireplace mantels available in various woods and styles from classic to the intricately detailed. Illustrated brochure. **Urban Artifacts. \$3.25**
- 485. Rustic Shingle Aluminum Roofing Longlife product combines the look of hand-split cedar shakes with the durability, low weight, energy efficiency and fire safety of aluminum. Free brochure. Classic Products, Inc.
- **488. Metal Roofing Materials** Producers of Terne and Terne Coated Stainless. Quality material with a history of proven performance is always assured. Free catalog. **Follansbee Steel.**
- **489.** Roofing Design, Manufacturing & Installation Manufacturers of Country Cottage Roof®, a premium roof which has a proven record of lasting 60 years or more. Call: (800) 327-8115. **C & H Roofing.**
- 491. Rubber & Acrylic Roofing Rubber roofing permanently waterproofs flat roofs. Acrylic roof system is a paint-on rubber membrane ideal for restoring old asphalt or metal roofs. Call: (301) 366-1146. Resource Conservation Technology.
- **492.** Kennebec Design Portofolio A set of painstakingly rendered full page drawings, plus descriptions of 21 custom crafted traditional kitchens. Also included is a new color brochure featuring on-location photographs of Kennebec kitchens. **The Kennebec Company. \$5.25.**
- 493. Wood Roofs Distinctive western red cedar heavy buttroof shingles; excellent for restoration or new construction. Hip/ridge cap and fancy butts. Custom orders a specialty. Call: (401) 783-4415. Liberty Cedar.
- **494. Clay Roof Tiles** The nation's largest computerized listing and selling service that provides all brands and shapes of the world's finest previously used clay roof tiles. Call: [214] 242-7785. **TileSearch.**
- **495. Hidden Hanger Attachment** The Mole hidden hanger attachment is a newly patented product that will eliminate unsightly roof straps when installing rain gutters. Call: (800) USA-YOST. **Yost Manufacturing & Supply, Inc.**

DECORATIVE MATERIALS

- 8. Historic Hand-Decorated Tiles For fireplaces, kitchens, or bath: coordinated borders and patterns in any size. Victorian, Neo-Classic, Foliate, De Morgan, Art Nouveau, Arts & Crafts, Art Deco, and more. Period pavements. Illustrated brochure. Designs In Tile. \$3.
- 27. Victorian Roomset Wallpapers A com-

plete collection of Victorian wallpapers that you can combine in infinite variations. Neo-Grec; Anglo-Japanese; Aesthetic Movement. Superb catalog. **Bradbury** & Bradbury. \$10.25.

- **47. Tin Ceilings** 22 patterns of tin ceilings ideal for Victorian homes and commercial interiors. Patterns from Victorian to Art Deco. Comes in 2-ft. x 8-ft. sheets; cornices in 4-ft lengths. Brochure. **Chelsea Decorative Metal. \$1.25.**
- 128. Tin Ceilings Using original dies, this company produces richly ornamented metal ceilings in turn-of-the-century patterns. Includes center plates, borders, corner plates, cornice and filler plates. 72-pp. catalog. W. F. Norman. \$3.25.
- 278.Electric Wax Candles The electric, real wax candles "Morelites" and "Starlites" have been used in such prestigious restorations as Mount Vernon, Colonial Williamsburg, Sleepy Hollow. Beeswax candlecovers can be ordered to size. Brochure. Elcanco.\$1.25.
- 294. Plaster Ornament Ornaments of fiber-reinforced plaster. They do restoration work, and can reproduce existing pieces if a good example is supplied. Complete catalog of 1500 items. Fischer & Jirouch. \$15.25.
- **469. Decorative Glass** Transform ordinary glass into elegant leaded glass in minutes. Available in 3 colors and various widths. Catalog. **Triarco. \$3.25.**

