

Restoration and Maintenance Techniques  
For The Pre-1939 House

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# The Old-House Journal



## Stripping Exterior Masonry

by Patricia Poore

**O**NE DAY, the phone rings and it's a reader asking how to get the clinging, flaking remnants of old white paint off his red brick. There's no easy answer. Another phone call, another day. This time somebody wants to know how to get the romantic, old-fashioned look of clinging, flaking remnants of white paint on red brick, without waiting a hundred years for paint to weather. There's no easy answer.

I THINK the first caller should let time do the job. I understand love of the pristine, the need to "finish" the job. But for one thing, I sympathize with the second caller. I enjoy the imperfection of old things. For another, I've become aware of how downright practical it is to do nothing if you can get away with it. Making things new again is expensive and awful mistakes are made in the name of restoration.

TO GET BACK to exterior stripping: This article will help you decide whether you have to or really want to, and tell you how to do it right if you must.

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STANDING SEAM ROOFS



## Tell Us About Your Favorite Inn

We're Compiling A Unique Inns Guide For Old-House Lovers.  
And We Need Your Help.

**T**HE BEST WAY to see old houses, we think, is from a bicycle saddle. And after a hard day of riding, our reward is to check into an old inn or bed-and-breakfast guest house. Invariably, these establishments are run by folks who've fallen in love with the old places--and who are delighted to entertain like-minded guests.

OUR FAVORITE is Mountain House. A stone's throw from the Appalachian Trail, it is a survival from the days when Victorian city dwellers fled to the mountains to escape summer heat. Time has pretty much passed by Mountain House. The bathtub is down the hall, and the oak and wicker furniture might be called Spartan. But oh how we love to be there! On summer nights, we'll sit in rocking chairs on the century-old porch with owners Frank and Yolanda Brown, as the cool night air comes tumbling down the mountain.

MOUNTAIN HOUSE doesn't turn up in most B&B books (not yet, anyway). But you can be sure it will be in our special new Inns Guide.

THERE HAVE to be lots of other secret places...places whose reputations are local. We want to include them. But we need your help. We've already found

a few thousand old inns and guest houses. Most of them are showcase restorations, or are located in well-known resort towns. To find guest houses off the beaten path, we need testimonials from you.

PLEASE LET US KNOW about your favorite right away. It may be big or small, built in 1760 or 1920. Your only criterion for submitting should be, "Would I recommend this place to other Old-House Journal readers?"

OF COURSE, if you run an inn or bed-and-breakfast yourself, and you'd welcome other OHJ subscribers, we especially want to hear from you! (We've found that many B&B proprietors are OHJ readers.)

HERE'S WHAT we need to know: (1) Name of inn or guest house; (2) Complete address; (3) Owner's name (if you have it); (4) Most important, what you think is special about it.

WE'LL FOLLOW UP with a detailed questionnaire to the owner. Send your nominations to: Tricia Martin, OHJ, 69A Seventh Avenue, Brooklyn, NY 11217.

ALL OF US at OHJ look forward to owning copies of the new Guide ourselves -- and to sharing it with you!

— Patricia Poore & Clem Labine

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# A Philadelphia Stencil Story

by Esther Wideman

WHEN WE FIRST MOVED to Philadelphia in 1969, we bought a house that had been divided into five apartments, then de-converted to a one-family house in the 1950s. We kept up the roof, worked in the garden, and painted the exterior to keep the wood from rotting. That was the extent of our interest in old houses. But, after getting acquainted with *The Old-House Journal* and reading about how others had restored old homes to their original splendor, we began to think about restoring our home.

IT ALL STARTED with the bathroom on the second floor. Over the course of two years, we took out the shower, installed a 6-foot bathtub, refinished the pine panelling, and added a marble sink to the room. It was quite beautiful and successful. But by the time we had finished we decided to sell this house and buy another one -- one with more original details that we could bring back to life.

WE SUCCESSFULLY BID for a corner house just two blocks away, here on Woodland Terrace. It is one of a set of twelve Italianate twins built in 1861. These buildings share a common wall and are mirror images of one another. Corner houses -- ours is the last one left in this group -- have grand porches. We didn't realize what a treasure we had until the family we purchased the house from turned over all the original documents,

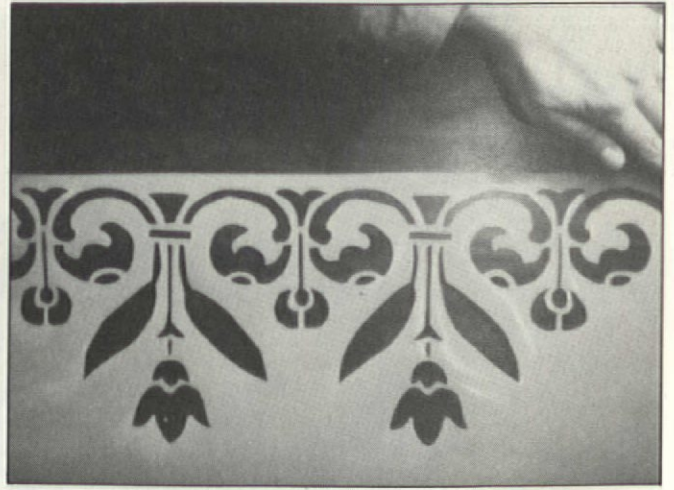
including deeds and records of sales. Before they had moved in, the house had been occupied by a single family for over 50 years. Before that, during the 19th century, another family had occupied it for 50 years. We were only the fourth owners!

THE HOUSE WAS VERY DIRTY and dilapidated, but it had large rooms and lots of potential. Of course, we started with the major work -- new heating system (gas, hot water), new kitchen, floor sanding, and new plumbing and electricity. The house had once been lit with gas, but when we bought it, the dining room, kitchen, middle parlor, and the bedrooms were lit only by bare light bulbs. Over time, we replaced all the bulbs with gas chandeliers adapted for electricity. We were able to buy one large fixture from a neighboring house of the same period, and another from the French Embassy in Philadelphia.

BECAUSE THE HOUSE has two parlors, we decided to turn one into a music room that would accommodate my pipe organ and grand piano. We began by scraping off the layers of old wallpaper. Surprisingly enough, the walls had never been painted! Underneath the paper, the original stenciling, well over a hundred years old, was still visible! Although the stenciling was faded and scarred, the design and color scheme of the original frieze was still visible, enabling us to reproduce it.



The Wideman's home as it appeared in 1910.



*Top left:* Though faded, the frieze was visible enough to be copied. To the left is the outline of the original mirror. The Widemans were able to replace it with one that fit the outline perfectly. *Top right:* The stencil was traced, then cut from a sheet of Mylar. *Bottom left:* Esther puts the finishing touches on the painted ceiling medallion in the music room. The room is large enough to accommodate her grand piano, harpsichord, and 12-foot-tall pipe organ.

*Above:* The finished ceiling medallion. Esther, who opened an antique shop not long after she and her husband bought the house, has decorated the Italianate twin with period furnishings.

IT TOOK ME SEVERAL YEARS to decide to tackle the job, but after I studied several stencilling books and practiced on the back stairway and the hallway to the third floor, I felt competent enough to go to work on the music room. Although the original frieze had been painted in two shades of green, we decided to repaint it in shades of blue. To preserve the original stencil and colors for future owners, we dated a portion of the frieze and papered over it.

BY TRACING THE DESIGN and then cutting it out of a sheet of Mylar, I was able to reproduce the music room frieze. Once the frieze was completed, I decided to supplement the wall decoration with a ceiling medallion I designed from a combination of 15 different Victorian stencils adapted from the stencilling books I had read.

I PLANNED ONLY the central portion. I enlarged a classical-style motif resembling a plaster ceiling medallion and painted it in shades of brown. But by the time I completed this, I realized it was too small for the room. I enlarged it and tied in the blue from the frieze with a leaf motif. The small circular tile patterns were inspired by encaustic tiles from an entryway of another old house. The tracery patterns, my own design, were added to enlarge the medallion even further. In the end we had over an 80-inch spread across the center of the ceiling -- much more in scale with a 23-foot room than the medallion we had originally planned on!



Above: The stenciling in the entryway was reproduced from ghosts found under old wallpaper. Right: These two photographs, taken in 1922, show the gallery and iris garden that were once located off the middle parlor.



**O**F ALL THE FORMAL ROOMS, only the middle parlor had its original mirror. We looked for several years for a suitable mirror for the music room before finding one.

Jim had to refinish the frame and buy new mirror glass for it, but it perfectly fit the lines of old paint left around the original mirror. Other interesting features in the parlor include an old pressed-tin ceiling, possibly installed in the late 1880s along with the Lincrusta wainscot in the hallway, which continues all the way to the third floor. The middle parlor also contains the only working fireplace.

ORIGINALLY, the front parlor and all the bedrooms above were centrally heated, through vents in the fireplace, by a coal furnace in the basement. All the mantels in this side of the house are different. The main parlor mantel is made of white marble. The bedroom above the parlor has a painted wooden mantel with an inset mirror. The bedroom above that on the third floor has an Eastlake mantel with inset mirrors and two beautiful tiles showing children at play. This room must have been a



Jim and Esther Wideman on the porch of their 1861 Italianate villa.

nursery. The other parts of the house were heated with coal stoves. The vents for these stoves are still in the fireplace walls.

**N**OW, RESTORING the finishing touches has become our main interest. We were recently able to buy a documented bedroom and dining room set made by Schindler, Roller and Company in 1869. This furniture was made for Andrew Campbell in Brooklyn, New York, and came to Philadelphia through his granddaughter, who lived in our neighborhood for many years. I had collected marble sinks, tiles, and tubs for several years (I opened a small antique shop around the same time we bought the house), so we now have two finished bathrooms with antique marble washstand sinks, one with a painted bowl. I found a carved cherry armoire with a marble sink in it and had our carpenter install it on a long wall in the dining room with shelving for storage. Although it's not original to the house, it's just the kind of thing that might have stood there originally.

**F**OR US, THE HIGH POINT came when our house was shown in the Philadelphia Inquirer magazine section last year. The color photograph showing the two of us relaxed in the music room reflects very little of what our lives have really been like the past few years! Now we don't just "keep up" with the roof or the outside paint job -- the house is a major part of our lives. We still have work to do -- Jim is currently restoring the original standing-seam metal roof with the help of a local roofer -- but we have begun to enjoy having guests for the first time since we bought it six years ago. The house was seen by over 500 people during the Philadelphia Open House last year, and we recently entertained the Philadelphia Chapter of the Victorian Society in America at a musicale. These events, and others that I hope to plan, are my dream come true for this old house.

# My Old-House Discovery: The Screw Gun

by Jonathan Poore

**H**AVE YOU EVER tried to nail a Sheetrock patch into a hole in an old plaster ceiling? Even if you've neatly cut back the loose plaster to the nearest joist, you end up with a face full of plaster dust and debris, because the hammering causes the surrounding plaster to crack, crumble, and fall. By the time you get the Sheetrock patch secured, you have a bigger hole than before, and the debris caught behind the Sheetrock keeps it from laying flat.

THE SOLUTION to this problem, I've recently discovered, is to use a screw gun. What a find! Contractors take this tool for granted, but a lot of homeowners haven't even heard of it. Some people assume it's like a nail gun, but the two tools are totally different. A nail gun literally shoots nails, and so can be very dangerous in an occupied building or in the hands of someone who doesn't know what he or she's doing; a screw gun drives screws in a completely safe and controlled manner.

BASICALLY, a screw gun is an electric-powered screwdriver. It resembles a common variable-speed electric drill, except for one important difference. At the business end of a screw gun, where the chuck for the drill bit would be, there's a magnetic screwdriver bit surrounded by a little sleeve. By adjusting the sleeve in or out, you control the depth to which the screw is driven. This screw bit turns only when pressure is applied to it. When the screw has been driven in the desired distance, the sleeve bottoms out, releasing the pressure on the bit. This allows the motor to spin free without driving in the screw any further.

BESIDES CONTROLLING the depth to which the screw is driven, the clutch mechanism spares the motor from being forced to a grinding halt whenever a screw has reached its proper depth. Because it can spin free, the screw gun motor

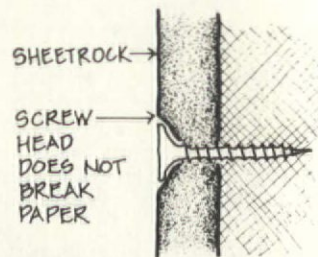


isn't continually stalling, which would cause it to burn out prematurely. So even though it's possible to use an electric drill as a screw gun, you'd be letting yourself in for a lot of problems: You'd have to control depth by eye, and the continual stalling would be bad for the motor.

THERE'S YET ANOTHER advantage to a screw gun: It's reversible, so you can take the screw back out just as quickly and easily as it was put in.

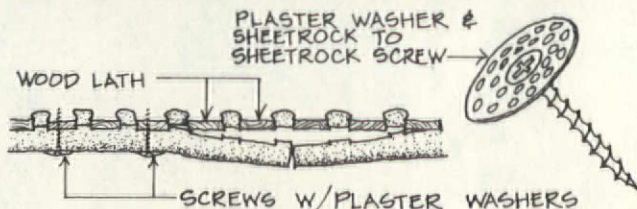
**S**CREW GUNS were designed as a contractor's stool, intended for fastening Sheetrock to metal or wood studs. The depth adjustment allows the screw to countersink itself just barely below the surface of the Sheetrock without breaking the paper.

The screw gun can rapidly and consistently drive many screws to the same depth without breaking through the paper face. And because its magnetic tip holds the screw in place, you can operate a screw gun with one hand. When you add to its speed and convenience the fact that there's no hammer impact to jar or damage fragile plaster or woodwork, a screw gun becomes a real asset in working on an old house.

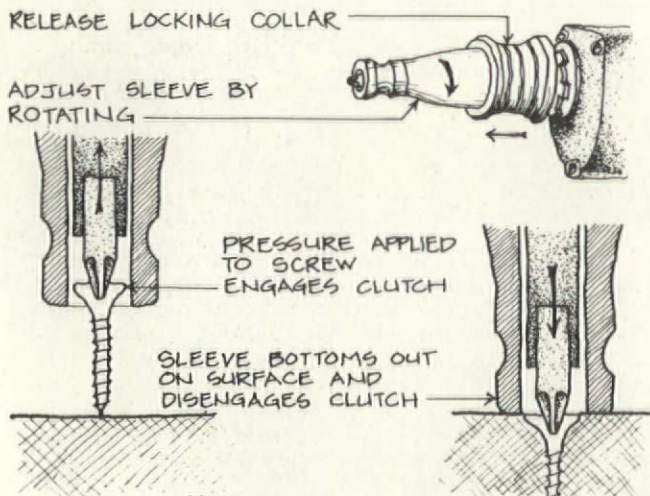


IT'S IMPOSSIBLE to name all the old-house applications of a screw gun, but here are just a few:

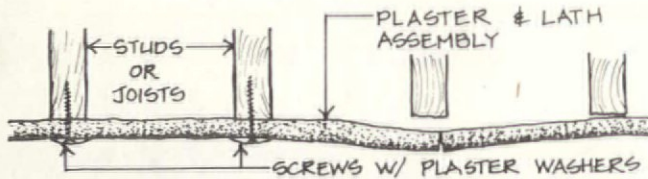
1) **PLASTER TO WOOD LATH**  
Used in conjunction with plaster washers and Sheetrock-to-Sheetrock screws, a screw gun can refasten plaster that has separated from its wood lath. (The coarse threads of these screws hold very well, even to wood lath.)



2) **PLASTER AND WOOD LATH TO JOISTS OR STUDS**  
Plaster washers and slightly longer screws (generally available with conventional threads



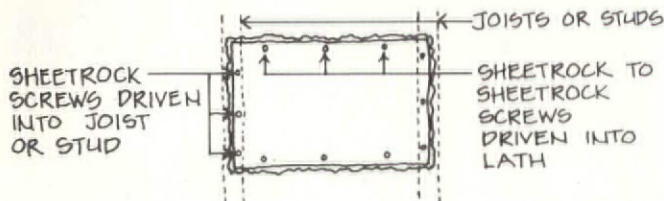
only) can be used to rescue plaster and lath assemblies that have separated from joists or studs.



### 3) SHEETROCK PATCHES

The screw gun can be used with conventional Sheetrock screws to fasten Sheetrock patches. The surrounding (existing) plaster can be secured first, using the methods described above. The Sheetrock patch can then be fastened with the screw gun. There are several major advantages to using a screw gun for this process:

- No hammering is involved.
- You can fasten the Sheetrock to the lath in areas where there is no stud or joist.



- If you misalign the level of the patch with the adjacent plaster, the screw can be backed out instantly, so the patch can be shimmed or trimmed to make it align properly. If the patch had been nailed in place, you'd have to tear out the Sheetrock (destroying it in the process) and start over.
- A screw gun enables you to do a major Sheetrock patching job quickly; the more extensive the work, the faster the screw gun pays for itself in time saved. It doesn't pay to buy a screw gun to put in one Sheetrock patch, but if you're rescuing plaster and installing Sheetrock patches in several rooms, a screw gun is a sensible investment.

### 4) FURRING OR LAMINATING OVER CRUMBLING PLASTER

Occasionally you may have to cover over a badly deteriorated plaster surface by installing Sheetrock, stamped metal ceiling panels, or the like. (It's usually better to remove the existing plaster first, but that can be a very messy demolition job.) Whether the new materials are to be applied over furring or laminated directly to the plaster, a screw gun is essential. It can fasten furring without causing the plaster to crumble any further. If Sheetrock is being installed, the screw gun makes for a fast, neat job, because the plaster won't be disturbed by any hammering. (A metal ceiling must be nailed to the furring, but the nails are so small they don't require heavy pounding to drive them.)

### 5) REPAIR OF OLD BUILT-IN-PLACE CABINETWORK

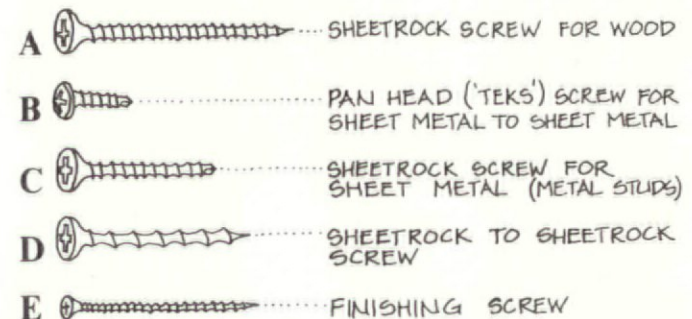
Built-in cabinets in old houses were most often actually built in place rather than fabricated somewhere else. This makes them subject to the movement and deterioration of the surrounding plaster and lath. Repairing an old cabinet with hammer and nails can often

knock the cabinet apart even more, as well as damage the surrounding plaster. Screws will hold much better than nails anyway, and a screw gun can make internal repairs in the cabinet and also resecure it to the wall. (Hardwoods often need to be pre-drilled to avoid splitting, but that's often the case with nailing as well.) Slender finishing screws with small heads can be used in areas which might show.


### 6) MISCELLANEOUS NEW WORK

A screw gun is good for installing nailers for new shelving and cabinetwork on existing plaster. It's also excellent, both for speed and strength, when assembling plywood cabinetry, such as kitchen cabinets.

- T**HERE ARE many different screw sizes and types available for use with a screw gun.
- The most common type of screw is a standard drywall screw with a sharp point (for puncturing the paper face on Sheetrock) and threads designed to go into wood. These screws are available from 1 to about 3 inches in length.
  - The self-tapping screw with a round head, sometimes called a 'teks' screw, is used for joining light-gauge metal studs together.
  - The self-tapping screw with a flat head is used for fastening Sheetrock to light-gauge metal studs.
  - A Sheetrock-to-Sheetrock screw is a fairly specialized variety of fastener, but it has many applications in an old house (as discussed above).
  - A finishing screw should be used only on woodwork, because the head is so small. If it were used on Sheetrock, the head would pull right through the paper face.



THE SCREWDRIVER TIP on the end of the screw gun is replaceable. Several tip sizes are available to match the screw being driven. For example, a finishing screw takes a smaller tip than a regular drywall screw. The tips also eventually wear out, and can be replaced easily by just pulling out the old one with a pair of pliers and slipping in the new one. It's usually a good idea to keep a few spare tips on hand in case one gets damaged or excessively worn.

IT TOOK ME A WHILE to decide to get a screw gun because, like any good power tool, it's expensive. But now I'd never be without one again! It's a tremendous time-saver. 

CONSIDERED a contractor's tool, high-quality screw guns are not generally available at hardware stores. Therefore, we're offering our readers the screw gun chosen and tested by the author. See the inside back cover of this issue.

# The Rumford Compromise

## A Safe Modification For Victorian Fireplaces

by Jim Buckley

**W**HEN WE BOUGHT our 1880 house, its five coal-burning fireplaces were all in terrible shape -- and that's including the ones that hadn't been bricked up or used to vent gas space heaters in the bad old days when our home was a rooming house. Our insurance agent looked things over, shook his head, and wrote a special clause in our fire policy, one that voided it if we used the fireplaces.

THE NEXT FEW YEARS were very frustrating. Fireplaces dominated every room, and it offended us that they weren't functional. To make them safe and bring them up to modern building codes, they'd have to be made deeper, which meant obliterating the original hearths and plaster mouldings above the mantels.

THAT OPTION was unacceptable to us. There seemed to be no way out, until a friend of mine brought me The Collected Works of Count Rumford. I read it, and in a blinding flash I had the solution: Rumford fireplaces. They're tall, graceful, and above all shallow. They'd fit perfectly within my fireplace openings; all I'd have to do is change the insides of the fireboxes.

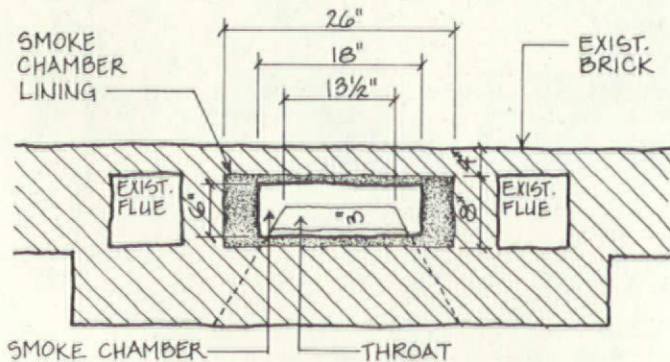


"We live in an 1880 vintage Queen Anne Stick-style brick Victorian Italianate house, if you can imagine that."

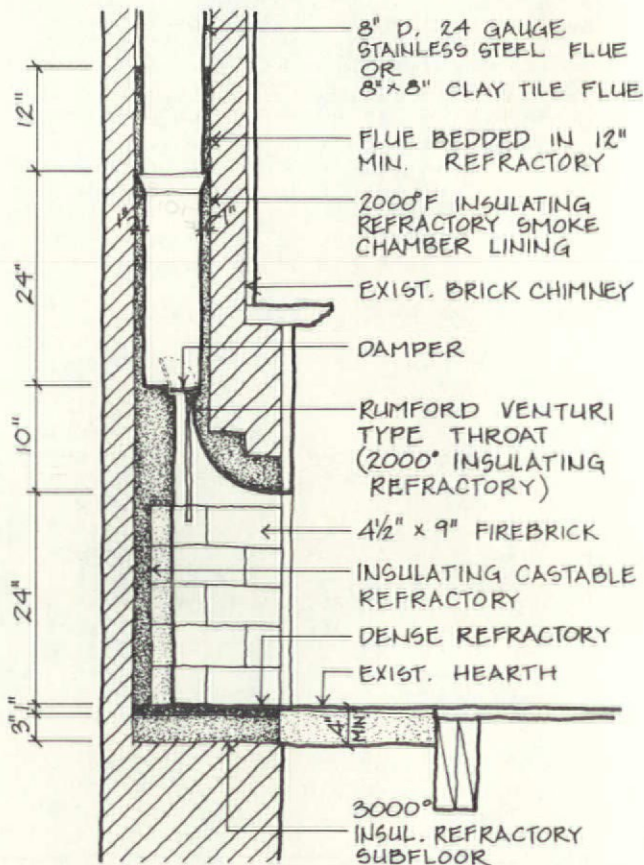
THE ACCEPTED AUTHORITY for fireplace design today is the American Society of Heating, Refrigeration, and Airconditioning Engineers Handbook. This book states that a modern fireplace requires a flue at least 1/12th the size of the fireplace opening. If a damper is in

**C**OUNT RUMFORD, an American, developed his fireplace in England around 1795. He understood that fireplaces produce radiant heat, and came up with a design to take advantage of that effect. His fireplaces were shallow, with widely angled coverings and light-colored masonry materials. He experimented with the shape of the throat "to find out and remove those local hindrances which prevent the smoke from following its natural tendency to go up the chimney."

RUMFORD ROUNDED THE BREAST and reduced the size of the throat to a narrow slit. The throat is streamlined, measuring only about 1/20th the size of the fireplace opening. It forms a nozzle through which the smoke and air flow at an increased speed, and acts like a check valve against backdrafts.



PLAN ABOVE DAMPER



SECTION



used at the throat, the ASHRAE Handbook recommends it be twice as big as the flue -- that's about four times as big as a Rumford throat. No wonder modern fireplaces are inefficient: With their square lintels and sharp angles, they have to be deep and have gaping, oversized flues to keep them from smoking.

## How To Rumford-ize A Fireplace

**T**HE MORE I READ RUMFORD'S WORKS, the more convinced I became that they offered the definitive fireplace design. So I went ahead and built a Rumford in my house. I've since done many more, and want to share what I've learned with the readers of OHJ. Construction requires several refractory materials that are not commonly used by homeowners or home-improvement contractors, but they're generally available from firms such as Plibrico and A.P. Green. I use a 2000-degree, insulating castable refractory cement for casting the throat and smoke chamber, and 3000-degree refractory for some fireplace subfloors. I've found that I can mix refractories in a 5-gallon plastic bucket, using a 1/2-inch drill with a drywall mixer blade. It pours easily with the aid of a metal scoop.

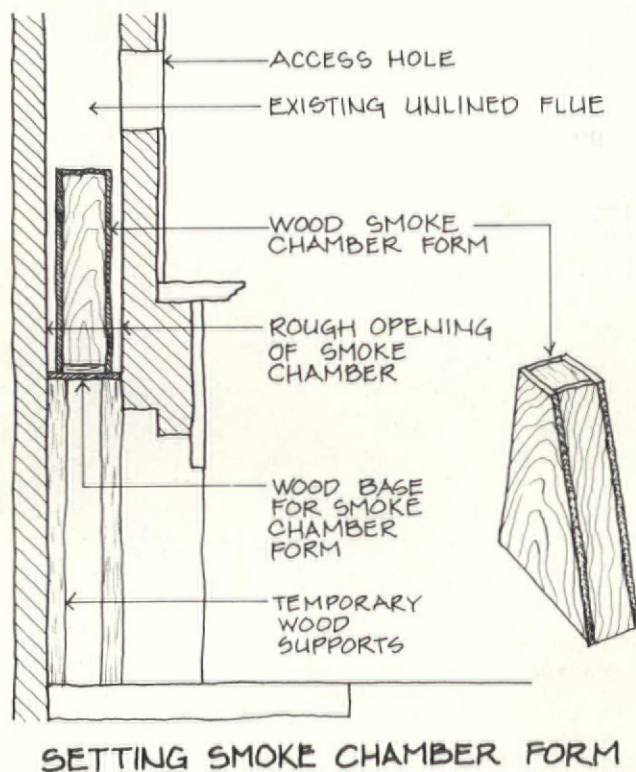
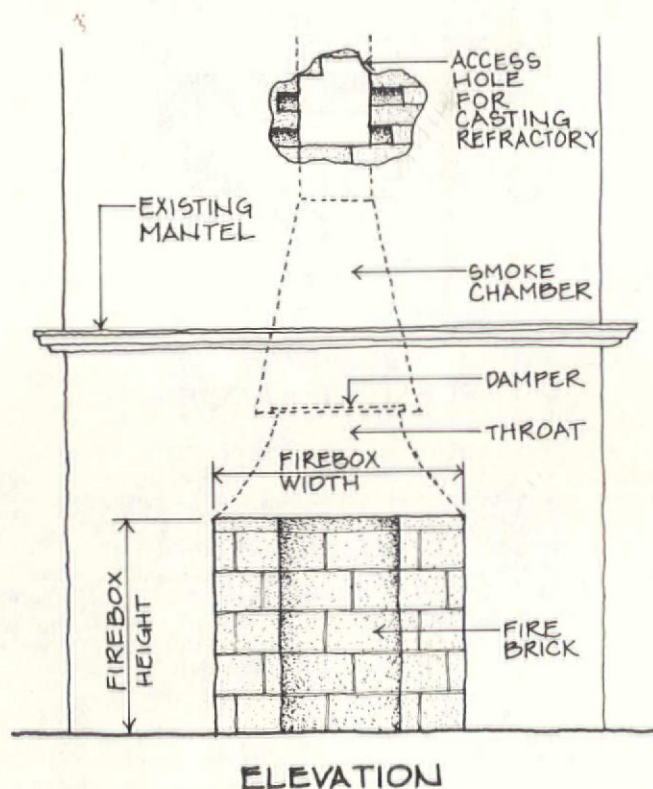
I ALWAYS DIG OUT the firebox floor and replace it with 3000-degree castable refractory. Refractory cement is made in a wide range of insulating capacity and density -- the more insulating capacity the cement has, the softer it is. So, if there's any wood within 4 inches of the hearth extension, I pour a fireplace subfloor of softer 3000-degree refractory cement, then pour a denser refractory floor over that. The finish floor of the fireplace needs to be relatively hard, because it will be subjected to such abuses as pokers and falling embers.



Author Jim Buckley poses with the tools for the job. Left to right: half-inch drill with drywall mixing blade, bucket of refractory mortar, throat form with wooden blocks, firebrick and grate, smoke chamber form with bottom and legs, and 8-in. stainless steel flue pipe with metal-cutting saw.

POUR THE SMOKE CHAMBER NEXT, because you have to be able to get the form out the bottom. My plywood form is fitted to the inside of the firebox; it is about 18 inches wide at the base, 24 inches high, and 6 inches deep. It forms 1-inch-thick front and back walls in an 8-inch rough smoke-chamber opening (a standard size here in Columbus). A platform that just fits the rough opening (usually 8 inches by 24 inches) holds the form in place on wooden legs, 10 inches above the firebox lintel.

USING THE METAL SCOOP, pour the 2000-degree, insulating refractory through a hole in the wall, located just at the top of the form. The mixture has to be wet enough to fill voids, but not so wet as to compromise its



# Life With Rumfords

**H**AVING LIVED with Rumford fireplaces for a while, I feel compelled to tell you how wonderful they are. (Of course, I'm not biased!) Our brick Victorian house always felt cold when the outside temperature was low, even though the furnace kept the inside air temperature a constant 65 degrees. Brick is poor insulation, and so our wall temperature was usually about halfway between the 65-degree inside temperature and the cold outside temperature. When it got to be zero outside, the walls would be only about 35 degrees, and we'd feel cold.

RUMFORD first articulated the concept of radiant heat: "One must never forget that it is the room that heats the air, and not the air which heats the room." In other words the radiant heat from the fireplace heats people and surfaces such as the wall across the room. Supplementing our heat with fireplaces that warm us directly and keep our walls warmer,



we now can feel comfortable even at 60 degrees. It's like being in the sun on a 60-degree spring day. It feels warm, but step into the shade -- or in this case, the next room -- and 60 degrees feels cold.

PEOPLE OFTEN want to compare fireplaces with stoves. Stoves are basically air heaters, so you rely on convection to help heat adjoining rooms, or you can use fans to circulate the warm air much like a warm-air furnace does. Fireplaces, however, heat only what they 'see'; you can't pump 60-degree, warm air to help heat a 60-degree, cool adjoining room. On the other hand, you can't lose radiant heat through infiltration or convection.

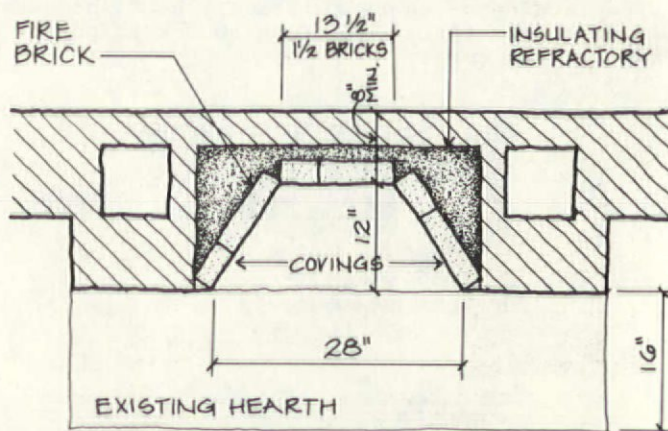
SO IF YOU LIVE in a big, drafty brick house with high ceilings, and the kids and cats are going in and out all the time, a Rumford or two (or five) may be the secret to preserving your wintertime comfort.

strength; try making it just a little too wet to make a ball and hold in your hand. The material should be just barely pourable: If your mixture's too thick, it won't pour evenly; too thin, it pours too fast. (To be perfectly honest, I wasted a lot of expensive refractory in my experiments with mixing consistencies and setting times. I even had to burn out my first smoke-chamber form because I left it in too long and couldn't get it out.)

THE INSULATION VALUE of the refractory is necessary if your smoke-chamber walls are only 4 inches thick, so that the heat transfer through the casting and 4 inches of brick is equivalent to the 8-inch walls required by most codes. After about three and a half hours, pull the form. (You might have to use a hammer to get it down and out through the hole.) Do it too soon and the casting will fall apart; too late and you'll have to burn the form out. (Charcoal applied to the top of the form works best because it burns down.)

## The Floor And The Throat

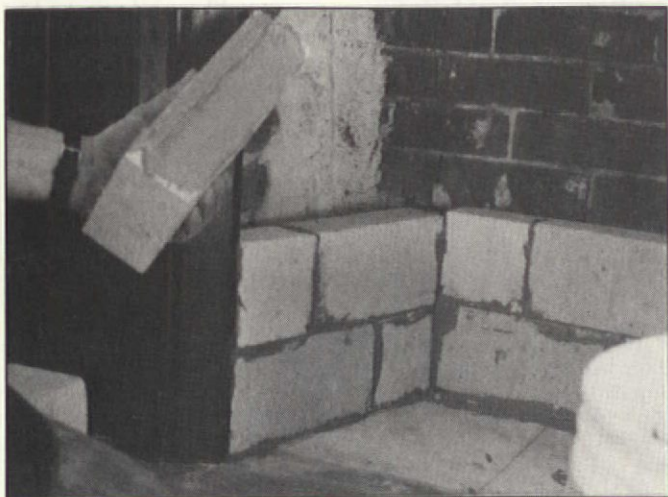
**W**ITH A SHOP PENCIL OR CHALK, draw the firebox plan on the refractory floor. For fireboxes up to 28 inches wide, I use 1-1/2 standard firebricks per course for the back and both coverings. (A standard firebrick measures 4-1/2 inches by 9 inches, which makes each course 13-1/2 inches long.) Using a level, lay the firebrick with fireclay mortar.



PLAN AT FLOOR

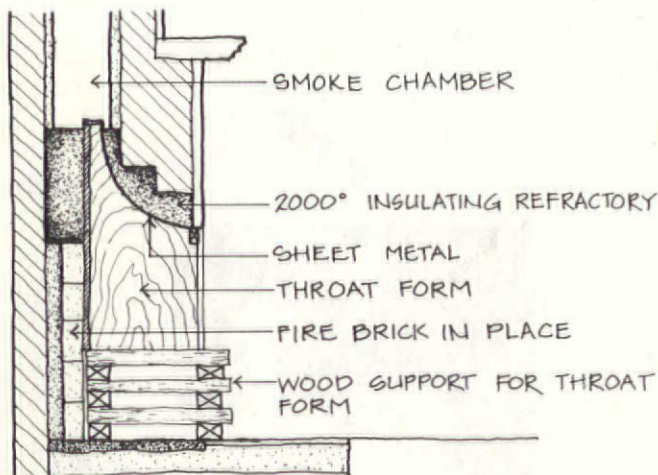
Keep your joints small, no wider than 1/16 inch. Fill the void between the firebrick and the common brick chimney wall with insulating castable refractory. Remember that firebox walls should be a minimum of 8 inches thick, and even then it's a good idea to place some insulating castable between the firebricks and the structural wall (especially if there's any wood on the back side of the fireplace). Excess fireclay mortar can be washed off the brick faces with water and a sponge.

THE FORM FOR THE THROAT uses 24-gauge sheet-metal for the curved part. (Construction of this form is time-consuming because of the



The firebox requires only 1½ firebricks for each course. Note the thinness of the joints; the excess fireclay mortar will be washed off after the firebox has been completed.

relatively complex geometry.) For the smallest part at the top, the throat must be 1/20th of the area of the fireplace opening. For a 20-inch-wide fireplace with a 13-1/2-inch back, the throat is 13-1/2 inches wide by about 2 inches deep. For a 28-inch-wide fireplace (still with a 13-1/2-inch-wide back), the throat is 13-1/2 inches by about 3 inches. The form must also be short enough so that when its supporting platform is taken away, it can be dropped down about a foot and removed.



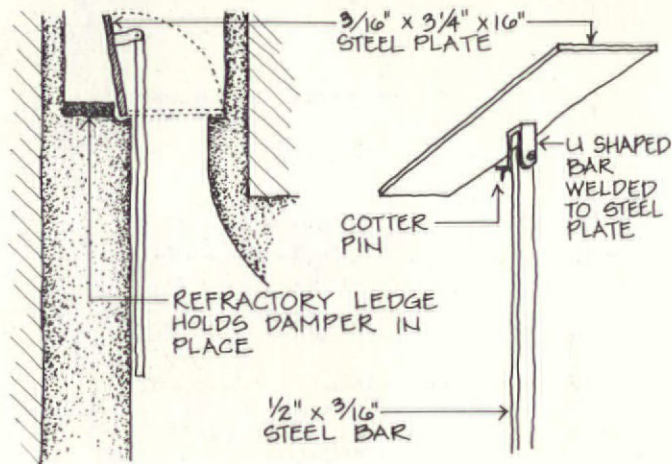
### CASTING THROAT

INSERT THE THROAT FORM up into the firebox. (It will extend a bit into the smoke chamber -- see drawing.) Positioning it somewhat toward the front of the smoke chamber's opening will make it easier to get the damper in later. Make sure the form fits tightly against the firebox on all three sides, and that the the bottom of the form is lined up precisely with the bottom exterior edge of the fireplace. Pour the refractory to the top of the form so that the two castings overlap.

