Among the more discouraging problems encountered during the restoration of an old house is a badly deteriorated plaster ceiling. Cracked, sagging, ineptly patched and coated with countless layers of lime whitewash, calcimine, or paint, such a ceiling often invites the simple solution of complete replacement with dry wall plasterboard and taped seams. Such an expedient is incompatible with the character of an old house. And in the case of a truly historic house, it is inconsistent with accepted preservation practices that argue for retention of as much original fabric as possible. This article will discuss proven techniques for the salvage of an eighteenth century plaster ceiling; and demonstrate how, with patience and labor, the homeowner can avoid the expense of a new ceiling while preserving the structural integrity of an historic building.

OCCASIONALLY during the late 19th and early 20th centuries, ceilings were papered to hide cracks and surface irregularities. A paper-covered ceiling is generally a clue that the ceiling will be found in rough condition. Removal of the paper will be perhaps the easiest undertaking of the entire project since adhesion to the dry, unsized, and calcimine-coated surface will be poor and the paper, once "started" at the edge of the room, may readily pull away in strips. Repeated dampening with a sponge, or the use of a rented steamer from a building supply house, will aid in the removal.

Calcimine (kalsomine) is a white or tinted mixture of whiting (chalk), glue size, and water. Whitewash is a "liquid plaster" made of slaked lime and water, with additives such as salt, glue, sugar, or rice flour, and coloring agents.

To Remove Calcimine

There is no truly easy way to strip a ceiling of the various whitening agents popularly in use during the late 18th and 19th centuries. Although the homeowner may experiment with different methods of softening the whitewash or calcimine, the basic procedure remains what conservators euphemistically refer to as "mechanical." In layman's parlance, this means scraping by hand with a putty knife or razor blade scraper.

Calcimine can be scraped dry but the dust is a nuisance and the tenacity of some difficult areas may result in gouged plaster unless the surface coating is softened. Calcimine is theoretically water soluble; lime whitewash is less permeable; and both may incorporate a now unknown bond-

(Continued on page 142)
Saying It's Old Is Not Enough

I was being interviewed on a radio talk show a few weeks ago. The host, although polite, clearly thought the idea of preservation was quite bizarre. He put this question to me: "Restoring old houses is interesting. But it is irrelevant. You don't improve anyone's quality of life by doing that, do you?"

Trying to give a punchy 30-second answer to that question, I must confess, was rather frustrating. But the question haunted me... because that is the way a large segment of the American populace regards the preservation movement. And since I didn't give a very good answer over Radio Station WGY, I thought I'd take another crack at it.

Part of the problem in discussing preservation is that it is a fuzzy term. As I see it, there are three components to preservation:

1. Conservation--The husbanding and recycling of physical resources;
2. Aesthetics--The beauty of old structures and environments;
3. Historicism--The retention of old buildings because they are old or associated with an historical event or person.

When building a rationale for preservation, it is important to untangle these three strands.

Conservation Is The Key

Conservation is the most important element. It's obvious that the world is entering an era of scarcity. Energy--and other raw materials--are becoming more scarce and expensive. Thus, conservation is in harmony with the basic direction of world economics. When the National Trust points out that 8 building bricks contain the energy equivalent of a gallon of gasoline, that's an objective fact that can be understood by the most skeptical of audiences.

Aesthetics and historicism, however, involve personal taste. And that's where some people part company with the preservation movement. They regard aesthetics and historicism as irrelevant in a world of scarcity.

I believe, however, that we can make a strong case for aesthetics and old buildings. Most old buildings were designed specifically to be beautiful and to delight the eye. Conversely, the word "beauty" is almost totally absent from the vocabulary of the modern designer. That's why the public reacts so favorably to restored buildings and neighborhoods--and why much modern construction leaves people cold.

Living in beautiful surroundings makes people feel good--and that certainly improves their quality of life. The problem has been that most measures of quality of life focus on sheer consumption: Dollars spent and resources devoured. But inner satisfactions are important to quality of life also. When you give people a choice, they will opt to live in beautiful surroundings. This demonstrates that there is a very practical argument for the aesthetics of preservation.

Historicism is the most difficult element of preservation to defend to non-believers. Arguing that something should be preserved just because it is old can be a tough sell. Telling a homeowner not to replace damaged plaster with sheetrock because it compromises the historic integrity of the house can be a weak argument when a plasterer is quoting $2,000 and the sheetrock job can be done for $600.

Leaving aside truly historic houses, the argument for restoring old houses rests primarily on: (1) Not wasting resources already harvested; (2) Not destroying beauty that past generations have created. In a world of scarce resources, we should focus on these practical benefits of preservation. To argue that something should be preserved merely because it is old is to invite the world to ignore us altogether.

For our part, The Old-House Journal will continue to provide practical, economical ways to conserve the beauty and character of old buildings. But don't expect us to argue that old buildings should be preserved merely so they can be historic time capsules. That's not the way to win the hearts and minds of America.

Clem Labine
One Gallon Covers...

Preparing For Painting
Part 1

By David Hardingham

I am sure you've seen the ads run by paint companies and directed to do-it-yourself decorators—you know, the ones where father in his well pressed trousers and clean sport shirt stands comfortably wielding a brush or roller at eye level, assisted by two or three neatly dressed children helpfully holding paint cans and rags, while mother appears at the door with a tray of cool drinks. The entire bunch all smiles.

This: May Sell Paint, but as to the way it is, it ain't.

We might as well face it now: Painting is work. There are a number of things you can do to make it easier and more satisfying, as I will point out later, but it is still a dirty job and more physically demanding than the inexperienced can believe. If you are young or reasonably active, a large paint job will not be unduly taxing, though you will get tired sooner than you think. But if you have been living a sedentary life and have long been without the benefit of tennis, skiing, swimming and so forth, it is best you pace yourself, perhaps taking only an hour or so at a time until you get conditioned a bit. Painting, especially ladder work, is hard on the legs, knees and arches. You will probably also feel it in your wrists and shoulders and, if doing ceilings, in your neck. So start easy, and feel your way.

Let's begin with a brief description of paint; or what it is and what it is not. Paint, interior or exterior, is a finishing material and serves two purposes:

1. Protecting a surface from its normal environment, and,

2. Providing an attractive appearance.

The proper paint, properly applied, will do both. By proper paint, I mean one that is manufactured for the specific purpose you have in mind. If you're painting your boat, use marine paints and varnishes. For masonry and stone, use masonry paints. For metals, use metal paints and especially on metal, use the recommended primer. You can use a better paint than the job requires, such as an exterior paint indoors, but it will cost more. An interior paint used outside, on the other hand, is a waste of time and material.

There is no such thing as a cheap paint or a cheap paint job. The smallest cost in painting is what you spend on material, unless you place zero value on your labor and on the final appearance and durability of your effort. Stay away from unknown brands or surplus paints. Even the best paints can give trouble sometimes, but a quality paint manufacturer usually will replace the material at no cost when it is determined that the material is at fault, and even sometimes where it is not.