DOORS & WINDOWS

- 9. Replacement Wood Windows 16-p. booklet tells what to look for in a replacement window, and how to install it. Get a thermally efficient, genuine wood window in almost any size and historic shape. Free booklet. Marvin Windows.
- 32. Wooden Screen & Storm Doors Wooden combination screen and storm doors have period look and are more thermally efficient than aluminum doors. Several styles (including Victorian and Chippendale) and all sizes. Catalog. Old Wagon Factory, \$2.25.
- 83. Invisible Storm Windows Match any window shape or color; removable storm windows available inside or outside-mounted, screen and glass panels. Fixed, magnetic, sliding, or lift-out styles. Free brochure. Allied Windows.
- 194. Specialty Wood Windows Palladians, straight, & fan transoms. Can be single, double, or triple-glazed. Also: solid wood entry doors with insulating core. Brochure. Woodstone Co. \$3,25.
- **267. Steel Windows** Custom-made steel windows and doors (interior and exterior), with traditional design and modern weatherstripping. Free literature. **Hope's Architectural Products**
- 317. Victorian Screen & Storm Doors Custom designed Victorian and Country Bentwood screen doors. Storm doors and authentic hardware available. Other styles include Colonial, Cape Cod, and Ranch. Catalogue. Grand Era Reproductions. \$2.25.
- 332. Spring-Tite Interior Storm Windows These windows are spring loaded to fit snugly inside your window casings. They can accommodate windows up to 1-1/2" out of square. Approved by the National Historic Society and H.U.D. Brochure. National Spring Tite Corp. \$2.25
- 354. Windows and Patio Doors A 24-page full-color booklet featuring Andersen's complete product line. Perma-Sheild low maintenance windows, patio doors, "High-Performance" insulating glass, Frenchwood Patio Door, Circle Top windows & Concept IV sunspaces. Free booklet. Andersen Windows.
- **455. Wooden Doors** Solid native wood entrances to match the style of your house. Traditional

doors with bull's-eye glass, side-lights, dutch doors, or insulated doors with obstract or stylized patterns. Catalog. Lamson Taylor Custom Doors. \$2.25.

497. Wood Windows & French Doors — The Architect Series from Pella* is highlighted in this 12-page brochure illustrating energy-efficient, historically-correct divided light wood windows and French doors. Four regional styles are discussed. Free brochure. Rolscreen Company - Pella Doors & Windows.

FINISHES & TOOLS

- 31. Rotted Wood Restoration Two-part epoxy system restores rotted wood, so you can save historically significant and hard-to-duplicate pieces. Repairs can be sawn, drilled, sanded, and painted. Free brochure. Abatron.
- **35. Plaster Washers** Inexpensive washers can resecure loose ceilings and walls. Starter packet of 3 doz. washers with instructions. **Charles Street Supply. \$4.30.**
- **365. Fireplace Repair** For over 100 years, this firm has offered a full line of chimney and fireplace maintenance and repair products. Gaskets, cleaners, caulking, patching and specialty paint products. Free catalog. **Rutland Products.**
- 412. Planer-Moulder Now you can use this power-feed, 4-in-1 tool shop to turn rough lumber into mouldings, trim, flooring and furniture. All popular patterns available. Free information. Foley-Belsaw Company.
- 439. Molder-Planer Superior US-made construction and two-minute cutter changes make this molderplaner a fast, easy and dependable tool. Five-year warrantee. Free information kit. Williams & Hussey.
- 445. Wood Treatments Treat your fine wood finishes with care while removing years of build-up. Preserve and finish the wood with Lemon Oil Beeswax Polish. Call for more information: (708) 228-7667. Reliable Finishing Products.

FURNISHINGS

- 22. Nottingham Lace Curtains Real Victorian lace, woven on 19th-century machinery, using original designs. Panels are 60" wide, 95% cotton, 5% polyester. Comes in white and ecru. Brochure. J.R. Burrows & Co. 55.25.
- **42. Country Curtains** Curtains in cotton, muslin, permanent-press, etc. Some with ruffles, others with fringe, braid, or lace trim. Bedspreads, dust ruffles, canopy covers, and tablecloths. Free catalog. **Country Curtains.**
- 192. Fishnet Bed Canopies Beautiful hand-fied fishnet bed canopies made to fit any bed size. Coverlets and dust ruffles also custom made. Other decorative products. Free color brochure. Carter Canopies.
- 209. Victorian Oak Furniture Three big barns full of antique furniture. One of New England's largest collections of American oak and Victorian furniture. For current selection, call (413) 527-1022. Southampton Antiques.
- 221. Restored Antique Fans Restores and sells antique fans and parts. Large changing inventory. The proprietor also wrote a book on the history of fans. Detailed brochure. The Fan Man. \$2.25.
- 320. Reproduction Furniture Magnificent handcarve crafted Georgian Reproductions, dining rooms, canopy beds, desks, and occasional pieces are our specialty. Personal attention given to your decorating needs. Catalog. The Antique Catalog. \$3.25
- 356. Fine Linens and Lace Faithful reproductions of lace panels and yardage taken from Victorian pattern cards. Fifteen antique patterns in varying sizes and colors. Catalog. London Lace. \$2.25.

490. Arts & Craft Furniture — Authentic reproductions of arts & crafts movement furniture, movement style interiors with built-in cabinetry, Stickley's reissued Mission Oak Collection. For more information, call: [914] 339-6146. The Vulpiani Workshop.