PULL THE FORM after about three and a half hours. Sometimes it's hard to get the refractory to fill the entire breast area, or it falls when the form is removed. But it usual-

ly can be patched with the same refractory, using a trowel. The casting may also need a little cutting and trimming with a trowel to make a smooth transition with the firebox and to make sure the throat is well formed.

MAKE A DAMPER out of a 3/16-inch-by-3-1/4-inch-by-16-inch steel plate; fasten a steel bar handle to it with a cotter pin. (You can also have a metal worker fabricate a conventional damper, one hinged to a metal frame). The damper can be inserted through the throat and a mortar ledge formed of refractory cement, so that the damper can open up and back, as if it were hinged at the back to the smoke shelf.



### DAMPER DETAILS

### Flue Facts

FOR THE FLUE, I use either modular, 8-inch-by-8-inch, clay-tile flue liners or 8-inch, rigid, 24-ga., stainless-steel flue pipe. With clay-tile liners, I like to fill voids between the tile and brickwork with insulating castable refractory; leaky butt joints and random air spaces scare me. Stain-

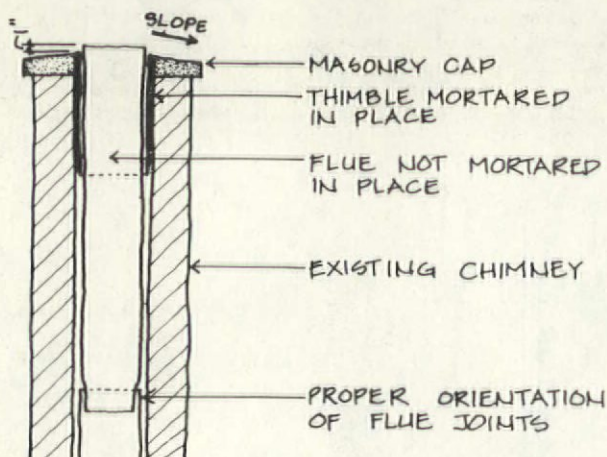
### Safety Considerations

THERE are three national model codes in the United States. Most state and local codes are based on them, and they're all pretty much the same when it comes to masonry fireplaces. They aren't written with Rumfords in mind (because they require deep fireboxes and large throats), but they should be followed in safety-related matters. The law, your insurance coverage, your house, and maybe even your life may depend on your building a safe fireplace that meets code and gets a building permit.

GET A COPY of your state or local code and become familiar with it. In old houses, wood framing generally isn't kept 2 inches away from chimneys, as is now required; smoke-chamber walls and sometimes the firebox walls and hearth aren't as thick as required. The original gas-burning fireplaces in some houses are totally unsafe for woodburning. (I have found wood joists running into the flue, tile hearths laid right on wooden floorboards in the firebox, and paper and wood trash behind the masonry.)

— Jim Buckley

less steel makes an excellent flue because it's smooth and round, and has lapped joints. Just make sure you get the male ends down so that any creosote dripping down the pipe stays inside the flue. As an added precaution, because wood framing is often right up against old chimneys, I pour insulating castable refractory around the outside of the pipe, filling the voids.



### DETAIL AT TOP OF CHIMNEY

YOU SHOULD BE AWARE that all this hardened mortar inside your chimney makes this work irreversible; if your chimney needs rebuilding after you finish this job, the mortar will have to be chipped out by hand -- a nearly impossible job. Whichever liner you use, fit it to the top of the smoke-chamber casting through the pour hole, brick up the hole, and pour more refractory from the roof (or the upstairs fireplace, if available), seating the flue at least 1 foot deep in refractory.

I'M VERY FAMILIAR with insulating castable refractories, and I don't use the poured flues that are currently being franchised under various names. Most unlined chimneys here in Ohio are only one-brick-square (8 inches by 8 inches), and I need an 8-inch flue. A poured flue wouldn't have sufficient wall thickness to have structural integrity; besides, I'd have to pour the refractory overly wet to make sure I didn't have any voids in such a thin casting.

I ALSO DON'T USE flexible stainless steel because it's much thinner and more expensive than rigid pipe. Most bends in old chimneys occur so downstairs flues can go around upstairs fireplaces, but you can usually gain access to these bends through the upstairs fireplace opening by taking out part of the side of the firebox. Stainless-steel flues should be riveted together with stainless-steel rivets.

WE BROKE A FEW mortar caps because the stainless-steel flue pipe expands when it gets hot. So now we use a standard 8-inch thimble as a sleeve. Run the flue pipe through the sleeve and mortar the sleeve to the brickwork. Saw off the stainless-steel flue pipe about 1 inch above the masonry cap, so you don't see it from the street. Cut the stainless steel with an electric circular saw with a metal-cutting composition blade.

YOU CAN USE A CLAY CHIMNEY POT to finish off the chimney. Sometimes a 40-foot-high chimney that's 12 feet above a steep slate roof can be pretty scary. But the view's great! Figure out the type of scaffolding and safety harness arrangement that's safest for your situation, and use it.

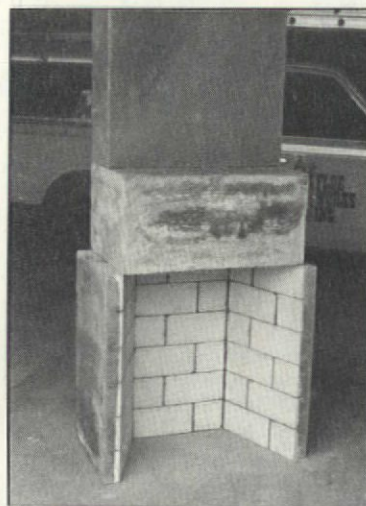
### Satisfying The Codes

**A**FTER I FINISHED my first fireplace, I named it the "Victorian Rumford Compromise." After all, it was somewhat anachronistic to put a 200-year-old fireplace in a 100-year-old house. And besides, I built it about 12 inches deep, rather than Rumford's recommended one third of the width, because it was only 20 inches wide.

DESPITE THE BENEFITS of Rumford's design, most building codes require fireplaces to be 20 in. deep. I did some research and learned that this requirement was adopted in the 1940s, more or less arbitrarily, as a guide for the builders who rarely had engineers or architects designing their fireplaces.

TO GET the required building permit, I had to appeal to the Columbus Building Regulation Commission. First I had to satisfy them that I understood the code and that my fireplace complied with all the safety-related issues. Then I argued the differences in the Rumford design, showing that the heat transfer through my insulating, refractory-lined smoke chamber and 4 inches of brick would be as safe as that of the 8-in. walls required by the code.

TO MAKE A LONG STORY SHORT, the entire Commission gathered early one July morning in 1982 for a "burn-in." They were well pleased with the demonstration, and I went into the business of building Victorian Rumford Compromises for other old-house owners.



Since writing this article, Jim has begun building modular components of the Rumford fireplace in his shop, to reduce the time and labor required for installation. Now these all-masonry Rumford components (firebox, throat with damper, & smoke chamber) can be custom built and shipped with detailed installation instructions to contractors and homeowners anywhere. Call or write Jim Buckley at Flue Works, Inc., 86 Warren St., Columbus, OH 43215. (614) 291-6918.

# THE ART DECO HOUSE

by Walter Jowers

IN THE WELL-MANICURED neighborhoods of many cities, amidst the becolumned Neo-classical homes of the well-to-do, there is often one oddball house -- a house with a flat roof, curved glass walls, and, most obviously, no hint of classical architectural details like columns and pediments.

THOUGH MANY PEOPLE believe these houses were built around the time of the Apollo moon landings in the 1960s, they were actually built closer to the time of Buck Rogers' comic strip space travels. These are 1930s houses; examples of the style that was called, at that time, "modern" architecture. Today, we call the stark, unadorned (and usually white) ones International Style. We call the jazzy, whimsical ones Art Deco.

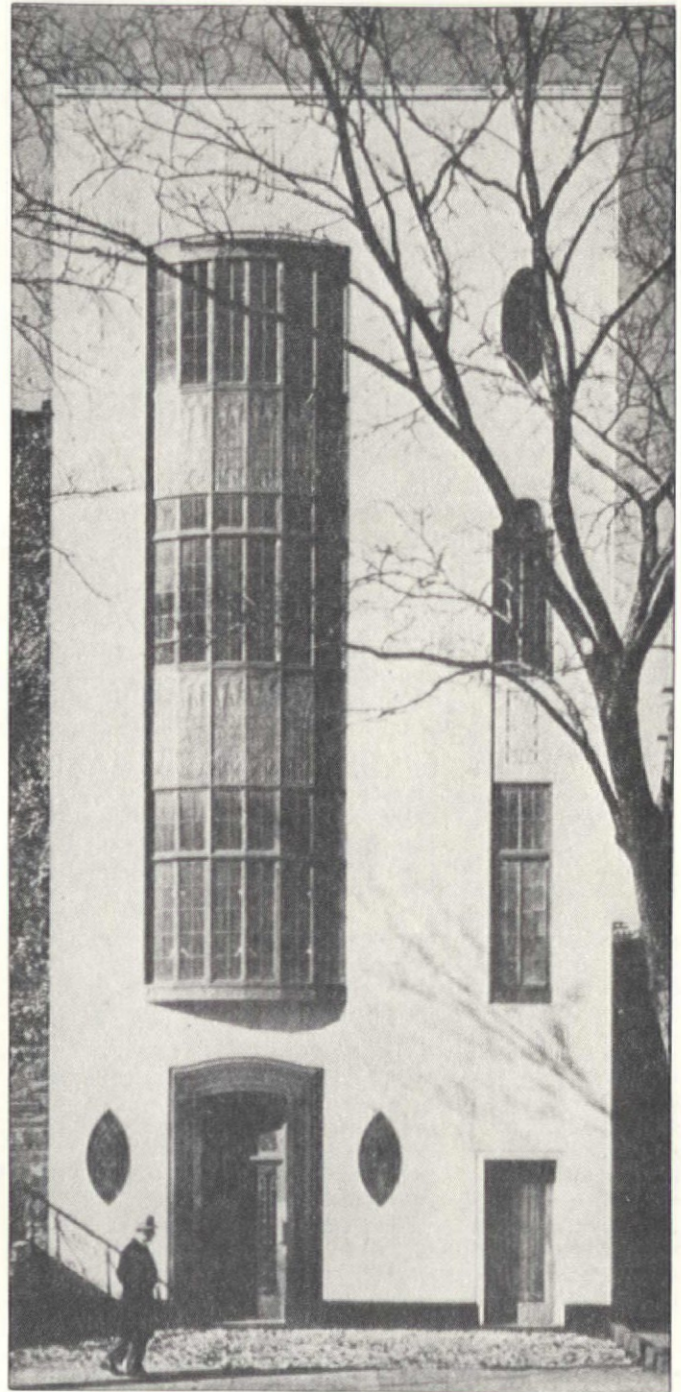
ART DECO GETS ITS NAME from an international exhibition of industrial design, the Exposition des Arts Decoratifs, held in Paris in 1925. This exposition focused attention on a new design aesthetic that featured elements of Egyptian, Aztec, and Mayan art, as well as stylized low-relief figures, and Cubist-influenced geometric designs. The idea was to combine these ideas in new ways, and use machine-age materials to create a fresh, eclectic, "moderne" look that had no historical antecedent. The moderne look caught on in a big way in the 1920s and 1930s, though the term "Art Deco" didn't catch on until the 1960s.

ART DECO ARCHITECTURE is a familiar part of the American cityscape; almost everyone is aware of the Empire State Building. And most of us have been in an Art Deco movie theater, or have passed an Art Deco roadside diner.

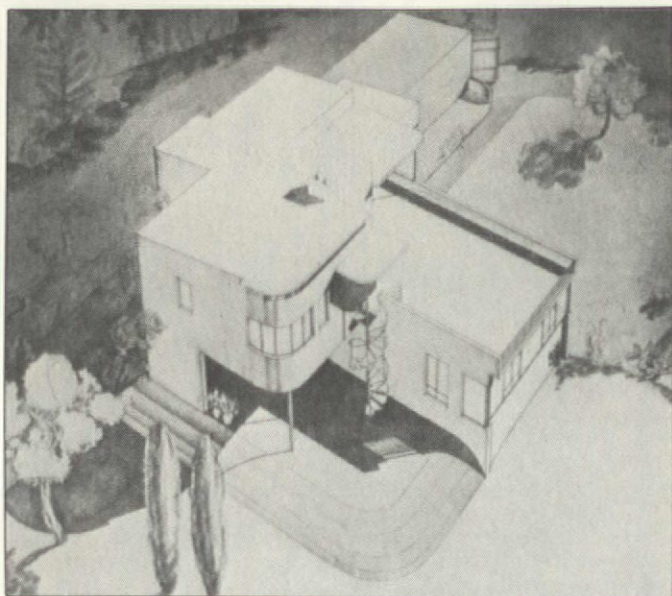
BUT HOW WAS the Art Deco style applied to residential architecture? First, in the shapes of the houses: Art Deco houses invariably have flat roofs. Visual emphasis in Deco residential architecture is most often horizontal, rather than vertical, as is the case with Art Deco skyscrapers. (This horizontal, streamlined look is typical of the Art Moderne subgenre of Art Deco architecture.) Many of the corners aren't square in a Deco house; the exterior and interior walls are often rounded into curves. Staircases usually curve, too.

MACHINE-AGE ENGINEERING brought new materials and new shapes to Art Deco houses, the same way the invention of the circular saw allowed changes in the shape of 19th-century buildings.

TWO NEWLY-MANUFACTURED MATERIALS, colored structural glass sheets (sold under the trade names Vitrolite and Carrara Glass), and translucent glass block (sold as Insulux) were very popular in Deco houses.



Many elements of the Art Deco skyscraper style are evident in this ca. 1930 house. The smooth facade, the narrow casement windows, and the flat roof are all characteristic of the style. The most striking Art Deco feature, though, is the repeating low-relief design on the bay window spandrels. This four-storey house displays much more vertical emphasis than later, streamlined Deco houses.



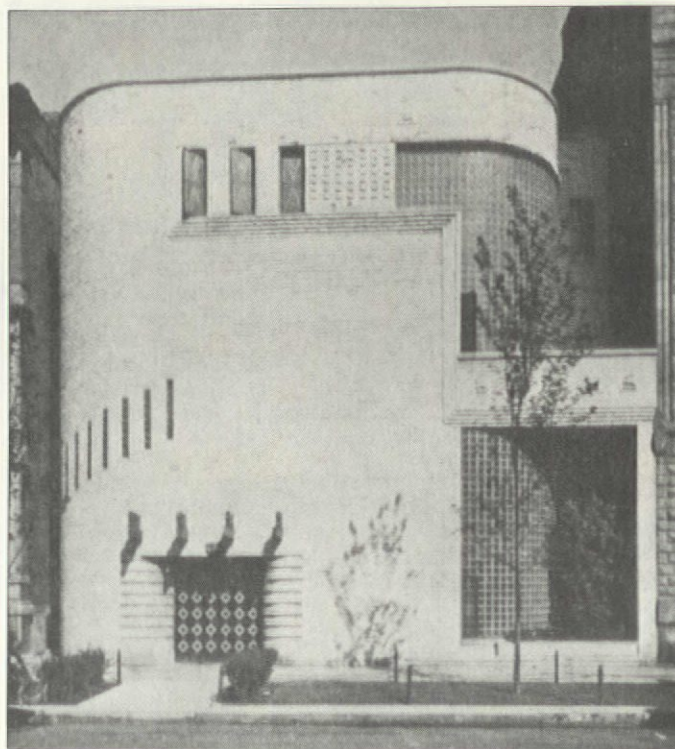
This rendering of a 1931 house shows some Art Deco design elements -- a streamlined, horizontal visual emphasis, a large expanse of glass in a curved exterior wall, and a fanciful spiral staircase.

LARGE EXPANSES of glass block were common; these window-walls allowed light into the house without sacrificing privacy. A favorite placement was in the curve of an outside wall, especially the wall adjacent to the staircase. Operating sash were often factory-style casement windows, and "porthole" windows were common. The porthole windows, along with tubular steel railings, combine to give some of these streamlined houses a nautical look.

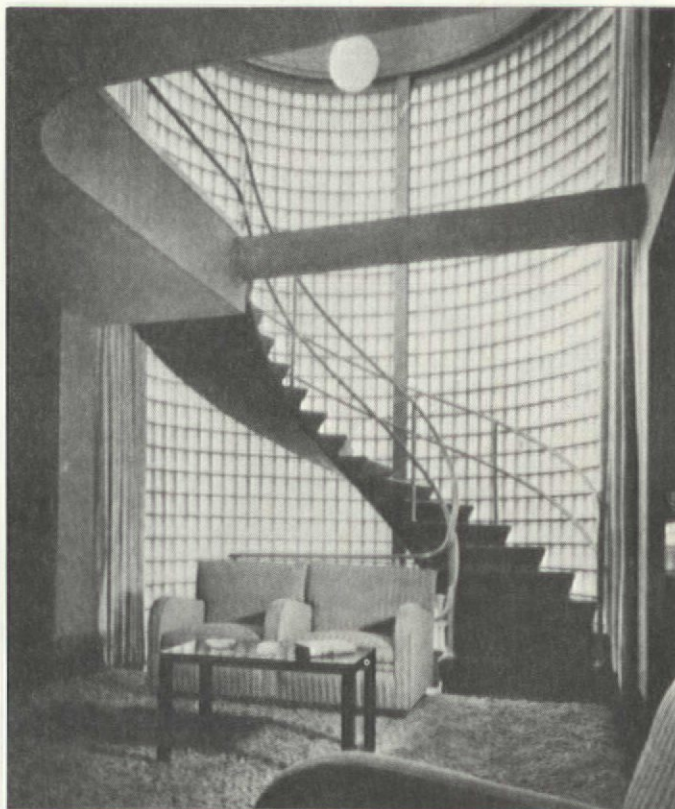
THE MODERN 1930s SURFACE FINISH was flat, simple, and easy to keep clean. In keeping with this, exterior walls were most often stuccoed, though they were frequently a light-colored brick or, in some instances, painted brick. Interior walls were plaster, though kitchen and bathroom walls were often overlaid with ceramic tile or, in some instances, structural Vitrolite or Carrara Glass.

THE ART DECO AESTHETIC of using new machine-age materials in unprecedented ways is most evident in the interior of these houses. In a 1935 *Architectural Record* article, J.E. Burchard stated: "Early modern houses were created principally for a well-to-do intelligentsia and gave rise therefore to the impression that opulent exotic woods and gleaming unusual metals were the essence of modernism, were indeed necessary to make otherwise simple designs bearable." Interior appointments in Deco houses range from grand to glitzy to kinky to undeniably tacky.

STAIRCASES ARE THE VISUAL FOCUS in many of these houses; many Deco design elements are brought together here. The stair tower illustrated on this page is a monolith of reinforced black terrazzo, poured and polished in place, with nonslip carborundum treads. The rail is brush-finished aluminum. The stair is incorporated into a curved, glass-block wall, and the stairwell curtain is a yellow antique satin. Quite an eclectic, "moderne" mix.



Art Deco buildings often exhibit a strong visual emphasis on the entryway. The curved walls flanking the entrance of this small apartment house guide the eye to the double doors. The large expanse of glass block in a curved outside wall is another Deco feature.



The quintessential Deco stair tower -- a sweeping curved staircase surrounded by a wall of glass block. The stair is poured-in-place black terrazzo, with carborundum treads and an aluminum rail ... very early high tech.



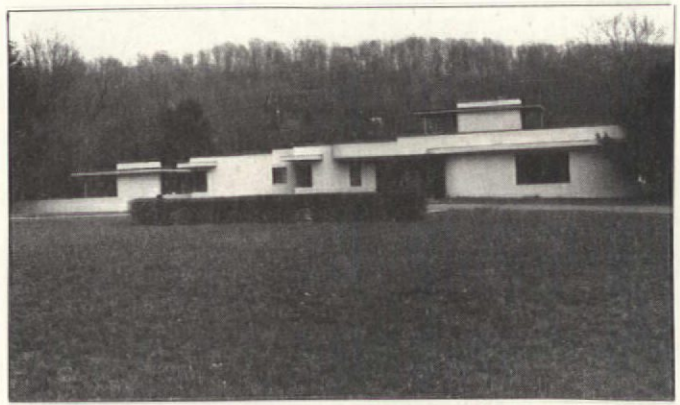
This period room, with its multi-colored tile floor and Cubist-inspired furniture and lighting fixtures, is a showplace of Art Deco design. The fireplace is typically simple and unadorned, but there is nothing understated about the multifaceted mirror overhead!

DECO FIREPLACES represent another departure from earlier traditional designs. Just as you won't see classical columns on a Deco house facade, you won't see columns on the fireplace surrounds. No triglyphs, gargoyles, or carved mouldings, either. Most Deco fireplaces are merely rectangles cut into the wall, with simple structural glass, marble, or metal hearths and surrounds; though there are some zippy designs with angular mirrors built into the surround. Most of these fireplaces have no mantel, or utilize the projection of the surround as a mantel.

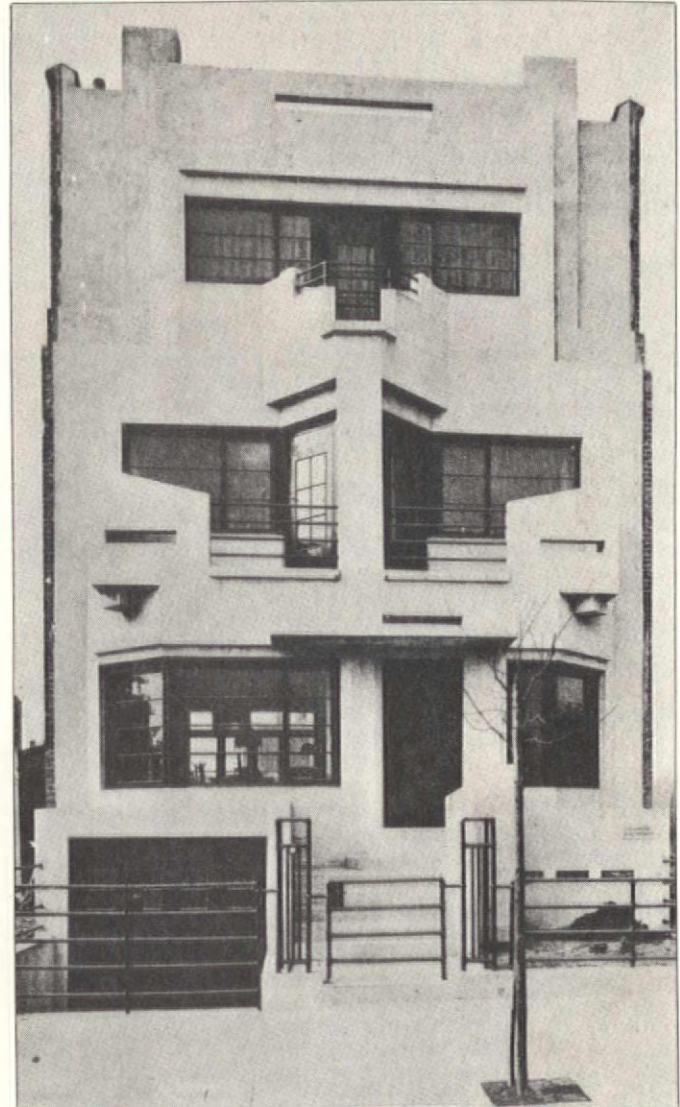
IN ANY DECO HOUSE, one notices the unusual uses and arrangements of materials. The interior designers loved slick, shiny surfaces; and in some houses, the baseboards are glazed ceramic tile. Multi-colored marble or tile floors are common, as are two- and three-color tile or structural glass walls (especially in bathrooms). Some Deco houses have tile-floored rooftop sun decks, complete with rooftop fireplaces! The simple, angular geometry of the Art Deco style also found its way into garden and terrace designs of the period.

THOUGH ART DECO HOUSES are not as numerous or as obviously "old" as earlier types of houses, they do represent a definite architectural style, as well as a cultural phenomenon of the not-too-distant past.

**A**RT DECO WAS THE LAST architectural style to encourage the use of ornamentation and decoration in buildings; some people say it was the last architectural style. By almost any measure, Art Deco was the last style to acknowledge the need for beauty, or at least the need for a sense of humor, in architectural design. These houses, which are so often egregiously altered due to their relative "newness" deserve the same attention, respect, and protection as our older (but no more historic) houses.



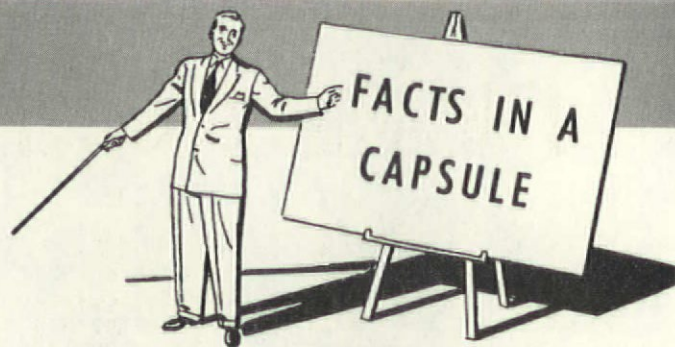
This Deco house has a central glass atrium -- you can look right through to the back yard! The long, low lines and the nautical look of the house give the impression of a submarine surfacing.



A house grown from crystals? This prismatic quality is often seen in Deco artifacts (graphic art, jewelry, glassware), but not so often in the houses of the period.

*Special thanks to James Draeger (a true fountain of Deco knowledge), Amanda Gross, and Mark Sturtevant. Without their special insight and hysterical approach to historical research, this article might have been possible, but not nearly so much fun.*

# DECO MATERIALS



## CARE OF PIGMENTED STRUCTURAL GLASS

(Vitrolite and Carrara Glass)

**P**IGMENTED STRUCTURAL GLASS was first manufactured in 1900, but it enjoyed its greatest popularity during the height of the Art Deco style period, the 1920s and thirties. This glass, sold under the trade names Vitrolite and Carrara Glass, has not been manufactured for several years.

WHAT DO YOU DO if the pigmented glass in your Deco house needs repair or replacement? The National Park Service's Preservation Brief 12 offers the following suggestions:

▮ **REPAIR OF CEMENT JOINTS** (the equivalent of grout joints): Re-"grout" with modern silicone joint cement, color-matched to the original by mixing the compound with tinted polyester resins.

▮ **PATCHING CHIPS OR CRACKS IN THE GLASS:** Use solvent (methyl ethyl ketone, methyl isobutyl ketone, or acetone) applied behind the glass with a syringe, then gently pry off the glass with a broad, flat tool (such as a nail-puller). Or, apply solvent, then use piano wire to saw the glass loose. **CAUTION: THESE SOLVENTS ARE EXTREMELY FLAMMABLE, AND THEY IRRITATE THE SKIN. STORE THE SOLVENTS IN FIRE-SAFE CONTAINERS, AND WEAR RUBBER GLOVES AND GOGGLES WHEN YOU WORK WITH THE SOLVENT.**

▮ **REINSTALLATION OF GLASS PANELS:** Clean the glass and the underlying substrate of dirt and old mastic, then reinstall the glass, using: (a) a modern silicone mastic, for small applications (large quantities of this mastic are quite expensive), or (b) hot-melt asphalt mastic (this is the material used to install structural glass in the '20s and '30s).

▮ **REPLACEMENT OF MISSING OR DAMAGED GLASS PANELS:** It's worth a try to call local "jobbers" to find out if they have any old structural glass in their inventories. If no one has any old glass, you must...

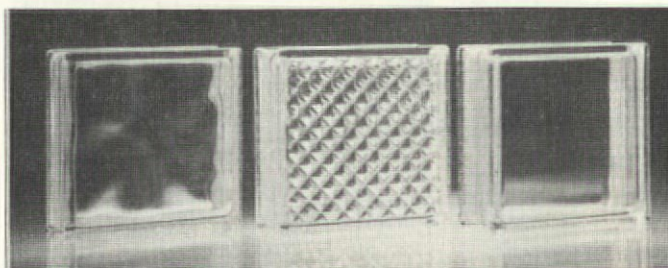
▮ **SUBSTITUTE MATERIAL FOR MISSING OR DAMAGED GLASS PANELS:** A new product, "spandrel glass," marketed under the trade names of Spandrelite and Vitrolux, is the closest thing to the genuine article. It is available in several colors. Other options: Paint the back side of a piece of plate glass to match the color of the existing glass; or try appropriately colored plastic.

## MODERN GLASS BLOCK

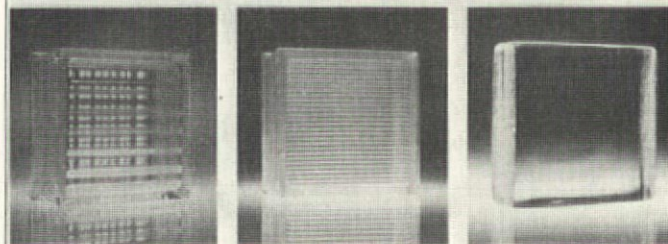
GLASS BLOCK, in sizes and patterns matching most of the 1920s and thirties block, are still available from:

Pittsburgh Corning Corporation  
800 Presque Isle Drive  
Pittsburgh, Pennsylvania 15239

Write for a current brochure and installation specifications.



Thinline Series GlassBlock (Decora®, Delphi®, VUE® Patterns)

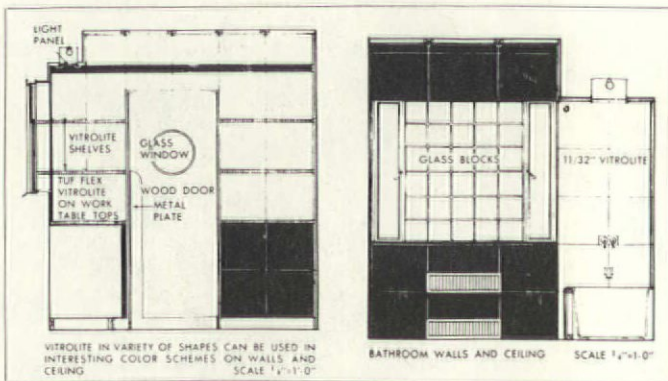


Argus® Pattern — Standard Block

Essex AA Pattern — Standard Block

Vistabrik® Solid Glass Block

These six glass block patterns are available from Pittsburgh Corning.



VITROLITE IN VARIETY OF SHAPES CAN BE USED IN INTERESTING COLOR SCHEMES ON WALLS AND CEILING

BATHROOM WALLS AND CEILING SCALE 1/4"=1'-0"

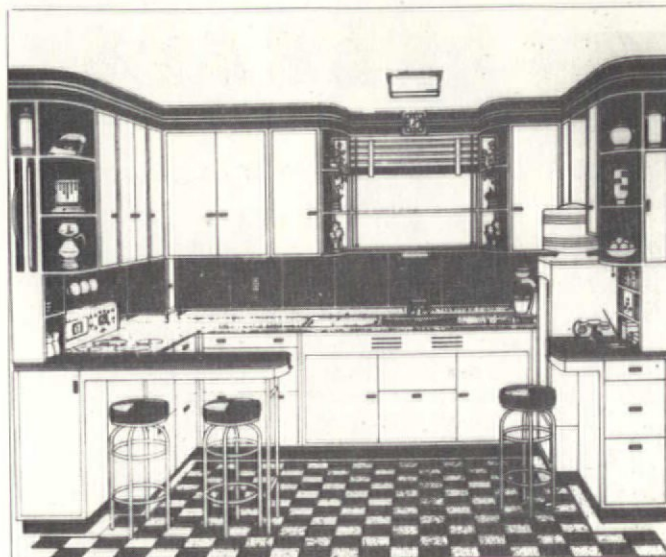
Kitchen and bathroom details from the 1937 Vitrolite catalog. Note the use of glass blocks in the bathroom wall.



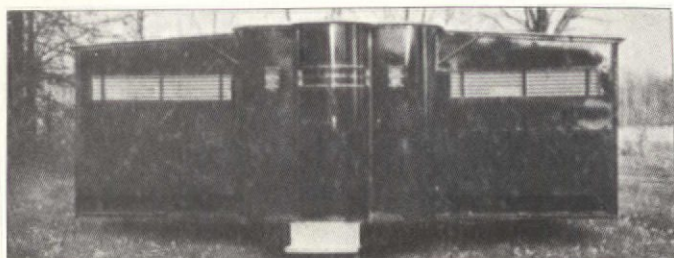
# OBJETS D'ART DECO

**N**EVER BEFORE in the history of American design had so many forces come together to create such an all-encompassing art form. The exuberance of the 1920s, the Paris Exposition des Arts Decoratifs, and machine-age, mass-production capabilities combined to make Art Deco the first real wave of industrial design. During the height of the Deco period, objets d'Art Deco could be found in every room, closet, and cabinet of an Art Deco house. In fact, the rooms, closets, and cabinets themselves might have been high-style Art Deco. The style touched everything from knick-knacks to floor wax, lipstick to locomotives.

DECO KITCHENS often look like they were designed in wind tunnels. The walls, the counters, the furniture, the appliances all appear to be built for speed. Raymond Loewy (the man who designed the Studebaker Avanti) designed refrigerators for Sears. General Electric made Art Deco waffle irons. The Saunders company marketed a two-tone solid Pyrex laundry iron, aptly named the "Silver Streak." Stoves, blenders, juicers, even tables and chairs looked like they were designed for aerodynamic efficiency.



This "wind tunnel" kitchen was entered in a 1935 design competition.



The triple-streamlined central bay of this 1930s trendy trailer shows how moderne design elements found their way into almost everything. (The two outer bays fold up for transport.)



A Vitrolite catalog kitchen with white walls, yellow ceiling and counters, and blue window trim.

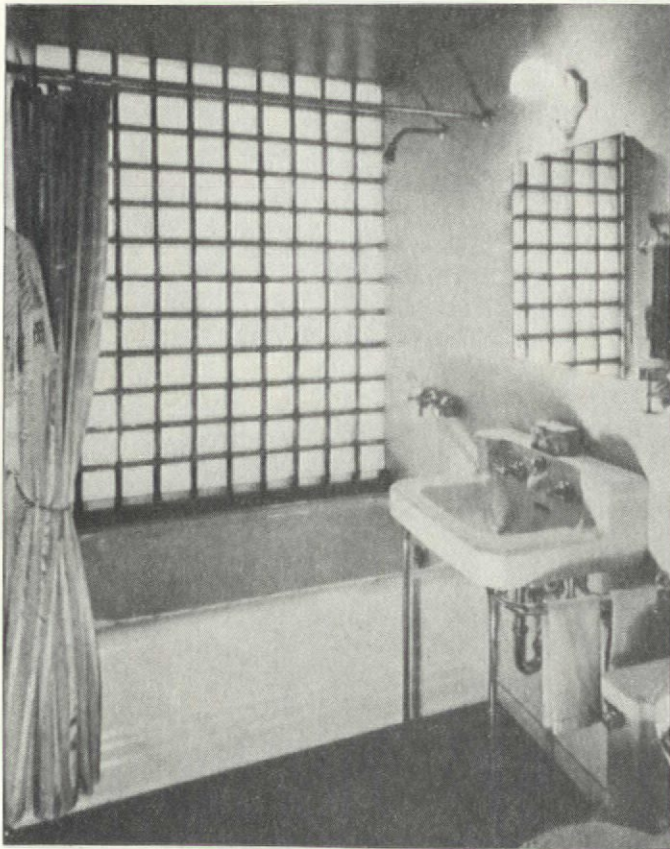


Two hot irons of the period. Above is General Electric's Art Deco waffle iron. At right is Saunders Company's "Silver Streak."





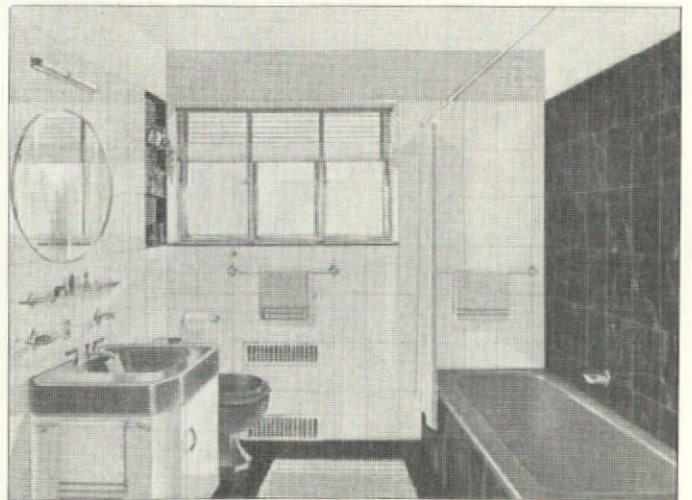
Above: The alternating horizontal bands of Vitrolite are pearl grey and Chinese red. The shower curtain is silver metallic cloth. Fixtures have red plastic handles. Below: A typical use of glass block in the bath.



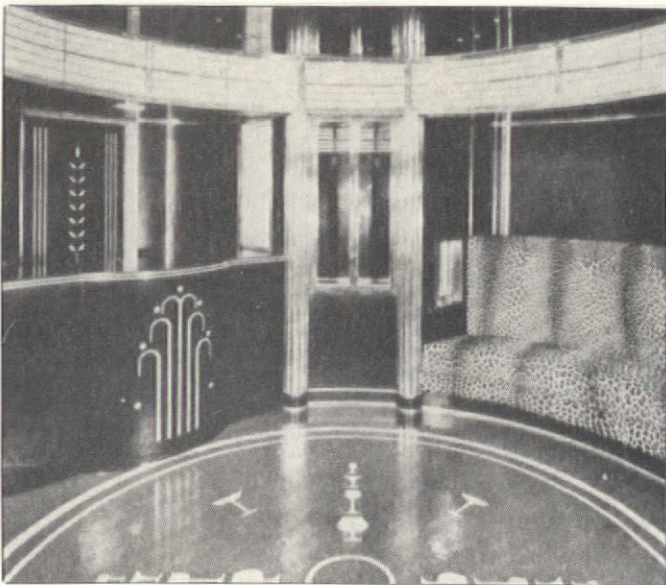
Though dining room decoration was usually restrained even in houses of the Art Deco period, some snazzy details slipped in. There is nothing traditional about this Formica-topped table, or the "moderne" chairs.