While this is admittedly a small comfort after you've spent 60 hours putting it on and are facing another 60 hours or so to correct the problem, it is better than nothing. Also, when problems like this occur, the paint companies usually send an expert to the scene to help you analyze your problem and overcome it. Fortunately, quality paint used in the right manner will rarely give you a problem. Almost always, the fault will lie elsewhere.

It is also important to remember what paint is not. For example, it is not a glue, and while it can be used to stick a small piece of wood trim back in place or to tack down a flap of loose wallpaper, it will do neither of these jobs well, and often not for very long. Nor is it a hole filler. With the exception of texture paints (which are a mixture of
**What Paint Isn't**

Paint is not a substitute for smoothing out a rough surface. A slightly rough surface may look fine when first brushed over, but unless many coats are used, it will dry rough. Enamels and lacquers are particularly deceptive in this regard, showing a beautifully smooth surface when freshly and carefully brushed over a scratched area. Both, however, have the characteristic of conforming with great fidelity to the surface underneath them with the result that when dry, they accent any defect rather than hide it. To make matters worse, correcting the rough spot by sanding and filling after it has been painted is far more work and trouble than doing it in the first place. And, unless you've been doing a lot of painting, there is practically no possibility of "touching up" an enameled surface. You'll have to do the entire panel over again.

**One Point to Keep in Mind:** Paint is probably the most perverse material the average person will ever handle. It often stubbornly refuses to flow into an area in spite of repeated brush strokes, and when freshly and carefully brushed over a scratched area. Both, however, have the characteristic of conforming with great fidelity to the surface underneath them with the result that when dry, they accent any defect rather than hide it. To make matters worse, correcting the rough spot by sanding and filling after it has been painted is far more work and trouble than doing it in the first place. And, unless you've been doing a lot of painting, there is practically no possibility of "touching up" an enameled surface. You'll have to do the entire panel over again.

**The Second Coat**

The same caution applies when a second coat is used. If the label says to allow 4 hours, I give it a full day; if it says one day, I will give it two. The danger in applying a second coat too soon derives from the fact that paint shrinks as it dries and in so doing, exerts considerable pull on the surface beneath it. If this under-surface isn't completely hard, it can be pulled away and the result is "alligatoring," or cracking up like the mud at a dry water hole. In the same vein, putting these finishes on too thick in a single coat can result in wrinkling and ridging because the top dries and shrinks while still resting on a pool of liquid material. And again, the only correction is complete removal and re-start.

Paint is a highly perverse material. Never give it an even break or you will emerge the loser. Stay in control, put it on evenly and where you want it. Leave no surplus. But, as with all rules, this has exceptions, particularly in the matter of drying time. Most notable are certain primers, undercoatings, and some clear finishes where amalgamation between coats is desirable. These materials will have labels stating the maximum time limits permissible between coats. Do as they say.
Selecting A Contractor

BEFORE WE GET into the nitty-gritty of the painting you are going to do, we might take a look at the painting you don't want to do, or cannot do.

MANY PAINTING CONTRACTORS are willing to share the work with you, taking the roof, or a high ceilinged entryway or other sections which require special scaffolding and equipment you don't have. But how do you select one who will do a first class job?

THE AMOUNT OF WORK in a paint job can vary wildly depending on the care taken in surface preparation. And it logically follows that the bids for the job can have an equal range. In normal situations, the work, and the bids, will run in the area of 1 (for the lowest), to 1.5 or 1.8 (for the highest). If the surface is in deplorable shape, the spread could well be much greater.

IF YOU KNOW, by first hand experience with his work, a good contractor, you are probably well advised to go with him. If not, perhaps you have friends who do. But it's smart to go see the work your friend is talking about. Much as you may like old Joe, or Pete or whomever you talk to, you may find that his idea of a good paint job and your concept of the same are worlds apart. Go see the job and examine it in detail. If possible, find out what the surface was like before it was done. You can ask what it cost if you like, but if it's more than a year old this is likely to be of little value except in comparing this one with other jobs of the same size and difficulty done by others at about the same time.

WHEN EXAMINING THE JOB, look for smoothness of surfaces—use your fingers—check the sharpness of edging work, look for completeness such as under the window sills and close into inside corners, particularly near floor and ceiling. Look for runs, unfilled or over-filled holes, rough spots left unsanded, and slopping paint onto door or window hardware. (You may find some odd things; I have even found lumps that turned out to be painted-over chewing gum). If it's a mess, compliment him anyway and forget it.

EVEN IF YOU LOCATE a contractor by random selection through the Yellow Pages, you still have a chance to get a feel for his competence when he comes to estimate the job. Before he arrives, go over the areas you want him to do and make mental notes of the bad spots; the blisters, peeling, chalking, cracks or whatever, and then ask him specifically what he will do.

You should get specific answers. If he so much as hints at "these modern paints that will take care of this or that condition", the best advice I can offer is to find someone else. If, on the other hand, he tells you he will burn or scrape or sand and fill as the conditions require, you at least know that he understands what you want. What may still bother you is how well he will do these things, and/or if he will do them at all if you are not present when he comes.

The Contractor's Intentions

ONE INDICATION OF HIS thinking and intentions is the price he quotes. If it's dirt cheap, look out. By far the majority of contractors who quote a reasonable price will do what they say they will, and will be glad to give you references. But keep in mind you are working in a subjective area, and what former customers may say about him can be slanted pro or con for myriad reasons not remotely related to his work.

OTHER INDICATIONS you can glean from talking with him relate to the way he operates. For example, does he have a regular crew, or does he pick up men wherever he can find them for each job? Will he be on the scene himself, and for how long? An established contractor who works alone or with the same men is your best bet. If he sends someone else, he should be on hand at the start, but he won't have to call back very often to check on anyone who works regularly for him.

IF YOU'RE STILL NOT SURE, contract a part of the job and see what happens. If the workmen show up on schedule and you see the same ones each day, you're probably OK. If they don't come when they say they will, or if you keep seeing different faces, you'd best watch things closely. Likely you are being used for fill-in work by a large operator, or you have a contractor who is picking up painters as he can.

ANOTHER INDICATOR relates to the respect and care these people exhibit regarding you and your home. Do they track dirt all over? What effort is made to keep the job as neat as possible? Do they sweep up? Carry empty cans to the trash? These things are often good clues to the attitude and care being taken in the work being done.
ONE OTHER POINT: Don't be overly influenced by membership in organizations with high sounding names such as something like The American Institute of Painting Decorators or similar sounding names. Like all, or certainly most all, other professional and trade associations of our times, such organizations are largely self-serving. At least I have yet to see one that isn't. Their purpose is usually threefold:

(1) To exchange technical and commercial information, with emphasis on the latter, such as how to improve sales, or to improve profits; new tax aspects; and how to deal with them; new products; unusual jobs done by members and so on.

(2) The perpetuation of income for the organizers, from dues and from advertising revenue.