METALWORK

- 55. Custom-Made Plaques Historic markers for indoor or outdoor use. Standard solid-bronze cast plaques, 7 in. x 10 in., are \$90 plus shipping. Other dimensions and styles available. Free brochure. Erie Landmark.
- 122. Ornamental Iron Fencing Custom made ornamental iron fences and gates. We can match old fences using authentic Victorian patterns and castings. Complete catalog. Stewart Iron Works. \$2.25.

MILLWORK & ORNAMENT

- 2. Heart Pine Flooring Flooring cut from 200year-lumber. Edges and bottoms of boards remilled for easy installation, but patina of old surface remains. Also: heart-pine wainscotting, hand-hewn beams, mantels, and stair parts. For brochure or \$25 sample pack, call 1-800-227-3959. The Joinery. \$5.25.
- 13. Victorian Gingerbread Authentic Victorian millwork for interior and exterior porch posts, corner fans, balusters, brackets, corbels, headers, gazebo, etc. Illustrated catalog. Vintage Wood Works. \$2.
- **44. Victorian Millwork** 19th-century designs in solid oak and poplar: fretwork, brackets, corbels, grilles, turnings, and gingerbread precision manufactured so product groups fit together. Color catalog. **Cumberland Woodcraft. \$4.75.**
- 61. Victorian Gingerbread From a single source: exterior and interior hand-crafted solid-pine replicas of Victorian millwork. Corbels, fretwork, gable trim, corner brackets, porch railings, much more. Millwork catalog. Pasternak's Emporium. \$1.25.
- 91. Wide Boards Wide pine or oak boards, shiplapped boards, feather-edged clapboards. Will consult/design wood flooring and panelling. Serves Maine to Maryland region. Free brochure. Carlisle Restoration Lumber.
- 98. Non-Rotting Lattice Keeping porch lattice painted is a real chore. Instead, use PVC lattice. It looks like wood (no fake wood grain!), comes in 11 colors, and can be cut, nailed, and installed like wood. Free color brochure. Cross Industries.
- 173. Victorian Woodwork 19th-century millwork in redwood and select hardwoods. Ornamental shingles, turnings, ornamental trim, mouldings, screen doors, brackets, balusters, railings, and more. Catalog. Mad River Woodworks. \$2.75.
- 238. Architectural Turnings Millwork designs from 1870-1920 in heart redwood, oak, & mahogany: Balusters, newel posts, porch columns, railings, & custom turning. Complete catalog. Pagliacco Turning & Milling. \$6.25.
- 239. Custom-Cut Cedar Shingles Get an exact match of the fancy-cut shingles currently on your house. Authentic patterns also available for new Victorian houses. Free information. Cedar Guild.
- **260.** White-Pine Shutters Constructed of white pine with 2-in. wide movable louvers. These shutters are available in custom sizes designed to fit circular windows. American Heritage Shutters.
- 340. Wood Mouldings Internationally recognized company has over 500 beautiful wood mouldings. Call: 800-6-ARVIDS, or send for 104-pg catalog. Arvid's Historic Woods. \$5.75.
- **375. Fine Wood Stock** Twenty-one native species. 3" to 9" tongue and groove flooring, 11" to 17"

- extra wide planking, moldings, stairparts and cabinet stock. 20-page portfolio. **Old South Company. \$5.25.**
- **425.** Made-to-Order Shutters New shutters made the old-fashioned way, by hand. This shop also carries mantel-pieces, old hardware, doors, etc. Please write with your needs, or call (800) 2-SHUTTER. The Bank Architectural Antiques.
- 434. Re-creation Pickets Elegant Victorian pickets, just like the ones you've seen in old photographs. Adds charm and beauty to the modest farmhouse or grand public building. Send for picket sample. Texas Standard Picket Co. \$2.25.
- 438. Quartersawn Clapboard For over 100 years, the Ward family has operated this mill. Vertical grain clapboard eliminates warping for extended life. Free brochure. Ward Clapboard Mill.
- 454. Victorian Gingerbread Authentic handcrafted Victorian wood work for interior and exterior: brackets, spandrels, moldings, pickets, porch parts, roof trim, corner blocks, etc. Catalog and newsletter. Hicksville Woodworks Company, \$1.50
- 487. Interior & Exterior Wood Products Corner brackets, corbels, gable trim, spandrels, porch accessories, and more. Custom designing and manufacturing are welcomed. Full line illustrated catalog. Empire Woodworks. \$2.25.
- 496. Architectural Accourtements A rare find of architectural embellishments carved in solid woods. Catalog available to the trades when requested on professional letterhead: 16506 Avalon Blvd., Carson CA 90746. Brochure. Raymond E. Enkeboll Designs. \$1.25