BATHROOMS WERE ANOTHER gleaming, slick, streamlined showcase for Art Deco residential architecture. In Libbey-Owens-Ford's 1937 Vitrolite catalog, the writer says of kitchens and baths: "Upon no other rooms in the modern home have architects and manufacturers of fixtures and equipment lavished more attention. Thus we have today kitchens and bathrooms furnished with fixtures, cabinets, utility equipment and accessories, all reflecting a high degree of beauty and mechanical perfection." High-contrast, multi-color patterns in Vitrolite and ceramic tile are characteristic of the Deco bath. Bullet-shaped faucet handles, angular shower heads, and mechanical-looking medicine cabinets are common. Robe hooks look like Klingon space cruisers.



A Vitrolite catalog bathroom. The tub surround is imitation marble Vitrolite; the walls are pale yellow.



The designers of this Art Deco recreation room went for the full effect: Vertical and horizontal tube lights, a stylized fountain on the bar, feline-skin upholstery. The cocktail-glass pattern set into the Formica floor exemplifies the fascination post-Prohibition designers had with cocktail paraphernalia.

DINING ROOMS were the most traditional room in the house, but some homeowners couldn't resist the urge to dine around a chrome-and-glass, or chrome-and-plastic, table like the one shown on the opposite page.



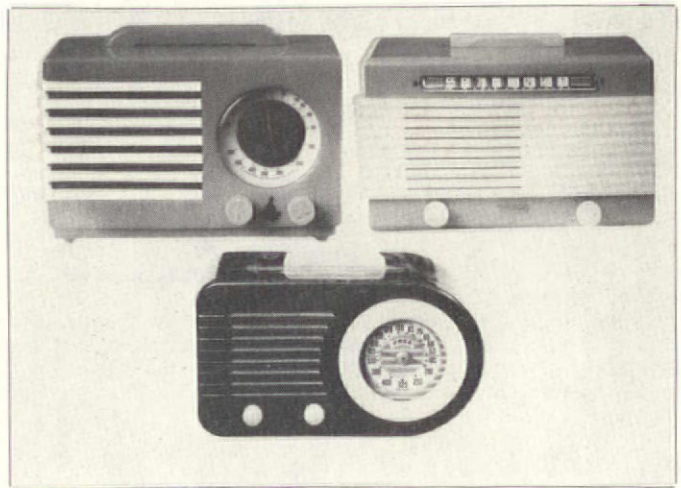
THE DESIGNERS OF THE ERA were fascinated with cocktail and smoking paraphernalia. So what better room to make into a true

Art Deco showcase than the recreation room? The rec room shown on this page is a fine high-style example: Tube lights! Leopard-skin upholstery! A stylized fountain painted on the bar! But the true Art Deco decadent indulgence is on the floor -- a varying cocktail-glass pattern set into the Formica! A 1935 Bakelite ad shows an entire rec room made out of Bakelite plastic products. Not the homely brown Bakelite that electrical plugs are made of -- but the swirly, marbled, iridescent Bakelite that was used to make the colorful, snazzy (and now quite valuable) radios shown on this page.

NO ROOM WAS UNTOUCHED by the Deco design influence. The bedroom suite shown at right is made of burl maple, with a white and brown enamel contrasting finish on the drawers and doors. The 1937 Vitrolite catalog shows some "modern furniture" made with Vitrolite.

ART DECO LAMPS, glassware, silverware, and clothing (cocktail dresses, of course) are fairly common sights in antique stores around the country. The furniture, and the architectural pieces are less common. If prices and availability are any indication, then Art Deco pieces of all types are enjoying a new popularity.

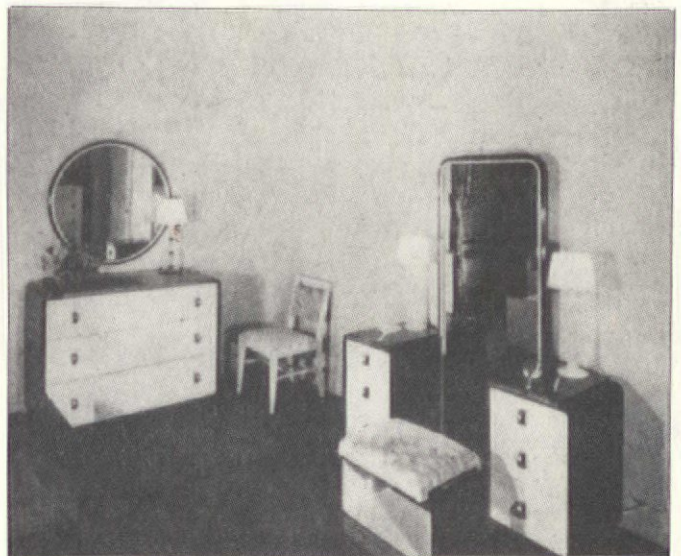
WE HOPE some of these pieces are being snapped up by owners of Art Deco houses who are decorating their houses in the original style.



Red and orange, yellow and brown, red-white-and-blue radios...These fanciful Bakelite numbers date from the late 1930s. Bright, high-contrast color schemes in the marbled plastic cases create a striking visual effect.



A buffet with a black Vitrolite top and base. The Vitrolite "resists burning from cigarettes and staining from alcohol."



A "modern" bedroom suite from 1935. The rounded corners and high-contrast finish are typical of period designs.



## Two Helpful Products

**T**HESE TWO PRODUCTS should be of interest to the OHJ readers. The first is called "Duro Tub 'N Sink Jelly." It removes stubborn rust stains on sinks and tubs with little or no elbow grease. Its active ingredient is phosphoric acid, so be careful to avoid any skin contact. Just wipe it on the tub or sink, let it sit for 5 to 10 minutes, and rinse it off. It's available from Loctite Corp., Automotive and Consumer Group, Dept. OHJ, 4450 Cranwood Court, Cleveland, OH 44128. (216) 475-3600.

THE SECOND product is called "Kilz," and it's designed to hold back stains on plaster walls prior to painting with a latex paint. It keeps crayon, lipstick, smoke and charring, ink, pencil, and grease stains from bleeding through the new paint job. "Kilz" won't raise the grain of the wood, and it dries quickly -- you're ready to recoat in 30 to 45 minutes. It's available from Masterchem Industries, Dept. OHJ, P.O. Box 2666, St. Louis, MO 63116. (314) 772-3979.

Michele M. Schiesser  
Fredericksburg, Va.

## Simplifying Staining

**A** CLEAN BLACK FELT chalkboard eraser and some tin pie plates are valuable tools for staining woodwork, doors, and other flat wooden surfaces. Pour the stain in the plate, dip the eraser in the stain, and rub it across the wood. (Remember not to stain more wood than you can wipe off with a dry cloth before the stain gets dry and dark.) We found that, as opposed to using a brush, this method was much faster and wasted less stain.



Sheryl Connell  
El Dorado, Kansas

## Latex Priming

**L**ATEX PAINT is excellent for color retention and for non-hardening over time. But its big drawback is weak bonding; it must be applied over a primer or itself (if clean). The primer you use must be alkyd or oil-based. "Latex Primer" is a contradiction in terms. A water-base "primer" will do very well on cardboard (i.e., drywall), but it simply won't penetrate wood or plaster surfaces sufficiently for a good bond.

THE SCIENTISTS at Forest products Labs (USDA) in Madison, Wisconsin, suggest using a thick oil primer coating, one "heavy enough to cover the grain" on exterior wood, followed by two coats of latex. They say it'll give you a ten-year (or more) paint job.

Charles W. Wilson  
Mechanicsburg, Penn.

## A Soldering Shortcut

**I**N RENOVATING an old townhouse, I had to put a shutoff valve in a vertical waterpipe that ran from the basement. I shut off the water supply to the pipe, went to the top floor, and ran the fixture for this water line. Then I went back to the cellar and cut the half-inch copper water line. The remaining water in the line began dripping into a bucket I'd positioned below the pipe, and I decided to have a cup of coffee and wait for the drip to stop.

AFTER FINISHING my coffee and one-too-many doughnuts, I returned to the pipe and saw that it was still dripping. This was an old building with many branches of water lines running in the walls for all four floors -- a fixture somewhere was continuing to release water. I waited a few minutes, but the water kept on coming. Against my better judgment, I went ahead and soldered the shutoff valve into the moist water line. Needless to say, the slight dripping of water spoiled my soldering, and the joints leaked when I ran a test on it.

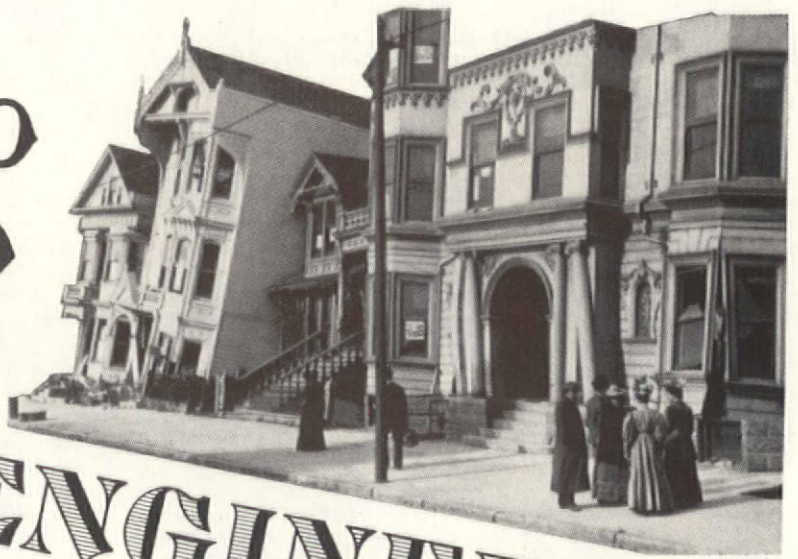
I DECIDED TO BACK OFF and give the problem some more thought. Regretting having ever started this "easy" project, I was having my third cup of coffee when my attention focussed on the partially eaten doughnut in my hand. Eureka! If the doughnut could soak up the coffee, why couldn't it soak up the drip?

INSTEAD OF WASTING A GOOD DOUGHNUT, I plugged the drip with rolled-up bread, using a pencil to force it into the vertical section of the pipe. Then I quickly assembled my soldering parts and sweated the valve onto the pipe. The bread absorbed the small amount of water for the time I needed to do the job. When I turned the water on again, there were no leaks -- and the water pressure blew the bread through the pipe and out the open faucet on the other end.

Joseph V. Scaduto  
Lynnfield, Mass.

**Tips To Share?** Do you have any hints or short cuts that might help other old-house owners? We'll pay \$15 for any short how-to items that are used in this "Restorer's Notebook" column. Write to Notebook Editor, The Old-House Journal, 69A Seventh Avenue, Brooklyn, NY 11217.

# DO YOU NEED AN



# ENGINEER?

BY LARRY JONES

**Y**OU'VE BEEN SHOPPING for that perfect old house on a hill, and you've found one that you like. Everything is perfect, except for a giant crack in the living room wall. Will the house slide down the hill during the next big rain?

OR CONSIDER THIS: You've been living in an old house for some time, and now you've decided to finish the basement. It would be easy, except for all those columns in the way. You don't know anything about forces and moments, clear spans and live loads. So, who you gonna call...?

YOUR FIRST THOUGHT might be to call a building contractor. There are some skilled tradespeople out there who seem to have almost magical abilities to fix things. But in cases like these, a contractor isn't the right person to evaluate the situation and make decisions. Generally, you hire a tradesperson when you already know what needs doing -- when there's an assignment.

IF THERE ARE DESIGN DECISIONS to be made -- decisions about the feasibility of a project, the planning of a project that involves the structure or aesthetics of your house, then you need a design professional. That means an architect or an engineer.

## Which Design Professional?

**I**T'S HARD TO DRAW A LINE between what an engineer does and what an architect does. First and foremost, there are individual differences. Some architects understand structure and mechanical systems as well as many engineers. And some engineers are sensitive enough to offer sympathetic solutions to design problems, aside from being able to size a beam or a heating plant.

BUT GENERALLY, an architect is more concerned with the interrelationship of design and systems. An architect is concerned with aesthetic, structural, and mechanical considerations. An architect can make an overall evaluation if you want to know the feasibility, approximate cost, or aesthetic or structural implications of, say, an addition to, or the replacement of a mechanical system.

AN ENGINEER has specific technical knowledge, and can help with a particular problem or controversy regarding a structural or mechanical system. Generally, compared to an architect, an engineer is more of a specialist.

ARCHITECTS coordinate the aesthetic features and mechanical systems in a building. An engineer evaluates the appropriateness of each mechanical or structural system for a particular building, then specifies the items needed, and their proper installation.

LET'S USE AN EXAGGERATED (but true) example to make the differences between architects and engineers even more clear...

GIVEN: A 100-plus-year-old octagon house with a large domed roof that was added twenty years after the house was built. The domed roof is pulling itself apart, and the house needs new plumbing, heating and air-conditioning, and insulation.

IF YOU WANT the house ready to move into, you need an architect to evaluate the whole structure and design the interdependent additions of plumbing, heating plant, and insulation. He'll deal with the suitability of the materials and machines, the sequence of the job, and the aesthetic effect of the changes.

IF YOU JUST WANT to fix the dome, you need an engineer. He will specify materials and techniques necessary to stabilize the dome -- things like steel girdles and wire trusses.

IF YOU HAVE all of the above problems, you should hire an architect. When it comes down to specifying the answer to the dome problem, the architect can always engage the services of a consulting Structural Engineer. And, if the heating, electrical, and utility systems are complicated, the architect may call in a consulting Mechanical Engineer.

**I**F YOU OPEN THE PHONE BOOK to "Engineers," you'll find a bewildering array of titles and specialties. Here is a list of definitions, some of which overlap:

● **STRUCTURAL ENGINEER:** An engineer who specializes in the design or redesign of structures. Some states require special licensing

for people who use the title Structural Engineer. These engineers usually act as consultants to architects, and provide designs, drawings, and specifications for structural items in the building plans. They also provide some supervision over parts of the project for which they have written specifications. Most of the same services offered to architects are available to contractors and homeowners.

● **MECHANICAL ENGINEER:** An engineer specializing in the invention, design, construction and adjustment of machinery. When they deal with buildings, Mechanical Engineers deal with the mechanical systems: heating, ventilation, air conditioning. Special training and licensing breaks this category down into specialties such as HVAC Engineer and Electrical Engineer.

● **FOUNDATION ENGINEER:** An engineer specializing in foundation problems. He may recommend suitable foundations for a proposed or existing building. For most projects involving residential-size structures, a Structural Engineer can handle foundation problems.

● **CIVIL ENGINEER:** An engineer involved in the design of fixed, often public, works such as highways, reclamation projects, harbors, water works, industrial facilities, and building design. (Prior to WW II there were two major designations for engineers: Military and Civil.) About 60% of all practicing engineers call themselves Civil Engineers. The remaining 40% claim a more specialized title; i.e., Electrical Engineer or Mechanical Engineer. Most Structural Engineers consider themselves as falling under the broad definition of Civil Engineer.

● **CONSULTING ENGINEER:** Any engineer can consult. When an engineer calls himself a Consulting Engineer, it generally means that he is in private practice and is available as a consultant in his specialized field. There are, of course, consulting engineering firms. Structural Engineers often call themselves Consulting Engineers.

● **PROFESSIONAL ENGINEER (P.E.):** A term used by many states to define an engineer in any branch of engineering who is licensed by the state.

A HOMEOWNER with residential-scale problems probably won't need the services of most engineering specialists. A homeowner is likely to need the advice of a Structural Engineer, if he or she needs an engineer at all.

### What They Do

**H**OWEVER SERIOUS a structural problem may seem to you, most house-size problems are not very complex to an engineer. House problems that call for an engineer's advice almost always fall into one of two categories: natural settlement, or man-made damage.

SETTLEMENT PROBLEMS involve footings and foundations, shrinkage, and shifting caused by rotted structural members. Man-made damage can be caused by overloading structural components, or by a tradesperson randomly

cutting through joists to make an installation. (Plumbers and electricians are infamous for this.)

FOR SETTLEMENT PROBLEMS, you may need an engineer to design a system and specify components for foundation underpinning, new footings, channelling groundwater away from a house, monitoring cracks in masonry, or leveling a building. To correct man-made damage, an engineer can inspect framing, specify the size of a new girder, or design a reinforcement system for a load-bearing wall.

WHAT IF A CONTRACTOR tells you that the only way to keep your basement dry is to completely excavate two sides of your foundation so the foundation walls can be waterproofed? You may want a consulting structural engineer to tell you if you need some temporary shoring around the foundation walls before excavation can begin. We know of cases where contractors undermined foundations, and the house dropped right into the hole.

OTHER FAIRLY COMMON old-house restoration jobs that might be best planned by an engineer: chimney stabilization and rebuilding, or adding onto a house when the soil conditions on the building site are particularly tricky (i.e., very sandy, very wet, or heavy clay).

BEFORE YOU HIRE AN ENGINEER, you should do a little homework. Connie Neuman of ACEC suggests that homeowners (or potential buyers) make an effort to understand the problems with the house as clearly as possible. Ideally, you should be able to call up an engineer and say something like, "Excuse me, but the southeast corner of my house seems to have settled about six inches. It's a nine-inch wide limestone foundation, and it's on a clay soil with poor drainage. This side of the house is heavily loaded because of a cantilevered turret, and I suspect that the builders of the house failed to use a proper footing. I'm prepared to spend whatever amount of money I must to correct the situation, and there's no hurry. When can I schedule an appointment?"

BUT IN THE REAL WORLD, most people are likely to say something like, "One corner of my house is lopsided, and there's a big crack. I don't have much money to spend because I just put on a new roof, but water is still coming in this crack. What should I do?"

YOU DON'T HAVE TO BE PARTICULARLY SAVVY about things structural to give an engineer some idea of what is wrong. (If something looks wrong, it usually is.) And during your preliminary discussions with an engineer, you should advise him of any special constraints on the project: Budget, time, the need to preserve the architectural details of the house. Once you've done this, the engineer will have some idea of what you need done, and whether or not he or she can do it.

### Selecting An Engineer

**P**UT TOGETHER A SHORT LIST of engineers you might consider hiring for your project. You'll want the names of several; after all, prices and experience do vary. Check with your local preservation group, or call

your State Historic Preservation Office (SHPO). Even if neither of these agencies will recommend an engineer, they should be able to give you the names of some engineers who have worked on old-building restoration projects. You can also write or call the American Consulting Engineers Council in Washington, D.C. They should be able to recommend an engineer in your area who has experience in old-house restoration. Above all, before you hire any engineer, check his references! Try to find people who have recently completed a project similar to your own.

ONCE YOU HAVE your short list, call a few engineers and discuss your situation with them. When you find someone with good references who seems to understand the project, schedule an appointment with that person at your site. Some engineers will charge to visit your site, others will charge a low fee (or, if you're lucky, no fee) for the initial consultation. If, after the initial consultation, you are convinced that you've found your engineer, hire him. If you don't think you can work with this person, go back to calling the people on your list.

WHAT IF YOU HAVE a large, complicated, or unusual project? In such cases, you should arrange for two or three engineers, or representatives from two or three engineering firms, to make an on-site inspection of your project. While you will be faced with considerably higher initial consultant's fees, it might be worth the cost to hear different opinions, and get several quotes for the design work that needs to be done. When you get quotes from engineers or engineering firms, bear in mind that each of them will be quoting a price for a design plan, and that design plans are seldom alike. Don't be too impressed by a low quote; make sure you choose the plan best suited to your project.

SOME WORDS OF CAUTION: Don't hire inspectors, planning people, and the like, who work for the city, county, or utility company and "moonlight" as consulting engineers. And don't hire one of their relatives either! Sometimes, there's a conflict of interest here. ("Well, I can't approve that, but I've got a brother-in-law who can bring it up to code for you...") A lot of costly and irreparable damage has been done to old buildings by underqualified "para-engineers" who aren't licensed, and don't carry liability insurance.

IF YOU HIRE an engineer (or para-engineer) to inspect a building, and he also happens to own a construction company, it's always in his best interest to find big problems with your house.

### How They Charge

**A** BARGAIN is that which is excellent, not that which is cheap." So says the American Consulting Engineers Council (ACEC). They continue: "You're not looking for the cheapest design job. You're seeking 'design value,' which comes when you engage the most qualified firm at a fair price. Remember that extra time (and cost) in the design phase can save money in the long run by reducing maintenance or replacement cost.

THE ACEC'S POINT IS WELL TAKEN: Engineers design things, they don't build things, and design is a creative process, not a commodity. If you need an engineer, your first priority should be to hire an engineer who is skilled and experienced in projects like yours. If you are restoring an old house, you want an engineer with experience and expertise in restoring old houses; you don't want a veteran of several insensitive gut renovations. You should expect the engineer's fee to be fair, but this should not be your first priority. Sort of like choosing a doctor.

AN IMPORTANT BIT OF PROTOCOL: For the reasons cited above, engineers don't like the term "bid." They really hate the term "low bid," so don't ask them to bid on your job. They will respond to an "Invitation To Submit Information".

HERE'S WHAT YOU GET CHARGED FOR: The engineer's visit to the site, his technical identification of the problem, an analysis of the building and written recommendations. The inspection and written report will take several hours of the engineer's time and may cost several hundred dollars. The cost for an engineer's services ranges from about \$55 to \$90 per hour. If the project is relatively simple (an inspection, or specifying the size of a load-bearing member), the engineer will probably charge you for about four hours' work.

YOU CAN SAVE yourself money doing some of the prep work yourself. For instance, if you know some basement panelling has to come out before the engineer can inspect the foundation, go ahead and pull it out before he gets there.

**J**UST BECAUSE you've hired a specialist to come in and suggest the best course of action doesn't mean you can't do some or all of the repair work yourself. You can use the engineer's report to guide you through your project. In fact, Lowell Christy, of Christy - Cobb Engineers in Birmingham, Alabama, says that in three-quarters of the residential projects she works on, the repairs she recommends are done by the homeowner.

### FOR MORE INFORMATION:

The American Consulting Engineers Council has a book available for \$5 ppd., entitled, A Guide to the Procurement of Architectural and Engineering Services. If you're considering hiring an engineer or an architect, you should get a copy. Its step-by-step approach is easy to understand. Write to: ACEC, Dept. OHJ, 1015 Fifteenth St., N.W., Washington, D.C. 20005. (202) 347-7474.

Special thanks to Connie Neuman, Director of Information and Communications for the American Consulting Engineers Council, Washington, D.C.; Lowell Christy, of Christy-Cobb Engineering, Inc., 1031 S. 21 St., Birmingham, AL 35205. (205) 251-0499; and to David C. Fischetti, P.E., 109 Brady Court, Suite 200, P.O. Box 835, Cary, NC 27511. (919) 467-3853. Both private firms specialize in consulting work on historic buildings.

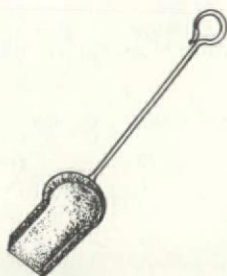
# My Life With A Beehive Oven

by Barbara Hood  
Hammondsport, New York

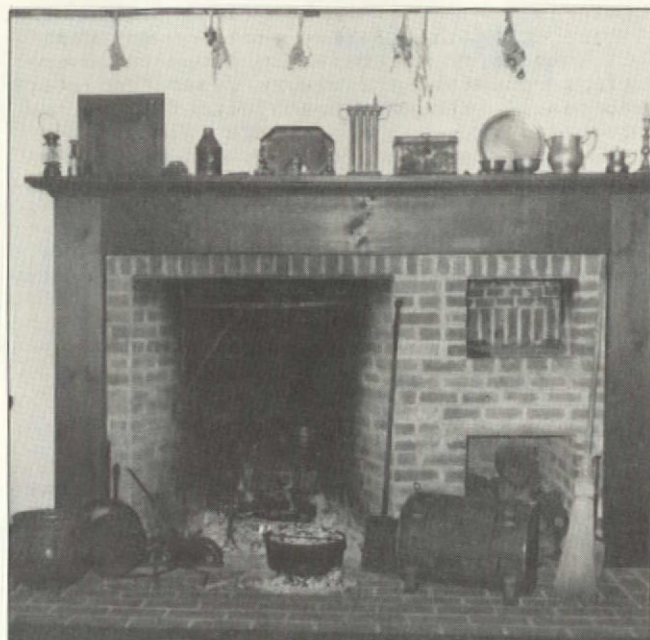
## A follow-up to last month's article on building brick bake ovens

OUR LOCAL Landmark Society offered a very enjoyable and informative class on fireplace cooking, and I'd like to share what I learned with the OHJ readers. The first thing is the firing of the oven. It takes about one hour's worth of a good blazing fire to get the oven hot enough to bake bread (approximately 375 to 425 degrees). The smoke from the fire at first turns the oven bricks black, but as the temperature of the bricks increases, the smoke burns off and the bricks are clean again. By that point your oven is hot enough for baking. The next step is to clean out the oven. Do this as quickly as possible; the longer the door is open, the more heat you lose.

A LONG-HANDED, shovel-like implement called an ash peel is used to clean out the ashes and any unburned wood. I prefer to shovel the hot ashes into the fireplace rather than the ash pit. This way, the smoke and gases can go up the chimney; that's better than having them infiltrate into the room, which is what happens if you shut up the ashes in a flueless ash pit. (Surprisingly, historians aren't quite sure how ash pits were used.) After cleaning out the oven with the ash peel, dip a fireplace broom in water and whisk it around in the oven. This removes any remaining ashes and keeps your food from getting dirty.



TO CHECK the temperature of the oven, put your arm straight into the oven as far as you can. Be careful not to touch anything! If you can leave your arm in for a count of seven, the oven should be around 400 degrees. If your arm gets too hot before you reach seven, leave the door off for a while and check again. The bricks hold a tremendous amount of heat; we've had our oven reach over 600 degrees. (You might want to add a modern touch by checking the temperature with a stove thermometer. Use



one for high temperatures, at least over 600 degrees, with no liquid or mercury in it.) We've also found that the oven can retain a good deal of heat: 32 hours after one firing, the temperature was 125 degrees.

WHEN THE TEMPERATURE'S RIGHT, it's time to do some baking. Bread requires the hottest oven, so start baking that first. As the bread cooks you can then go on and bake cakes, quick breads, and puddings. Unfortunately, the brick oven isn't good for baking lots of cookies; you have to keep opening the oven, and that cools it down too quickly. While all those goodies are baking, you can also have a nice big pot of chowder or stew cooking on the crane over the open fire.

ANOTHER WAY to use your fireplace is to cook over hot coals on the hearth. When the fire in the fireplace is producing a nice bed of red coals, take the ash peel and shovel the coals onto the hearth. Set a dutch oven on the coals, put the cover on, and pile more coals on top of it. I particularly like the dutch oven for making small cakes and muffins. Another method of cooking on the

hearth is with open pots or spiders. You set them up the same way, except you don't cover them with lids and coals. They're great for making sauteed dishes.

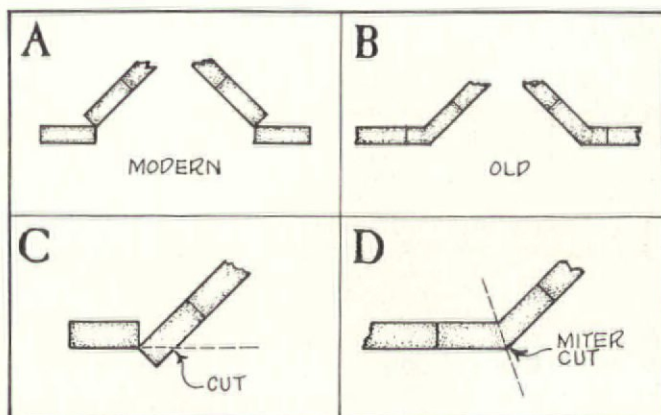
### Design Ideas

I AM SURE each person's fireplace and oven are unique in some way. I know ours is because we built it ourselves, along with the entire house! When we decided to build an authentic Saltbox house, I began looking for old houses with intact fireplaces and ovens. I found



quite a few, and in photographing and measuring them I learned that each one was different in some way. One variation in our construction, concerning the front edge of the fireplaces, I think will be of special interest to OHJ readers.

I DON'T LIKE the modern look of the square edge of the brick on the surface (illustration A at right). The old fireplaces used corner bricks (B). At the time we were building, corner bricks weren't available. Some masons tried slicing off part of the brick (C), but I didn't like the appearance of the cut surface: It was brighter in color and the circular saw marks were visible. Our solution was to cut angles on the ends of the bricks and mortar the edges together (D).



I'VE INCLUDED in this article some of the recipes I've used and liked. Oven owners should always try new things; experiment a little, it's usually worth it. One evening

after baking I put some oatmeal in a bean crock and closed the door until morning. The oatmeal cooked slowly all night long. It was still warm in the morning, and delicious!

## My Beehive-Oven Recipes

### PIONEER MEAL BREAD

- 2 cups pioneer meal (equal parts corn meal, rye flour, & wheat flour)
- 2½ cups unbleached flour
- 1 cup whole wheat flour
- 1 pkg. or cake yeast
- 3 tbsp. butter
- 2 tbsp. honey

Dissolve yeast in ½ cup warm water with ½ tsp. sugar, and let set for 8 to 10 min. Mix pioneer meal with the unbleached flour and wheat flour in a large bowl. Mix 1-2/3 cups warm water with the butter & honey. Add yeast mixture to water mixture and add to flour. Beat together thoroughly. Add more unbleached flour; just enough to make the dough firm enough to handle. Turn out on floured board and knead about 10 min., until smooth. Shape into ball, put in buttered bowl, turn to butter top, cover, and let rise until double, 1 to 1½ hrs. Punch down, divide in half, and shape into 2 loaves. Place in greased bread tins, cover, and let rise for 45 to 60 min., until almost double. Then bake at about 375 degrees for 40 to 60 mins.

### CORN CHOWDER

- 4 to 6 strips of bacon, cut into small pieces
- 1 small onion, chopped
- 4 potatoes, cubed
- 2 cups corn cut from cobs & milk
- 4 cups milk
- 3 tbsp. butter
- 1 carrot, grated

Put bacon in iron kettle over open fire and cook slowly until crisp. Add onion & cook slowly another 5 min., stirring often. Add potatoes, corn and corn milk scraped from cobs, carrots, butter; salt & pepper to taste. Heat slowly to let flavor develop. If fresh corn is gone, use 1 cup kernels and 1 cup creamed corn. (I always double this recipe — it's even better the second day!)



Here's the best reason in the world for having a beehive oven: homemade cinnamon buns, just begging to be scarfed!

### CINNAMON BUNS

- 1 pkg. or cake yeast
- ¾ cup scalded milk
- ½ cup butter, cut in small pieces
- 2 cups flour
- ¼ tsp. salt
- 2 eggs
- 1/3 cup sugar
- 2½ cups more flour
- Cinnamon filling:
  - ¼ cup soft butter
  - ¼ cup white sugar
  - ¼ cup brown sugar
  - 2 tsp. cinnamon
  - nuts (optional)

Dissolve yeast in ½ cup warm water with ½ tsp. sugar. Let set for 8 to 10 min. In large bowl combine milk & butter. Cool to lukewarm. Add yeast mixture, 2 cups flour, 2 tsp. sugar, and salt. Let stand covered in a warm place for ½ hr. or until mixture bub-

bles. Add eggs, beating after each. Add the 1/3 cup sugar & the remaining flour ½ cup at a time to make a soft dough. Knead on lightly floured board about 10 min. until smooth. Shape into a ball, put in greased bowl, turn to grease top, cover, and let rise until doubled, about 1½ hrs. Punch down and divide in half. Roll each half to about a 12-by-8-in. rectangle. Spread with butter, sprinkle with cinnamon filling. Roll from long side tightly. Slice each into 9 rolls and place in two 9-in. round pans or one 9-by-13-in. pan. Cover and let rise until almost doubled, about 45 min. Bake at about 350 degrees for 25 to 30 min., until browned.

### DELICATE NUTMEG CAKE

- ¼ cup butter
- ¼ cup shortening
- 1 cup sugar
- 1 tsp. vanilla
- 3 eggs, beaten
- 2 cups sifted flour
- 2 tsp. nutmeg
- 1 tsp. soda
- 1 tsp. baking powder
- ¼ tsp. salt
- 1 cup buttermilk

Cream butter & shortening. Gradually add sugar, creaming until light. Add vanilla and eggs; beat well. Sift dry ingredients and add to creamed mixture alternately with buttermilk; beat well after each addition. Pour into one 9-by-13-in. or two round, greased pans. Bake at 350 degrees for 35 to 40 min. for 9-by-13-in. pan; 25 to 30 min. for two round pans. (This cake could be baked in the brick oven or the dutch oven.) May be finished by sifting powdered sugar on the cooled cake or a broiled frosting. Mix 3 tbs. melted butter, 3 tbs. brown sugar, 2 tsp. cream, and ½ cup chopped nuts or shredded coconut. Spread on warm cake & broil. To broil topping, heat the ash peel by laying it in the fireplace, right in the hot coals. When very hot, hold it over the topping, almost touching, until the topping starts to bubble.

### To Strip Or Not

**N**OT STRIPPING MASONRY is cheaper, easier, and less risky than stripping it, so let's start with some good reasons not to strip. First of all, maybe the building was meant to be painted. Painted brick was quite popular in the 19th century, sometimes for a polychrome paint scheme, and sometimes to follow a European tradition of dark red paint with mortar joints "pencilled" in white.

OFTEN BUILDINGS were painted -- at the time of construction or soon after -- for more practical reasons. Cheaper, less attractive, more permeable bricks may have been used by the mason on a budget who expected the building to be painted. Early in the life of the building, water penetration may have been solved with a barrier of paint, which is less permeable than most brick. Or maybe the paint is later still, masking additions to the building. So, stripping may reveal ugly bricks, mismatched repairs or additions, or even architectural detail that turns out to be sandpainted wood, and not masonry at all.

ON THE OTHER HAND, there are some good reasons to strip masonry. The building may not have been painted until late in life, and then for a poor reason: It was dirty. Also, natural brick is, especially to our eyes, almost always prettier than a flat coat of paint. And once the paint is off, the long-term maintenance of the building is simplified: You no longer have to paint every few years.

YOU MUST STRIP failed paint from masonry before you can repaint. Depending on the degree of failure, you may have to completely strip the masonry. (There's no need to get every last bit off if you intend to repaint.) For practical rather than aesthetic reasons, you should strip masonry if:

- (1) The paint is badly chalking, flaking, or loose. Find the cause! Flaking is most often due to moisture penetration and retention.
- (2) The masonry has been "sealed" with an extra-heavy buildup of paint layers, or by gloss oil-based paint or aluminum/oil paint. In such a case, the masonry can't give up moisture and salts that accumulate in it.



The owner intended to repaint anyway, but look what stripping revealed: patches, bad pointing repairs, and wood trim.

Pressure will build up under the paint layers, and when the paint flakes, it will take some masonry with it. Look for signs of this happening. The masonry should be stripped with a commercial paint stripper, washed, repointed where necessary, and repainted with a high-quality latex masonry paint. Note: Paint will not stick to a powdering surface.

### D-I-Y?

**W**HEN A BUILDING must be stripped, most owners hire a contractor. Exterior masonry stripping is difficult and hazardous. Besides needing specialized knowledge, the applicator works with strong chemicals, sometimes several storeys up. Professionals have experience and skill, a source of materials, and expensive extras such as scaffolding. The right masonry-stripping contractor should also know all about collecting and disposing of the effluent that comes off the building.

ONCE YOU'VE MADE the decision to strip, the contractor should do a test patch. This will settle the unique specifications for the job, as well as establish a "control" by which the rest of the job will be judged. Determine:

- (1) The type of stripper to be used.
- (2) The concentration to be used.
- (3) The dwell time, or optimum time for the chemicals to sit on the masonry.
- (4) The optimum pressure/volume of rinse water.



### Disposing of Waste

**W**HAT'S COMING OFF the building is a chemical strong enough to strip paint, mixed with the softened paint itself. The paint sludge that comes off old houses contains lead (among other things) and is classified as a toxic waste. Flushing sludge into the soil will contaminate the ground around the house for many years to come. The sludge will contaminate well water. Flushing it down the sewers may contaminate water sources and is illegal -- you will be fined if you're caught.

LEGALLY, it's the responsibility of the owner or architect to specify waste disposal procedures as part of the contract. Most contractors are not upfront about the disposal details, so press it: Make the final payment contingent upon your receiving a copy of the *hazardous waste manifest*. That way, you'll be heeding EPA regulations -- and besides, it's the moral thing to do.

CATCHING the effluent is no big deal. Generally, it's contained in weighted tarps covered with absorbent straw. Then it's put in 55-gal. drums and a waste hauler is paid to dispose of it properly. The cost to the customer is about \$125 per drum -- a proportionately small cost, as a residential-size job may generate only one drum.

# SANDBLASTING

TO THOSE OF US who have been dragged to see hundreds of awful sandblasting mistakes, it seems incredible that there should still be any need to warn against it. yet we've prepared this article partly in response to the recent reader questions that have come by phone and in the mail, asking whether sandblasting is okay. People have been told by contractors (who have major investments in blasting rigs) that sandblasting "is the only method that will work." Others have heard that sandblasting causes problems, but don't know the alternatives.

SO ONCE MORE, let's review the case against sandblasting. In abrasive blasting, sand or another abrasive is shot against the building in a high-pressure jet of air or water. This quickly removes the paint, but as the abrasive doesn't know where the paint film stops and the masonry starts, it always removes some of the building, too. It is all too easy to lose control; in fact, with high pressures, it is impossible to keep control. Consider the variables:

- 1) type, condition, and hardness of masonry
- 2) density, hardness, size, and shape of the abrasive
- 3) the pressure
- 4) the constancy of the pressure used
- 5) the distance from nozzle to surface
- 6) the skill of the operator

- 7) visibility of the surface
- 8) the angle of "hit"

ALL of these factors significantly change the effect of the blasting on the surface. And there's no way sandblasters can control all of them. The machinery is heavy, the scaffold has to be moved; all workers become fatigued.

WHEN THE DUST clears, the masonry will be changed. Aggregate is exposed as the softer clay is blasted away. Depending on which material is harder, the relationship between the masonry units and the mortar will have changed, altering the character of the surface. The "skin" is removed, often exposing a more permeable core. Blasting increases the surface area of the wall, and so it will now get wetter than before, and it will become dirtier more quickly. With no crystalline planes to refract light, the surface reflectivity changes, sometimes even resulting in an apparent change of color.