(3) Where applicable, lobbying for legislation considered favorable to member's interests.

THE AURA THAT SUCH organizations project is that membership therein means high quality work. As a practical matter, such membership most often means that members have met certain qualifications by satisfactorily completing certain educational courses (at college level or otherwise), or have met certain standards of experience or equipment. Often as not, membership simply means they have paid initiation fees and dues.

THESE ORGANIZATIONS have neither the staff nor the money to effectively police their membership, and are often reluctant to take disciplinary action even against a member who is convicted of criminal activity, if they even ever become aware of such convictions. And in any case, judgments related to quality in creative areas such as decorating are by nature, subjective, and thus unenforceable.

BUT THIS IS ACADEMIC. What you want is a fellow who is working to achieve a result pleasing to you; not one who is working for $20.00 per hour. And he is hard to find.

Illustrations by Matthew Monisteri

David Hardingham was born in New Jersey in 1913, and "oscillated" between New Jersey and Montana in his early years. He is a mechanical engineer by profession, although he was a "mucker" in an Idaho gold mine in 1930. He helped design the suit Neil Armstrong wore on his first visit to the moon, while working for General Dynamics Corp. He restored a house down the road from where Knox once taught artillery. Now he restores Early American antiques. He has never been a "professional" painter, but he has been painting houses since he was 14 years old. He also enjoys flying airplanes and raising dogs.
Notes From The Readers...

Letters

Brick Arithmetic, & Bluestone Dust

Dear Friends,

I MUST CORRECT AN ERROR in my article "Brick Walks" in the July OHJ. In figuring how many bricks you need to do the walk or patio, I gave a disastrously incorrect formula. If using nominal-sized bricks, you must multiply the square footage by 5. (Not divide, as I stated.) The same goes for full-sized bricks: Multiply the square footage by 4.5. I hope the readers were smarter than I and figured the correct number of bricks in spite of my instructions. At any rate, please accept my apologies.

Ron Pilling
Baltimore, MD

To the Editors:

I WOULD ADD only one thing to your nicely-done article on Brick Walks: Ants dearly love to carry all that sand to the top. We laid a thoroughly tamped brick walk that dropped 1 1/2 inches in two years due to ant action. TO REMEDY THIS, we are now using stone dust as a top course...about 2 inches over 6 inches of gravel. The stone dust packs beautifully, stays in place, and seems to deter the ants. It's also cheap, because it's more-or-less a waste product. We pay about $2.00 per ton. We also use it for the "grout" or sweep course. It stays better than sand. Stone dust is available at any stonemason's yard.

Charles E. Nelson
Newton, MA

To the Editors:

MY WIFE AND I were responsible for coordinating the efforts for brick walks in our neighborhood in Newport, RI, so we were particularly interested in the article on brick walks. Readers may want to know that there is an alternative method for their installation:

TO PREPARE THE SITE, at least 4 inches of bank run should be laid and tamped. On top of that, 3 to 4 inches of bluestone dust should be applied and also tamped. Generally, the incline to allow for runoff should be about 1/4 in. per running foot. The bricks can then be laid directly on top of the bluestone dust and lightly tapped into place. When all the bricks have been laid, additional bluestone dust can be swept in between them. Unlike sand, stone dust will not shift or move with rain. On an incline, sand will wash out from beneath the bricks.

Charles J. Minifie
Newport, RI

Polishing Slate

[In the Nov. 1979 issue of OHJ, Karen Cooper of Hartford, CT asked other readers for their experiences refinishing slate. She had just purchased an old slate sink, which she cleaned and oiled--but some scratches still remain.]

Dear Ms. Cooper:

PRESENTLY I am writing a book on slate; and I also paint on slate shingles. In my research into the artistic and historic uses of slate, I have found several quarries very helpful in providing brochures and answers to my questions. [These are listed in the May 1980 issue of OHJ, "Slate Roofs", p. 55.]

I'VE FOUND that sanding out rough grains in slate shingles is easy to do. Your sink surface will be smoother than my shingles so there should be no problem. Once the dust is removed and the surface washed, the slate is a uniform color. I might also add that sculptures of slate can be made wonderfully smooth and marble-like, proving that slate is quite workable.

BUCKINGHAM SLATE CO. discusses using "a mixture of 3 or 4 parts turpentine and 1 part boiled linseed oil rubbed onto honed slate", leaving it dark and shiny. "Use a soft, lint-free cloth and just a few drops of the mixture for several square feet of slate."

I WOULD ADD only one thing to your nicely-done article on Brick Walks: Ants dearly love to carry all that sand to the top. We laid a thoroughly tamped brick walk that dropped 1 1/2 inches in two years due to ant action. TO REMEDY THIS, we are now using stone dust as a top course...about 2 inches over 6 inches of gravel. The stone dust packs beautifully, stays in place, and seems to deter the ants. It's also cheap, because it's more-or-less a waste product. We pay about $2.00 per ton. We also use it for the "grout" or sweep course. It stays better than sand. Stone dust is available at any stonemason's yard.

Judith Buswick
Chelmsford, MA

More About Chimneys

To the Editors:

YOUR NEW DEPARTMENT, "Ask OHJ", promises to be most useful for readers. But I feel the reply to Mrs. Taylor's question regarding her deteriorating chimney is wrong. (Aug. 1980, p. 98.)

THE PRINCIPAL PRODUCT of the combustion of natural gas is water vapor, which will condense in a cold chimney and saturate the masonry. It is such a commonplace problem here in Minnesota that it is routinely forestalled by the installation of a metal vent pipe in the chimney, connected to the gas appliance. This contains the water vapor and conducts it safely to the outside without any chance of condensation within the chimney. Because vent size for gas appliances is quite small, there is no difficulty in installing such a "liner", which is fed down from the top of the chimney.

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and connected to the appliance through the existing breeching.

Mrs. Taylor may benefit from contacting her gas company about the problem.

Edward V. Lofstrom
Architect
Minneapolis, MN

To the Editors:

A SUGGESTION regarding capping a chimney: If you stop to think about it, raising a bluestone slab to such dizzying heights is no small task, especially if your chimney is four feet square like mine is. An easier solution is to make a wooden form, put in some reinforcing rods, and then pour a slab out of concrete. The wet cement can be hauled up one bucket at a time, which is feasible for one person plus a helper on the ground. Also, this allows you to round up the slab a little in the center, the better to encourage the rain to run off.

THE SMOKE WILL quickly darken the edges of the slab so that only the sharpest eye will be able to guess what the slab is made of. Also, three bricks, laid flat, allow plenty of air space under the slab and look very good (your drawing showed four). I've done two large chimneys this way, and the results were very satisfactory.