LIGHTING FIXTURES

- 4. Victorian Lighting Fixtures Authentic reproduction Victorian & turn-of-century electric and gas chandeliers/brackets. Solid brass with variety of glass shades. Catalog. Victorian Lighting Works. \$3.25.
- Craftsman Lighting Reproduction Craftsman chandeliers and sconces fit right into any Bungalow, Mission, Foursquare, or traditional home. Fixtures in solid brass or cast iron. Catalog. Rejuvenation House Parts. \$3.25.
- Push-Button Switches Quality reproductions of push-button light switches. Switch plates in plain brass or ornamented. Brochure. Classic Accents.
 \$1.25.
- 159. Ceiling Fixtures Solid brass ceiling fixtures crafted in the highest quality. Available in polished brass or chrome. Company also offers custom fabrication, repair and refinishing; custom and antique lighting; brass and copper antiques. Free brochure. Conant Custom Brass.
- 189. Ceiling Fans The Hunter Fan is carefully built with a powerful, smooth-running motor and precision balanced wood blades. So they'll run silently and efficiently for years. Free brochure. Hunter Fan.
- 334. Chandeliers, Sconces and Candelabra A huge collection of lighting fixtures of unique design, using imported crystal. Brass and crystal reproductions of Victorian styles, and also crystal chandeliers and sconces using Strass Crystals. Catalog. King's Chandelier, \$3.25.
- **400. Lighting Fixtures** Architectural ornaments and antiques dating from 1880-1930. Stock reproduction iron spiral staircase and ceiling and wall lighting fixtures. Brochure. **Urban Archaeology.**
- 403. Restored and Custom Fixtures This company specializes in late 19th-century and early 20th-century lighting fixtures which have been completely restored. Free. Rare & Beautiful Things.

PRODUCTS NETWORK

PLUMBING & HARDWARE

- 11. Old-Style Plumbing Fixtures Claw-foot tubs, brass & chrome showers, shower rings, pedestal sinks, faucets, high-tank toilets, cage showers, and more. Antique and reproduction. Also hard-to-find parts. Large color catalog. Roy Electric. \$6.25.
- 18. Victorian Hardware Vast selection of highest quality 18th- & 19th-century reproduction hardware for doors, windows, shutters, cabinets, furniture, plus high-security locks with period appearance. Big 108-p. catalog. Ball & Ball. \$5.25.
- 110. Bathroom Fixtures Wide variety of antique and reproduction plumbing, tubs, porcelain faucets and handles, pedestal sinks, high-tank toilets and shower enclosures. Catalog. Mac The Antique Plumber. \$6.25.
- 193. Bathroom Fixtures Turn-of-the-century and country bath decor: Brass, porcelain and oak furnishings both reproduction and antique. Complete catalog. Bathroom Machineries. \$3.25.
- 303. Fancy Plumbing Fixtures Hard-to-find fixtures: pedestal lavatories, Victorian-style washstands, drop-in-basins. Plumbing hardware and accessories,

fireplace mantels, lighting fixtures, and much more Call: (318) 234-7963. Ole Fashion Things. \$4.00.

- 309. Reproduction Brass Showerhead A unique 12" showerhead generates thousands of waterdrops to cover the entire body in a gentle rain. Quite a luxurious shower. Free brochure. JB Products.
- 363. Complete Outfitter Goods in endless variety from chamber pots to covered wagons. Over 10,000 items. 250-p. catalog. Cumberland General Store, Inc. \$3.25.
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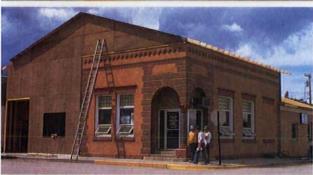
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Bank-Rupt