IT CAN'T BE FIXED. Clear sealers (which the blaster will almost surely try to sell you) can't be recommended because they often make the problem much, much worse. Moisture will get into porous masonry somehow; it always does. But sealed masonry won't be able let it back out anymore. Instead, the water will build up hydrostatic pressure behind the coating, and when it pops out, it will take some masonry with it. Also, clear sealers run from not effective at all to effective for

only three to five years (you're back to a maintenance schedule worse than painting), and applicator error can leave streaks or variations in surface gloss across the facade.

NEED MORE REASONS not to sandblast? It's strictly prohibited by the Secretary of the Interior's Guidelines for Rehabilitation -- a condemnation from people who know, and you won't get your investment tax credit. Because of the environmental hazard of flying abrasive, it's now banned by many municipalities.

IF THE CONTRACTOR is smart, he or she doesn't call it sandblasting anymore. And in fact, sand may not be the abrasive used. The list of alternative grits has gotten ridiculous: ground slag, volcanic ash, almond and walnut shells, rice husks, corncobs, ground coconut shells, glass beads, crushed eggshells, microballoons, powdered limestone, chopped plastic. It doesn't matter; any grit blasted at high enough pressure to remove paint will harm the surface underneath. "Waterblasting" is popular; this is when the sand is carried by water instead of air. It has the advantage of letting the operator see the surface, as opposed to being surrounded by a cloud of dust, but it doesn't soften the blow. We've heard the word "featherblasting," and silly things like, "don't worry, I put talcum powder in the sand."

THE WATER RINSE will introduce water into the masonry. You don't want to introduce it into the house, however, so be sure to inspect the pointing. If you are worried about water entry, at least do a temporary joint-filling job with caulk or soft mortar. It need not be a finished pointing job. In general, it's better to repoint after the stripping operation. You will be able to see better to match the mortar color, and the rinsing will have dislodged any loose mortar. Because of the water, finish up at least a month before the first potential frost. Water freezing in the masonry will damage it.

## The Method Of Choice: Chemicals

CHEMICAL TECHNOLOGY for strippers is not as diverse or complex as that for masonry cleaners. Generally, masonry strippers are alkaline formulations, some quite basic,

others close to pH neutral. In virtually all of the commercial preparations, sodium hydroxide (lye) is not used, as it often causes efflorescence later. (Efflorescence is a whitish "bloom" on the masonry caused by water-borne salts coming to the surface.)

SOME CHEMICALS manufacturers recommend a dilute acid afterwash to neutralize the caustic stripping chemicals. This is done after the sludge has been rinsed away, and is followed again by a clear-water rinse. Other preparations don't need the neutralizing afterwash, especially if the masonry is not to be repainted.

HOWEVER, if you do intend to repaint, you must neutralize and rinse thoroughly, or the paint will not stay on. Do not repaint until the masonry is completely dry. If you have any doubts, hold off on painting for six months or a year, to allow the masonry to rid itself of

residues (efflorescence can be simply brushed off the surface).

THE PROPRIETARY CHEMICAL strippers are much more expensive than lye-based strippers, but they are worth it in lowering the risk to the building. With lye, removing residue becomes all the more critical. And neutralizing with strong acid would probably damage the mortar. It virtually cannot be neutralized enough to allow repainting. Proprietary strippers contain additives which increase surface activity (where the paint is) while avoiding deep penetration into the masonry.


WHEN YOU CHOOSE a proprietary formulation, you are buying a company's experience, avoiding the labor and hazard of mixing your own ingredients, and lowering risk for your building.

THE MOST WELL KNOWN stripping products are from the Sure-Klean line, manufactured by ProSoCo. ProSoCo prefers to sell direct to the contractor; the company guarantees its chemicals and wants to know who is using them. They maintain four regional offices, not only for sales, but also to answer technical queries. A technician will even visit the site if a problem crops up. For product information or a list of qualified contractors

near you, contact ProSoCo at 1040 Parallel Parkway, Dept. OHJ, Kansas City, KS 66104; (913) 281-2700.

ANOTHER manufacturer who distributes nationwide is Diedrich Chemicals--Restoration Technologies. Again, the products are guaranteed and he prefers to sell only to distributors, contractors, and architects. For a free brochure or to get the name of a local contractor using Diedrich products, write to 300A East Oak St., Dept. OHJ, Oak Creek, WI 53154; call (414) 764-0058.

SOLMICA Chemical Mfg. is a smaller company with a commendable track record. The company head, a chemist with experience in masonry restoration, sells only to fifteen or so trained applicators, who operate "franchises." Work is guaranteed, and each dealer is trained by the manufacturer. Contact Solmica Chemical Mfg. at 6240 Wiehe Rd., Dept. OHJ, Cincinnati, OH 45237; (513) 631-0076.

FOR THE WHOLE JOB contracted out, expect to pay about \$1 to \$1.50 per square foot for chemically stripping paint from brick; more if there is a lot of masking or an extra-heavy buildup of paint. 

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FOR EVERY masonry-stripping horror story that involves some rare and unforeseen variable, there are many jobs that go without a hitch. All we see in print are the exceptions, accompanied by explanations of the failure which are ever more technical and, sometimes, far-fetched. It seems only fair to give space to the other side -- the straight-forward job.

I FIND IT hard to advocate the do-it-yourself application of lye under any circumstances: It's risky for the building and dangerous for the applicator. But "the proof is in the pudding." These people have successfully used the method on several brick buildings -- and served their major concern of saving money.

MAYBE this is an alternative for the predictable job.

— P. Poore

## Lye Stripping

by Adrian Lonneckner & David Miller

HISTORIC preservation publications are full of warnings about "improper" procedures on brick walls. They are short, however, on what's "proper," especially when it comes to stripping paint from brick.

SANDBLASTING is taboo, as are other abrasive methods. We stripped our building with chemicals and rinsed with cold water under high pressure. The latter did damage some of the mortar, which may have soon needed repointing anyway, but the bricks stood up very well. It cost us dearly to do this job, mostly because we lacked a methodology, even with the advice of professional paint chemists. If you are planning to strip bricks with chemicals, this article could save you thousands of dollars and help you avoid damage to your walls.

THE TYPE of paint stripper most of us are familiar with uses methylene chloride as an active ingredient. This isn't so suitable for

outdoor work because of its quick evaporation. If you used an off-the-shelf solvent stripper, small areas would have to be power-rinsed about ten minutes after each application.

MOST OUTDOOR strippers are alkaline (pH basic). They work more slowly, and this is what we recommend. We further recommend that the stripper be mixed from raw chemicals, as opposed to buying ready-mixed concoctions. The only ready-mix we could find locally cost fifteen to twenty dollars per gallon. Our homemade stripper cost around fifty cents per gallon. Keep in mind that the mix should be applied in a layer at least 1/8-inch thick, so it doesn't cover nearly as much as paint does per gallon.

FOR US, homemade stripper has certain advantages over ready-mix:

1. It is much cheaper.
2. It can be mixed on a flat rooftop, reducing significantly the amount of weight to be carried up.
3. It can be left on a wall longer without forming a super-glaze.

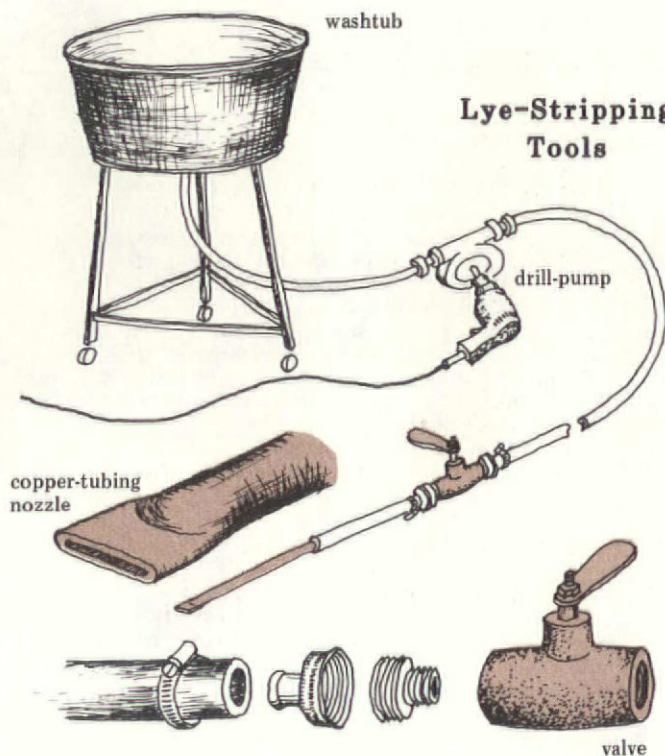
HERE is a list of what you'll need to duplicate our method:

- 1 bag bentonite clay
- one 100-lb. barrel caustic soda (lye)
- a washtub on legs with drain spout
- a 5/8-in. automotive heater hose, 50 ft. long
- a drill-pump
- a 1/2-in. vari-speed electric drill
- 1 gallon vinegar
- a valve (see illustration)

AND:

- respirator(s)
- long rubber gloves
- rubber or plastic suits
- rubber boots
- heavy-duty garden hose

## Lye-Stripping Tools



WE BASED our stripper on a formula from a chemists' handbook:

33 lbs. water (lukewarm)  
1.85 lbs. clay  
6.11 lbs. sodium hydroxide crystals (lye)

**SAFETY:** Wear a respirator. The lye crystals should be handled with rubber gloves, as a speck will drill a hole in your skin. Likewise, the diluted mixture will eat your flesh if not rinsed immediately. We experienced burns on our arms. This was due to our early ignorance, crude application techniques, and a lack of rubber sleeves. (Ready-mix alkaline strippers will burn you with equal vigor.) And no joke -- ALWAYS wear eye protection.

**TO MIX 5 GALLONS:** Measure water and put in a clean plastic 5-gal. pail. Sprinkle clay into water while agitating with paint agitator powered by the 1/2-in. vari-speed drill. Mix as furiously as possible for about five minutes, as this will cause the clay to gel. The mixture should start to thicken at this point. Now carefully sprinkle in the crystals while slowly mixing. (Never add water to crystals, only crystals to water.) Before all of the crystals are added, the mixture will turn to "oatmeal," but don't be alarmed. Continue agitating the stiff mix, for it will eventually get less thick as you add the rest of the crystals. Beware: the mixture will self-heat (like drain cleaner); it can be used in this state. Now you should have a really thick gel, perfect for vertical application. To mix larger batches, we used the 15-gal. steel drums that the crystals came in.

**APPLICATION:** We tried brushes, brooms, rollers, buckets, pitchers, and spray guns, but found a pump works best. We used what is called a "drill pump," designed for household

use. We went through four of them, so if you have a big job, a good chemical-resistant pump would be required. Just make sure the shaft is 1/2 inch or smaller, so you can use the drill to drive it. The caustic reacts with aluminum, so don't use any aluminum fittings.

THE APPLICATOR should be suited up "to the max," and the tub should be higher than the wall if possible. All workers in the area should wear goggles. It's alkaline, but post "DANGER: ACID" signs to better warn people below. Keep vinegar and a live hose ready for first-aid.

MAKE NOZZLES by hammering the end of 5/8-in. copper tubing, after inserting a piece of thick sheet metal to maintain an opening of sufficient size.

OUR RIG would throw the mixture two to four inches and cover a wall thicker and quicker than any other way. Once we perfected this method, burns were drastically reduced. Spills were drastically reduced, too. And it really worked well on details.

BY THE WAY, protect your soil with plastic sheets. The caustic and paint sludge will kill grass and shrubs. Collect the sludge and dispose of it properly.

THE RINSE: Test for the amount of time needed for the chemical to work. We have left it on overnight. When the mud gel is dry it stops working, so it is imperative that it goes on thick to stay wet. Rinse first with the garden hose, so the high-pressure wash won't blast chemical at you. We hired a water blaster, and carefully supervised him so he wouldn't blast out too much mortar. Catch effluent in the plastic and pump it away if necessary. If you do not get all the paint off the first time, you're in trouble. The paint on the brick has acted as a barrier so that the bricks didn't soak up the chemicals. But subsequent applications tend to leave un-rinsable residues.

DRYING OUT: If you get it all in one pass, there will be less residue. If you let paint that has been through the process stay on the wall, it can be extremely difficult to remove later. A dilute acid rinse will help neutralize alkaline residues, but will eat the mortar. [Editor's note: Lye stripping makes more sense for buildings that will remain unpainted. Residues will interfere with the adherence of new paint.]

THIS STRIPPER will take paint off wooden details, but will bleach and roughen the surface. [Editor's note: Wood will retain alkaline residues that cause new paint or varnish to blister and fail. Lye is not recommended for use on exterior wood.] It is obviously not to be used on interior woodwork.

A QUESTION: Should you strip at all? Why not just repaint? It certainly would have been cheaper for us. Some random notes: Soft, permeable bricks are more difficult to work with. Paving-quality or hard-fired bricks and high-cement-content mortar would be ideal. Soft, high-lime-content mortar can survive quite well, provided the paint is softened sufficiently to be removed with one power rinsing. 🏠

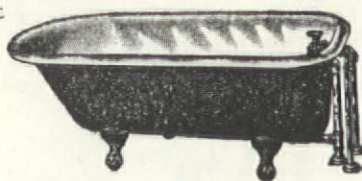


## Rust Stains in Clawfoot Tubs

**L**ATELY, when cleaning my clawfoot tub, I seem to be bringing out rust-like stains. I've tried all kinds of products -- from bleach to rust remover -- to get rid of the stains, but they only seem to get worse. Can you help?

-- Cindy Wells Carrolton, Ga.

RUSTING IN CLAWFOOT BATHTUBS after long periods of disuse is a common problem. Unfortunately, there's not much you can do about it. Porcelain naturally wears thin, allowing moisture to penetrate it and cause the cast iron underneath to begin to rust.



WE DON'T ADVISE that you try to refinish the interior of the tub with any of the epoxy-based porcelain repair products on the market. They wear through and chip easily.

ONE WAY YOU CAN PREVENT the wearing away of your porcelain is to use a nonabrasive cleaner -- we recommend Bon Ami. Bon Ami's old-fashioned Cleaning Powder scrubs with feldspar, so it won't scratch the porcelain like cleansers with silica.

## Removing Carpet Mastic from Wood

**W**E JUST PURCHASED a 100-year-old house that has wall-to-wall carpeting. We're removing the carpet, but some of its backing is sticking to the wood floor. How can we remove this sticky backing from the floor?

-- Muriel Doll Northpoint, N.Y.

WE RECOMMEND that you remove the sticky, black carpet backing from your wood floor with a chemical solvent. Be sure to scrape off as much of the backing as possible with a sharp handscraper (the kind Sears sells with removable blades is good), so that the solvent won't soak the black stuff into the floor.

START WITH A MILD SOLVENT such as paint thinner. Be sure to try a test patch in an inconspicuous place first, especially if you are trying to save the original finish. Other solvents, from gentle to harsh, are naphtha, lacquer thinner, and acetone. Remember, all of these chemical solvents are flammable and should be handled with care. And don't forget to wear gloves!

## Floor-Refinishing Kit

**W**E RECENTLY READ about a floor-refinishing kit that sounds too good to be true. It comes with fine steel wool, plastic gloves, and two liquids: one for cleaning the floor, the other for restoring the color and the finish. We would like to lighten the color of our floors, but we are anxious not to sand them. Is this kit indeed as good as it is advertised to be?

--Barbara and Bob Lewis New York, N.Y.

THERE'S NOTHING "too good to be true" about the floor finishing kit you saw advertised -- and there's probably nothing wrong with it either. Refinishing liquids are available from several companies and are sold in large hardware stores or building supply stores. The solvents in them clean the floors, remove wax, and reamalgamate the old finish to some extent. These people have turned it into a kit by including steel wool and gloves. If you do buy the kit, or use another type of refinisher, be sure to do a test patch in an out-of-the-way place.

## Tar on an Old Copper Roof

**I** AM RENOVATING a 1930s house with a copper roof. The previous owner applied tar to most of the seams and other areas where he thought there might have been leaks. But the tar has not prevented leaking and at present needs to be removed in order for the roof to be repaired. Do you know of a preparation that can be used to remove tar from copper?

--James L. Wiegerink Los Angeles, Calif.

WE KNOW A CHEMIST who spent the better part of a year trying to find a way to remove tar from the copper roof of a major New York City landmark. He concluded that there was no cost-effective way. Solvents and dry ice (to embrittle the tar) were used with some success, but it was slow going.

YOUR ROOF MAY BE SALVAGED and repaired correctly, even with the tar patches. Perhaps some of the roofing can be replaced, while other areas are saved to keep the cost down. A competent roofer who specializes in metal roofing can tell you what's involved and what it will cost.

General interest questions from subscribers will be answered in print. The Editors can't promise to reply to all questions personally—but we try. Send your questions with sketches or photos to Questions Editor, The Old-House Journal, 69A Seventh Avenue, Brooklyn, NY 11217.



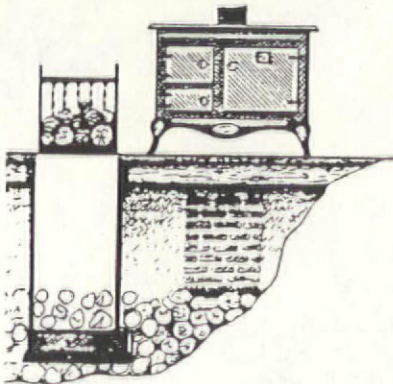
## Woodwaiter—A Dumbwaiter for Firewood

Now here's an item that would have been a welcome gadget if it'd been around in the 19th century. If you seriously heat and cook with wood, you'll surely appreciate the Woodwaiter. Basically a small electric dumbwaiter, the Woodwaiter is an easy way of moving wood from the cellar to the hearth.

The Woodwaiter lifts 125 lbs. of standard 16-in. firewood. There are two designs; the Pop-up model has a trap door that opens as the woodbox comes up to floor level. The Permanent Woodbox model is grooved pine with an angled hinged top into which the Woodwaiter delivers a load of wood.

The units are designed for homeowner installation and can be installed in any house with sufficient clearance. The wood box sizes range from 18 in. to 26 in. square and are priced from \$679.50 to \$1,062 FOB Lennoxville.

For more information and a free brochure contact W.B. Fowler Industries Inc., 9 Haskell Hill Road, Lennoxville, Quebec, Canada J1M 2A3. (819) 562-8510.



## Weather Tamers Catalog

Brookstone currently has a very good Fall and Winter catalog out entitled *Weather Tamers ... For The Energy Conscious*. Here are a few items you and your old house might find useful: a small alarm that tells you when the basement is flooding; foam-insulating blankets for single-glazed windows; and attractive wool hearth rugs to protect your wood floors from hot coals.

For cooking on your wood or coal stove there is a Super Griddle and a cast-iron kettle. You can seal up leaky doors on your wood and coal stoves with a variety of woven fiberglass gaskets.

For a free copy of the Brookstone Weather Tamers catalog, write to Weather Tamers, Dept. OHJ, 630 Vose Farm Rd., Peterborough, New Hampshire 03458. (603) 924-7181.

Thatched roofs are rare in this country, but Warwick Cottage Enterprises is changing all that with the introduction of their Warwickshire Thatched Roof Coverings. This is real water reed thatch, installed exactly as it's been for centuries by master thatchers (not some new product made from soda straws)!

Wes Warwick, general partner in the new firm, has done a quite impressive job in getting fire-retardant Class 'A' and treated Class 'C' rating certifications for the thatch, and in creating a very good thatching manual (available for \$3). Even if you're not interested in having your Queen Anne thatched, you'll appreciate all of the intricacies of the craft, which are profusely illustrated in the manual.

## New Thatch Roofing Comes To America

From the late 1600s well into the 1800s, thatch roofing could be seen on buildings from Massachusetts to far-western territories such as Utah. Although there are few remaining structures here today that originally had such roofs, Wes is finding terrific interest for thatching on new commercial and residential structures as well as outdoor museum structures.

Far from being short-lived, water reed thatching can last as long as 70 years, will withstand 110 mph winds, is not affected by mildew and fungus, is water-proof, handles high heat and snow well, insulates to an R 11.8, and bugs don't like it.

John Cousins and Alan Lewis, master English thatchers, have been imported by the Warwick firm not only to apply the thatching in a traditional manner but also to train American apprentices in the craft. They dress the thatching to the roof, using a leggett tool, to a minimum thickness of 12 in. Ridge caps, a truly distinctive woven feature, are made from sedge, a type of reed similar to water reed. Thatching is applied over the battens and plywood sheathing on roofs having a minimum slope of 45 degrees (12:12). The cost of this type of roof is about \$2500 per square (100 square feet).

To find out more contact Wes Warwick, Warwick Cottage Enterprises, Dept. OHJ, 2944 Greenhedge Ave., Anaheim, CA 92806. (714) 630-9251.



## Finnish Fireplaces & Parts

Many of us have heard of Rumford fireplaces, but have you ever heard of Finnish style, wood-fired, masonry heaters? Albert and Cheryl Barden of Maine Wood Heat Co. are masters at designing and building this 200-year-old system of high-efficiency masonry heaters, bake ovens, cookstoves, and fireplaces since founding their firm in 1976.

You may recall that the Rumford fireplace and shallow firebox is designed to radiate heat out into a room, retaining little heat in its thermal mass. The Finnish design takes the opposite approach; a deep rectangular firebox radiates heat into itself for maximum temperature and combustion efficiency. Through a sophisticated downdraft technique, heat from the fire is absorbed and slowly radiated from the entire mass of the heater. All of this means that these masonry heaters, if carefully built and fueled twice a day for 1-1/2 hours for each burn, can serve as the primary heat source for a tight, well insulated, single-family home. The heaters are capable of generating as much as 50,000 BTUs per hour, an 80% efficiency rate. Once the burn is completed and dampers are closed, the entire mass of the heater will radiate heat for the next 12 to 24 hours.

You can build these heaters yourself, and if you want to find out more about the system and its requirements, send \$2 for their catalog and price list. Their illustrated step-by-step construction manual contains technical drawings and a materials list and sells for \$15.



*Completed Finnish style fireplace with jack arch and cast iron doors.*

The catalog contains one of the most extensive lines of cast-iron, masonry heater bake oven, and cookstove parts we've found. There is a cast-iron oven, numerous hinged access door designs, dampers, and even a complete stove cooktop. There are a number of fire place, heater, and bake-oven plans ranging in price from \$5 to \$15.

Here's an interesting item: Did you know that some early fireplaces, beehive ovens, and chimneys were laid up with a clay rather than lime-based mortar? An early form of refractory mortar often consisted of 3 parts sand and 1 part clay. It was used for inner common brick exposed to high heat but not exposed to weather. Maine Wood Heat currently offers a high quality and hard-to-find Finnish clay-based heater mortar that is less brittle and rigid than cement-based mortars and is designed for use in inner heat-stressed walls of fireplaces. Also available is high-quality refractory mortar for use on firebrick.

Because Finnish Heaters are constructed differently from conventional fireplaces, Maine Wood Heat offers a complete assistance and training program.

For more information contact Maine Wood Heat Co., Inc., Dept. OHJ, P.O. Box 640, RFD 1, Norridgewock, Maine 04957. (207) 696-5442.

## Remember Murphy Beds?

Even if you've never heard of a Murphy Bed, chances are you've seen the Marx Brothers or the Three Stooges fold themselves into one. This wonderfully American invention, technically known as the Murphy In-A-Door Bed, was invented by William L. Murphy at the turn of the century in San Francisco. He had a problem common to many old-house owners — not enough space. His bed took up most of the space in his one-room apartment, so he began experimenting with a folding bed to free up additional space.

In 1900, Murphy applied for his first patent and the Murphy Door Bed Co. was off and rolling. Eighty-four years later the company is still going strong, making it one of the oldest furniture firms in America. By 1918, Murphy had invented an ingenious pivot bed that swung out from a closet and lowered to a sleeping position. Shortly thereafter he created another space-saving device, the first compact kitchen called the Murphy Cabrinette.

Today, Murphy Beds are available in standard sizes: twin, double, queen and king. All of the beds use standard-size bedding and go up fully made, no storing pillows or bedding during the day.



*Murphy Beds can be mounted in custom-built cabinetry that suits your house, or fit into a wall behind doors.*

The basic concept is a simple counterbalancing bed frame that attaches securely to the floor with screws. When not in use, the bed simply raises into a closet or cabinet wall that's from 16-1/2 in. to 23-1/2 in. deep (depending on the model). There's even a Murphy Sidebed that raises into an opening only 44-1/2 in. high.

Murphy beds have a number of features that make them attractive for use in older houses. First, the bed takes up very little space and can be designed into a wall, placed behind period-style doors that match the rest of the house, or with a little ingenuity, fitted into an old armoire. Secondly the bed itself uses conventional springs and mattressing, which make it comfortable to sleep on, unlike those folding beds and sleeper couches we've all gotten aching backs on.

Murphy Beds are priced from \$332 to \$803. You can order the Murphy Bed direct from the manufacturer and they will pay the freight. When you write for a free catalog be sure to check out their line of Cervitor Compact Kitchens, too. Murphy Door Bed Co., Inc., Dept. OHJ, 40 East 34th St., New York, NY 10016-4595. (212) 682-8936.



## More On Vapor Barriers

I talked to a Vermonter named Bill Hults recently, a builder, inventor, and energy specialist who runs the Energy Conservation Equipment Company. We were discussing air infiltration problems, and he told me about a Canadian book entitled *A Double Wall Retrofit Project*, by I.H. Warkentin (available from Energy Conservation Equipment Co. for \$5.95 ppd.). The book deals with the creation of a two-layer, insulating exterior wall structure on an existing 1906 Winnipeg (Manitoba, Canada) house. Particularly interesting was the unusual installation of a continuous polyethylene air/vapor barrier seal, and construction of a double-wall insulating structure (pioneered by the National Research Council of Canada). To oversimplify things, an old house was wrapped in plastic and new, insulated walls were built around it.

Now don't jump to conclusions! We're not suggesting that you try all of the energy-conserving measures that were carried out in this house. But there are a lot of very good techniques illustrated and backed up with facts and figures that could help you tighten up your old house. Here are some of the benefits you could expect: Elimination of drafts and cold spots, slower fluctuations in temperature, a healthier winter atmosphere with higher humidity, a cooler house in the summer, a quieter house that will retain heat longer, reduced heating and cooling costs, control of air quality and ventilation rates, and perhaps a higher resale value.

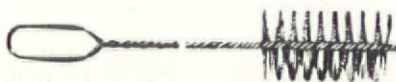


*Air/vapor barrier film and boxes are shown sealed into place over insulation.*

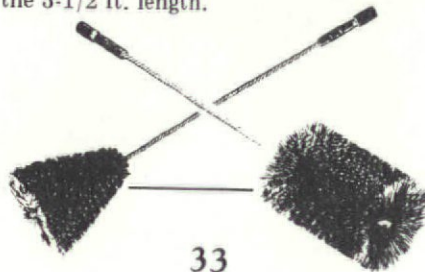
Not until the 1970s did we begin to fully appreciate the value of continuous air/vapor barriers.

Even though we stuff insulation into every nook and cranny, we're — at best — simply filtering the air as it comes in (infiltration) and goes out (exfiltration). And it comes and goes through an enormous number of little openings, which we hardly bothered to look for in the cheap-energy days.

The single biggest obstacle, of course, to installing an effective vapor barrier in an old house is that interior walls have to be removed. This simply isn't cost effective or desirable unless the original perimeter walls and ceilings are damaged beyond repair or missing altogether. If they are, you have an excellent opportunity not only to reduce infiltration but also to add additional insulation without increasing the overall project cost very much.



Round, square, and even rectangular brushes are available made from wire, fiber, or nylon. A 6-in. round chimney brush sells for \$11, and the 6 in. x 6 in. square model is \$16.50. Twisted flexible wire handles and fiberglass extension rods sell for \$5.50 and \$7 each for the 3-1/2 ft. length.



Installing an air/vapor barrier is relatively simple. Six-mil polyethylene is set into a bed of non-hardening caulk and stapled directly to the exposed studs of the interior walls around the perimeter of the house. Great care is taken to overlap and seal the poly sheets and to avoid punching holes in the plastic when finishing the wall installation.

Bill warns that electrical systems are one of the largest sources of air infiltration in most houses. Outlets and switches should be located on interior walls wherever possible, and ceiling-mounted light fixtures abandoned in favor of interior wall-mounted fixtures. The total elimination of recessed ceiling lighting and exhaust fans in exterior ceilings that are to have vapor barriers and insulation is also recommended. These units can't be sealed to the point where they won't leak air without over-heating and creating a fire danger.



*Plastic vapor barrier is sealed around boxes and edges with non-hardening Tremco Sealant.*

Where electrical boxes must penetrate vapor barriers, Energy Conservation Equipment Co. sells new patented air/vapor barrier boxes to be installed before the vapor barrier. The air-tight boxes are made in Canada and designed to enclose electrical boxes and be sealed to the vapor barrier. There is a type of air/vapor barrier box to fit all conventional electrical boxes. A box for a single outlet or switch sells for \$1.10, and a ceiling box is \$1.20 plus postage. For a complete listing of the available electrical boxes write for a free price sheet. Dealer inquiries are invited. Energy Conservation Equipment Co., Dept. OHJ, P.O. Box 161, Worcester, VT 05682. (802) 229-4236.



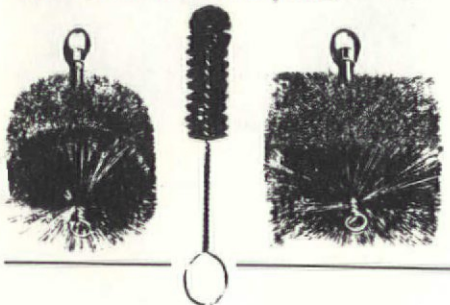
For a free brochure and a set of chimney cleaning instructions, write to Ace Wire Brush Co., Inc., Dept. OHJ, 30 Henry St., Brooklyn, NY 11201. (718) 624-8032.



## Chimney Sweep Brushes

Keeping chimneys and flues free of soot and dangerous creosote build-up is a job that many old-house owners are finding they can do themselves for less than the cost of hiring a chimney-sweep.

A firm here in Brooklyn that's been in business well over half a century makes a high-quality line of chimney cleaning brushes and accessories and sells them at reasonable prices.





## FOR SALE

**FRANKLIN STOVE**, mid-19th century. Can be used as a fireplace insert or free standing. Firebrick lining. Unique disappearing doors. As pictured in "Fire on the Hearth" by Josephine Pierce, p. 57. Excellent. \$600. (201) 439-3529.

**PANELLED DOORS**, thick walnut veneer on pine, c. 1900, panelled around perimeter of door, unpainted, ready for any finish. Various sizes up to 86 in. tall and 36 in. wide. RR 1, Box 597, Hamburg, NJ 07419. (201) 827-4547 after 6 PM.

**25-FT. ROOF CORNICE**, Victorian, very ornate, exc. condition. \$2,200. (201) 432-0455.

**225 RED CLAY ROOFING TILES**, 15 1/2 in. x 9 3/4 in. (12 in. x 8 in. exposure, 150 sq.ft.). Square profile with interlocking rib edges, manufactured 1910 by National Roofing Tile Co., Lima, Ohio. Also, 130 rigid EPS insulation boards (new), 24 in. x 36 in. x 1 1/2 in. Premium grade with lapped edges and waffle face, R=6. Best offers. Saks, 117 E. Penn St., Long Beach, NY 11561. (516) 431-6245.

**HUNDREDS OF WOOD PATTERNS**, many mahogany, used for foundry castings. Make offer. Ornate (shells & floral) cast-iron fireplace front with water jacket. 36 in. W x 34 in. H. Make offer. P. Behr, Reservoir Rd., RD 5, Box 313, Quakertown, PA 18951. (215) 536-4717.

**PARLOR SET**, Victorian, 1850s-60s, includes settee, Mr. & Mrs. chairs, plus 4 "Company" chairs. Pale blue upholstery, in exc. cond. M.H. Cronberg, 240 JSt., Salt Lake City, UT 84103. (801) 363-4156; 363-4483.

**COMPLETE INTERIOR** of 1883 mansion available. Pair exterior oak entryway doors with bevels. Matching pair vestibule oak-panelled doors with stained glass — one morning scene, one evening scene. Pair raised-panel cherry pocket doors. Cherry mantel with 17 ornate 1881 tiles. Much more, all excellent. Scherer's Antiques, PO Box 6305, Lincoln, NE 68506. (402) 423-1582.

**25 OLD CAST-IRON flower urns**, most are 21 to 26 in. in diameter x 31 in. tall, 5 kinds. \$120 each; w/ handles \$150 each. New cast-iron handles, 2 kinds, 19 in. L, exact copies of originals. \$30 pr., \$45 pr. for large size. 5 early 1900s all-iron park benches, iron slats, seat, & back, w/ curled arms. \$120 each. (812) 526-2122.

**BATTENBERG LACE CURTAINS**, 8 panels 24 in. W x 72 in. H, 4 panels 36 in. W x 80 in. H. Handmade museum-quality lace, all with matching pattern. Exc. cond. \$2,500. \$1 plus SASE for photo. Sandra Winge, 123 S. Bench St., Galena, IL 61036. (815) 777-9321.

**12 DOUBLE-HUNG WINDOWS**, c. 1890, some with original glass. No charge — you must arrange removal. Have been stored in a garage. N. Winslow, PO Box 373, Chadds Ford, PA 19317.

**DU PARQUET cast-iron gas stove**, 3 ovens + grill. Waste King Universal. Yours for the asking. (516) 627-3451 between 9 AM and 4 PM.

**ROOF TILE**, Imperial Flat Tile, green, approx. 8 in. x 12 in. x 1 in., caps and ends also available. Will sell in large or small orders. Reasonably priced. G. Sullivan, 320 Madison, Lynchburg, VA 24504. (804) 846-5049.



**VICTORIAN PLANS** for house, cottages, stables, sheds, garages, kennels, & birdhouses in Gothic, Italianate, Stick Style, Queen Anne, Eastlake, and Colonial Revival styles. \$5 for brochure & calendar. Building Conservation, 6326 W. Wisconsin Ave., Wauwatosa, WI 53213.

**SPOOL BEDS**, late 19th century, 1 pair, very good cond. \$200. Porch balusters, 1 3/4 L, turned, approx. 45. \$100 for all. (201) 439-3529.

**COOKSTOVE**, 1912 Glenwood K with gas sidecar, never burned wood or coal, original grates, never used, shelf-top and warming oven top, completely restored. \$2,000. Parlor stove, 1924 Herald Base Heater, currently heats 6-room house. \$750. Front double doors with etched glass panels, door opening 56 in. x 84 in., panels 14 in. x 43 1/2 in. wth arched top. \$600. Joe Lurie, Box 458, W. Upton, MA 01587. (617) 529-3719.

**ATHEN STOVE WORKS No. 33, 1890s?** (17 in. D x 26 in. W x 30 in. H), 3-burner w/oven, Vesta model (gas). \$100. 1920s Sears Prosperity No. 116 300, 3-burner gas w/oven & cover (13 in. D x 21 in. W x 36 in. H). \$75. 1920s kitchen cupboard bottoms, 2 w/porcelain-covered tops, 1 w/out. \$50 to \$75. In Milwaukee. Leistikow, 902 S. Madison, Green Bay, WI 54301.

**ETCHED GLASS** — Replace broken or cracked glass items. Your design accurately duplicated. Will also etch a picture of your house or any building on glass. Prices moderate, will vary with size. Send information for cost estimate. Eileen Erickson, 219 N. 3rd St., Box 27, Montevideo, MN 56265.

## RESTORATION SERVICES

**KROECK'S ROOFING**, founded 1885, installers of slate & clay tile roofing. Consultation, restoration, repair, and new work for the western and central states. Kroeck's Roofing, PO Box 38309, Colorado Springs, CO 80937. (303) 528-1223.

**SAL-CO PAINTING** and Decorating. Restoration painting work. Will travel, will work by hour or contract. Sal-Co, PO Box 2742, Nacogdoches, TX 75961. (409) 560-6736.

**TOTAL BUILDING REHABILITATION**, all phases of reconstruction, design and consultation, masonry stripping and cleaning, tuckpointing. Charles Shiver, 825 Lowery Rd., Chelsea, MI 48118. (313) 475-7532.

**CONSULTATION** for owners & potential owners of historic buildings, including Nat'l Register nominations, tax act certification, architectural designs, research, & technical assistance. Free estimates. Steven McQuillin, Independent Preservation Consultant, 3515 Archwood Ave., Cleveland, OH 44109. (216) 749-3515.

**WINTER IS PLANNING TIME:** Plan your old-house construction project now for spring execution. Our expert architectural & preservation services can help. Restoration & remodeling design, research, technical & historical advice, & more. Allen Charles Hill, AIA, 25 Englewood Rd., Winchester, MA 01890. (617) 729-0748.

**STENCILS** — Custom-cut stencils for painting or glass etching or sandblasting from your existing or new pattern. Design services and glass sandblasting also available. Designs on Glass, 1204 Andrews Ave., Lakewood, OH 44107. (216) 226-4054.

**SLATE & TILE ROOFING**, custom copper work, metal fabricating, concrete shingles. Restoration work, inspections, and consultations. Servicing Illinois, Wisconsin, and Minnesota. Bob Smith Slate & Tile Roofing, (608) 269-6808 or Chicago (312) 238-2113.

**LANDSCAPE RESTORATION**, design and consultation services to enhance your building with landscapes and gardens appropriate in style and period. An alternative to the modern landscape formula. Free brochure. Historic Landscapes, 954 Washington Rd., Rye, NH 03870.

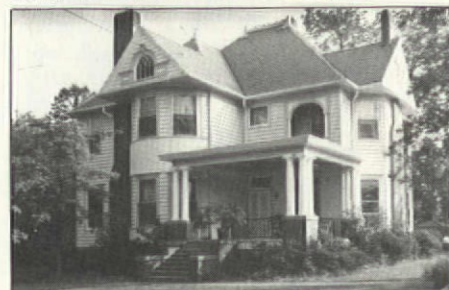
**THE FINISHING SCHOOL** — 2-session classes in marbling, graining, & wallglazing. Lecture, demonstration, complete notes, photographs, & supervision by a master of students' work on prepared objects & architectural surfaces. 1 Elm St., Great Neck, NY 11201. (516) 487-2270; 466-4759.

**THE HISTORY STORE** has expanded to Baltimore. Our second retail store is now open 10 AM to 5 PM, Mon. - Sat. to serve old-house renovators with antique mantels, doors, shutters, hardware, and other architectural items. We also custom-order reproductions and do research. 1736 Aliceanna St., Baltimore, MD 21231. (301) 342-1676.