INCIDENTALLY—the basic problem in using an old, unlined chimney to vent a furnace is that one of the products of combustion of fossil fuels (coal, oil, or gas) is H2S (hydrogen sulfide). When this contacts moisture, it forms H2SO4 (sulfuric acid). You don't have to be a chemist to figure out what this does to old lime mortar. In consequence, a chimney which has stood up well for two hundred years venting wood-burning fireplaces, may disintegrate after only a few years connected to a furnace. Tolerating a faulty chimney is one of the quickest ways to burn down your old house.

Lew Cooper
Chester, NJ

Radiator Cover Design

To the Editors:

YOUR ANSWER to a reader's question concerning radiator covers (Aug. 1980, p. 99) contains a statement that could be misleading in certain circumstances: Radiator covers do not HAVE to "cut down measurably on heating efficiency." They can be designed to actually increase the total heating efficiency.

MOST RADIATORS are located on outside walls of rooms. In such locations they present hot spots on the outside walls, which radiate and waste heat to the cold outside. Radiator covers should be insulated on the back side, so as to help keep the heat in the room. Radiators heat a room by convection, rather than by radiation. Cover design should provide assistance to convection; most available covers restrict convection.

WITH HEATING COSTS soaring, a comprehensive article on radiator cover design would be a public service.

H. H. Farmer, Jr.
Henderson, KY

HAS ANYONE designed or bought a radiator cover which is both efficient and good-looking?

--The Editors

Update On The Mask

WE HAVE RECEIVED many queries about the Comfo II respirator since writing it up in our April 1980 issue ("Lead Poisoning While Stripping Paint", p. 38). Here's where to buy it, and what it costs:

THE COMFO II RESPIRATOR illustrates Fred Allen's law: "Everything is more complicated than anybody knows." Mine Safety Appliance Corp.—the manufacturer—does not encourage home use because of the face-fitting problem of the respirator, and because the filter induces a pressure drop that might cause some strain on the heart. So if you have pulmonary or heart trouble, don't use the mask. The Comfo II comes in Small, Medium, and Large... and must really fit your face to be of any use. If you have a beard, it won't fit snugly enough to be effective.

IT TURNS OUT you should order a Type H cartridge with the respirator. There are 17 different types, governed by OSHA regulations, so be sure to specify. (We had recommended Type S in April. Under normal circumstances, the Type S is legal; but the Type H is better, and somewhat more efficient. The Comfo II mask is effective up to 10 times the permissible exposure limit to lead in the air. If the amount of lead reaches 2.5 milligrams per cubic foot of air, OSHA regulations require a full-face mask, which retails at $79.80, and is also used with the Type H cartridge.)

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Lew Cooper
Chester, NJ

THESE MASKS are not easy to get because MSA normally sells only to industry, where usage of them is under strict control. Nevertheless, if knowing the complications, you want to order one, they are available directly from the manufacturer. Cost is $11.90 plus tax. A box of 10 cartridges costs $29.15 plus postage. Write: Mine Safety Appliance Corp., Att. Sales, 1100 Globe Ave., Mountainside, NJ 07092. Tel. (201) 232-3490.
Disassembling A Timber Frame House

By John Dittmer, Bowen, Illinois

In the winter of 1975, an ad appeared in "Preservation News" offering a large colonial house for sale in Westfield, Massachusetts. The house had to be moved. My wife and I went to see the house a few weeks later after some correspondence with Del Rios, the seller. It was a typical Connecticut Valley, center chimney colonial house, built in 1786 by a locally prominent farmer and businessman. It was a full two stories plus attic with a slate roof, and two Greek Revival additions at the rear. The dimensions of the main house were 32 ft. x 40 ft. Inspection of the inside showed a basically sound structure with only a moderate amount of settling. Previous owners had made no major structural changes to the interior. There was no serious termite damage either. Only one mantel remained (it was not original to the house), and the six fireplaces had long since been covered over. After taking a few pictures and making some notes, we returned to Illinois.

We began dismantling the house in April, 1976. Dismantling and shipping took about five months. The partial basement and foundation were begun in the fall. Due to weather and other problems, actual reassembly of the framework did not begin until mid 1977.

Marking

First we stripped all the plaster from the interior. All paneling and interior trim was removed after it had been photographed and marked. The marking system was designed to locate the coded piece by area within the house. For example: SEPSI means southeast parlor ceiling joist number 1, south side of the summer beam. It was seldom necessary to name the function of the piece, since it was easy to differentiate between a joist and a stud, etc. I used a heavy crayon for marking which was adequate though I took precautions to avoid washing or rubbing the markings off. An aluminum tagging machine would have been more reliable, but also more expensive and more time consuming. After the framing members were marked, I took more photographs from different angles. We measured the rooms and made sketches to show details that would be critical to reconstruction.

We began our research with Early Domestic Architecture in the Connecticut Valley by Frederick Kelly. It quickly became a main reference and inspiration. In addition, we contacted other people who had dismantled and moved old houses. We were intrigued by the project and finally became serious about buying the house. Up to this point, we had seen the task as simply a matter of taking the house apart and putting it back together again. We had given only passing consideration to such matters as identification and marking, disposal of rubble, transportation, and handling 40 ft. 8 in. x 10 in. timbers 20 feet off the ground.

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Into the upper girts and girts marked where they fit into posts.

Four separate characters designated the four sides of the house:

* for North,
* for South,
* for East, and
* for West. These old marks later proved to be an invaluable aid in reconstructing the house. If I had discovered them earlier, I would have tried to coordinate my marking system with the old, or maybe used them solely.

Disassembly

Having stripped the inside, Del Rios, Tom Paske and I started at the top removing the roof slates, then the boards, followed by the rafters. The rafter pairs were plainly marked at the peak with the old marks. We removed the floors, one level at a time, so we always had a platform to work on and marked them by room and position. The floor joists could easily be knocked loose from the floor below and removed. The summer beams needed a sledge hammer or floor jack to loosen them. During disassembly, we used a pair of hand-powered fork lifts on casters which were extremely useful. With one fork lift on each end of a beam, we could lift it out of its place, move it, and then lower it to the floor.

All of the major timbers except the summer beams were connected at their joints with treenails (wooden pins about 1 in. in diameter). To separate the timbers therefore, it was necessary to remove these pins. We used a heavy blunt punch about 3/4 in. in diameter and a heavy hammer. Many of the pins loosened easily with a few sound blows and could be pulled out. Where the house had settled, putting strain on the joints, the pins were quite difficult to remove. As a result we had to drill some pins out as a last resort.

We took care to drill no more than necessary to avoid ruining the hole in the tenon. Some of the holes were drilled off-center to draw the joint tight as the pin was driven in and these proved especially hard to remove. Once the pins were out, the joint could be spread apart with a bar and the timbers removed. I continued to take pictures of the timbers even as I disassembled them. Of the several hundred pictures I took, a handful show critical details of construction that would make reconstruction a nightmare without them.