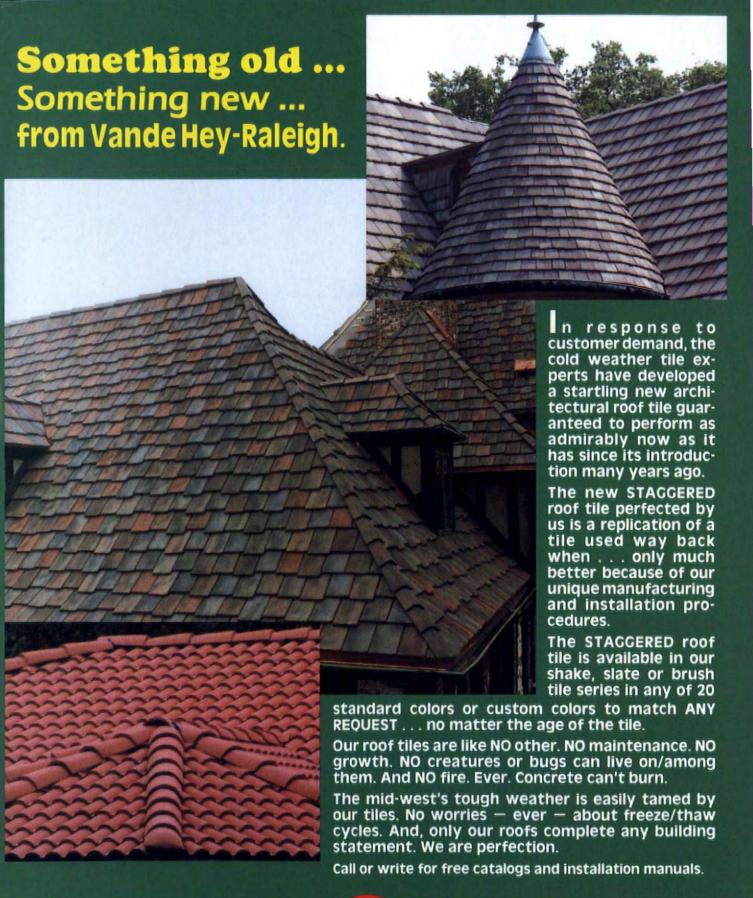
y June of 1981, when the photo at top left was taken, the First National Bank of Middle River, Minnesota, had already suffered some indignities, most notably in the fenestration of this Renaissance Revival-inspired building. But those early follies pale to insignificance alongside the wholesale remuddling that began a month later. The little bank's proportions are obliterated by its rapid absorption into pseudo-Tudor tastelessness. Just *bow* tasteless is apparent in the bottom-left photo, taken in September of 1981. The old building has been completely engulfed by the new structure.



By September of 1983, when the final photo, below, was taken, the First National Bank of Middle River, Minnesota, had become one more roadside distraction, like so many others we motorists and pedestrians have learned to ignore.

Thanks to Thomas Harvey of Minneapolis for the photos.







Two-Door Houses

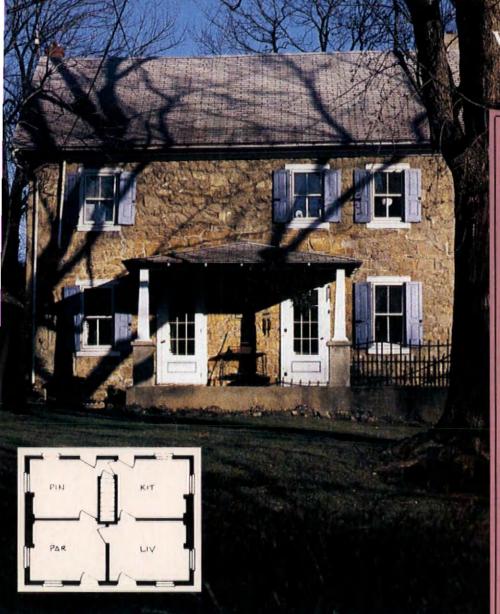
One of the most common house types in western Berks County, Pennsylvania, is the two-door house. These rural, single-family dwellings featuring twin front doors were constructed primarily during the period from 1840 to 1870. Two-door houses abound in Berks County as well as in Lebanon, Lancaster, and neighboring counties.

Commonly constructed in brick and stone, and less often in wood, twodoor houses are usually square in shape, being equal in length and depth, with rooms symmetrically laid out (see floor plan, left). Many feature two rear entrance doors in addition to the two in front.

The house form evolved from the traditional Pennsylvania Deutsch farmhouses, which ignored the English central-hall plan. The exact purpose of the two front doors is unknown, but they may have been a solution to lack-of-privacy problems in homes without such a hall. According to rural-architecture authority Henry Kauffman, the twin doors enabled each side of the house to develop separate functions. The door on the left was reserved for guests, who would pass first into the parlor and then on to the dining room. Thus, family members could confine their activities to one side of the house, saving formal rooms from unnecessary wear and tear, and visitors could comfortably enter and exit by their own door, without fear of infringing on the privacy of the other residents. This theory is supported by the continuing present-day function of the rooms.

> Michelle Nicholl Reading, Pa.

llustration by Jeff Wilkinsor





Residents continue to use their two-doors in the traditional pattern with guests entering through the left-hand side. Many houses also had a duplicate pair of rear doors.