## REAL ESTATE

**NEW MARKET, MD** — 18th-Century restoration, ideally situated near Washington & Baltimore, the favorite of antique buffs. Unique home with original working FP, random-width floors, steeped in history. Attached antique shop. \$175,000. Jackie Meriwether, Long and Foster Realtors. (301) 831-4015.

**JIM THORPE, PA** — The original Odd Fellows Building in historic district. Prime location, in exc. cond. & beautifully restored with many original features preserved. 1st and 2nd floors contain 4 air-conditioned offices with excellent rental income. \$106,000. Mieke Hupkes, Bill Rehrig Realtors, Palmerton, PA 18071. (215) 826-4822.



**OPELIKA, AL** — Late Victorian in historic district, one-family ownership since construction in 1900. Features antique gaslight & electric combination chandeliers, 11 different & magnificent mantels, stained glass windows & curved bevelled glass picture windows, ornate oak millwork w/ hand-carved newel posts, heart pine floors, 6 BR, 3 baths, reception area, situated on large lot. \$175,000. Patty Martin, Odom Real Estate, (205) 749-1208; 745-2980.

**TREADWELL, NY** — 1864 vintage gristmill with millwright's shop. One of 3 being considered for nomination to the Nat'l Register out of 1000 mill sites surveyed through a grant from the New York State Division of Historic Preservation. Victorian home, insulated barn. \$100,000. C. Castro, Star Route, Treadwell, NY 13846.

**GOFF, KS** — 1888 frame church, in Nemaha Valley, NE Kansas. 1800 sq.ft. plus 750-sq.ft. loft. Good cond., insulated, new plumbing, wiring, nearly-new roof, elec. range, fridge, pot-bellied wood stove. Reasonably priced. Owner. (913) 866-5420.

**GETTYSBURG, PA** — 80-year-old brick vernacular Queen Anne with 4 BR, 1 1/2 baths, magnificent shade trees, located near historic Gettysburg. Modestly priced at \$67,500. Randall B. Inskip Real Estate, Inc./Better Homes and Gardens. (717) 334-7675.

**WASHINGTONVILLE, NY** — Estate, 195+ acres. Main house is c. 1810 Federal mansion with 3rd floor expanded in Second Empire style. Adam-style details, 8 BR, 7 baths, stately reception rooms. Carriage house with 2 apts., caretaker's house, barns, and outbuildings. \$600,000. Lin Garber, Carlsen Agency, Inc., Realtors. (914) 496-9133.



**CHICAGO, IL** — 1892 greystone mansion in historical Wicker Park. Over 4000 sq.ft. Grand oak staircase. FP, stained glass, & hardwoods. Servants' quarters 3rd floor. Rental apt. in basement, lofted garage. 16 rooms, 2 1/2 baths, mostly restored. Enough work left to allow for your touch. Carl Seitz, Burton Realty. (312) 583-8445.

ARLINGTON, VA — 7-room, 2-storey brick home, custom-built in 1936 on 1/4-acre secluded wooded lot. Extensive well-established plantings of many varieties of azaleas, rhododendrons, other shrubs and wild flowers. Attractive neighborhood 4 mi. from downtown Washington. \$245,000. James Matlack, 2700 N. 25th St., Arlington, VA 22207. (703) 528-3573 after 5:30 PM.

ATHENS, GA — Elegantly restored 2 1/2-storey Victorian on acre lot in historic district. Parquet floors, marble mantels, working gas & electric chandeliers, cast plaster cornices & ceiling medallions. Completely renovated kitchen wing, 4 baths, 2 furnaces, central air. 2-BR guest house. \$186,000. James Carter. (404) 546-6986.

SHELBOURNE, VT — Nat'l Register, 25-acre building site adjoining large estate on Lake Champlain. Landscape planned by Olmsted and Pinchot. Minutes to airport. Includes sweeping view of easements on surrounding landscape. \$500,000. Black Walnut Trust, Box 1027, Burlington, VT 05402. (802) 862-1066.

FALL RIVER, MA — Carr-Osborn House, 1843 Greek Revival, N.R., 16 rooms + carriage house, 1 1/2 acres overlooking Mt. Hope Bay. Mansion approx. 50 ft. x 100 ft. Period landscaped gardens. 50 min. from Boston, 20 min. from Providence, 30 min. from Newport. Suitable for B & B. (617) 678-7276.

ALBION, ID — College campus on State and Nat'l Register offered for sale by the city of Albion. 10 mi. from Pomerelle Ski Area. 4 major buildings on 26.1 acres. For more information: Anne Phillips, 823 8th St., Rupert, ID 83350. (208) 436-5611; 436-9378.

UPSTATE NY — 20-room Victorian needs major restoration. Still has original oak, brass, slate, stained glass, marble, etc. No painted woodwork. Shady corner in small village 30 mi. southeast of Rochester. Many rough spots, but \$27,500 buys you lots of room & some awesome potential. Owner wants cash. Box 83, Clifton Springs, NY 14432.



ARCADIA, CA — Early Georgian replica in Williamsburg vernacular. Solid brick and reinforced masonry construction with high ceilings, hardwood mouldings, etc. Top quality materials, workmanship, & detailing. On 1/2 acre in one of Southern California's finest residential areas. With ancillary wing a total of 12 rooms plus 3 baths, and elevator. Property includes detached 9-car masonry garage. Asking \$465,000. Owner, (818) 445-1618.

COTTON VALLEY, LA — Pre-1939 Victorian house. 4 large rooms, kitchen, & bathroom, large entryway & hallway. Floor seals in good shape. Needs some restoration. On one acre with large pecan trees & shrubbery in small town. \$18,000 firm. La Nese Wilson, Box 401, Cotton Valley, LA 71018. (318) 832-4251.

LANCASTER, OH — Victorian built in 1900 and centrally located, this rambling 3500 sq. ft. home with 10 rooms could be zoned commercial. Hand-carved oak, cherry, and walnut appointments, one WBFP, 6 gas FP, new furnaces & roof, modern kitchen & utility room, 2 modern baths, finished attic, barn/garage. \$114,900. (614) 687-0942; 687-1202.

RICHMONDVILLE, MI — Schoolhouse built in 1883 on 1/2 acre of ground. Wooded, view of Lake Huron from house. Remodelled with 2 BR, bath, large kitchen, large country DR, 30-ft. long LR. Dining area with natural knotty birch panelling. Large FP heats whole house. Auxiliary oil stove. Financial needs causes sacrifice at \$10,000. Needs some work. Call collect (217) 428-5955.

SPRING LAKE, MI — Turn-of-the-century country home on 500 ft. of Spring Lake (access to Lake Michigan). 5 BR, 2 1/2 baths, fully updated electrical, plumbing, heating, and insulation. Tastefully restored on 2-acre tree-shaded lot. \$225,000. Brochure available. 18777 Fruitport Rd., Spring Lake, MI 49456. (616) 846-4373.

## OLD-HOUSE WEEKEND AT Old Sturbridge Village March 30-31



Come join an all-star faculty in Massachusetts — including the Editor & Publisher of The Old-House Journal! Last year's spring weekend at OSV was a great success, and this year the topics cover an even broader range:

- Dating a Building
- Conserving & Repairing Old Plaster
- Recreating Painted Finishes
- Restoration Sources
- New England Interiors 1750-1870
- Energy Conservation
- Paint-Stripping Primer
- Preserving Decorative Painting & Stenciling

Presentations given by Patricia Poore, Editor, & Clem Labine, Publisher, Old-House Journal; Andrew Ladygo, Conservation Workshop, S.P.N.E.A.; Abbott Lowell Cummings, Yale University; Daria Olson, Conservation Artist; John Obed Curtis, Jane Nylander, & Marylou Davis, Curators at Old Sturbridge Village.

- Meet other old-house people & lecturers during lunches and the Conference Banquet at the Bullard Tavern on the Village Green
- Admittance to all Village buildings
- Special craft demonstrations

Cost per registrant is \$85, \$75 for OSV members. Add \$15 for Banquet. To register or for more information, contact Secretary for Special Events, Old Sturbridge Village, Sturbridge, MA 01566. (617) 347-3362.

### BOOKS & PUBLICATIONS

MRS. WELCH'S COOKBOOK, a facsimile of the original printed in 1884. Includes over 270 pp. of recipes, health care, food preparation, and entertaining hints. Hardbound, \$14.95, softcover, wire bound, \$9.95, plus \$1.50 postage per copy. Mail orders to Iowa Chapter, Victorian Society in America, 2940 Cottage Grove, Des Moines, IA 50311.

### WANTED

ANTIQUÉ PHONOGRAPHS. Collector/restorer is looking for old wind-up phonographs to buy, complete or not, and also odd parts such as horns, needle-heads, etc. Michael Glicksman, 147 Highland Ave., Middletown, NY 10940. (914) 343-0136.

FRENCH BEDROOM SUITE, Louis XV or similar, or ornate country style. Age not important, reproductions ok, but only superior quality, please. Send photo, asking price, number of pieces, & dimensions. Also desire compatible fireplace mantel, wood or marble. Robert Fisher, 8131 Orchard St., Olmsted Falls, OH 44138.

CENTER FOR ARCHITECTURAL CONSERVATION is seeking information on research labs which perform work on historic building materials. Types of lab analysis information being gathered include terra cotta, brick, mortar, moisture, lighting, roofing, cast iron, wrought iron, stucco, wood, sandstone/granite, plaster, insulation, paint, & concrete. Send information to Rod Gary, Center for Architectural Conservation, Georgia Institute of Technology, Atlanta, GA 30332. (404) 894-3390.

### FREE ADS FOR SUBSCRIBERS

Classified ads are FREE for current subscribers. The ads are subject to editorial selection and space availability. They are limited to one-of-a-kind opportunities and small lot sales. Standard commercial products are NOT eligible.

Free ads are limited to a maximum of 50 words. The only payment is your current OHJ mailing label to verify your subscriber status. Photos of items for sale are also printed free—space permitting. Just submit a clear black & white photograph along with your ad copy.

The deadline for ads is on the 5th, two months before the issue date. For example, ads for the December issue are due by the 5th of October.

Write: Emporium Editor, Old-House Journal, 69A Seventh Avenue, Brooklyn, NY 11217.

### POSITION WANTED

FULL OR PART-TIME in Bay Area, Calif. Carpentry, cabinet shop, or restoration/renovation. 3 summer's rehab experience, have also built over 20 pieces of furniture to order. Dependable, hard-working, 39 years old, relocating in Jan. Have tools, transportation, good references. Doug Temkin, 1325 Willard, San Francisco, CA 94117. (415) 863-8963.

### INNS & HISTORIC HOUSES

PALMER INN — Historic turn-of-the-century home restored to its Victorian grandeur. B & B, private baths, balconies, library, and parlor for our guests. 5 min. to Mystic. Enjoy gracious elegance & quiet charm of the Palmer Inn, 25 Church St., Noank, CT 06340. (203) 572-9000.

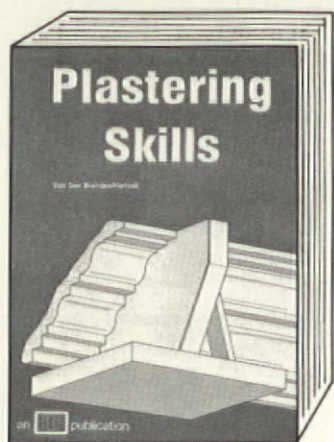


WINE COUNTRY, Calif. — The Hope-Merrill House & The Hope-Bosworth House B & B in heart of Sonoma County's premium wine country. Award-winning Victorian homes, beautifully restored & furnished. Delicious breakfast, complimentary wine in afternoon. 74 mi. north of San Francisco on Hwy. 101. Free brochure. PO Box 42, Geyserville, CA 95441. (707) 857-3356.

CEDAR CREST, a Victorian Inn. One of the largest & most opulent residences surviving from Asheville's 1890s boom period. 12 guest rooms decorated with antiques, some with fireplaces. Complimentary continental breakfast. Brochure. Cedar Crest Inn, 674 Biltmore Ave., Asheville, NC 28803. (704) 252-1389.

B & B IN FREDERICKSBURG, Virginia. Spacious 3-room suite plus bath & use of kitchen in lovely 1838 Greek Revival home. Country atmosphere, fireplace, TV, phone, private entrance, stocked pond, full fresh-egg breakfast. Free brochure. La Vista Plantation, Rt. 3, Box 1255, Fredericksburg VA 22401. (703) 898-8444.

## THE BEST Plastering Book Is Back!



*A Special Limited Edition  
published by  
American Technical Publishers  
exclusively for  
The Old-House Journal!*

Here's the book for anyone interested in the "lost art" of wet plastering. Whether you just want to re-create 10 feet of missing plaster cornice, or need to replaster an entire wall, this is the how-to volume you've been looking for. This textbook, which has been out of print for 10 years, is a reprint of a trade school text originally published in 1953. It was written to teach apprentice plasterers all the basic skills of the wet plastering trade, from setting lath all the way to ornamental plaster. The book is acknowledged to be the best in the field, and those fortunate enough to have gotten the volume 15 years ago have jealously guarded their copies. And well they should!

This book will tell you how to make flat plaster walls and ceilings. It has a chapter on Special Finishes, with an excellent section on how to create various stucco textures. But it's the chapter on Ornamental Plaster which will excite people who are involved with old houses. It shows in detail how to make run-in-place plaster cornices. All the steps are covered: making a cornice-running mould, dotting & screeding, running the cornices, mitering. This chapter also teaches how to make coves, hang coffers, and run circular & elliptical centerpiecees.

To get your copy of this special limited edition of *Plastering Skills*, just check the box on the Order Form, or send \$24.45 (includes fast UPS shipping) to The Old-House Bookshop, 69A Seventh Avenue, Brooklyn, NY 11217.

## THE TWO BEST HEAT TOOLS FOR STRIPPING PAINT

That's a strong claim to make, but we stand by it. The OHJ editors have tested the heat tools available, and these two are still the best: the strongest, most efficient, longest-lasting heat tools you can buy. The Heat Gun and Heat Plate are designed to provide years of service on heavy-duty jobs. The other paint-stripping tools now available don't compare: They're not industrial quality, are made largely of plastic, have a lower heat output, and break down all too quickly.

Together, the Heat Gun and Heat Plate described below can solve your most difficult paint-stripping projects. Refinishing experts agree that, whenever practicable, hand stripping wood pieces is preferable to dipping them in a strong chemical bath. The Heat Gun and Heat Plate are the best overall tools for taking paint off wood surfaces. They make paint removal safe, quick, and economical.

Heat is a fast method because the paint bubbles & lifts as you go along. There is no waiting for chemicals to soak in, no multiple recoatings, and far less cleanup. Unlike stripping with chemicals, all layers of paint are removed in a single pass.

As for economy: Because these tools are long-lasting, industrial products, the initial expense is made up in savings on the \$18 to \$22 per gallon stripper that you're no longer buying in quantity. Even after heavy use, a worn-out heating element on a gun can be replaced by the owner for about \$7.

### The Heat Gun

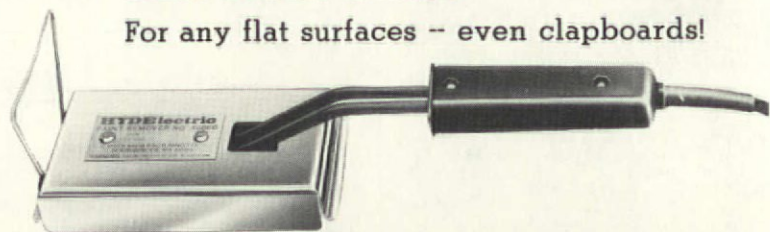
**Ideal for moulded & turned woodwork!**

Over 10,000 OHJ subscribers have purchased the Heavy-Duty Heat Gun, and discovered the best tool for stripping paint from interior woodwork. (A small amount of chemical cleaner is suggested for tight crevices and cleanup, but the Heat Gun does most of the work.) It will reduce the hazard of inhaling methylene chloride vapors present in paint removers. Another major safety feature is the Heat Gun's operating temperature, which is lower than that of a blowtorch or propane torch, thus minimizing the danger of vaporizing lead. The Master HG-501 Heat Gun operates at 500 to 750°F, draws 15 amps at 120 volts, and has a rugged, die-cast aluminum body — no plastics!



### The Heat Plate

**For any flat surfaces — even clapboards!**



After testing all of the available heat tools, the OHJ editors recommend the HYDElectric Heat Plate as the best tool for stripping clapboards, shingles, doors, large panels, and any flat surface. The Heat Plate draws 7 amps at 120 volts. Its electric resistance heating coil heats the surface to be stripped to a temperature of 550 to 800°F. The nickel-plated steel shield reflects the maximum amount of heat from the coil to the surface. And among the Heat Plate's safety features is a wire frame that supports the unit, so you can set it down without having to shut it off.

Both the Heavy-Duty Heat Gun and the HYDElectric Heat Plate come with complete operating & safety instructions, and are backed by The Old-House Journal Guarantee: If your unit should malfunction for any reason within two months of purchase, return it to us and we'll replace it.

The Heat Gun is available for only \$77.95; the Heat Plate for only \$39.95. (These prices include fast UPS shipping.) You can order either or both by filling out the Order Form in this issue, or by sending a check or money order to The Old-House Journal, 69A Seventh Avenue, Brooklyn, NY 11217.



# The Old-House Bookshop



## Old House Woodwork Restoration

23 This is the first book we've found that deals exclusively with restoring architectural woodwork. It's filled with practical do-it-yourself advice and detailed step-by-step instructions, with a generous selection of photos explaining each phase of the various tasks. It has the best information of any book we know on stripping paint from wood and then selecting a finish. If you're going to start working on your floors, trim, siding, staircases, doors, etc., this book is just what you need.

*Softcover, 200 pages, 8 1/2 x 11 \$15.45, includes fast UPS shipping and handling*

47 **MODERN CARPENTRY** — An outstanding textbook that clearly explains building materials, tools, & construction methods, and the planning and sequencing of major home repairs. 592 pages. Hardcover. \$20.45.

43 **WALLPAPERS and FABRICS** — These two books hold carefully screened, valuable information for those who are ready to decorate their homes. They list a range of sources for materials that are appropriate to the period of your old house. Wallpaper styles from 1700 to 1910 are represented; fabric styles from 1790 to 1900. Total 287 pages. Softbound. \$22.40.

13 **TASTEFUL INTERLUDE** — Rare photos of original interiors from the Civil War to World War One. Of great value to anyone decorating in a period style. Written by William Seale. 284 pages. Softbound. \$15.45.

50 **A FIELD GUIDE TO AMERICAN HOUSES** — Comprehensive survey of the regional variations in over 300 years of American vernacular architecture: Folk, Colonial, Romantic, Victorian, Post-Victorian, & Contemporary. Over 1200 line drawings and rare old-house photos. 526 pages. Softbound. \$22.45.

40 **ANTIQUES & ART — CARE & RESTORATION** — This book focuses on the toughest challenges facing a do-it-yourself restorationist. It contains invaluable secrets for restoring ceramics, mirrors, marble statuary, oil paintings, photos, books, clocks, coins, and reed organs, as well as furniture, stenciling, and gilding. 255 pages. Hardcover. \$20.45.

20 **CENTURY OF COLOR** — Authentic, historically accurate paint colors for your house's exterior. 100 color plates depict house styles from 'plain' Victorian & vernacular Classic houses to showcase homes, covering the years 1820-1920. 108 pages. Softbound. \$15.50.

42 **BUILDING KITCHEN CABINETS** — Basic, straightforward instructions and over 150 illustrations make this complicated job a snap for any do-it-yourselfer with carpentry skills. Every step of the job is covered: buying hardware; estimating costs; constructing & installing cabinets. 144 pages. Softbound. \$14.45.

49 **THE MOTION-MINDED KITCHEN** — This book surveys how to design, plan, and construct a kitchen that's both efficient and appropriate to your old house (without costing a fortune). 146 pages. Softbound. \$12.45.

38 **THREE BASIC HOW-TO BOOKS** — This set of books gives you a wealth of information on wiring, plumbing, and roofing. Total 464 pages. Softbound. \$22.45.

*Reprinted Pattern Books*

16 **VICTORIAN ARCHITECTURE** — A reprint edition of two classic architectural pattern books: A.J. Bicknell's of 1873 & W.T. Comstock's of 1881. Hundreds of illustrations of houses & ornamental details in the Mansard, Queen Anne, & Eastlake styles. 192 pages. Jumbo 10 x 13 size. Softbound. \$16.45.

33 **THE COTTAGE SOUVENIR** — The splendor of the Queen Anne style is captured in this reprint edition of George F. Barber's 1891 portfolio of mail-order houses. Over 350 elevations, floor plans, and architectural details, including large, striking photos. 200 pages. Softbound. \$17.50.

56 **VICTORIAN INTERIOR DETAILS** — Facsimile edition of a lavishly illustrated 1882 book, with hundreds of patterns for interior woodwork: mantels, mouldings, door & window trim, panelled ceilings, bookcases, wainscoting, and more. 96 pages. Jumbo 10 x 13 size. Softbound. \$12.45.

*New Books*

53 **CURTAINS & WINDOW TREATMENTS** — This book covers all the practical and appropriate curtain choices for your old windows. It examines specific types of curtains and explains techniques for making them. You'll learn all about window styles; tracks and fittings; color, design, fabrics; tools; stitches & seams; linings; 120 pages. Hardcover. \$18.95.

55 **PLASTERING SKILLS** — This outstanding, long-unavailable book was designed as a textbook for vocational schools. Its no-nonsense writing & wealth of illustrations explain all the basics of plastering, and take you up to running decorative cornices and making special finishes. 543 pages. Softbound. \$24.45.

## The NEW 1985 OHJ Buyer's Guide Catalog

12 This book is the 'Yellow Pages' for pre-1939 houses: a comprehensive buyer's guide listing 1,348 companies. That's almost 10,000 hard-to-find, old-house products & services at your fingertips. From hand-printed wallpapers to marble mantels, wooden porch ornament to brass lighting fixtures — all meticulously indexed and cross-referenced. All listings have also been carefully screened by the OHJ editors.

*Softbound, 208 pages, 8 1/2 x 11 \$10.95 to current OHJ subscribers \$13.95 to non-subscribers*



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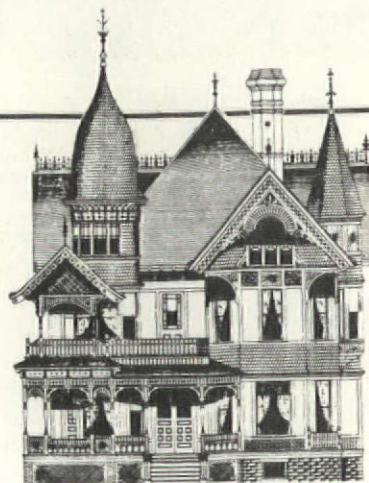
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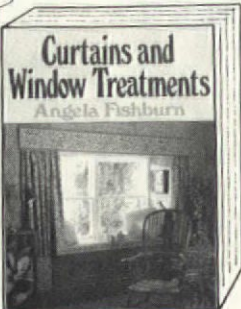
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Fig. 101 Lockstitch used to hold the pleating in position

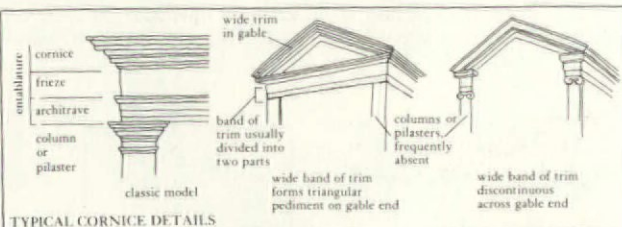
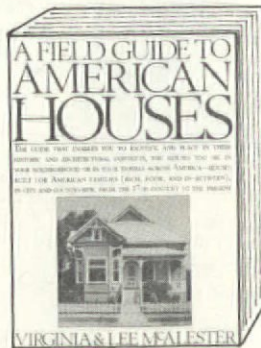


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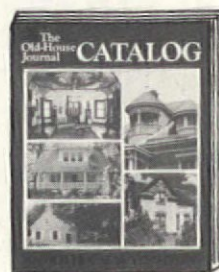
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opinion...  
**Remuddling** of the month



**M**OST OF THE BUILDINGS featured on this page are residential, but a subscriber from Croton-on-Hudson, New York, submitted a non-residential remuddling we just couldn't refuse.

DEAR REMUDDLING EDITOR:

ENCLOSED IS MY CLAIM on your Remuddling bounty: An addition to one of God's old houses.

I CAME UPON THIS remarkable job at Clayton, in the extreme southwest corner of Massachusetts. The original church is, as you see, a very lovely little Shingle-style building -- a beautifully simple composition in a small rural center. Between the church and the road is an old burial ground with an iron picket fence, weathered stones, and fading flags.

THE ADDITION, I suppose, is also clean and simple -- notice how the three new front windows echo the original windows. And no doubt the new walls are going to be shingled to match, too. So there's an attempt at keeping in keeping. But look at the crude side windows, the bald new doors, the cement stairs, and the awkward vents and chimney. Where did these good people ever get the idea that one could, in any satisfactory way, hope to stick an immense addition onto the side of a small unified design, complete in itself? If I were God, I'd move.

YOURS TRULY,

David Roessler, Architect  
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NEXT MONTH...Rehabilitating A Stair

## THE COMFORTABLE HOUSE Post-Victorian Domestic Architecture

By Clem Labine & Patricia Poore

**M**OST OF US live in houses that, though old, don't even get mentioned in architectural stylebooks. This article is an appreciative look at the most familiar old houses in America--houses found on the East Coast and the West, in semi-rural areas and small cities, in revival neighborhoods as well as old ethnic ones. These houses have a history we need to understand, and so come to respect, if we want to preserve the familiarity of most of the country.

"POST-VICTORIAN" is an umbrella term for the styles we'll describe on the following pages. Rather than conjuring up a single image, Post-Victorian refers to the era, and a changing attitude that affected the look of built America in the decades around the turn of the century.

THE POST-VICTORIAN building boom introduced the house as we know it today. These homes were built with amenities we take for granted, and with an emphasis on serving utilitarian needs. It was an era of pattern-book designs, mail-order houses, and speculative building, but methods and materials were generally of better quality than in post-World-War-II houses: Walls were plaster, doors were solid wood. Many of the selling points recognized by today's home-buyer appeared in the builders' ads 75 years ago.

THE PLAN of the early 20th-century house was "open" and "comfortable;" large windows, pergolas, and porches provided "plenty of sun;" the indoor "sanitary bathroom," closets, and a kitchen with built-in cupboards became standard features. For the first time, too, central heating was designed into the new house; basements were equipped with laundry areas and clean-storage coal bins.

ON THE EXTERIOR, ornamentation far plainer than that of the Victorians made simple statements of "honesty" or nostalgia. The squarish dignity of many of these houses can be quite charming, especially when history is read into their appearance:

The apparent plainness might express the faint stirrings of the Modern movement; it might be the stripped-down result of a generation fed up with the conspicuous, overworked, expensive decoration of the Victorians; or it might just reflect economy.



DECORATION was by no means gone, though. We have only to think of architect-publisher George Barber's lavish late Queen Anne houses (1888-1915, see Dec. 1980 OHJ), or the half-timbered and rusticated Tudor Revival houses, to remember that ornament, if diverse, was still around.

*continued next page*

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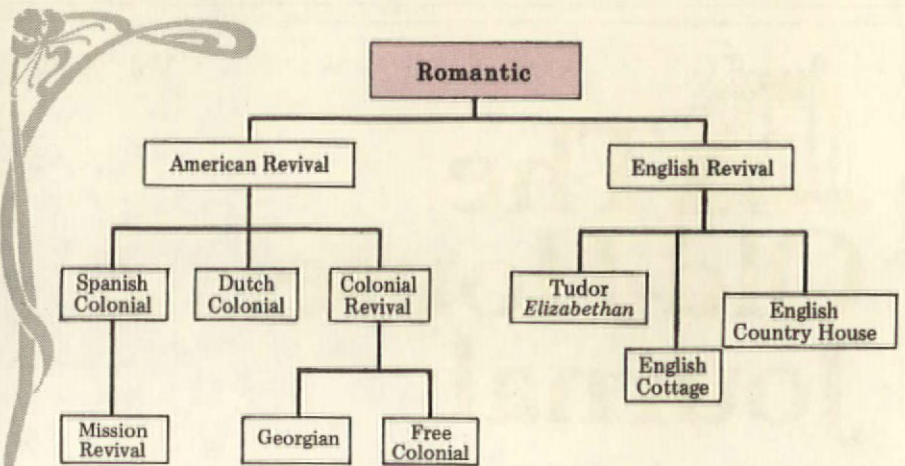
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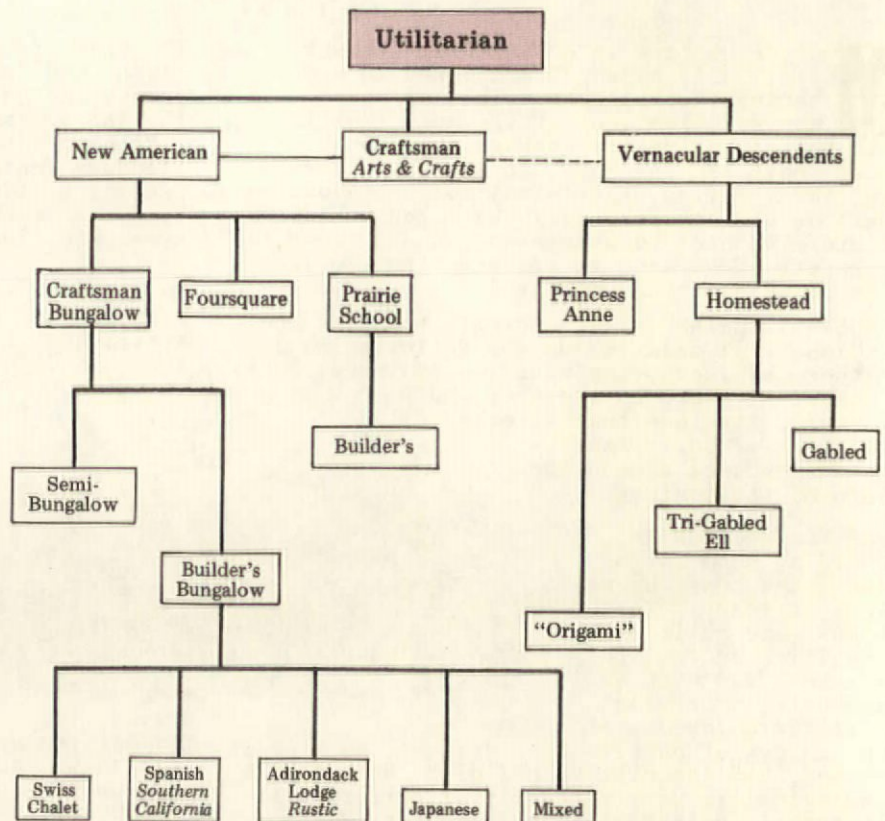


THE CHARTS on this page are an attempt to bring some order to the multitude of styles in domestic building around the turn of the century. Style names at the top of each chart represent major architectural categories or movements; as you read down the charts, you will find sub-categories of the major house types.

IN OTHER WORDS, these are not lineal charts. Sub-categories are not necessarily later ver-

sions of the style above. For example, Mission Revival actually predated Spanish Colonial Revival houses.

KEEP IN MIND that within many of the broad style categories, there might be three expressions of the style: (1) The cottage, a one or one-and-a-half storey house; (2) The villa, a house that might belong to a prosperous businessman; (3) The mansion, a big, rich house.



**I**F WE HAD TO CREDIT just a few of the forces responsible for the look of early 20th-century domestic architecture, the list would look like this:

- (1) Reaction against Victorian excess.
- (2) Return to nature and basics--a renewed search for simple truths, honesty in workmanship, and the rustic.
- (3) The growth of the middle class, which meant a proliferation of single-family houses and the growth of suburbia.
- (4) The 1876 Centennial Exhibition in Philadelphia, which spurred patriotism and a nostalgic longing for an American identity that would extend back to the Colonies.
- (5) The 1893 Chicago Columbian Exposition, which created the passionate desire for anything that was Classical and white.

NOSTALGIA came in two flavors just before the turn of the century: English and American. The English Revival styles carried a connotation of taste and wealth, while the American, or Colonial Revival, styles were associated with patriotism and restraint. Nevertheless, plenty of English-inspired cottages were built by speculators, and the millionaire class often chose Colonial Revival for their mansions. These romantic revival styles had emotional appeal for almost everybody.

ADHERENTS of the Craftsman ideal, however, were not "everybody." They went in quite the opposite direction from the romantic revivalists. If the fashionable words of the Post-Victorian era were "comfort" and "utility," then Craftsman-inspired architecture epitomized the era. Here was an intellectual philosophy based on comfort and utility.

THE CRAFTSMAN MOVEMENT was led by Gustav Stickley, the Roycrofters, and other designer/manufacturers on the shoulders of William Morris and England's Arts and Crafts movement. The Craftsman magazine, published by Stickley from 1901-1916, was perhaps the intellectual leader of the Post-Victorian era, becoming an arbiter of taste on every aspect of domestic life. Through the magazine, proponents of "the new art" influenced architecture, interior design, furniture, even the moral climate of America. The Colonial Revival was its antithesis in its reproduction of old forms.

**T**HE EARLY BUNGALOW is probably the type most often associated with Craftsman ideology. This extraordinarily popular house was known for its lack of pretension, use of natural materials, and integration of house with its surroundings. But by the 1920s, it had become the preferred builder's model, made to carry all manner of incongruous "features" depending on what was selling at the time. For us today, these vernacular structures are little capsules of the criss-crossed influences of the time.

"THE NEW ARCHITECTURE" had by 1920 taken a back seat to the romantic styles and the Beaux Arts resurgence, particularly due to the Columbian Exposition. Besides, nothing changes overnight: Eclecticism and High Victorian hadn't been left far behind. For example, after the Centennial Exhibition fostered patriotic consciousness

The idea in planning a house is to make it comfortable.

"Comfortable" means that the arrangement of rooms should be convenient, that the heating system should be so that the house can be made warm when one wishes, that the plumbing system should never fail to give hot water, that the windows should not leak, and that the cellar should be dry.

These things when well done give bodily comfort.

There is, however, another comfort which has been called a "comfort of the eye."

Though your plumbing system is perfect, and your cellar dry, and your house warm, we still ask: "Is it attractive? Does it please the eye?"

The houses in which we live must not only answer the conditions of efficiency, but of good taste also.

From: *The Honest House*, by  
Ruby Ross Goodnow, New York, 1914

and the Colonial Revival, it wasn't uncommon to see a High Victorian drawing room with a spinning wheel in the place of honor. The spinning wheel was the reminder of the simple life, honest work, and the beginnings of America. The most important thing--then as now--was the symbolism.

**M**ANY MORE THINGS INFLUENCED domestic building than just revival styles and the honest new architecture of utilitarian beauty, of course. By the time the Colonial Revival, Craftsman-inspired houses, and all the imported styles had filtered down to those vernacular houses a generation later, they had been transmogrified into something very different indeed.

A NEW HOUSE often spoke the answer to the builder's own question: "What's selling?" It could be the sweet appeal of an English Cottage, or the more ridiculous Craftsman Colonial, a sure-fire seller that neither builder nor buyer realized was a contradiction in terms. Now that time has blurred some of the philosophical distinctions, we can ask: Did it matter if its proud new owner didn't understand Stickley's principles of usefulness and beauty, or the antecedents of real colonial homes? Both Craftsman-inspired honesty and the nostalgia for early America appealed to the buyer, and the house he bought is our record of what people wanted in 1915. Vernacular styles had become something in their own right.

### The Styles

**W**E'LL FIRST BREAK Post-Victorian houses into two major philosophical movements, both of which were born in the Victorian era: Romanticism and Utilitarianism. Romantics, or Revivalists, felt that houses should evoke an emotional response, based upon association with historical events. During the 1800s, the Greek Revival, Gothic Revival, Italianate, and Queen Anne styles were all associative romantic styles. In the early 20th-century, the Colonial Revival, Spanish and Mission Revivals, and the English Cottage and Country House styles continued the tradition, using symbols and archaeological references which summoned certain emotions in the viewer.

WHAT WE'LL CALL Utilitarian was reformist, rebelling against the emotionalism of the Romantics. Led by William Morris and the Arts and Crafts movement in England, and publicized in this country chiefly by Gustav Stickley through his Mission furniture and The Craftsman magazine, the Utilitarians sought to eliminate what they saw as useless decoration, and to focus instead on that which combined usefulness and beauty. This intellectual/philosophical movement had a great influence on the architects of the Prairie School and Southern California, and also affected almost all of America's domestic architecture to this day.

THERE ARE MANY WAYS to reshuffle houses into "style groups." Architecture is not like biology, however; we can't assign every house a genus and species name. Categorizing buildings is arbitrary. All we can do is group houses according to certain physical similarities, taking into account the events, people, and ideas that made them look the way they do. To that end, following are the major post-Victorian house types we've isolated.

## Romantic Styles

### Colonial Revival

WITH THE CENTENNIAL EXHIBITION of 1876, America began a romance with its architectural roots that continues to this day. People were seeking a purely "American" architecture to nourish their patriotic pride. It was natural that they should look back to the houses constructed by the Colonists, houses which had been standing on American soil for 100 or 150 years. These models for the Colonial Revival, of course, had been built on English prototypes. But the Post-Victorian Colonials that were built were interpretive, and themselves became a very American house form.

THERE ARE TWO basic types of Colonial Revival buildings. First are the historically accurate reproductions. When well done, they are difficult to distinguish from the originals. Needless to say, this variety of Colonial Revival house is a rarity.

THE SECOND, more common type of Colonial Revival house was created when freely interpreted colonial motifs were applied to housetypes that were clearly Victorian or post-Victorian. For example, a very popular Colonial Revival house is really a large, asymmetrical Queen Anne house with grafted-on Georgian details, such as Palladian windows, quoins, swags and garlands, and classical columns. Such "free Colonial" houses are found all over the country.

THE DUTCH COLONIAL HOUSE is an important part of the Colonial Revival because it pre-dated other revival styles and became extremely popular for a long time. Its distinctive gambrel roof makes the Dutch Colonial instantly recognizable. A very flexible design feature, the gambrel roof was grafted onto everything from tiny cottages to voluminous two-storey homes. The Dutch Colonial style, unlike the more formal styles, reminded people of early farmhouses, giving the style a cozy, informal intimacy that's popular even today.