Reassembly

After disassembly of the house it would have been most desirable to put it back together as soon as possible. But we were unable to do so. The materials were piled temporarily on the demolition site and then loaded and hauled to Illinois on three trailer trucks. The materials were unloaded and stored in barns. The heavier beams, brick and slate remained outside. Although the basement hole was dug in the fall, the foundation could not be poured until the following spring. It was not until June that we started on the house frame itself. The delay, the loadings and unloadings, and the rains could have spelled disaster. The pictures, notes, and old marks saved the day.

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AS THE GROUND SKILLS WERE NOT salvable, I decided to build a modern style subfloor and adapt it to the frame of the house. Although I would have preferred to use the old style framing for the first floor, it seemed more expedient to build a new subfloor. The new subfloor had been measured to fit the dimensions of the house before disassembly because it was very important to have the correct dimensions of the girts so the position of the posts could be accurately determined.

NEXT THE SURFLOOR was laid out and placed for the posts cut out. The bases of the posts all had suffered some degree of deterioration. Since they needed to be repaired anyway, I cut off the deteriorated wood to the sound part and spliced a new piece into. The posts originally rested on the ground until as did the floor. Since I wanted the posts to rest on the surfloor wall rather then the subfloor, I shortened them an amount equal to the height of the surfloor, 10 in., to maintain the same ceiling height on the first floor.

Erecting The Frame

WITH THE SURFLOOR completed, it was time to erect the frame. I had organized the big timbers so that they would be easy to find when their turn came. My confidence was severely shaken when I found that many of my marks had faded to a soft blue. Once again I praised the ingenuity of the old house-builders who had marked the planks before they built the house. Most everyone knows that at a hom raising, the sides were assembled on the ground and then erected by several men with long poles. I had studied the frame carefully four hours deciding which side to assemble first. Two things were puzzling.

FIRST THE PINS had all been driven in from the outside of the house and the sides must have been assembled while lying inside face down over the cellar hole. All pins were flush with the exterior surface of the house, making it impossible to drive the pins in if the frame was lying flat inside face up, on the ground. Second, the center girt running from east to west was connected to the end-posts with pins that were covered by the other end girts, therefore the center girt had to go in at the beginning.

I ABANDONED THE IDEA of completely assembling a side on the ground and erecting it, and decided instead to erect two end-posts first and put the center girt in place. We erected the remaining posts one at a time putting the girts in place as we went. To secure the girts loosely with 3/4 in. bolts to allow for easier alignment of the subfloor timbers. After the posts and the first floor girts were in place, I hired a crane to lift the upper beams to their position. This was not as expensive as I first thought since the men-hours saved in handling 40 foot logs, 600 pound timbers 30 feet off the ground is considerable. Good organization of the timbers and a good understanding of the construction are essential to this step of reassembly.

NEARELY ALL THE JOINTS fit as well as they originally did. Joints that were not snug were pulled together with a chain hoist and secured with a pin. When all main timbers were in place, the temporary pins were removed and the wood pins driven in to tighten the joints. I reused as many of the old pins as I had saved and then tried making new pins. I cut 1 in. x 1 in. strips with a table saw from seasoned oak which I then shaped to an octagon with a draw knife. When a pin was needed, I would point one end and cut off an appropriate length. I also tried driving a rough cut piece of wood through a 1 in. hole in a section of heavy metal plate. This produced a good pin, but was more difficult.

DURING THE FITTING of the main timbers, it was important to have the corner braces and studs at hand. Most of the corner braces had to be installed simultaneously for they could not be put in once the main timbers were finally joined. Some studs were fitted by hand while others were held in place temporarily with a 2 by 4 nailed to the stud and to a post.

I CANNOT BEGIN TO LIST all the things I have learned about 18th century construction in a short article like this. I have tried only to describe the process by which we disassembled and reassembled the framework of this house. The interior woodwork, transportation, staying, stripping, repairing, replastering and the many repairs involved in reconstructing a center chimney house are all stories in themselves. Of all the lessons this house project has given me, these two are the most important:

(1) Research thoroughly the style and practices related to the house and its period.

(2) Take notes and pictures to the point of absurdity. Once the house is taken apart and scattered around, you'll never have another chance.
The Old-Bosse Jooroal

PLASTER CEILING (Cont'd from p.131)

Wallpaper paste applied to the calcimine-coated surface, as described below. Tensions set up by drying paste loosen old surface.

ing adhesive that has undergone chemical change with the passage of time, leaving it rock hard. To expedite the "mechanical" removal, several alternatives may be experiment-ed with to determine which works best with the particular ceiling.

FIRST, and most obvious, is to repeatedly damp-en the ceiling with warm water, allowing time for it to "strike in" to the porous material and soften it sufficiently for the razor blade scraper to work.

A MORE DRAMATIC alternative which works remark-ably well with some types of coatings is to paint the ceiling liberally with common wall-paper paste. Allow the paste to dry thoroughly overnight and the results may be spectacular. Extreme tensions created by the drying paste will cause crackling, curling, and peeling of the surface coating. Some scraping will, of course, be required and the paste residue will have to be sponged off with warm water. [I am indebted to Mr. Bud Kupiec, restoration mason at Old Sturbridge Village, for a demonstration of this technique.] Some surfaces may respond less readily than others to the paste method if there are many uneven layers of whitening involved.

YOU MIGHT EXPERIMENT with another alternative if the paste method doesn't work. As in the first procedure, repeatedly sponge the ceiling with warm water—but add a small quantity of photographers' wetting agent. This is a non-soapy detergent which breaks down the surface tension of the water and allows it to readily saturate a porous surface. It is inexpensive and a small bottle will last a long time. A teaspoonful to a couple of gallons of water is sufficient.

WHILE THESE TECHNIQUES will facilitate the work, it will still require faithful and per-sistent hand labor. Six square feet of ceiling with a very heavy encrustation of whitening may require as long as two hours to clean down to the original finish coat of plaster. Thus, the estimated time for stripping the ceiling of a room 14 ft. x 14 ft. could be as long as 66 hours. Polyethylene plastic drop cloths will be necessary to prevent whitening from being ground into the floor.

Reasons For Failure

T HE CAUSES for deterioration are several. They may be the result of a leaking roof or less prosaically, the long-term nesting of rodents above a ceiling. Chronic and repeated vibration may loosen plaster, lath, and fasteners. A physical blow may crack plaster and even break underlying sup-port lath. The most common failure is fruc-ture of the plaster keys which grip the lath. This may occur because of any of the above causes...or gradually through deterioration of the plaster itself. The traditional plaster formula combines slaked lime and sand in varying proportions and frequently incorporates animal hair as a binder. Improperly mix-ed plaster containing too high a proportion of sand will be crumbly and granular; impuri-

On Plaster & Lath

A PLASTER WALL OR CEILING is a structural system dependent upon thin wooden strips, called laths, securely nailed to secondary elements...studs in the walls or joists in the ceilings...of the building's frame. When there is failure in any part of the structural system, the result is sagging plaster or actual plaster loss. Earliest lath is called RIVEN LATH. It is comprised of individually split sticks of reasonably uniform size; these are nailed in place on the studs or joists with intervals of space between to provide keyways for the plaster to flow into and through.

ANOTHER TYPE of eighteenth and early nineteenth century lath most commonly seen is SPLIT, or as it is popularly termed, ACCORDIAN LATH. This was produced by making a series of splits at opposite ends of a thin board and, during the nailing process, spreading the board apart like an accordion to open the splits, creating keyways.

THE MOST RECENT TYPE of lath is sawn stock of uniform thickness and width. SAWN LATH can be no earlier than the mid-1820's, when introduction of the circular saw initiated the revolution of the timber building trade. Prior to that time, the traditional waterpowered reciprocating saw could not saw boards thin enough in both dimensions for use as lathing.

WHILE THE TYPE of lath employed may, in a broad general sense, provide a clue as to the construction or alteration dates of an old house, it should be borne in mind that widespread use of any new technique was gradual. Sawn lath persisted in common use into the twentieth century and, although it has now been superseded by expanded metal or wire lath for present-day wall and ceiling finish of superior quality, some lath may still be purchased by the bundle from larger and better stocked lumberyards. Whether secured by the hand-wrought nail of the 18th century, the cut nail of the 19th century, or the drawn wire nail of the late 19th century, the lath is the support structure for the plaster and failure of the fastening device will re-sult in deterioration of the plaster surface.
ties in the sand or water used to mix the plaster may result in a gradual breakdown of the material.

THUS, A DETERIORATION of the plaster mix itself can result in failure of all important keys that lock the plaster layer to the supporting wooden lath. When this happens, the plaster may actually fall from the ceiling or it may merely sag away from the lath leaving a void between it and the lath. Into this void will fall bits of the broken key, rodent droppings, an accumulation of dust and chaff from rodent-gathered grain, and nut shells. Any of these will aggravate the separation of plaster from lath and prevent the even realignment of the settled section.

Removing The Damage

HOPELESSLY damaged sections of plaster... where water has repeatedly leached lath from the plaster, or where cracks and fractures are so numerous as to leave the plaster soft and literally flexible...should be cut out with a sharp utility knife. In cutting out small sections or bulges, make certain that the cut is on an angle and done in such a fashion as to undercut the surrounding edges. Next, any fragments of plaster adhering in the keyways should be broken out and removed.

A SCREWDRIVER or similar narrow-bladed instrument will be necessary; the nozzle of an industrial-type shop vacuum cleaner held near the operation will prevent much of the nuisance of falling plaster dust. Use of a filter dust mask is advised. Any loose lath should be securely refastened to the joists. To eliminate the possibility of further loosening plaster by the hammering necessary to remove the wood lath, it is recommended that wood screws be used instead (1-1/4 in. No.6). An electric drill to start a pilot hole in the hard joists of an eighteenth century frame will make it easier to set the screws.

WHERE LATH is rotten or broken, it will be necessary to replace failed sections. Using a keyhole saw, cut the lath back to the nearest joist, where a replacement section may be fastened. A sharp chisel may also be useful in cutting away damaged lath that bears directly upon a joist. New lath is then screwed in place after pilot holes have been drilled. Space left between the replacement laths should be consistent with sound old work; generally a quarter of an inch between laths will provide sufficient keyway for the new plaster.

Occasionally old accordion lath was spaced too far apart, and consequently the plaster was not provided with anchoring keyways of the proper size. This inherent structural weakness can be corrected by bridging the wide space between the adjacent lath with a piece of aluminum or copper (never iron) screening.
water will result in a runny, unmanageable mix, water should be added only in small quantities and the batch completely mixed each time water is added to determine when workable consistency has been reached.

CATTLE hair was customarily added in the past to give the plaster some flexibility and as a binder. If the restorer is a purist, and has a source for clean cattle hair, then it may be added in small tufts generally not exceeding 2 inches in length, and stirred well into the mix. It has not been my experience that the addition of hair is vital to the success of patches.

Making The Patch

HAND TOOLS required for patching plaster include a small mason’s TROWEL of the traditional diamond shape; and a steel FLOAT or wood-handled rectangular piece of sheet metal necessary for smoothing a large area. The Float is the tool used by plasterers in applying large quantities of plaster to the lathed surface. The HAWK (mortarboard), a traditional hand tool from which plaster is spread using the float or the trowel, will probably not be needed since only small quantities of material are required for patching. The float may be used in place of the hawk to hold plaster, which is applied with the trowel. A square-ended trowel as well as putty knives of different widths may also be useful in working the plaster between and onto the lath.

APPLY THE PLASTER to the dampened lath using the backside of the trowel and smooth it gently and firmly into the spaces between the laths. This will form the keys that will hold the patch in place once the plaster is firm. Build up the patch gradually to conform to the full thickness of the surrounding intact original work. Because the edges of the surrounding plaster were slightly undercut in preparing for the patching process, the new material has an additional "key" to lock into. Once the hole is filled and it seems unlikely that the patch will fall away from the lath, the steel float can be used, with a firm wiping motion, to smooth the surface to match the level of the surrounding original work.

DO NOT BE ALARMED if there is a very slight bumping or subsidence of the unset plaster in the area immediately between adjoining laths. This is normal and indeed desirable if one is endeavoring to match the appearance of the original plaster ceiling. The slight and shall-

low rippled surface of an old ceiling that allows one to read the existence of the lath through the plaster is a characteristic of old ceilings that cannot be duplicated with modern dry wall plasterboard materials.

Plaster Washers

SOMETIMES THE PROBLEM is not fallen or crumbling plaster, but a sagging ceiling. This situation usually results from broken plaster keys which no longer lock the plaster layer to the supporting lath. The condition may be especially noticeable along both sides of a crack or at a point where lath was not properly staggered on the joists and the joint is inherently weak. Using plaster washers and flat-head wood screws, it may be possible to draw the sagging plaster up into firm contact with the lath and anchor it from further movement. Plaster washers are perforated metal discs with a countersunk hole in the center to receive a flat-head screw. They are placed to prevent rusting and are very slightly domed. The perforations provide a gripping anchor to hold the spackle with which the washer and screw are subsequently "faced."

A HAND "BIG BEATER"-type drill or an electric drill will be useful in starting pilot holes for the wood screws that fasten the washers. A 1-1/4 in. No.6 flat-head screw (platted) is useful where joist locations are known and the screw will pass through and anchor the lath as well as the plaster. A 1 in. screw will be adequate where the screw merely passes through the plaster layer into the lath.

DUST, BITS of broken plaster keys, or molten droppings may have accumulated in the space between the lath and the plaster in such a manner as to prevent it from being drawn completely and firmly back into position. To rid such a blockage, insert a thin-bladed spatula into the crack and gently prise the plaster down and away from the lath. Then, place the smallest nozzle of a household vacuum cleaner (which most effectively concentrates the suction) close to the crack and draw out the foreign matter. Sometimes a light tapping motion of the spatula will help to loosen impacted particles. There is, obviously, a risk involved in breaking away a small section of the ceiling, but the area can be patched if it is not possible to correct the problem using plaster washers.
SPACKLING

WITH THE CEILING scraped free of peeling and encrusted whitening, with plaster losses patched, and with loose areas anchored using plaster washers, the final step is to spackle all stabilized or hairline cracks and to "face" plaster washers or new patches with spackle. Several sizes of putty knives will be useful in applying the compound. A wide-bladed knife is necessary when covering broad areas and when facing plaster washers.