The true Colonial Revival Style was marked by a faithful adherence to the symmetry, proportion and restraint of the 17th century prototypes. This early 20th century house has the symmetry and window placement of a simple early Georgian Colonial house. The doorway, with its fanlight and sidelights, is more characteristic of the later Federal houses.



The Dutch Colonial's most recognizable feature is the gambrel roof, which has been used here both for the main roof and for the front dormer. Wood shingles were a favored material for roof and siding. The fieldstone foundation adds a note of cozy informality. Colonial details, such as a Palladian window and classical porch columns, were often added to lend grace notes of elegance.

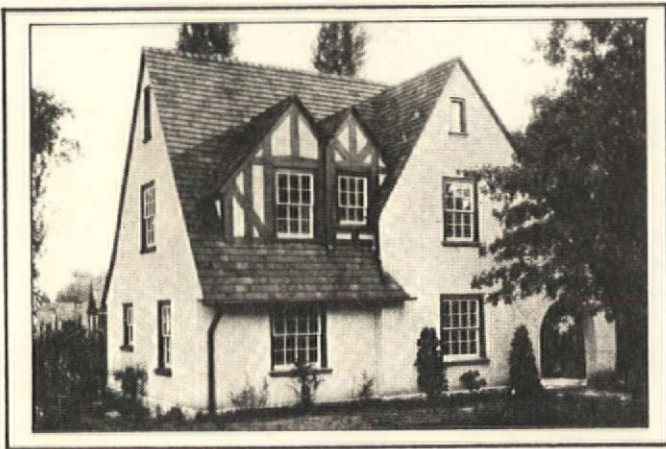
ON THE EAST COAST, the return to architectural roots meant a return to the English-based prototypes of the 17th and 18th centuries. On the West Coast, and in the Southwest, the colonial precedents were Spanish. The Mission Revival--based on re-use of the architectural forms of the Spanish missions--had taken hold in California in the 1890's. However, the much broader-based Spanish Colonial Revival was given a major boost by the Panama-Pacific Exhibition held in San Diego in 1915.

THE SPANISH COLONIAL HOUSE is most readily recognized by its low irregular massing, stucco walls, and red clay tile roof. High walls topped by a red clay tile coping, enclosing a garden or patio, are another popular feature.

THE SPANISH COLONIAL REVIVAL, of course, was most often built where its prototypes were found: California, Florida, and the Southwest. However, home-buyers with a taste for the exotic had Spanish houses built all over the country--even in the Northeast, where low-pitched red tile roofs are hardly ideal for the harsh climate.



The half-timbering and massive medieval chimneys are the hallmark of the Tudor Revival houses. They often have slate or tile roofs; entrance doors are frequently of heavy plank construction, with only a small window—perhaps protected by bars. The pediment over the front door recalls the attempts by designers in Elizabethan England to adapt Renaissance forms to their medieval buildings.



The English Cottage Style is meant to be quaint and charming. Often of stone, stucco or brick construction, the cottage is dominated by its roofline, which frequently has soft, flowing curves that recall the thatch roofs of the originals in the English countryside. As with this house, there are usually large expanses of wall space, pierced by relatively few windows. There's very little overhang to the roofs.



The English Country House Style is a sophisticated and stylized rendition of traditional English vernacular shapes, especially picturesque rooflines pierced by prominent gables. There is usually very little roof overhang. The broad bands of windows in this home recall the fenestration in Tudor houses. The pergola porch to the left is a design idea borrowed from the Craftsman movement.

## The English Styles

**E**VEN AS SOME ARCHITECTS in the U.S. were striving for an "all-American" architecture, others in the romantic movement were looking back to the Old World for a sense of tradition and cultural values. Although there are some French, Italian, and Spanish prototypes that served as models for the revived interest in European architecture, most of the models came from England (as they did in the Victorian era). The new interest in English architecture began around 1910, after the crusade for an all-American architecture had peaked.

THERE WERE THREE basic English housing styles that found favor in the U.S. during the Post-Victorian era: (1) Tudor; (2) Cottage; (3) Country House. All can be termed "picturesque," but they differ significantly in the details.

### Tudor Revival

**T**HE TUDOR REVIVAL HOUSE is readily identified by its half-timbering. Other features include numerous prominent gables, large medieval chimneys, and large, expansive windows with small panes set in lead casements. The nomenclature can get a bit confusing, however, since this house style can also be called "Elizabethan" or "Jacobean." One architectural historian threw up his hands and settled for the tongue-in-cheek term "Jacobethan."

A MAJOR ATTRACTION of the Tudor house was its picturesque composition, coupled with its association with the "Merrie Olde England" legend that had been fostered by numerous writers throughout the 19th century. The Tudor house began attracting attention from American architects as early as the 1880s, four decades before the English Cottage and Country House styles reached equivalent popularity in this country.

THE MOST PROMINENT TUDOR DETAIL was the half-timbering, which suggested rugged, hand-hewn strength. Since in the Tudor originals, the half-timbering was part of the actual framing system, this gave the Tudor house the added modern virtue of "honest expression of structure." (Of course, in the Tudor Revival buildings the half-timbers were merely decoration applied over a conventional frame. But at least the Revivals gave the illusion of honesty.)

### Cottage Style

**L**IKE THE TUDOR REVIVAL HOUSE, the English Cottage style is picturesque, but its prototypes are the all-masonry rural farmhouses of England rather than the larger timber-framed Tudor houses. The English Cottage house is described with words like "charming" and "quaint," and by emotional association embodies all the rustic honesty and simplicity of the English yeoman. It is a truly "homely" dwelling, suggesting hearth, family and all the domestic virtues.

THE ENGLISH COTTAGE looks as if it grew organically, suggesting that the owner built the house himself using stones that he tore from the land with his own two hands. Surrounding gardens and shrubs tie the cottage even more closely to the land.

## Country House

QUITE DIFFERENT from the Cottage style is the more polished and sophisticated English Country House style. In England, during the period from the turn of the century right up to World War I, there was a great flowering in the architecture of country houses. Country seats, once the province of the aristocracy, became affordable to the newly prosperous business class. Edwardian architects such as Edwin Lutyens and Ernest Newton designed self-assured if unintellectual houses for their well-to-do clients.

FOR SOME IN AMERICA, the English country house was the ultimate in good taste, traditional values, solidity, and old world charm. Little wonder, then, that many well-to-do Americans in the 'teens and 'twenties had their architects design for them a North American version of the English country house.

## Utilitarian Styles

### Craftsman

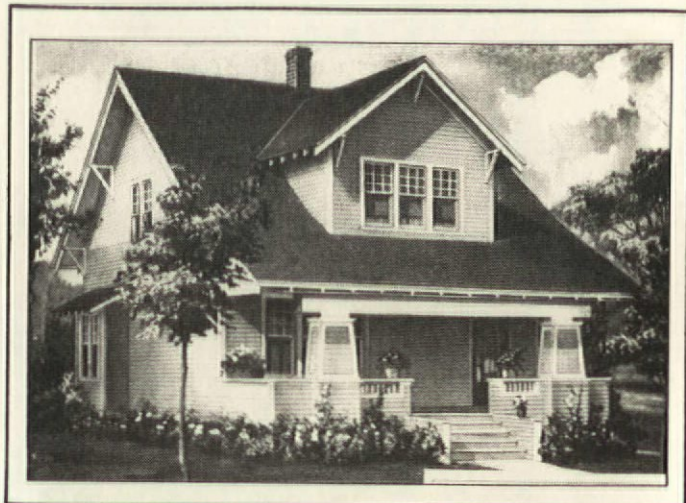
UTILITARIAN HOUSE STYLES can be split into two broad groups. First are those that sprang from a well-articulated philosophy, such as the Craftsman movement. Then there are those houses that evolved from vernacular American building forms.

STICKLEY PUBLISHED plans for many types of houses in his magazine. Because of this, strictly speaking there is no single "Craftsman" style--although there is a type of house that has come to bear this title. "Craftsman" was more a philosophy than an architectural style, and many houses, from simple cottages to large two-storey dwellings, can rightly lay claim to being "Craftsman."

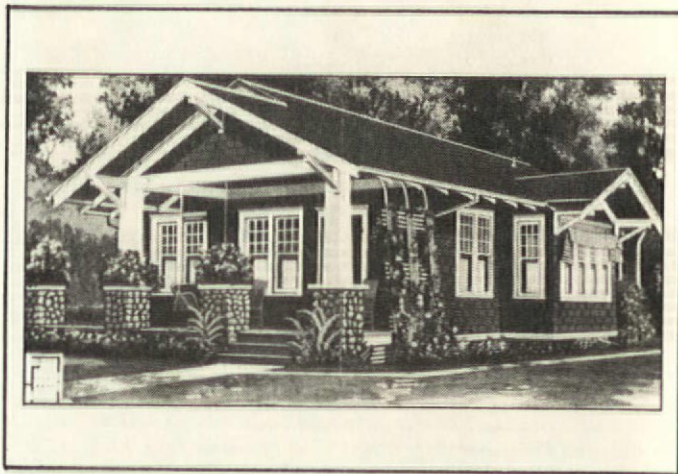
THERE IS ALSO a philosophical and stylistic connection between the "Rectilinear Style" of the European Art Nouveau and the Craftsman/Mission design that was being done in America. The work of architects like Mackintosh in Great Britain and Frank Lloyd Wright of the Prairie School bears a striking similarity to the work of Craftsman designers, the Roycrofters, and to the appearance of the bungalows built in Southern California around this time.

### Bungalow

CRAFTSMAN ARCHITECTURE has become identified with the bungalow. But the ubiquitous bungalow spread far beyond the confines of the Craftsman philosophy. The term "bungalow" can be applied to any picturesque one-storey house with a low-pitched roof and surrounding porches. Although Craftsman-inspired bungalows were common, it adapted well to the Spanish Colonial style for California, the Southwest, and Florida. The bungalow also appeared in such styles as Prairie, Swiss Chalet, Japanese, Adirondack Lodge--and even Greek Revival!



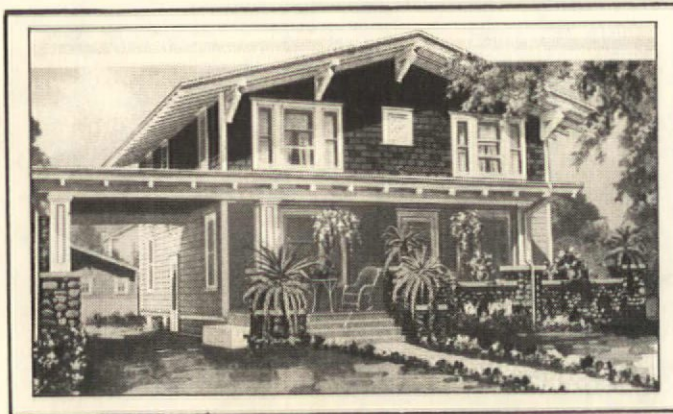
The modest second storey marks this as a semi-bungalow. The broad sloping roof recalls a Swiss chalet, while the knee braces on the eaves and the exposed rafter ends show some Craftsman influence. The large elephantine columns on the front porch are characteristic of many bungalows.



This particular bungalow has been rendered in the Craftsman style, but you could find bungalows interpreted in just about any style you might fancy. The basic bungalow was a picturesque, one-storey house with a low overhanging roof and broad porches. Here, the fieldstone column bases, exposed rafter ends, knee braces under the eaves, and natural shingle siding all proclaim the Craftsman influence.

CONSTRUCTION MATERIALS for the bungalow tended to be of the "natural" and "honest" variety. Fieldstones, shingles, stucco and the like were popular. Part of the bungalow ideal was an integration of interior space with the surrounding landscape. So in addition to broad porches, you often see attached arbors and pergolas; climbing vines reach up to embrace the bungalow. Fieldstone foundations and porch columns also enhance the illusion that the house sprang from the soil.

ALTHOUGH THE BUNGALOW was unpretentious, its rambling, spread-out floor plan made it a more expensive house to build than a two-storey house of comparable floor space. Some wags termed the bungalow "the least house for the most money." Nevertheless, the open floor plan and convenience of having everything on a



This simple two-storey house exhibits many of the features of the Craftsman Style: Exposed structure in the exposed rafter ends, prominent beams, knee braces at the eaves and large porch columns. Natural materials, such as fieldstone and wood shingles, relate the house to the soil; the expansive porch integrates exterior and interior spaces.



Combining simplicity, economy and versatility, the American Foursquare was one of the most popular house styles in the early 20th century. It's characterized by a two-storey boxlike shape, topped by a low hipped roof. There is usually a dormer in the front portion of the roof, and a porch extending across the full front of the house.



Emphasis on the horizontal line distinguishes houses influenced by the Prairie Style. Broad cantilevered roofs with flat eaves, solid walls with horizontal openings, and windows set in wide horizontal bands all heighten the effect. Stucco or Roman brick were favorite materials. In this example, the porch columns are much thicker than pure engineering would require, adding a note of solidity to the structure.

single floor made the bungalow extremely popular. The bungalow has disappeared from the builder's repertoire. A decadent, however, has replaced it--the modern ranch house.

### American Foursquare

**I**F THE BUNGALOW turned out to be the least house for the most money, then the popular American Foursquare was surely the most house for the least money. Not only did its box-like shape and hipped roof provide ample room for America's growing family, but it also epitomized the Craftsman ideal.

ALTHOUGH we don't today associate these unpretentious houses with the "Craftsman Style," Foursquares did in fact appear regularly in Stickley's magazine. And going by Stickley's dictum that "The ruling principle of the Craftsman house is simplicity," the Foursquare measures up admirably. The American Foursquare is simple, honest, substantial, practical and economical.

BUILDERS had a good time with it, too. Put an ersatz Palladian window in the dormer, and you could advertise "Colonial styling." Make the all-important porch of fieldstone, shingle the sides and call it "artistic." Extend the roof eaves, stretch out the porch, stucco the exterior and you've got a Prairie Style house.

BECAUSE THE FOURSQUARE was so adaptable and so practical, many thousands were built from the turn of the century through the 1920s. You can find this house in practically every neighborhood.

### Prairie

**O**FTEN ASSOCIATED with Louis Sullivan and Frank Lloyd Wright, the Prairie style flowed from the same reformist wellspring as Bungalows and Craftsman houses. It is identified by its emphasis on the horizontal line. In its classic form, the building is low and spread out, with broad low roofs cantilevered over walls and porches. Solid walls around porches and walks, as well as the massing of the house, create deep recesses and shadows.

STUCCO was the most common material used for siding on prairie houses, followed by Roman brick, coursed stone, and wood. With the exception of stucco, all siding materials were arranged in ways to emphasize the horizontal. In brickwork, for example, often the horizontal joints are deeply raked (creating dark horizontal shadow lines), while the vertical joints would be flush.

MATERIALS generally had an integral finish. That is, if the stucco were to be colored, the coloring agent was added to the stucco mix, rather than applying paint after the stucco had dried. Wood siding was often stained, rather than painted.

## Homestead House

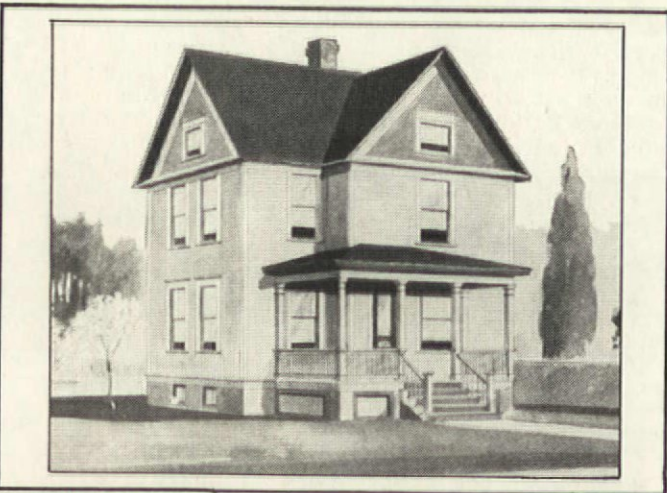
**I**N ADDITION to the styles that had firm intellectual foundations, another type of house was popular in the early 20th century--the Homestead House. Its various forms derived not from philosophical theories printed in monthly magazines. Rather, it was an evolved style, having developed over a century of trial-and-error building by owners and contractors alike.

HOMESTEAD HOUSES had been built throughout the 19th century as farmhouses--the most utilitarian of all house types. The rectangular shape of the house body made it easy to frame and sheathe. The straightforward gable roof, lacking hips and valleys, was likewise easy for the country carpenter to lay out. And two storeys under one roof provided an economical ratio of floor-space to building shell.

THE HOMESTEAD HOUSE variants here, therefore, came from the suburbanization of the ubiquitous country farmhouse. Its distinctive shape, along with a lack of pretense to any "style" at all, makes the Homestead house a recognizable style all its own.



The most basic of all the house styles of the early 20th century is the Homestead House—a style that had evolved on numerous farms in the U.S. in previous decades. The body of the house is square or rectangular, topped by a simple gabled roof. The unselfconscious absence of any "style details" makes it a style unto itself.




A familiar variation of the Homestead House is the Tri-Gabled Ell. Here, the house takes on a simple ell shape, and the roof now has three gables instead of two. In some versions, the porch is tucked into the space formed by the two legs of the ell.



The Princess Anne house is a direct descendent of the Queen Anne style. It retains the asymmetrical massing, complex roofline and large chimneys of earlier Queen Anne houses. In keeping with the early 20th century desire for simplicity and restraint, however, the Princess Anne house exhibits little of the exterior ornamentation of its more exhibitionistic parent.

## Princess Anne

**B**Y CALLING this style Princess Anne, we're emphasizing that it is a direct lineal descendent of the Victorian Queen Anne style. Queen Anne houses were immensely popular during the 1880s and '90s, but by the turn of the century, the style was falling out of favor because of its elaborate exterior.

TASTEMAKERS at the turn of the century were urging simplicity and restraint as the hallmarks of good taste. When they railed against the vulgarity and pretentiousness of earlier decades, the Queen Anne house was one they had in mind. Nevertheless, the asymmetrical plan of the Queen Anne allowed a lot of flexibility, and its ample interior space was still popular with home-buyers. So it was updated: Builders stripped off much of the ornamentation and simplified the exterior. This way, the house was also cheaper to build. 

This survey article is only the beginning! In the coming year, we'll be running a whole series of articles about Post-Victorians, with more pictures that show variations of each style. Next month: *The American Foursquare*. A book about early 20th-century houses will be published by *The Old-House Journal* this year.

*Images Of American Living* by Alan Gowans looks at American architecture and furniture as cultural expression. Neither a style-book nor a conventional art history book, *Images Of American Living* is a book to be thoughtfully read. It covers our history from the 17th century to 1960. Those who want to know the "who and what" behind architecture will find it fascinating, as we did. You can order the book from Harper & Row Publishers, Mail Order Dept., 10 E. 53rd St., New York, NY 10022. Phone (800) 638-3030. The book costs \$15.95 postpaid.



# A New Look At LINOLEUM

## Preservation's Rejected Floor Covering

By Leo Blackman and Deborah Dietsch



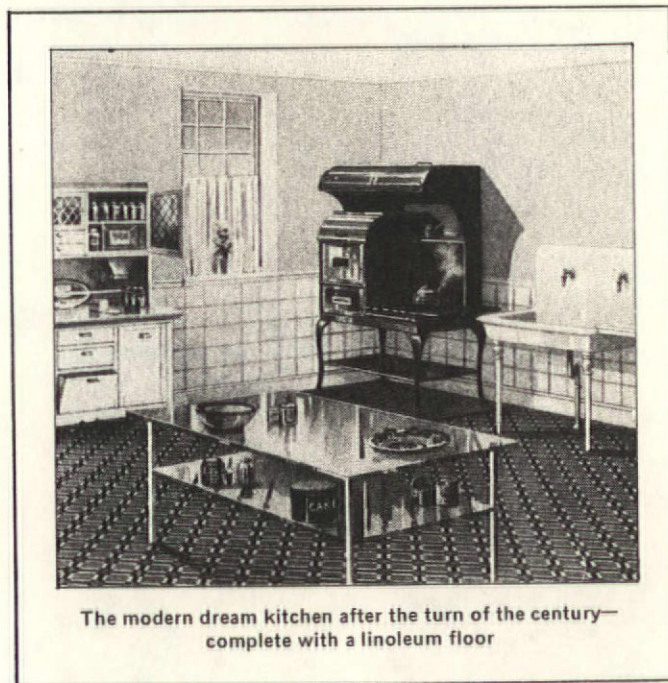
LINOLEUM DESERVES renewed attention as a floor finish in its own right, reflecting an important period of American taste and history. Although it was a commonly used floor covering in turn-of-the-century houses, it is rarely considered in today's interior restorations. Viewed as an enemy by restorers searching for hardwood finishes, countless yards of linoleum are enthusiastically ripped off floors. Discarding it in favor of tile or carpeting, many homeowners fail to realize its historic importance.

THE ORIGINAL APPEAL of linoleum was based on its qualities as an inexpensive, adaptable, and resilient flooring. Patterned to resemble more expensive finishes such as tile, wood, stone, mosaic, and carpeting, it was offered in a myriad of styles. By 1918, it was being marketed for use in every room of the house. Not only was linoleum used to cover existing floors, but it also became standard flooring in new construction. Its popularity stretched from its invention in 1863 until 1974, when Armstrong discontinued its production.

### Floorcloths

**P**AINTED FLOORCLOTHS, the precursor of linoleum, were used throughout the 19th century. The earliest description of a floorcloth dates from 1760; as late as 1909, similar oilcloths were still being offered in Sears catalogues. Floorcloths were made by water-proofing coarse fabric, woven of hemp or flax, with oil paint. First, the fabric was stretched and coated with hot starch to stiffen and seal it. Once dry, the surface was smoothed with a pumice stone and paint was thickly applied to both sides of the fabric. After several applications, a final coat of higher quality paint was brushed on. Colored patterns were painted by hand, stencilled, or stamped on the surface with wooden blocks. After drying for several days, the cloth was varnished. This made the floorcloth waterproof and relatively easy to maintain, but its painted surface wore off quickly.

EXPERIMENTS IN THE MID-19TH CENTURY were tried in order to develop more durable and resilient floor coverings. Exotic combinations, such as coconut fibers impregnated with cement and shredded sponge mixed with paper pulp, met with little commercial success. An exception was Kamptulicon, invented by Elijah Galloway in 1844. It was produced by heating India rubber, mixing it with granulated cork, and forcing the mixture between smooth cast-iron rollers. Although more permanent than its predecessors, Kamptulicon was very expensive to produce, so it was used only by the wealthy, or in public institutions. Linoleum was an outgrowth of this search for a more substantial and less expensive floorcloth.



The modern dream kitchen after the turn of the century—complete with a linoleum floor

**T**HE WORD "LINOLEUM" comes from two Latin words: *linum*, flax, and *oleum*, oil. Linseed oil, a heavy, amber-colored fluid pressed from flax seed, is linoleum's chief ingredient. When exposed to air, it begins to thicken, changing into a tough, elastic material. Recognizing this quality, English

manufacturers applied linseed oil and fillers to a cloth backing in hopes of creating a superior floorcloth. Frederick Walton was the manager of Staines Co., a rubber and linoleum factory in England. While it's not clear who the original inventor of linoleum was, Walton can be credited with bringing the process and the product to America.

WALTON'S PROCESS used linseed oil and gum mixed with ground cork or wood flour, pressed onto burlap or canvas. He obtained an American patent for this process (but not the name) in 1869, when he formed the American Linoleum Manufacturing Co. in New York. (If Walton's name sounds familiar, you might recall his famous wallcovering--Lincrusta-Walton.)

THE ARMSTRONG COMPANY in Pittsburgh, Penn., founded in 1860, was primarily a manufacturer of cork bottle stoppers when it began production of linoleum at its Lancaster plant. Linoleum manufacturing, first thought to be an easy way of using leftover cork, soon became the company's most profitable line. Other companies were involved in the early manufacturing of linoleum: Michael Nairn, a Scottish manufacturer of floorcloths who started a plant in Kearny, NJ (1870), and George Washington Blabon, who installed the first linoleum calendaring machine in the U.S. in his Trenton plant (1886).

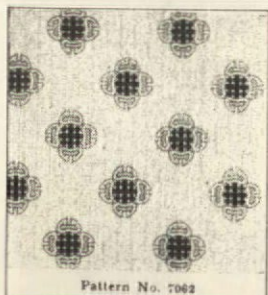
#### Examples of printed linoleum patterns



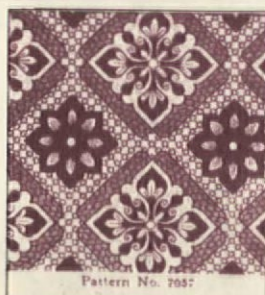
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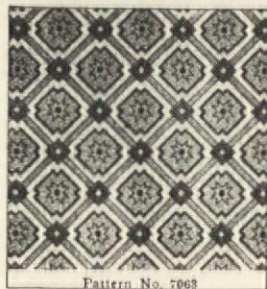
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Pattern No. 7059



Pattern No. 7063

## To Market, To Market

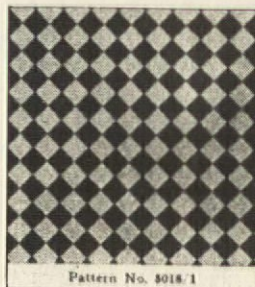
**M**ARKETING GENIUS was partially responsible for the popularity of linoleum. Prior to 1917, linoleum was generally considered a sanitary flooring for use in kitchens, bathrooms, and public institutions. In an attempt to change linoleum's drab, utilitarian image, Armstrong staged a massive advertising campaign after World War I.



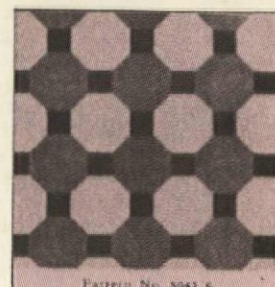
A sanitary bathroom

THE COMPANY provided its salesmen with pocket-size pattern books containing color plates of available stock and offered courses in "constructive linoleum sales." Advertisements were placed in magazines such as Ladies Home Journal, Women's Home Companion, and McCall's to acquaint the woman of the house with the decorative, economic, and labor-saving potential of linoleum. It was promoted as an "artistic" yet "sensible" flooring that would blend with any color scheme or decor. It was easy to clean because, unlike wood, it contained no cracks or crevices to catch dirt, and was promoted as sanitary for the kitchen or bathroom. Linoleum patterned to look like Brussels carpet, encaustic tile, or wood parquet was considered suitable for living rooms, dining rooms, or bedrooms. The perfect "modern" material, it was also used for auto running boards, countertops, and boat decks.

#### Inlaid linoleum patterns



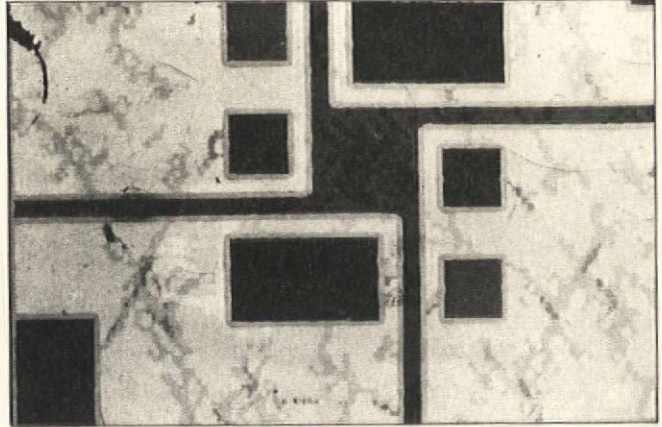
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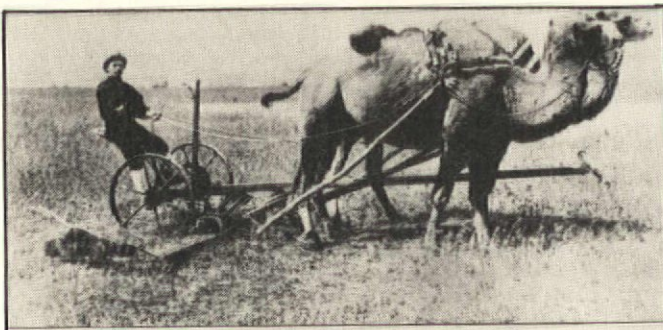
An ever-popular floral pattern



A later pattern from the 1950s

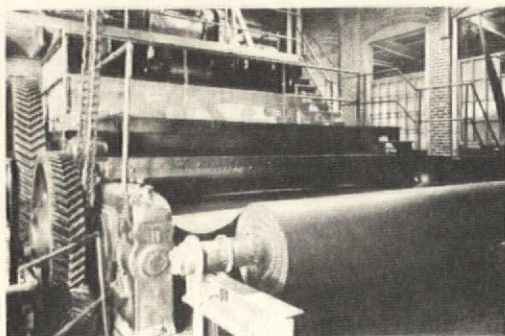
## Its Manufacture

**L**INOLEUM MANUFACTURING changed very little during the hundred years it was produced. It required the assemblage of raw materials from distant lands and their transportation to American factories. Linseed oil, pressed from Siberian flax; cork, stripped from trees in Spain; kauri gum, unearthed in New Zealand; and jute, harvested in Indian swamps, were the chief ingredients.



Mowing Flax in Western Siberia—Linseed oil is made from flax seed

RAW LINSEED OIL was boiled, pumped into conveyors, and dripped onto sheets of scrim, or gauze, that hung from ceiling to floor in oxidizing sheds. The oil thus absorbed oxygen from the air, achieving the consistency of caramel candy. The oil-soaked scrims, called "skins," were reduced to pulp. The pulp was heated with resins and kauri gum (fossilized sap from pine trees) to form a "cement." After cooling, chunks of this mixture were ground with cork flour.



The calendaring machine

THE RESULTING PLASTIC MASS, resembling wet clay, was transferred to a calendaring machine, which consisted of a series of heated rollers. The cork and the cement mixture were fed into the top of the machine, burlap entered at the bottom, and the materials were pressed tightly together. The linoleum was then hung in drying rooms and "seasoned" for three to four days before being printed and thoroughly inspected.

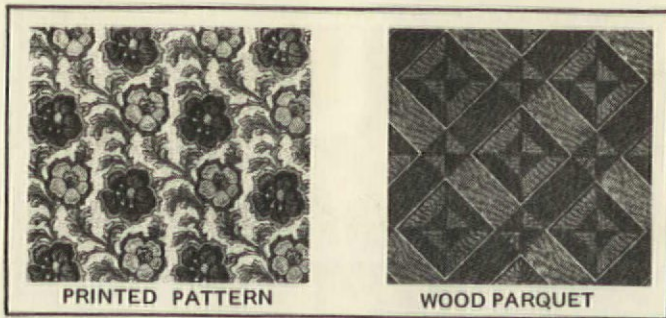
## Linoleum Types

**S**OME PATTERNS were available throughout the history of linoleum, others changed with current styles. "Hooked rug" and "wood planking" linoleum became popular during the Colonial Revival period; the 1930s and '40s saw the advent of Moderne-inspired patterns. A linoleum catalogue from the 1950s, while offering the mock-Jackson Pollock spattered effect, still featured standard Brussels carpet, jasje, and wood designs.

OFTEN LINOLEUM was manufactured to a specific size, and printed to resemble a bordered carpet. Called a linoleum "rug," it was popular after 1910. Linoleum was also sold to be placed between a rug, either fabric or linoleum, and the walls. These linoleum borders were usually printed to resemble wood parquet or planking, and were sold in narrow rolls.

PRIOR TO 1927, linoleum was never textured and had a backing of canvas or hemp. In 1913-14, several manufacturers patented a process for calendaring cork and linseed oil onto asphalt-impregnated paper. These products--such as Congoleum and Quaker rugs--were less durable and less expensive than canvas-backed linoleum. They were intended to make resilient flooring available to lower income groups.

UNTIL 1930, when embossed linoleum was introduced, five types of linoleum were available, each distinguished by the way it was manufactured. PRINTED LINOLEUM was patterned by machine painting with oil paints--one block for every color--on sheets of plain linoleum, typically brown. Printed linoleum was considered lower quality because the pattern was on the surface only. Many of the floral patterns were done in this manner.

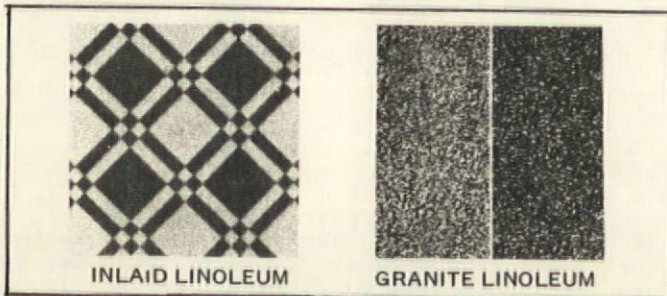


PLAIN LINOLEUM was manufactured in various thicknesses and solid colors such as grey, brown, brick red, and olive. The heavier grades of plain linoleum, known as BATTLESHIP LINOLEUM, ranged from 3/16 in. to 1/4 in. thick and were primarily used in public institutions.

INLAID LINOLEUM has a simple geometric pattern which goes through to the backing. Two types were produced. STRAIGHT LINE INLAID, identified by its sharply-defined pattern, was made by mechanically cutting sheets of plain linoleum into solid color "tiles." These were reassembled as a mosaic on burlap and bonded by heat and pressure. To produce GRANULATED INLAID, plain linoleum was pulverized into a colored powder and sifted through metal stencils onto an oiled paper sheet. This was repeated for several colors, then a canvas backing was placed on top and calendered. Next, the paper was peeled off, revealing a geometric pattern with soft, fuzzy borders.

JASPE LINOLEUM has a striated pattern, typically in two colors. It was most popular after 1900; it's described in advertisements as having the appearance of moire silk. Early jaspe was produced by rolling two sheets of colored linoleum up like a jelly roll, slicing it, and then calendering these pieces together.

GRANITE LINOLEUM was a staple of the early 20th-century catalogues. Described as appearing "like Terrazzo," it has a mottled surface and was produced by rolling out various colored chips of linoleum.



## Vinyl Flooring

TODAY, VINYL FLOORING PATTERNS are still imitative of tile, stone, and wood--but there is a significant difference between vinyl and linoleum. The linoleum manufactured in the late 19th and early 20th century had a flat surface. In the search for verite and with the development of embossing machines, textured floors were introduced. Modern resilient flooring almost always has a sculpted surface to emphasize the pattern and

to camouflage scuffing. Gone are the more charming attempts to capture the look of plush carpeting, encaustic tile, or oak parquet on a two-dimensional plane. Solid color and simple geometric patterns, resembling plain or inlaid linoleum, are also absent. However, faux-marble vinyl is standard and similar to jaspe linoleum. Armstrong has re-issued its most popular linoleum pattern, in vinyl, #5352, a red flooring used primarily in kitchens. Perhaps they could also be encouraged to revive other 19th and early 20th century patterns. In the meantime, some contemporary vinyl patterns can be adapted to resemble linoleum in old houses.

## Linoleum's Fall-& Rise?

MATERIALS WHICH GAVE LINOLEUM its strength and resiliency also imparted certain problems of longevity, and use. As linseed oil continues to oxidize over time, the material tends to grow brittle and crack. Its amber tint also restricted the color range of linoleum--whites, rich blues, and purples were impossible to achieve. Staining was caused by the tannic acid in cork reacting with iron furniture. Linoleum's canvas backing made it sensitive to standing water.

PLASTIC PRODUCTS developed after World War II were rapidly applied to flooring. Vinyl, a colorless, waterproof, and monolithic material, could easily be patterned and textured. It was composed of synthetic materials and could be given a permanent no-wax shine. By the 1960s, linoleum was seen as an inferior product. It could no longer claim to be the most inexpensive, maintenance-free, durable, and resilient flooring it once was.

IN 1974, ARMSTRONG DISCONTINUED manufacturing linoleum because of reduced demand. However, the current high cost of manufacturing petroleum products makes an organically-based flooring more appealing and could prompt new interest in linoleum.

Next month, we will talk about preserving, restoring, and (if you were lucky enough to find some) installing linoleum.

LEO BLACKMAN has a Masters degree in Architecture from Columbia University. This article is based on extensive research Leo did while at Columbia; his thanks go to Professor Norman Weiss of the Historic Preservation program there. DEBORAH DIETSCH, also a graduate of Columbia, has joint degrees in Architecture and Historic Preservation. She was co-editor of "Precis," the School of Architecture journal. The authors are presently working for an architectural firm in New York City. They would like to thank Herbert Mitchell at Columbia's Avery Library, the Research Dept. at The Armstrong Co., and Mildred Longo at Fortunate Finds Books.

# Rack On A High-Pitched Roof

## & Some Tips On Chimney Care

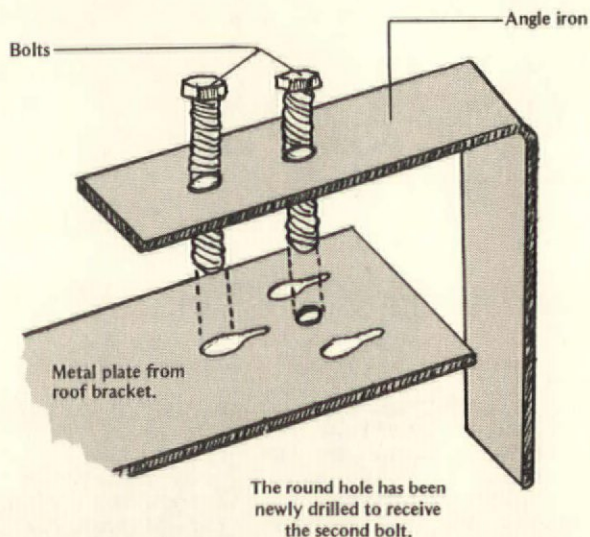
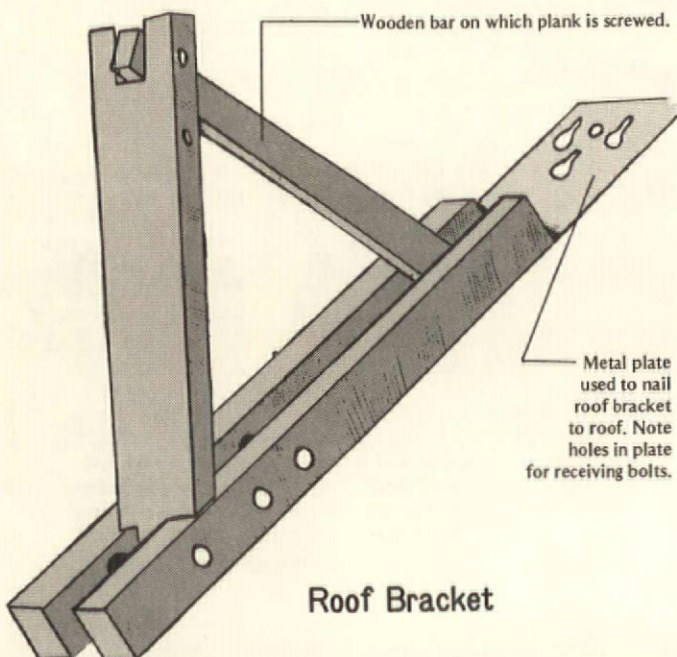
By Joseph V. Scaduto

**H**AVING ONLY TWO HANDS becomes quite a problem when you find yourself precariously perched on a roof. This fact was pointedly brought to my attention several years ago. I had been thinking about repairing the chimney on my home. From the street, it was evident that the mortar joints between the bricks had eroded and a dangerous condition now existed.