SPACKLE should be used to level uneven areas around fractures, and to smooth over small hairline cracks which will appear in the patched areas. If one is a novice, edges of the patched areas may not be perfectly smooth either, and spackle can be used here to hide irregularities.

SPACKLE COMPOUND is available mixed (ready to use) or in a dry powder which must be mixed with water before using. Ready-mixed is more expensive and has a limited shelf life once opened. If you are an intermittent or "weekends only" restoration artisan, then spackle in its dry state is the more economical alternative. Like most things, spackle costs less in larger quantities...a 5 lb. bag...than in small amounts. Store it in an airtight bag.

SPACKLE SHOULD BE APPLIED with a firm smooth motion of the putty knife to work the material well into the crack and to minimize residue outside of and around the crack. Spackle should not be used for large patches because it shrinks slightly as it dries and lacks the structural strength of plaster. When all repairs are dry, irregularities of spackled areas may be smoothed with fine sandpaper or wiped smooth with a damp sponge.

SPACKLE WASHERS are "old fashioned" and so not easily obtainable. The one source known to us is in Boston:

The Charles Street Supply Co.
54 Charles St.
Boston, MA 02114
(617) 367-9046

Mr. Dick Gurnon there has agreed to ship washers postpaid at $1.00 per dozen, minimum order 2 dozen, to OHJ readers. Our thanks!

Repainting: The Old Approach

LASTLY COMES THE PROCESS of putting a new finish on the cleaned and repaired ceiling. Calcimine is the traditional whitening agent and, although numerous paint companies manufacture latex super-white ceiling paints, these are not recommended for use in a very old house. Latex paints are not easy to remove, and reversibility is a prime consideration in historic building conservation practice. A buildup situation is initiated and, ultimately, peeling will again result. The conscientious owner of an historic house is obligated to thoughtfully anticipate the preservation and conservation problems of future owners, and to understand and choose courses of action that will minimize such later problems. An application of calcimine, whether one coat or two, can easily be washed off with warm water before the next painting. (It is a mistake to apply coat after coat of calcimine because peeling and uneven surfaces will eventually result.)
WHILE IT IS POSSIBLE to apply calcimine directly to the plaster surface, the porosity of the plaster may draw the water from the calcimine so quickly that it dries prematurely and makes brushing difficult. Moreover, the abrupt absorption of the water vehicle may result in an irregular and unpleasantly textured surface. To overcome this potential problem, employ the proven procedure of nineteenth century painters and apply a single coat of three pound cut white shellac to the ceiling prior to the finish coat of calcimine. This prevents premature absorption of the water vehicle of the calcimine, helps to consolidate the plaster surface, and greatly facilitates future cleaning (that is, washing off the decorative calcimine). In the instance of a water-stained and badly discolored plaster surface, a white pigmented shellac, such as "BINS", may be used as a sealer and to hide the stain prior to calcimine, but I prefer the clarity of conventional "white" clear shellac which, because it is transparent, preserves the evidence and physical record of the repair process. Shellac should be applied only to a thoroughly dry ceiling.

WHEN THE SHELLAC is dry, calcimine may be applied. Follow the manufacturer's directions: Mix with cold water, allow the material to "set", and strain through a cheesecloth preparatory to use. Apply with a broad brush maintaining uniform and regular strokes; if a second coat is necessary for thorough coverage, then apply the second coat at right angles to the first in order to create a subtly textured surface that is in keeping with plaster surfaces in an old building.

WHEN COMPLETED, the lengthy and arduous undertaking will result in a ceiling that is not only once again structurally stable...but also a surface that is attractive, easily maintained (because all that will be needed is a washing and a reapplication of calcimine), and in the preservation of a significant feature of the building's original fabric. 

CALCIMINE PAINT is available by mail-order to OHJ readers from this Boston distributor: Johnson Paint Co., 355 Newbury St., Boston, MA 02115. (617) 536-4838. You should call to arrange an order and get a price—then they'll ship UPS on receipt of your written order and check. (No CODs) 25 lbs. of calcimine powder costs $12.90 plus shipping and handling; 5 lbs. makes about a quart of paint. (100 sq.ft. approximate coverage)

JOHN OBED CURTIS is Director of the Curatorial Department at Old Sturbridge Village in Massachusetts. He has used these plaster conservation techniques both at Sturbridge, and in his own 18th century house. Mr. Curtis is convinced that calcimine offers a superior painting system for old plaster surfaces.
ONCE THE PRIMER-SEALER has been applied and allowed to dry, you can then paint over with either oil-based or water-based paint.

Discolored Painted Wood

WOODWORK THAT HAS been stained by water usually can be refinished with a moderate amount of work. If the painted surface is blistered or peeling, it may be necessary to remove the paint down to the bare wood. In this case, you can use either a heat gun or chemical stripper to remove the paint.

IF THE WOOD SURFACE is only dulled rather than peeling, you can repaint directly. Apply an enamel undercoater, allow to dry thoroughly, then sand lightly with very fine sandpaper. Wipe clean and apply either an alkyd or latex enamel.

IF THE DAMAGE is in a varnish finish, it may be necessary to strip the varnish and sand the wood lightly. Then stain (if required) and re-varnish. If the damage to the varnish finish is minor, it may be possible to just sand the finish lightly and re-varnish.

Painting New Plaster

WHEN YOU'VE HAD TO repair with new plaster, the plaster must be allowed to dry before painting. The time required depends on such things as heat, humidity and composition of the plaster.

NORMALLY, most plaster can be painted over in 4 weeks if the temperature in the house is over 50°F and the relative humidity is not unusually high (i.e., below 70%). These guidelines apply to plaster on lath. If plaster is applied directly to a solid wall such as brick, a longer drying time is necessary. In this case, water can only escape through one surface of the plaster—not on two sides as it can in a lath system.

YOU MAY WANT TO RENT or purchase a moisture meter from your paint dealer. Moisture meters measure, by electrical conductivity, the amount of moisture on or near the surface of a wall. Their dials indicate whether an area is dry, wet or very wet. It is important to make tests with a moisture meter in many areas—both high and low—on a wall. Remember that you are determining only the condition of the wall surface—water still inside the plaster will continue to come out.

THE BEST METHOD of using a moisture meter is to check the same areas each day for several days. When the readings don't show a change, it's a good indication that the plaster is "dry" and has reached a stable condition that is satisfactory for painting.