IN THE PAST, I had done several pointing and repair jobs on the chimneys of buildings that I owned. But there was a major difference between my home and those apartment buildings: The apartment buildings all had flat roofs. These flat roofs did not pose the gravity problem that I was now facing on my own residence.

GETTING UP ON THE RIDGE of my roof was not a major problem. The real difficulty would be how to maintain my balance and at the same time use both hands to work on the chimney.

I also wanted to keep the bucket of mortar and all my various tools from falling off the roof. I figured that I would need one hand to hold the pointing tool and another to hold the trowel with the mortar. But I'd also need a hand to hold the bucket of mortar and possibly another hand to help me maintain my balance. If my arithmetic serves me correctly, I would need a minimum of three hands!

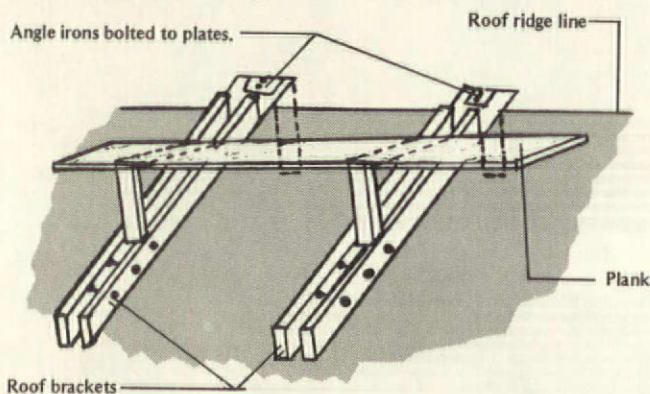


I HAVE ONLY TWO HANDS, so I decided to ask for advice from the experts. I checked with several local masonry dealers and contractors, and received many different suggestions. Some told me to hang the bucket of mortar from the chimney. Others suggested that I build staging adjacent to the work area. A few told me to hire a mason to do the job.

NONE OF THESE ANSWERS satisfied me. It would be difficult to work on the chimney and at the same time have the bucket of mortar hanging from it. Moreover, the chimney was directly in the center of the house, and so building staging would not serve my purpose. This job became a challenge to me, and I decided to create my own extra hands.

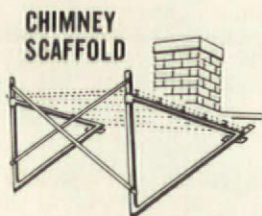
**W**HAT I CAME UP WITH worked better than I had anticipated. I hope that some of the readers can use it not only for work on their chimneys but for any repairs that have to be performed on a high-pitched roof.

MY CREATION WAS SIMPLE. I merely took an existing item and slightly modified it. I used two roofing racks or brackets (the type used by roofers when they plank a roof). I made up two pieces of angle iron that I bolted to the metal ends of the roof brackets. With the addition of the angle irons, the roof brackets could now be hung securely on the ridge of the roof. They could also be adjusted to any pitch that might be required. I then added a short plank across the two mounted roof brackets, screwing it onto both wooden bars. Voila! I had solved my problem. I could safely set on the platform not only my mortar, but also any tools that I might need. The possibility of anything sliding off the roof was now eliminated. And there was no potential for an accident from having tools underfoot. I only needed two hands after all--and a little imagination.



**The Finished Product**

THIS RACK IS INTENDED to hold only tools and supplies, not people. **DO NOT STAND ON IT.** If you need a larger platform to support yourself as well, and you're willing to spend some money, then a chimney scaffold such as Goldblatt's is an excellent idea. Or you could hire a mason--many people find it far more pleasant to remain on the ground than to climb around on the roof. But if you're a do-it-yourselfer who is not at all squeamish about heights, then I think you'll find that this portable rack can be a great help. It's certainly been a help to me!



**CHIMNEY SCAFFOLDS** — Quickly erected. Adjusts to any roof pitch. Scaffolding can be nailed directly to roof or to planks that hook over roof ridge. Platform size up to 5' x 10'. Made of steel with wood planks. Folds for easy handling and storage. Scaffolding comes without wood planks. Weighs 59 lbs.

20 600 E4 .... \$90.00

This scaffold is designed to support you as well as your tools and supplies. It is available from the Goldblatt Tool Company. To obtain their free catalog, write to Goldblatt Tool Company, 511 Osage, Dept. OHJ, Kansas City, KS 66110, or phone (913) 621-3010.

# Chimney Tips

## On Repair

**1 SAFETY FIRST:** When working on a roof, wear soft-soled shoes--preferably high-top sneakers with good ankle support. If the roof is especially steep, lay a ladder on the roof and secure it with a safety bracket hooked over the ridge. You should also wear a nylon safety belt with a nylon lanyard. But if heights frighten you, have someone else do the job.

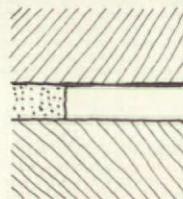


Belt



Lanyard

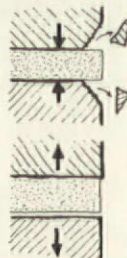
**2 CUT IT OUT:** Repointing a chimney involves the removal of all loose mortar, to a depth of at least an inch, and replacing it with new mortar. Once the defective mortar is removed, be sure to brush out all dust and loose material.



Using a hand chisel, rake out the mortar joints to a depth of at least 1 inch.

**3 DON'T FORGET TO FLUSH:** Be sure to hose down all areas that will be repaired. Flushing with water will help get rid of any remaining particles of mortar, as well as moisten the areas that will be receiving the mortar. Failure to wet down these areas may result in the adjacent bricks absorbing moisture from the mortar. This in turn can create weak joints.

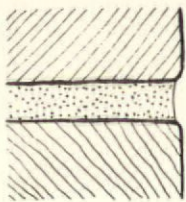
**4 MATCH THE MORTAR:** Nobody can really see the joints in masonry way up on the roof, so why bother matching the existing mortar? Well, there's a practical reason as well as an aesthetic one. Some mortars are too rigid for certain types of brickwork. When the bricks expand in hot weather, they'll break on the hard mortar; when they contract in the cold, they'll crack away from the mortar. For more information on matching mortars, consult The Repointing of Historic Masonry Buildings by



The hazards of using a too-hard mortar. Top: Breaking of bricks when they expand in hot weather. Bottom: Cracking caused by the contraction of bricks in cold weather.

Robert Mack and James Askins. It's available for \$3 from Preservation Resource Group, 5619 Southampton Drive, Dept. OHJ, Springfield, VA 22151. (703) 323-1407.

**5 USE THE RIGHT TOOLS:** I use two trowels, a broad one to hold the mortar and a thin one to push it in. Don't be afraid to use a lot of mortar and really pack it in hard. You should strike the joint for weather-tightness and a neat appearance. I prefer concave joints, which should be made with a convex jointer.



Top: Convex jointer.  
Left: Concave joint.

**6 PRE-HYDRATION?:** Many masons pre-hydrate the mortar to prevent it from shrinking excessively. To pre-hydrate, you first have to mix up your ingredients with just enough water to produce a damp mass that will retain its form when compressed into a ball. Then let it set for an hour. Afterwards, mix it with the amount of water required to produce a stiff but workable consistency. This technique is still rather controversial, however. Conservation experts and professional masons say that pre-hydrating is an unnecessary procedure that weakens the mortar. Today's Type S lime has many advocates; it's already pre-hydrated and so doesn't require this procedure.

**7 CURE IT:** Concrete work is usually cured; that is, the cement is kept moist until it develops its maximum strength. I think even mortar joints should be cured as well, to ensure that they don't dry out too rapidly. There are a couple of ways this can be done. One way is to hose down the chimney for 3 consecutive days. Another way is to keep the chimney draped in damp burlap for at least 3 days--but don't do this if the chimney is in operation!

**8 MURIATIC ACID:** No matter how diligent you are when you work with cement, you will get some stains on the bricks. Wait a day or more after working on the chimney repairs, and then use a solution of 1 part muriatic acid and 10 parts water. This solution should remove any cement stains. Please note that this acid is strong, so carefully read and follow the directions on the container. Be sure to hose down the chimney afterwards, to remove any remaining salts.


## On Maintenance

**1 TV ANTENNAS:** Don't use your chimney as an anchor for a TV antenna. A great many chimney problems are directly related to the structural stress placed on them by the antenna's movement in strong winds. An additional problem occurs when the rusting metal starts to stain the chimney.

**2 FLUE LININGS:** Many older homes do not have chimney flue liners. Mortar and bricks in an unlined flue are directly exposed to the action of flue gases and will disintegrate. This disintegration, along with harm caused by temperature changes, can open cracks in the masonry. These cracks will reduce the draft and increase the fire hazard. They also permit poisonous flue gases to escape into the house. If you presently have a chimney that is not lined, then you should seriously consider having a liner installed.

**3 CHIMNEY FIRES:** If you are burning wood in either a fireplace or a wood-burning stove, then the formation of creosote is unavoidable. The chimney should be cleaned frequently; never wait more than a year between manual cleanings. Some people clean their chimneys by burning a very hot fire for a period of time each day. If you are burning wood in an air-tight stove, then consider cleaning after every 3 or 4 cords of wood. Failure to clean out creosote buildup will result in a fire. A professional chimney sweep will clean your chimney, fireplace, and stove for a very reasonable fee.

**4 CHIMNEY FLASHING:** You should have strips of metal around the chimney/roof line. This flashing sometimes pulls away from the chimney. Many chimneys have lead flashing, which can be gently tapped back into place. Other types of metal flashing can be repaired by applying roofing cement both under and over it. (This procedure is what we call "the black-gunk solution." It works--at least for a while--but you have to check it and maintain it diligently. At some point the metal flashing itself will require replacement. Just remember never to use the black-gunk solution on visible areas of the roof.--The Editors)

**5 ANNUAL CHECKUP:** Go over your chimney once a year. Repair those minor problems before they become major headaches. If you have any suspicions about the safety of your chimney, then consult a professional. Check your local directory under the headings for masons, chimney sweeps, or a professional group such as the American Society of Home Inspectors. 

JOSEPH V. SCADUTO is a general contractor, builder, and home inspector working in the Boston area. He is Secretary of the New England chapter of the American Society of Home Inspectors, and President of Tri-Value Consultants, a firm that deals with the inspection and renovation of older homes. He's worked on a lot of roofs, too.

# Refinishing Clinic

## Using The Right Products

**H**OMEOWNERS WORKING WITH WOOD frequently feel that they are confronted by a multitude of fillers, sealers, stains, dyes, putties, shellacs, lacquers, waxes, oils, and varnishes, each potion with its own devotees and detractors. This Refinishing Clinic should help to demystify these products. We'll be examining what they are, what they can do, and which woods they're appropriate for.

### Filling Compounds

**S**OME WOODS, such as oak, mahogany, and ash, have an open grain. These "large-pored" woods have an exposed cellular structure and will need to be filled with paste wood filler prior to varnishing. Without this filler, a smooth finish is difficult to achieve. Generally, filling will not be done if you'll be using an oil finish. Sometimes renewed old wood doesn't need filling the way brand-new, unfinished wood does. Test in an inconspicuous place.

FILLING COMPOUNDS come in three varieties: paste wood filler, putty, and plastic wood.

PASTE WOOD FILLER is used before varnishing, but not with penetrating oil finishes. It packs the small, exposed cell structure of open-grain wood in such a way that finish varnish flows over the surface. (It's very difficult to get a smooth varnish job on open-grain wood without filling.) Be sure to read the label: Some paste wood fillers are supposed to be applied after the stain; others, prior to staining. It's generally recommended to choose a product used prior to staining, as it avoids the greyness that occurs in certain woods. Paste wood fillers also come in many colors. In making a selection, you should try to approximate the basic color of the wood. This stuff is not intended for use as a crack filler; there are other compounds for that purpose.

Manufacturers of paste wood filler include Daly's, Behlen, Zar, Gulf, Duratite, and Elmer's.

PUTTY is best for filling nail holes, and is to be used after staining and sealing. Use it last of all if you're doing an oil finish. Use it after the first coat of varnish, but before the last coat. If you use it before the finish is applied, you may stain the wood. There are two basic types of putty.

(1) NON-HARDENING OIL-BASED: This kind is tinted to the final color by the user. It is the same as the putty used for glazing windows.

In a pinch, synthetic glazing compounds work as well.

(2) WAXY FILL STICKS: These are crayonlike sticks that come pre-tinted to the final color. Manufacturers of glazing compounds and non-hardening oil-based putty include Dap, Bix, Rutland, and Durham's. Manufacturers of waxy fill sticks include Minwax and H.F. Staples & Co.

PLASTIC WOOD is a hard-drying cellulose compound used to fill larger voids. While often sold to fill nail holes as well, it is not nearly as good as the softer putties.

Manufacturers of plastic wood include Boyle-Midway/3-in-1.

### Interior Prime-Sealers

**W**OODS SUCH AS pine, fir, hemlock, and maple are close-grain woods. They have a smooth texture and need not be filled prior to the staining and finishing steps. Old, previously finished wood which has been stripped probably won't need prime-sealer either. New wood or heavily-sanded old wood should be "sealed" prior to staining or finishing.

A NOTE ABOUT interior prime-sealers: The word "sealer" is somewhat misleading. In the context of priming surfaces, these products should not be confused with finishing compounds such as penetrating oil finishes, which actually "seal" the surface with a coating. What these products do instead is set the wood grain prior to the application of stains or finish coats. Without priming, the final result can be rough and uneven (especially when bare or sanded wood is stained). Without the prime-sealer, dark, spotty areas can appear where wild-grain areas absorb more stain or finish than the rest of the wood.

Manufacturers of interior prime-sealers include most major paint companies.

### Interior Stains

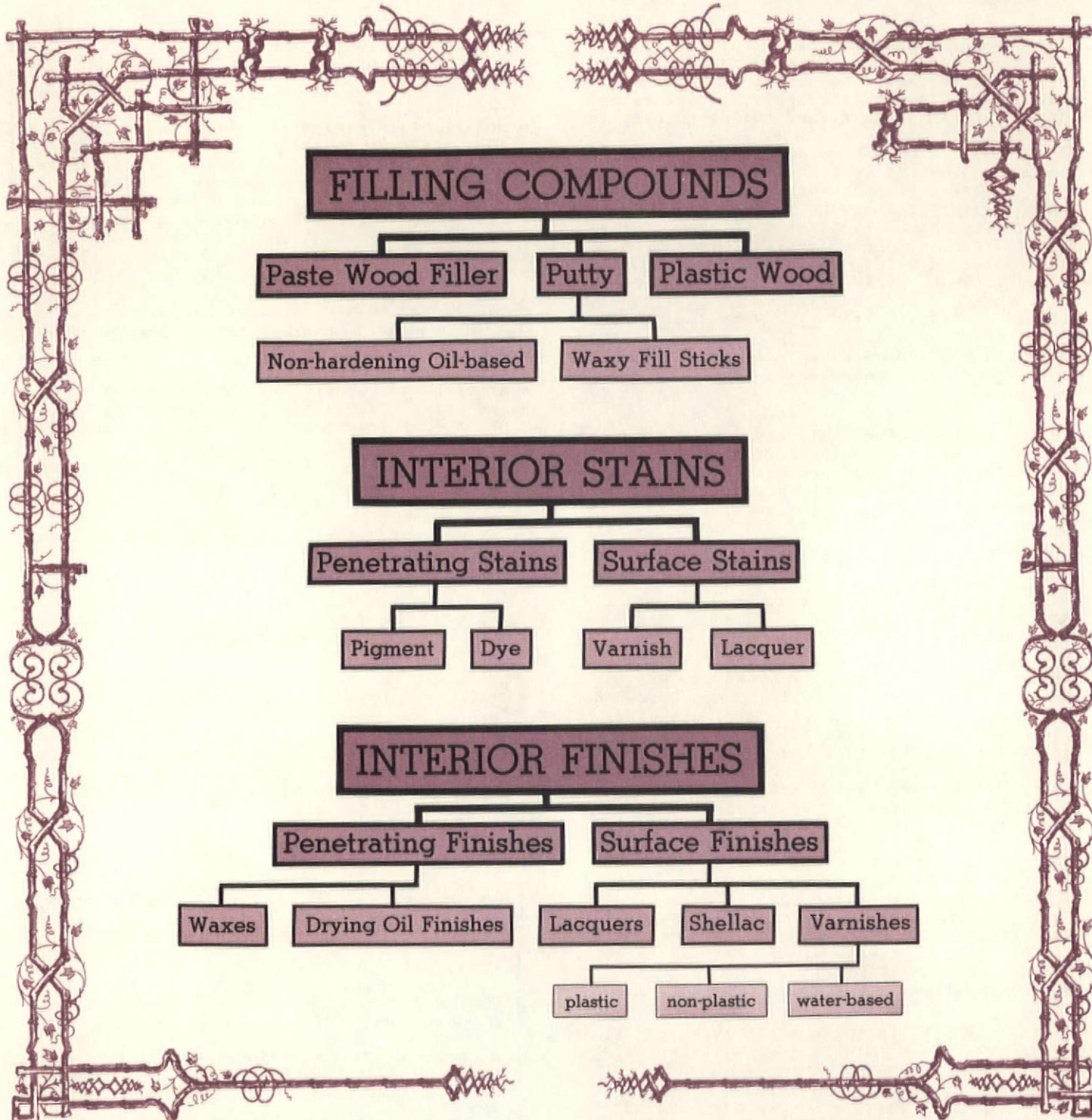
**T**HERE ARE TWO GENERAL TYPES of interior stains: surface and penetrating. Surface types come in either a brushable varnish base, or a spray lacquer. Both surface types are hard to handle when working on fine pieces, so this discussion will center on the penetrating types, which can be applied with a rag.

PENETRATING STAINS are available in two types.

(1) PIGMENT: The major advantage of this type is that it is colorfast and easier to wipe.

(2) DYE: This type has excellent color depth and brilliance, but sun-fades badly. Dye stain is available in both a water-soluble





(sometimes alcohol) and an oil-soluble base, both of which are non-grain-raising. Because of their depth of color, dye stains are often used in advance of a pigment stain as a pre-color and then treated with the pigment type for colorfastness and durability. In most instances, dye stains are best finished with a varnish system.

Manufacturers of pigment stains include Daly's, Behlen, Benjamin Moore, and Zar. Manufacturers of dye stains include Behlen.

### Interior Finishes

**I**NTERIOR FINISHES come in two major categories: penetrating and surface. Penetrating finishes are usually dull or satin; surface finishes, gloss or semi-gloss. Surface finishes include lacquers, shellac, and varnishes.

PENETRATING FINISHES come in two types. (1) **WAX**: Because waxes remain very light in color over a long period of time, they are excellent for panelling. They're also useful as a final polish to varnished wood. However, waxes tend to waterspot, and so require

maintenance. Waxes also will build up if too many thick coats are applied--especially spray waxes. Avoid these; beeswax too, which is quite soft, fingerprints badly, is not necessarily water-resistant, and builds quickly to a sticky surface.

(2) DRYING OIL FINISHES: Usually tung and linseed oil-based, these finishes are easy to apply. (There are no brush marks or dust to contend with; just rag on and wipe off the excess.) They have excellent wear characteristics and can be renewed easily. They also tone unstained woods. We don't suggest using straight linseed oil, however. It will darken with age and offers no resistance to alcohol, water, or mildew. It's also very slow to dry and tends to be sticky.

Manufacturers of wax finishes include Trewax, Butcher's Wax, and Minwax. Manufacturers of drying oil finishes includes Daly's, Hope's, and Minwax.

SURFACE FINISHES are available in three types.

(1) LACQUERS: The one advantage of lacquer is that it's fast-drying. However, it isn't recommended for amateurs, who generally lack both the equipment and the experience needed to apply it successfully. There are some good brushable lacquers that can be successfully applied by a novice, but there are still drawbacks. Most lacquers have poor resistance to water and grease, and tend to be thin and brittle.

Manufacturers of lacquers include Behlen and Deft.

(2) SHELLAC: It is usually found on very old pieces of furniture, as well as some hardwood floors and woodwork. Shellac will discolor with age, is quite brittle, has very poor resistance to water, alcohol, and abrasion, and is very scratch-prone. So even though it is fast-drying and easily stripped and renewed, it should not ordinarily be thought of as an alternative to slower-drying varnishes--at least where high resistance to wear is needed. (It's OK for non-wear items such as picture frames.) Shellac may be used when you wish to duplicate an older finish for the purpose of color-matching, but a standard oil-based varnish should then be applied for maximum wear. (DO NOT use a urethane varnish over shellac; they are not compatible.)

Manufacturers of shellac include most major coatings manufacturers.

(3) VARNISHES: The three basic types of varnish available are plastic, non-plastic, and water-based.

• Plastic Varnish--called polyurethane or just urethane. These are very hard and very useful on new interior work such as cabinets and children's furniture. They are fairly fast-drying and harden quickly. BUT--urethanes may not bond well to older surfaces, especially if the older surface was shellacked (which is very common on antique wood). If the item has an older shellac job, and you plan to use varnish, then don't use urethane; use a standard oil-based varnish instead.

Urethanes do not do well on areas exposed to weather, especially direct sunlight. Thus they should never be used on front doors, exterior smooth siding, window trim, railing, or marine surfaces. The proper treatment for varnishing exterior surfaces is to use a standard marine spar. But don't use a spar varnish on interior items because the product is

too soft and slow-drying.

Manufacturers of plastic varnish include Pierce & Stevens (Fabulon) and McCloskey.

• Non-Plastic Varnish--Although softer and slightly slower to harden than the urethanes, these varnishes will bond to most surfaces and are available in a wide variety of products to answer almost every need (floors, panelling, etc.). Should you decide not to use a penetrating oil finish, then this type of varnish should be used on antique wood items. (In another clinic, we'll give tips for dealing with dust specks and brush marks, which are hard for the novice varnisher to avoid.)

Manufacturers of non-plastic varnish include McCloskey, Behlen, and Hope's.

• Water-Based Varnish--At this time, water-based acrylic varnishes need further development if they are to be considered an adequate wood finish. Most of those tested don't harden well enough and tend to feel sticky. They don't level well either, so brush marks show up even more than they do with traditional varnishes. Their best feature is that they hold color well with little yellowing, and so would be good for panelling.

Manufacturers of water-based varnish include Benjamin Moore.

## The Big Finish

**O**F COURSE, we aren't claiming that now you have been told everything about all these products--no brief article could do that. If any of the definitions still seem contradictory or confusing, look over the chart on the previous page: We've presented the various products in a simple hierarchy. Good luck with your next project!

### PRODUCT INFORMATION

You can go into any hardware store and find fill sticks and plastic varnish without any difficulty. Obtaining certain other filling compounds, prime-sealers, stains, or finishes can be more problematic. If the regular hardware or paint stores don't have what you want, then try a building supply store or a lumberyard. You can also approach these manufacturers directly: Behlen, McClosky, Daly's, Benjamin Moore, Deft, Minwax, and Hope's are all listed in the OHJ Catalog.

MUCH OF THIS ARTICLE was adapted from a booklet written by Jim Daly, president of Daly's Wood Finishing Products. For a free catalog detailing his full line of products, write to Jim Daly, Daly's Wood Finishing Products, 1121 N. 36th Street, Dept. OHJ, Seattle, WA 98103. (206) 633-4204.

# Restorer's Notebook

## Cheap Alcohol

**B**ECAUSE YOU ARE my favorite, most useful magazine, I thought I'd share a tip with you.

DENATURED ALCOHOL is used by the gallons when restoring. I use it for taking off old shellac and rinsing off paint remover. It costs about \$8 per gallon, so I'm not surprised that so many old houses are left to crumble.

MANY GAS STATIONS sell gasahol, a mixture of gas and denatured (or "wood") alcohol. I asked a gas station owner if I could use gasahol. When he found out that I was restoring a 10-room home full of golden oak woodwork, he understood my cost-conscious attitude. It turned out that he mixed his own gasahol, as many gas station owners do. He had plenty of denatured alcohol on hand, and sold it to me dirt cheap: I saved about \$5 per gallon!

SO ALL YOU HOME RENO'S, stop going to your hardware store and start going to your nearest gasahol station instead--and save a bundle. If more old homes are to be saved, let's spread the news of cheaper ways of doing it before it turns into a rich person's game instead of the average person's dream.

Karen Lang  
North Judson, IN

## Sculpture & Paint

**W**E HAVE FOUND THE ULTIMATE SOURCE for tools to pick paint out of mouldings, carvings, etc. It's a sculptor's supply house. They have literally hundreds of high-quality metal tools in every conceivable shape. We've also used some of their small files for reshaping replacement details in plaster.

OUR FAVORITE TOOL has been the "#155 Wax Tool" (page 18 in their catalog) which we've used to scoop paint out of all the mouldings on our parlor floor. The tool cost \$7. The company also stocks polishing compounds and buffing wheels for refinishing marble; we've put them to good use too.

THE ONLY CAUTION is that many of the tools are imported, which means that sometimes they are out of stock and it takes a while for replacements to arrive. It's best to visit the store and see what's available, but they also do a brisk mail-order business. You can get their catalog by sending \$1 to Steve Eisenberg, Sculpture Associates, 114 East 25th Street, New York, NY 10010.

Elliott Gerber & Helene Greece  
Brooklyn, NY

## Remote-Control Inspection

**T**HERE IS A WAY to examine closely the steep, high roof of an old house without climbing up there and risking damage to both the roofing material and yourself: Use binoculars. Just go across the street, a good distance away so you can get a good view of the roof. (An upper-storey window of a neighbor's house is ideal.) You can then easily sight roof details close-up through the binoculars.

Maxine J. Kyle  
Decatur, IL

## Defeating Contact Cement

**A**FTER I REMOVED THE LINOLEUM from my kitchen countertops, I discovered that there was contact cement underneath them. Every flooring store in town told me that it was impossible to remove contact cement, and that some kind of covering would have to go back on. I tried using paint remover, mineral spirits, lacquer thinner, and shellac thinner, all to no avail. But I finally came upon the answer: isopropyl alcohol, which is available at any local grocery or drug store. Just pour on a couple of coats--each coat about five minutes apart--and the contact cement will lift up.

Kris A. Layman  
Cheyenne, WY

## Polishing Screw Heads

**H**ERE'S HOW I POLISH brass screw heads safely and rapidly. I insert them in short lengths of rubber tubing, about 3 or 4 in. long, and hold them thus secured against the buffing wheel or wire brush. (The tubing has to be of a diameter that will just accommodate the shaft of the screw.) After polishing, I place the screws, heads up, in a length of wood 1 in. x 2 in. x 3 ft. long, in which I have bored a series of holes, 1/8 in. and 1/4 in. in diameter and all 1/2 in. deep. Then I spray them with spray lacquer or clear spray. When they're dry, I tip the board over and all the screws fall out, ready for assembly in the proper place.

Mark E. Leistikow  
Green Bay, WI

## Got Any Tips?

Do you have any hints or short cuts that might help other old-house owners? We'll pay \$15 for any short how-to items that are used in this "Restorer's Notebook" column. Send your hints to: Notebook Editor, The Old-House Journal, 69A Seventh Avenue, Brooklyn, N.Y. 11217.

# Helpful Publications

The Antiques Book of Victorian Interiors  
Compiled by Elisabeth Donaghy Garrett  
1981 (160 pp., profusely illustrated) Cloth

**F**OR EVERYONE INTERESTED in the interiors of Victorian houses, this colorful, pictorial account features the interiors of America's most famous Victorian homes. These opulent period rooms include those of Olana in Church Hill, New York, the Mark Twain house in Hartford, Connecticut, Biltmore in Asheville, North Carolina, Chateau-sur-Mer in Newport, Rhode Island, the Theodore Roosevelt Birthplace in New York City, and selected early interiors of designers Carrere and Hastings.

THE ARTICLES are a compilation from the magazine "Antiques" and focus on Victorian architecture as well as furnishings, wall and floor coverings, fabrics, window treatments, and other decorative ornaments. Also included with the historical descriptions are insights into the lives of the people who lived in them. The full character of these homes is revealed by 240 color and black and white photographs.

To order, send \$19.95 plus \$1.50 postage to:  
Crown Publishers, Inc.  
One Park Avenue--Dept. OHJ  
New York, New York 10016  
(212) 532-9200

American Architecture 1607-1976  
Marcus Whiffen and Frederick Koeper  
1981 (495 pp., generously illustrated) Cloth

American Shelter: An Illustrated Encyclopedia of the American Home  
Lester Walker  
1981 (320 pp., profusely illustrated) Cloth

**T**HESE BOOKS ARE VALUABLE additions to the resources in the vast and varied field of American architecture. The chronological survey format of each book is, however, characterized by a wholly different view of America's building heritage.

FOR THE STUDENT of architecture, American Architecture 1607-1976 is a comprehensive scholarly examination of America's building periods and styles. The emphasis is on examples of American architecture which have a certain historical and architectural significance, and as a result, forgoes other examples of the built environment. The text is detailed and authoritative; its straightforward, building-by-building survey is an excellent basic reference source.

MARCUS WHIFFEN examines America's buildings from 1607 to 1860 with an historical perspective, adding many comparisons of American and European architecture. Frederick Koeper studies the works of individual architects to describe the period 1860 to 1976. The book, amply illustrated with black and white photographs and line

drawings, is "...likely to become one of the standard works on the subject for some years to come." (William Morgan, University of Louisville)

AMERICAN SHELTER IS A USEFUL resource for the architect, designer, builder, and others interested in the different major and minor styles of the American home. It centers on the importance of the free-standing single-family dwelling as shelter and as a symbol of American culture. The text briefly outlines the basics of the origin, evolution, architectural detail, and construction methods and materials of each major style and vernacular variation. The book is primarily a picture book, one which depicts the American home as a three dimensional object through the use of 1000 exploded diagrams, floor plans, and side elevations.

LESTER WALKER, architect, teacher, and author, portrays 110 kinds of single family homes, from conventional styles (Saltbox, Georgian, Italianate, and Shingle), to more uncommon types (Inflatable, Fantasy, Underground, and Floating). Quips architect Charles Moore, it's "...a genuine feast for the eyes and mind."

To order American Architecture, send \$30.00 plus \$2.25 postage to:  
The MIT Press--Dept. OHJ  
Massachusetts Institute of Technology  
Cambridge, Massachusetts 02142  
(617) 253-2884

To order American Shelter, send \$22.95 plus \$2.00 postage to:  
The Old-House Bookshop  
69A Seventh Avenue  
Brooklyn, New York 11217

New Energy From Old Buildings  
National Trust for Historic Preservation  
1981 (208 pp., illustrated) Paper

**T**HIS BOOK, THE RESULT of a national symposium on energy conservation and its relationship to preservation, gathers together the ideas and recommendations of nationally known preservation architects and energy professionals. They suggest ways to reduce energy consumption (by combining the innate energy efficiency features of old buildings with new energy conservation systems) while retaining America's architectural heritage.

THE ARTICLES include discussions of the inherent energy saving features of old buildings, the concept of embodied energy, passive and active retrofit techniques, and the legal implications of using solar devices in historic buildings. Especially helpful is the article entitled, "How to Save Energy in an Older House," which contains an exhaustive chart of conservation techniques. Also included is an energy glossary and energy information sources.

To order, send \$9.95 plus \$2.50 postage to:  
The Preservation Bookshop  
1600 H Street, N.W.--Dept. OHJ  
Washington, D.C. 20006  
(202) 673-4061

# Ask OHJ

## Cracked Houses

### Scagliola

**D**O YOU HAVE ANY INFORMATION on a process called scagliola? I believe it is the art of hand-painting plaster to resemble marble. I would like to know how to do it, and what tools and materials will be required. Unfortunately, my library has not been very useful.

--Maureen Wilke Buffalo, NY

**S**CAGLIOLA is a specialty plastering method that uses colored plaster to create the appearance of marble. The color is part of the material itself in this method (as opposed to marbleizing, where the color is painted onto the surface). Scagliola is a highly-specialized finish that is rarely practiced today. It's very difficult to do, and so is not generally a do-it-yourself craft. There are plastering books that can be found in libraries and technical schools which will give you more information about this process. But we don't know of any book currently in print that describes the process in any detail.

*(As you can see, we don't have a great deal of information ourselves. Can any of our readers recommend a good craftsman who still practices scagliola? How about an authoritative book on the subject?--The Editors)*

### Insulating The Attic

**M**Y HOUSE IS 60+ YEARS OLD, with a well-ventilated, wooden-floored attic. Under the floor there is about 3 inches of rock wool insulation, with no vapor barrier. The attic is unheated and unused, and will remain so for at least another 15 years. I have purchased enough 6-inch, foil-backed insulation to cover the attic. My question is, where should I place it, on the floor (foil down) or in between the roof rafters?

--Glenn Stein Great Neck, NY

**Y**OU WON'T BE HEATING THE ATTIC, so you might just as well lay the insulation down on the floor. The problem here is that you shouldn't put foil-backed insulation down over the other insulation; the vapor barrier will trap moisture in the house. See if you can exchange the foil-backed for the unfoiled kind. If you can't, then slash the foil before laying down the insulation. When you are ready to heat and use the attic, you can reuse that insulation with a new polyethylene vapor barrier facing indoors.

**H**ERE'S THE PROBLEM: My house is made of wood and has a painted brick foundation wall; there is a 2-foot crawlspace under the entire house and verandah. There are two downspouts at opposite ends of the northwest wall. For years they have emptied out onto two splash blocks. But midway between these splash blocks is a depression in which a large puddle has settled. I believe it has caused the brick foundation behind it to settle and leave a 3-inch x 8-foot space between the top of the foundation and the bottom of the wooden sill. Recently, the interior wall along the stairway has begun to show signs of stress: cracks and falling bits of plaster. What can I do about this nasty gap between the sill and the foundation?

--Kenneth Koskela Zephyrhills, FL

**F**IRST YOU HAVE TO WEDGE THE CRACK. (The December 1981 OHJ explains this procedure.) Then dig a hole to check the foundation. After redirecting the water flow away from the house, use telltales to see if the crack is still moving. If it has stopped, then fill in the space with drypack mortar; if it hasn't, then you'll have to have an architect go over the house.

### Rescuing Lincrusta

**I**S THERE ANY SAFE WAY to remove layers of paint from Lincrusta-Walton? The exquisite details of this beautifully-patterned material in my entryway are obscured by several layers of paint, including the "classic" glossy dentist-office green!

--K.E. Possler Lancaster, PA

**T**HERE IS NO SAFE WAY THAT WE KNOW OF to completely remove paint from Lincrusta. The methylene chloride in chemical strippers will dissolve the linseed oil in the paper; and you certainly don't want to use heat on paper. But you can safely remove some of the paint by applying lacquer thinner and rubbing with 0 steel wool. (We'd still recommend trying this out on an unobtrusive test patch, however.) When you've removed enough paint to have restored some of the detail, you should refinish the Lincrusta. First put down a ground coat of oil-based paint--one which simulates the original look of the Lincrusta. Then apply a glaze over it, as the original owner would have. Glazes are available from Wolf Paints, 771 Ninth Avenue, Dept. OHJ, New York, NY 10019. (212) 245-7777.

General interest questions from subscribers will be answered in print. The Editors can't promise to reply to all questions personally--but we try. Send questions with sketches or photos to Questions Editor, The Old-House Journal, 69A Seventh Avenue, Brooklyn, NY 11217.

# Why would over 8,000 OHJ subscribers buy The Master Heavy-Duty Heat Gun?

Faye Spidell of Eugene, Oregon, restores old houses in her spare time. Here's what she said in an *unsolicited* letter about the Master Heavy-Duty Heat Gun:

"I read each issue very carefully and have used quite a few hints from the Journal. The nicest thing, though, was being able to buy a heat gun. This last house had built-in bookcases, large windows, an archway between the living room and dining room, and the original cupboards, which had been moved to the back porch/utility room. They all look lovely now, but I tell friends that there are at least two acres of woodwork in the house. I could have never done it with a

chemical paint remover. I have not been so pleased with any tool I've bought!"

Laura Lee Johnston, a homeowner from Long Island, New York, said this about the Master gun:

"Your heat gun is just what we needed to attack our heavily paint-laden newel post. It can't be removed (it is probably holding up the house!) and the thought of using chemical removers on it and coping with the mess has deterred me from getting to it since we moved in."

Patricia and Wilkie Talbert of Oakland, California, are the OHJ subscribers who first told us about the Master Heavy-Duty gun:

"We wouldn't be without it! Interestingly, the more coats of paint, the better the gun works! The heat-softened paint film tends to lift off intact out of cracks and crevices, rather than being dissolved and soaked back into the wood as often happens with liquid removers."

Faye Spidell, Laura Lee Johnston and the Talberts are no special cases. Over 8,000 OHJ subscribers have purchased the Master Heavy-Duty Heat Gun. And the raves keep coming in.

We sell this heat gun because it's the best one money can buy. It makes your job a lot easier . . . and minimizes inhalation of dangerous methylene chloride vapors, given off by most chemical removers.

The electric-powered heat gun softens paint in a uniform way so it can be scraped off with a knife. A small amount of chemical remover is suggested for clean-up and tight crevices, but the heat gun takes care of almost all the work.

In addition to minimizing chemical use, another important safety feature is a lower operating temperature than a propane torch or blowtorch. Thus the danger of vaporizing lead is eliminated, and fire danger is greatly reduced, too.

(Precautions should be taken when handling scrapings from lead-based paint and caution should be observed with wall partitions that contain dust.)

The HG-501 is an industrial-gauge tool. That means it isn't cheaply-made or cheaply-priced. But paint remover is going for \$12 to \$20 per gallon . . . so if you use the Master Heat Gun just a few times, it pays for itself.

When it comes to stripping paint, there are no magic wands — but we think this is the best method and best gun for the job.

\$64.95 postpaid, shipping via UPS

You may order your Master heat gun by filling out the Order Form in this issue, or by sending \$64.95 to The Old-House Journal, 69A Seventh Avenue, Brooklyn, NY 11217.



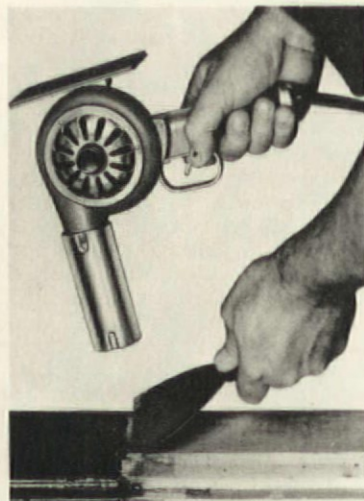
## What it will do:

♦ The Master Heavy-Duty HG-501 Heat Gun is ideal for stripping paint from interior woodwork where a clear finish is going to be applied.

Use the heat gun for stripping paint from:

(1) Doors (2) Wainscotting (3) Window and door frames (4) Exterior doors (5) Porch columns and woodwork (6) Baseboards (7) Shutters and (8) panelling.

♦ In addition, the Master heat gun can be used for such purposes as thawing frozen pipes, loosening synthetic resin linoleum pastes, and softening old putty when replacing window glass.



## What it won't do:

The heat gun is not recommended for:  
(1) Removing shellac and varnish;  
(2) Stripping paint on window mullions (the glass might crack from the heat); (3) Stripping the entire exterior of a house (too slow); (4) Stripping Early American milk paint (only ammonia will do that); (5) Stripping exterior cornices (could ignite dust or animal nests inside).

## Note these outstanding features:

- ♦ Heavy-duty industrial construction for long life
- ♦ Pistol-grip handle; 3-position fingertip switch with guard for added safety
- ♦ Rubber-backed stand keeps floors from scorching; stand swivels 90°; has keyhole for hanging and storage
- ♦ Adjustable air intake regulates temperature between 500°F & 750°F.
- ♦ Rugged die-cast aluminum body — no plastics
- ♦ 8' long 3-wire cord, grounded, with molded plug
- ♦ No asbestos used in construction
- ♦ Double-jacketed heater
- ♦ Rated at 120 v. and 15 amps
- ♦ Approved by Underwriters Laboratories

The Old-House Journal Guarantee: If your heat gun should malfunction for any reason within two months of purchase, return it to The Old-House Journal and we'll replace it.

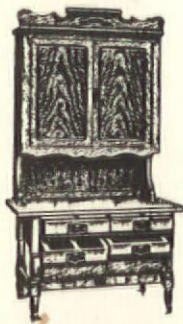
# Restoration Products News

The Source for Products and Services for Old Buildings

This month—a selection of products especially appropriate for the turn-of-century house.

## Help For Your Hoosier

A "Hoosier" could usually be found in turn-of-century kitchens. These handy cupboards, which often had a sugar dispenser and a flour sifter built in, are once again becoming popular. However, replacement parts are often difficult to find. One source we managed to locate was Furniture Revival & Co. Here you can find a complete selection of "Hoosier" hardware including the brackets needed to attach the top section to the lower cupboard. (They stock both the top- and side-mounted styles.) These brackets, \$56.10/pair, are made of 16-18 gauge stamped steel and painted dull metallic silver. Also available are solid brass "Hoosier" door latches and hinges. And, to complete the restoration of your "Hoosier"—flour and sugar dispensers (about \$63 and \$56).



The company also carries many other hard-to-find hardware items including icebox and roll-top desk hardware. A catalog (\$1.50) is offered. Furniture Revival & Co., PO Box 994, Dept. OHJ, Corvallis, OR 97339. (503) 754-6323.

## Keeping Warm

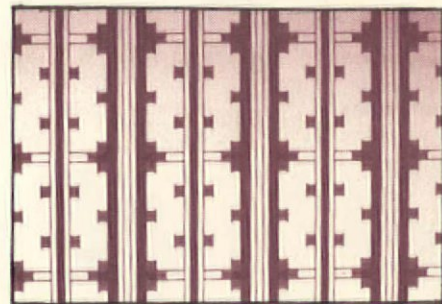
We have received many inquiries from readers concerning old stove and heater parts, especially radiants for the Humphrey gas heater. If you are one of the many people trying to locate a source for these and other hard-to-find replacement parts we suggest you try the following two sources: (1) Empire Stove and Furnace Co., 795 Broadway, Dept. OHJ, Albany, NY 12207. (518) 449-

5189 or 449-2590. (2) The Aetna Stove Co., 2nd & Arch Sts., Dept. OHJ, Philadelphia, PA 19106. (215) 627-2008.

These two companies—among the country's largest and oldest stove distributors—have an extensive inventory of replacement parts for every kind of stove and heater. They do not offer any literature and would prefer that you call rather than write so that they can determine exactly what you need.

An inventory of 40-50 completely restored stoves can usually be found at Agape Antiques. The selection offers parlor or cooking stoves from 1830 through 1930. Wood, coal, or gas models are available with a price range of \$400-\$3,700, and Dave Wells, the owner, will be happy to ship anywhere.

They also stock stove replacement parts. Although their parts selection is limited to Glenwood Stoves, it's very complete. The best way to get information is to call Mr. Wells directly. Agape Antiques, Box 43-OHJ, Saxtons River, VT 05154. (802) 869-2273.



## Craftsman Wallpaper

Richard E. Thibaut, Inc. and The Historic House Association of America have collaborated to produce a line of authentic reproduction wallpapers. All 19 designs, each available in 3-5 colorways, are very reasonably priced from \$14.95 to \$18.95 per roll. Many of these 54-inch wide screen prints also have matching fabric.

The patterns were taken from historic homes throughout the country, mostly from 19th-century documents; however, the early 20th century is also represented. Shown here is an Arts & Crafts pattern taken from the Roycroft Campus, E. Aurora, NY (1890s).

Each wallpaper in Thibaut's Historic House collection is accompanied by a brief history of its origins—a nice historical touch for the old-house owner. A free brochure and the name of a dealer is available. Richard E. Thibaut, Inc., 315 5th Ave., Dept. OHJ, New York, NY 10016. (212) 481-0880.

## Turn-Of-Century Lighting

Turn-of-century lighting can be difficult to find. Heirloom Brass offers two chandeliers which are reproductions, with slight changes to meet the electrical code, of 1924-1926 models. Both fixtures are solid brass, coated with lacquer to reduce tarnishing, and sold with

a choice of 4 different glass shades.

Heirloom Brass supplies to wholesalers, but they will give you the name of a dealer in your area. Heirloom Brass, PO Box 146, Dept. OHJ, Dundas, MN 55019. (507) 645-9341.



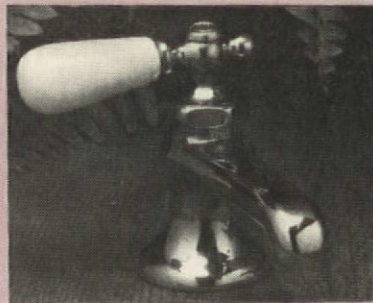
4-arm chandelier—sugg. retail \$250



3-arm chandelier—sugg. retail \$190

## The 20th Century Bathroom

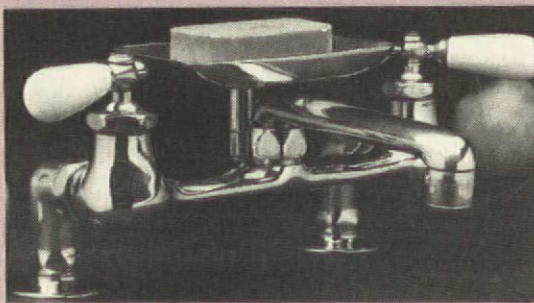
Sterline Manufacturing Corp. has established a retail subsidiary, Barclay Products, in response to OHJ readers' interest in their wholesale products. Barclay carries a full line of bathroom accessories including high-tank toilets, shower rings, and shower curtains (standard and custom sizes). Barclay's line of solid brass faucets, manufactured by the Chicago Faucet Company, are almost exact reproductions of the patterns used by Chicago Faucet in the 1920s and 30s; minor changes were made in compliance with modern plumbing codes.



Basin cocks (sold in pairs)  
suggested retail—\$117

Their 10 different faucet models have a non-lacquered, polished brass finish and white porcelain handles. Barclay also sells *Never Dull* (5 oz. for \$5), an alcohol-based brass polish that is alkaline and non-abrasive.

For their free catalog contact: Barclay Products Co., PO Box 12257, Dept. OHJ, Chicago, IL 60612. (312) 243-1444.



Deck-mounted sink faucet sugg. retail—\$185

## Embossed Tiles

FerGene Studio offers embossed tiles for your fireplace and hearth. Most of these tiles have a relief design which is copied from, or influenced by, late Victorian tiles. Plain tiles are also available for those who feel that a continuous pattern is too busy.

Reasonably priced stock patterns include the *Virginia Creeper*, which is designed to "grow" around the fireplace: It is comprised of running-vine tiles, corner tiles, and end-vine tiles. The cost of these and other regular relief 6 x 6 in. tiles is \$10/tile. Many other sizes are available, including small hearth tiles and rectangular tiles. Prices for smaller tiles range from \$3-\$5.

The tiles can be glazed to match a color in your room. Another option is Crackleton glaze, which imitates the crazing seen in antique tiles.



In addition, owner Mrs. Kirtland is willing to make replacement tiles or create a new design for you. There is a design fee of about \$100 for this additional custom work, which usually requires 3 months. The cost and the time depend on the number of tiles, the difficulty of the design, and the even greater difficulty of matching colors. (If your design is one that Mrs. Kirtland would like to stock, she is willing to share the cost of the custom work.)

For a free brochure, send a self-addressed stamped envelope to: FerGene Studio, 4320 Washington St., Dept. OHJ, Gary, IN 46408. (219) 884-1119.

## Overhead

The textured metal ceilings found in many turn-of-century homes are both decorative and fire retardant. Shanker Steel, who has been manufacturing tin-plated metal ceilings since 1912, is still using the original patterns and methods. Their ceilings are available in 22 different patterns, with coordinating cornices. These patterns may be purchased in 2-ft. x 8-ft. sheets, at a cost of \$22.30 each.

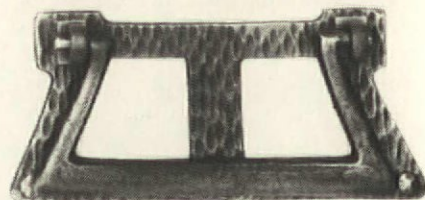
After installing a metal ceiling, be sure to clean it with denatured alcohol or mineral spirits (a must for proper paint adhesion), and coat it with an oil-based paint or clear lacquer. A free brochure of patterns and installation instructions is available. Shanker Steel Corp., 70-32 83rd Street, Dept. OHJ, Glendale, NY 11385. (212) 326-1100.



## Fine Hardware

Horton Brasses manufactures over 500 solid brass hardware items in a variety of styles covering the period from late 1600 to about 1920.

Unlike many other companies, this one offers furniture hardware for the simpler late Victorian & turn-of-century home. Included in this selection is the *golden oak style* drawer pull (\$4.50), shown here, and cast brass knobs in the sunflower design (\$3.25-\$4.25). They also stock an unusual item—a moulding hook (30¢). When attaching your picture hanger to the moulding, this brass-plated hook fits securely onto the moulding and is much more appropriate than a nail.



Mr. Jim Horton, the owner of this company, is willing to do custom hand-reproduction of hardware. There is an additional charge for this service, but the order will usually be completed within three to four weeks. A catalog is available for \$2. Horton Brasses, Nooks Hill Rd., PO Box 95-OHJ, Cromwell, CT 06416. (203) 635-4400.



Clip-And-Mail

# Order Form



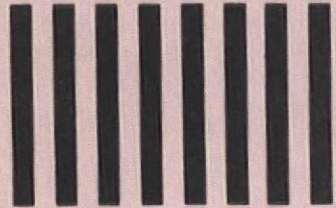
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on the other side to conveniently get quality  
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lover . . . for your home, or as terrific gifts!

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Important

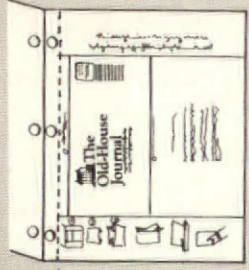
Before sealing your order:

1. Be sure that your name, address and zip code are printed clearly or typed.
2. Check to see that you have given a STREET ADDRESS — not a P.O. Box — if your order includes a Catalog, Back Issues or a Heat Gun. We ship via United Parcel Service, and they cannot deliver to a P.O. Box.
3. Verify that your check or VISA credit card information is enclosed.

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**THIS PAGE FOLDS INTO A SELF-MAILER ENVELOPE!**

*Mail this postage-paid envelope with your check for prompt service.*



(1) Cut Along Dotted Line



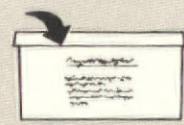
(2) Fold In End Flaps



(3) Fold Along Center Line



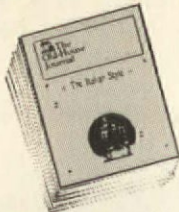
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Drop In The Mail!



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New Subscription

Renewal

(Please enclose current mailing label)

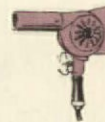
1 Year — \$16

2 Years — \$24

3 Years — \$32

NOTE: Please allow 8 weeks for your first issue to arrive

Master Appliance HG-501 Heat Gun — \$64.95  
(N.Y. State residents add local sales tax)



Newest UPDATED Package!

"The Everything Package" — A terrific money-saving package which includes: Back issues from January, 1976 through present; all Indexes to those issues; the 1982 Old-House Journal Catalog; plus a subscription running through December, 1982. In all, you get 84 issues + the Catalog. All for only \$59.95. (You save \$55!)

## The Old-House Bookshop

**New!** **Subscribers Save \$5!**



**The American Shelter: An Illustrated Encyclopedia of the American Home** chronologically charts the development of houses in America from a designer's perspective. From the time of the settlers to projection into the homes of the future, author Lester Walker surveys and describes over 100 different house styles with more than 1,000 illustrations, including exploded diagrams, floorplans and side elevations.

The author has simplified the understanding of floor plans and structure; has also included the bases for each house design, including factors as siting, form, materials and building methodology. All produce the most pervasive man-made object on the American landscape — the single-family dwelling.

Reg. retail price: \$27.95  
OHJ Subscriber price: \$22.95 + \$2 postage & handling  
320 pages, 8 1/2 X 11, hardcover

15 **PALLISER'S LATE VICTORIAN ARCHITECTURE**—Largest collection of late 19th century house plans & ornamental details. Contains 2 books published by architectural firm of Palliser & Palliser in 1878 & 1887. Over 1,500 plans & details. 312 pages—Jumbo 10x13. Softbd. \$21.95.

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1982 OHJ CATALOG—Comprehensive buyers' guide to over 9,000 hard-to-find products & services for the old house. This "Yellow Pages" for restoration & maintenance — 25% larger this year — is the most complete, up-to-date sourcebook available. Softcover. \$11.95. \$8.95 to current OHJ subscribers.

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17 **MOULDINGS & ARCHITECTURAL DETAILS OF THE LATE 19th CENTURY**—Reprint of a mouldings & millwork catalog published in 1898. Shows doors, mantels, etched glass & many hundreds of other architectural elements used from 1870's thru 1900. Over 1,200 illustrations. 288 pages. Softbound. \$14.00.

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The Old-House Journal

This page forms its own postpaid envelope. Just check the boxes, and clearly print your name and address. Cut out the page and fold, as indicated on the reverse side. Enclose your check and drop it in the mail.

# Your Search Is Over!

**F**ixing up your old house? Looking for a dazzling brass chandelier for your Queen Anne? Pulling out your hair trying to find tin ceilings for your turn-of-century home? Have you been toying with the idea of getting one of those spoke-handled porcelain faucet sets?

Don't get out your walking shoes and canteen to go searching for those elusive products or services. Make life simple for yourself. Get the one indispensable sourcebook for old-house lovers — send for a copy of The 1982 Old-House Journal Catalog.

- Replacement balusters
- Antique and recycled house parts
- Mouldings and gingerbread trim
- Ornamental plaster
- Period fabrics and wallpaper



- Authentic paints and finishes
- Hinges, knobs and other hardware
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- ... AND MUCH MORE!

This new edition has 176 pages of descriptive information on almost 10,000 hard-to-find items from over 1200 companies across the nation. It is the most comprehensive directory available.

The 1982 Old-House Journal Catalog helps owners restore and preserve houses that are old — but the information is up-to-date. All listings have been painstakingly screened and edited by the staff of The Old-House Journal. Included are descriptions of products & services, details on brochures, and addresses and phone numbers.

Everything is extensively cross-referenced, to make sure you don't go crazy looking for "chimney collars" when that's listed under "stove pipe and fitting."

You may have thought finding rolls of custom-designed, hand-printed 19th century wallpaper at \$14 to \$18 each would be impossible . . . but that's just one of hundreds of exceptional finds in The 1982 Old-House Journal Catalog.

When store clerks insist "They don't make that anymore . . ." turn to the pages of The 1982 Old-House Journal Catalog.

*\$11.95, postpaid*  
*\$8.95, postpaid, to current subscribers*  
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To get The 1982 Old-House Journal Catalog delivered directly to your home, send \$11.95 — \$8.95 to current subscribers — to The Old-House Bookshop 69A Seventh Avenue, Brooklyn, NY 11217 . . . or Use The Order Form In This Issue

## The Latest Edition Features:

- ✓ 176 pages
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- ✓ new design
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- ✓ over 1200 hard-to-find companies
- ✓ latest information available



# The Old-House EMPORIUM

## FREE ADS FOR SUBSCRIBER/MEMBERS

Classified ads are FREE for current member/subscribers. The ads are subject to editorial selection and space availability. They are limited to one-of-a-kind opportunities and small-lot sales. Standard commercial products are NOT eligible.

Photos of items for sale are also printed free—space permitting. Just submit a clear black & white photograph along with your ad copy.

Examples of types of ads eligible for free insertion: 1) Interesting old houses for sale; 2) Architectural salvage & old house parts for sale; 3) Restoration positions wanted and vacant; 4) Hard-to-find items that you are looking for; 5) Trades and swaps; 6) Restoration and old house services; 7) Meetings and events.

Free ads are limited to a maximum of 50 words. The only payment is your current OHJ mailing label to verify your member/subscriber status.

Deadline will be on the 5th, 2 months before the issue. For example, ads for the December issue are due by October 5th.

Write: Emporium Editor, Old-House Journal, 69A Seventh Ave., Brooklyn, NY 11217.

## FOR SALE

**ROOKWOOD FIREPLACE** tile. Enough for standard-size fireplace front. Dark green with long-stemmed rose motif for either side of opening. Each tile stamped "Rookwood" on back. \$350 plus shipping. Regensis, 2712 North Henderson, Dallas, TX 75206. (214) 823-3241.

**BACK BAR:** Originally from drug store c. 1900. Oak, 8 ft. long, 7½ ft. high (two pieces) glass panel doors above, wood doors & drawers below. Fully, professionally restored. Pictures available. \$2500. Delivery can be arranged. Dan Diehl, 6374 Waterloo Rd., Atwater, OH 44201. (216) 947-3385.

**VICTORIAN MIRRORS,** a spectacular pair; original glass. 86 in. high by 58 in. wide. \$950/pair. Sam Stone, 19 The Lafayette, 333 Commonwealth Ave., Boston, MA 02116. (617) 536-5395; 353-1590.

**UNIQUE BATH.** 2 parts: the inner & the outer glazed sections are separated to leave an air space, keeping the water hot longer. C. 1898 American Standard. Price \$800. (613) 526-1818.

**BEVELED PLATE GLASS:** nine pcs., 30 in. x 32 in.; thirteen, 26 x 30; two, 20 x 32; two, 25 x 27; one, 24 x 28. The above are all ¼ in. thick or more; bevels are 1-5/8 in. wide, c. 1900. Nelle Mullins Butterfield, 908 S. 24th St., Quincy, IL 62301.

1870 STEINWAY rosewood square grand piano. Serial No. 21412, 40 in. x 80 in. x 38 in. high. \$3,000. Contact: B. Saunders, 5815 Ohio St., Vermilion, OH 44089. (216) 967-9685.

2 FRENCH DOORS with 30 panes of button glass, c. 1920. 2 ft. x 4 ft. sheets of ceiling tin: 27 in Roman cross pattern, 10 in double square pattern. Also odd lengths of flooring, beaded ceiling, and some cypress clapboard. A. Cushman, 1092 West Tarleton, Stephenville, TX 76401. (817) 965-5945.

11 RED OAK BEAMS, hand hewn, from demolished barn of Hendrikus Du Bois, c. 1790. Mostly in excellent condition. Lengths from 12 ft. to 28 ft., width 12 in. to 16 in., thickness approx. 10 in. Beams located in New Paltz, NY. For appointment to inspect, leave phone message on tape at (212) 759-0840.

WOODEN SHUTTERS with movable flaps and pegged corners: 38 at size 15 in. x 54 in.; 4 at size 16 in. x 62 in. Excellent condition but need cleaning. Best offer. (203) 488-8932.

ANTIQUÉ HARDWARE, c. 1910. Brass, other metals, glass, porcelain: ice box locks, hinges, door & cabinet knobs, hooks, draw pulls, locks, and much more. Hardware supplies for restoration needs. Odd Hardware, 76-16 Jamaica Ave., Queens, NY 11421. (212) 296-0163.



**SPECTACULAR ART DECO MURALS**—8 different hand-carved in relief in 1936, 11 ft. x 12 ft. to 11 ft. x 15 ft. in size with built-in indirect lighting. Also have 13 pine office partition doors with frosted glass, 3 swinging doors & trim. John A. Neff, 417 Pine St., Greenview, OH 45331. (513) 548-9894.

2 PAIR POCKET DOORS, reddish-color with brass keyhole fixtures: 30½ in. wide x 7½ ft. high x 2 in. thick. Also several other panel-type doors in varying dimensions, approx. 30 in. x 6-7 ft. Pocket Doors, 409 3rd Ave., Belmar, NJ 07719. (201) 681-5752; 681-1927.

## MEETINGS & EVENTS

**CITY LIVING—Rehab Fair,** Hartford, CT. Sept. 25 & 26, 1982. Exhibitors wanted for fair for home repair, maintenance, & restoration. 200 exhibitors displaying products & services for restoration, structural repair, decorative improvements, energy conservation, as well as manufacturers, craftsmen, distributors, designers, consultants, architects. Workshops and demonstrations in practical hands-on conservation techniques, preservation methods, maintenance tips, home financing, contractor negotiations. For details contact: Sandy Hamer, 15 Lewis St., Hartford, CT 06103. (203) 247-6849.

**HOUSE RESTORATION & ANITQUE SHOW** June 4, 5, & 6, 1982. Kansas City Trade Mart, Old Municipal Airport Bldg., Kansas City, MO. For booth space, contact: Dolores Wagner, Wagner Promotions, Rt. 2, Box 152, Plattsburg, MO 64477. (816) 532-0194; or 539-3305.

**COURSES & SEMINARS**—Feb. 24, Borrowing Money For Real Estate Projects; March 10, Fundamentals Of Effective Property Management; March 27, Home Construction: Contracts To Completion. For further information, contact: University Extension, University of California, Davis, CA 95616. (916) 752-0880.

**A CENTURY OF SURFACE DECORATION—1820-1920:** 7th Annual Historic Preservation Conference, April 22-24, in lovely Jonesboro, Tenn. Speakers will be Clem Labine & Patricia Poore, Bruce Bradbury, and Malcolm Robson. Topics include interior paint colors & wallpapers; stenciling, graining, & marbling; and preparation of surfaces. Lectures & workshops. Participation is limited. For information contact: The Jonesborough Civic Trust, PO Box 180, Jonesboro, TN 37659. (615) 753-5281. Cosponsored by The Jonesborough Civic Trust, Appalachian Regional Bureau of Government, Appalachian State University, and The Old-House Journal.

## INNS & HISTORIC HOUSES

**SPRING HOUSE.** Bed & Breakfast in a cozy 18th century restored stone house in the valley of Muddy Creek in the Pennsylvania countryside. Near York, Lancaster. Two hours from Philadelphia, Washington. (717) 927-6906.

## REAL ESTATE

**LOVELY BUILDING LOT** (50 x 125) in staid residential section of Attleboro, MA. Build your own year round or vacation home here near the Cape. \$2500 cash or trade. K. A. Cooper, 1931 16th Street N.W., Washington, DC 20009. (202) 667-0819.

**PARKE CO., IN**—Impressive 1883 2-storey brick home on 6½ acres, near Turkey Run State Park. Italian Villa style architecture. Authentic restoration 90% complete. 10 rooms, 1½ baths, pantry, large rooms, 5 fireplaces. Central heat, well insulated. \$150,000. Contact Felkner Realty, Rockville, IN 47872. (317) 569-3186.

**SOUTHWESTERN MICHIGAN:** c. 1860 brick Italianate farmhouse, 10 spacious rooms, beautiful walnut staircase to second floor and attic, original painted-grain woodwork, full cellar with stone floor, 2 acres with old trees. Easy drive to South Bend, St. Joe, Benton Harbor, Kalamazoo. Needs complete, loving restoration. \$20,000. Call (713) 696-7041.



**FEDERAL BRICK HOME** with Italianate porch and other detailing. 30 min. south of Indianapolis on large, wooded corner lot in Franklin, IN. Restored, 8 rooms ready for occupancy. Nominated for National Register. \$72,000. Realtor Kenn Chesser, (317) 736-5663.

**6000 SQUARE FEET** of glorious Victoriana in Inman Park, one of Atlanta's most active restoration areas. Many original exciting architectural features, dentil moulding, 9 fireplaces, heart pine floors, more. Good systems, structurally sound, in-ground pool. Contact agent: Ann Roberts, Downtown Properties, 313 N. Highland Ave., Atlanta, GA 30307. (404) 688-2050.

**WEST KINGSTON, RI**—House built in 1725. 1 acre of land, 2-stall horse barn. House has 2 apts., both now rented. 4 open fireplaces, wideboard floors. Asking price, \$42,000. Ms. Barbara Williams, 1401 Stanwood Lane, Hendersonville, NC 28739.

**UPSTATE NY ITALIANATE, 1900**, brick home on lovely ½ acre. 9 rooms, modern kitchen, bay windows, wood-burning fireplace. Well insulated, complete storms. By owner—will carry contract with \$20,000 down @11% for 25 years. 3-car garage. Lovely residential in quiet village. 1½ hrs.—Montreal, Canada. (315) 353-2188.

**CRAGSMOOR, NY (Ulster County)**. 90 mi. to NYC 16-m. dilapidated turn-of-century cottage. 2 fireplaces, 4 baths, 2 large porches, 5 chimneys. 1.1 acres; zoned nature preserve, historic stone entrance. Located 4 mi. from Ellenville, NY. Also 100-year-old, 3 bedroom Colonial in Ellenville, NY. \$18,000. Needs much work. J. Hester, PO Box 395, Bronx, NY 10471. (212) 549-0896.

**SAN FRANCISCO MANSION** with 2 income units. Main house offers grand living. Oversized rooms, inlaid hardwood floors, 4 bedrooms, 3½ baths, new plumbing, new wiring. Penthouse suite is 2 bedrooms and has downtown view. Old stables have been converted into high-tech designer living. \$340,000. Call Lee Jones, Caldwell-Jones Real Estate, (415) 821-6110.

**ORANGE, VA: "Rebel Hall,"** Classical Revival (1849) brick residence on ½ acre town lot. Handsome interior woodwork. 4 bedrooms, 2 baths. Hot water heat. Owner financing. \$72,500. Royer & McGavock Ltd., Realtors, 3 Boar's Head La., Charlottesville, VA 22901. (804) 293-6131. Evenings and weekends (804) 589-3083 or (703) 672-4171.



**NEWARK, DE**—2-storey frame house on National Register offered for relocation & restoration by the Delaware Dept. of Transportation. Local interests preferred. Must be removed from site no later than May, 1982. For information, contact: Nick Blendy, Project Planning, PO Box 778, Dover, DE 19901. (302) 736-3085.

**GEORGIAN REVIVAL MANSION, Watseka, IL.** Built in 1912, its 5,500 sq. ft. include 4 bedrooms, 2½ baths, living room opening to large porch, paneled dining room with butler's pantry, ballroom, library, and 2 fireplaces. 1+ acre city lot with mature trees. \$125,000. Brochure no. OHJ-75446. Previews, Inc., 222 South Riverside Plaza, Chicago, IL. (312) 648-0313.

**ATHENS, NY**—Elegant 6-room 1878 Federalist home in historic district offers large living room and dining room, full attic and basement, new roof and furnace, private porch and yard, garage, and liberal owner financing. Asking \$30,500. Land Resources, 28 Second St., Athens, NY 12015. (518) 945-1303.

**JIM THORPE, PA.** One of the 13 original millionaire homes in this historical town. Listed on the National Register. Built in 1900; 5700 sq.ft. Original beautiful woodwork, fixtures, and wall & ceiling coverings. Original blueprints & specs. Located in downtown area undergoing restoration. Asking price \$39,900. Gene Durigan Real Estate, (215) 377-4488 or (717) 386-2408, evenings.

**MAPLEWOOD, NJ**—1907 Builder's model. Impressive architecture, construction, neighborhood. One of the town's originals. 9 generous rooms; 3rd floor suite; 5 baths; excellent condition with oak floors, recent refurbishing. Walk to town; 35 min. WTC. Immediate occupancy. \$119,500 with financing/rental considerations. Burdorf, (201) 356-5200 or owner (617) 359-6539, p.m.

**BUILDING** made into living quarters. Living room, kitchen, 4 bedrooms, bath, workroom. Built in 1893. Total 3000 sq.ft., 15 ft. ceilings, brick walls, wood floors. In small town near Austin. \$27,500. Mrs. Lloyd E. Wheeler, 1813 Madison Ave., Austin, TX 78757.

**FARM HOUSE** 200+ years old. 7 rooms, new kitchen, 2 new baths. Carefully preserved. Some wide board floors. Large lot. \$129,000. (201) 538-1331.

#### RESTORATION SERVICES

**STONE MASONRY**—Architectural restoration, rebuilding, repoint of stone buildings, steps, structures, fireplaces, etc. Consulting. NY State Historical Association & NYC Parks Dept. references. Have trowel, will travel. William H. Parsons, Jr. & Associates, 19 Eagle St., Cooperstown, NY 13326. In NYC area call (212) 868-3330, other areas, (607) 547-9639.

**HEARTLANDS PRESERVATION SERVICES** for houses, commercial buildings, etc.: Inspections for significance and condition of architectural, plumbing, electrical/mechanical systems; code compliance; adaptive use feasibility studies; research, National Register and tax certifications; measured drawings; maintenance programs and specifications for paints, colors, exterior facade materials. Contact Building Conservation, Box 89, Evanston, IL 60204. (312) 491-0882.

**ANTIQUE HOUSE CONSULTANTS** who have worked on National Register properties and historic house museums now offer their technical expertise to the private homeowner. Our services include: restoration planning, research & documentation, paint analysis, selection of appropriate wallpapers & mouldings, help in finding craftsman & architects. Brochure available. Contact: Antique House Consultants, 242 Dalmeny Rd., Briarcliff Manor, NY 10510. (914) 763-4858.

**ORNAMENTAL PLASTER RESTORATION.** High quality restoration, reproduction, & new work in plaster coves, mouldings, ceilings, and wall panels. Historical restorations in original materials, first period-Colonial to late Victorian. Custom casting of medallions & other architectural pieces. Russell Restoration of Suffolk, Dean M. Russell, Rte. 1, Box 243A, Mattituck, NY 11952. (516) 765-2481 or 298-4982.

**OLD-HOUSE RESTORATION,** repairs, replacements, renovation, remodeling, accessories. We stock or will find & install antique or reproduction materials. Historical research & sightseeing tours. Brochure available. The History Store, 418 N. Union St., Wilmington, DE 19805. (302) 654-1727.

**INTERIOR STRIPPING & refinishing.** Doors, windows, baseboards, etc. You name it! All painted surfaces. Free estimates. References available. NYC area. Call: Lawrence Brown, (212) 675-3921.

**WOOD INTERIORS**—Preservation and adaptation. Artist/craftsman with portable power tools for on-site work, including floors, windows, and doors. Hobi Judson, (212) 255-1094.

**THE CRAFTSMAN** is a skilled mechanic who will help you to recreate or retain the historical grandeur and warmth of your home, stripping and refinishing woodwork. My skill and professionalism are guaranteed to please. Call (212) 663-3334.

**PUBLIC RELATIONS—HOUSE TOURS.** A profitable house tour takes planning. House Tours, Inc. can tell you how to do it. Cost is nominal. Write 11251 South Forrestville Ave., Chicago, IL 60628.

**HISTORICAL RESEARCH**—If they lived in your house at the start of a decade in the 19th century, then we can tell you the age, sex, and occupation of the house owner and family. Give the full name of the owner, complete address, including village and state, and known dates of occupancy. Search is at \$10 per hour. Ancrums Research, 128 Central Ave., Staten Island, NY 10301.

**IS YOUR HOUSE ANTIQUE** or just old? Either way, we can help you deal with it: Full preservation and architectural services, research, project planning, design, technical consulting, pre-purchase inspection, & more. Allen Charles Hill, AIA, Historic Preservation & Architecture, 25 Englewood Rd., Winchester, MA 01890. (617) 729-0748.

**ST. LOUIS, MO**—Fine furniture & architectural stripping & refinishing done. Also restoration, repair, carving, caning. All hand work done by craftsmen with over 25 years experience. Please come by our shop. Artistic Finishes, 4173 Juniata St., (314) 773-1706.

**BOB SMITH** Decorating & Repair. Slate & tile roofing, custom copper work, metal fabricating, concrete shingles. Restoration work, carpentry—rehab work. (312) 238-2113.

#### WANTED

**PAIR OF ARCHED DOORS** with central height 130 inches & base 77 inches when closed. Arch has radius of 38 inches. Contact: P. Gouras, 5225 Sycamore Ave., Riverdale, NY 10471. (212) 884-7114.

**VICTORIAN IRON FENCING**—Approx. 40 ft., preferably "hairpin" motif. Also desire matching gate & pair of ornate, brass wall sconces, preferably operable gas or gas/electric. H. Ballance Jr., 3891 Fairfax Court, Atlanta, GA 30339. (404) 436-2120.

If your issue of The Old-House Journal arrives dog-eared or damaged, let us know: We'll send out a replacement right away.

#### OHJ Assistant Editor Writes A Book

Journal readers interested in serious contemporary music may want a copy of a new book co-written by our assistant editor, Cole Gagne. It's a book of interviews and photographs of 24 American composers, including Aaron Copland, Lukas Foss, and Philip Glass. *Soundpieces: Interviews With American Composers*, by Cole Gagne and Tracy Caras. (quality hardbound, \$24 ppd) Write to Scarecrow Press, PO Box 656, Metuchen, NJ 08840.

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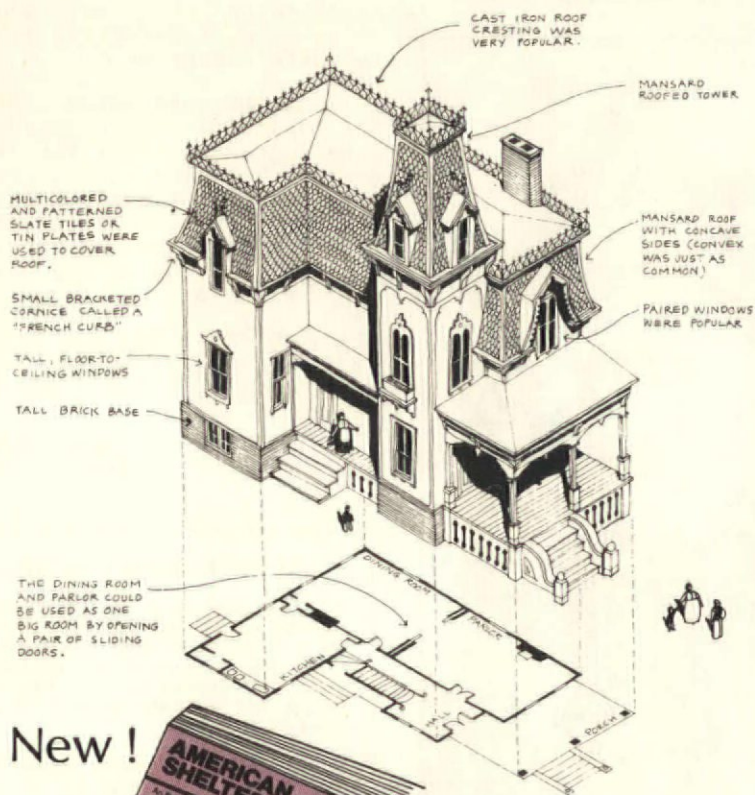
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If your preservation or neighborhood organization is planning a meeting or workshop soon, you might want to spread the word about *The Old-House Journal*. If you're a subscriber, you already know the practical value of the OHJ — why not let your neighbors in on it!

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Opinion...

# Remuddling — Of The Month —



THE CAPTION for this photo could be, "The siding contractor strikes again!" The makers of vinyl and aluminum siding keep insisting that their products can be applied to old buildings in a sensitive fashion. Maybe they've never bothered to point that out to the contractors who slap the stuff on buildings. Because based on the photo evidence we've seen, a sensitive job is the rare exception.

THIS SIDING contractor committed the following: (1) Removed the ornamental caps over the two central windows; (2) Covered over the corner quoins; (3) Used a "clapboard" twice the width of the original--completing his trashing of the building's exterior.

THE POOR OLD HOUSE now has a badly split personality. Anyone know a good house psychiatrist?

Submitted by: (Name Withheld)  
Portland, Maine

### TAKE YOUR CAMERA ALONG...

... the next time you are strolling through an old neighborhood. Be on the lookout for harmful or thoughtless things that have been done to old buildings. We're looking for object lessons... photos that will help others avoid the same mistakes.

IF YOU SPOT some classic remuddling, snap away. We'll award \$50 if your photos are selected as the monthly winner. The message is more dramatic if you also send along a photo of a similar unremuddled building.

SEND YOUR ENTRIES to: Remuddling Editor, The Old-House Journal, 69A 7th Ave., Brooklyn, N.Y. 11217.



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