IF NEW PLASTER MUST be painted before adequate drying time has elapsed, the best procedure is to apply just one coat of a high quality latex wall paint. The latex will not be affected by any free alkali coming to the surface, and the single coat will allow moisture to continue to evaporate through the paint without causing blisters. Later, another coat or two of either latex or alkyd wall paint can be applied.

IN A FEW MONTHS, in the colder climates of the U.S., many old houses will be experiencing water leaks caused by ice dams. The basic cause of ice dams is shown in the Restoration Design File on the following page. Heat escaping from the attic melts accumulated snow on the roof. In cold weather, this melted snow can freeze in gutters, causing runoff water to back up under the roofing and penetrate the structure. Extensive damage to wood and plaster can result.

THE BASIC CURE for ice dams is to keep a "cold roof," as shown on the following page. A stopgap measure is to install electrical heating cables to keep a melted channel clear so that water can run off.

Stained Walls & Ceilings

PERHAPS YOUR HOUSE has already suffered interior damage from leaks caused by ice dams. If the damage to ceilings and walls is extensive, replacement of the plaster or gypsum board may be the only option. In less severe cases, however, the damage may be confined to painted finishes. Most often, paint damage shows up as blotchy stained areas. Other times, the paint will blister and peel.

BEFORE ATTEMPTING any interior repairs, be sure you have corrected the fundamental problem as outlined on the following page. Then, be sure that the ceilings and walls have been allowed to dry thoroughly. Finally, follow these repainting tips from the Joint Paint Industry Coordinating Council:

Killing Stains

SINCE WATER HAS CAUSED the stain, you can assume that the stain is at least partially water soluble. So, wash the stained surface carefully with water and a household cleaner that's intended for paint. Without soaking the surface, remove as much stain as possible. Allow the washed surface to dry thoroughly (48 hours or longer).

BEFORE APPLYING the new coat of paint, use a "stain killer" type of primer-sealer. Most of these are a variety of pigmented shellac, such as "BINS." The purpose of the stain killer is to prevent the stain from bleeding through the new paint—especially if you are using a water-based latex.
ICE DAMS
CAUSE AND SOLUTIONS

1. WARMED ROOF MELTS SNOW
2. RUNOFF FREEZES OVER UNHEATED EAVE FORMING ICE DAM
3. SUBSEQUENT RUNOFF STOPPED BY ICE DAM BACKS UP UNDER SHINGLES AND ENTERS BUILDING

THE PROBLEM

INSULATION AND VENTILATION
ATTIC VENT INSULATION VAPOR BARRIER PLATE Soffit vent

FLATTEN SEAM ASPHALT SATURATED ROOFING FELT BUILDING PAPER SHEET METAL NAIL (SAME METAL) CLEAT

METAL ICE EDGE
SECTION a-a STANDING SEAM FILL WITH ELASTIC CEMENT OR EXTERIOR GRADE CALILK

SHEET METAL ICE EDGE 16 oz. - 20 oz. COPPER OR GALVANIZED STEEL PAINTED BOTH SIDES

HEATING CABLES
INSTALL AND GROUND ACCORDING TO MANUFACTURERS SPECIFICATIONS

Restoration Design File # 5
A Sooty Fireplace

To the Editors:

OUR HOUSE HAS A FIREPLACE, and the two fireplaces are black from soot and smoke. We would like to know how to clean it off. Also, what kind of chemical should we use to get the soot off of the hearth part of the house? Enjoy the Journal immensely. Thanks you in advance.

Barbara Stephan
Belmar, NJ

Answer:

THE BURNT ON YOUR SOOTY fireplace brickwork, is carbon black, chemically inert, and therefore impossible to remove chemically. You can mechanically clean some of it off with natural bristle brushes, water and a little soap. And as far the soot you can’t remove, learn to live it. Your house is an old house, and it would be impossible and undesirable to make it look brand new. Even the word and use are a badge of honor that only an old house can have.

THE ODER IN THE BURNT part of your house, is a problem we don’t know an easy solution for. Any part of the house that has been burnt holds the odor inside it and chemicals would not be able to dispel it. But since you will have to repair those sections that were badly burnt, you will eliminate some of the odor, simply by removing its source.

FOR THOSE PARTS of your house you can’t remove, the odor can be sealed in, with the fixing up you do: New plaster or wallpaper on the walls, new varnish on the woodwork and floors, even paint. New stucco over the old, and the new materials will seal the smell into the old structure of the house.

A Georgian Colonial

To the Editors:

HERE IS a photo of our house. What architectural style is it, in your opinion?

THE ROOF on the 2 stucco portion of the house was burned approximately 25 years ago. It had 2 attic windows instead of one. Gingerbread was all around the roof-line before the fire, but now all that remains is the part at the enclosed porch and the part on the entryway over the front door.

FROM THE ABSTRACT to the property, we learned that it was first mortgaged in 1854 so this gives us an approximate age. The 2 story portion has 6 over 6 windows with some of the original panes which are a pale green tint. The kitchen, which is in the 1-4 stucco portion has 2 over 2 windows. Could this mean that it was added on at a later date? Most of the locks look something like this:

Could you tell us what type lock these are and also how to get the paint off them, and then how to treat them to prevent rust? We would also like to know what exterior colors would be appropriate and if stencilling would be appropriate on the interior. Thanks much,

Dona & Tom Grimm
Minesota, OH

Answer:

YOUR HOUSE IS in the tradition of Georgian Colonial houses; in this case a simple rural adaptation. The simple shape, the plain roof and the 3 bay, or 6 over 6 design of the facade with the door in the center, all denote the Georgian Colonial style.

BUT NOT ALL THE details are Georgian. The portico for example is more in the Greek Revival style. Another possibility is that the house was built at the height of the Greek Revival style, in the 1840’s, but that the builder chose the more familiar Georgian Colonial style for the house’s shape, and only allowed the portion to reflect the current taste in design.

IT IS NOT A GREEK REVIVAL house in any other detail besides the portico, because it has no other classical details such as returns on the cornice to make the gable ends of the house like a Greek pediment. Also:

A Greek cornice is deeper. The original stucco roof, suggests Georgian Colonial style. If the house were Greek Revival, the front door would most likely have been on the side under the gable, making the front look more like a Greek temple.

THE GINGERBREAD you refer to could have been original, or an 1890 c. addition. Many Colonial houses were “gussied” up in the Late 19th c. to conform to taste in the high Victorian era. We would guess that the kitchen is an addition judging from the photograph.

CLASSIC GEORGIAN COLONIAL colors were white with green shutters. Stencilling would be appropriate, but the type of stencilling depends upon the period you want to decorate your house in: The style in which it was originally built, or a later period which the house lived through. Early American stencils, such as those designed by Rufus Porter, and other artisans, would fit in your house. A good book on stencilling is: Early American Stencils by Janet Waring (Onew Publications Inc., 180 Warlick St., New York, NY 10014) for $6.95 plus 70¢ postage.
YOUR LOCKS ARE A version of the classic box lock. You can remove paint from them by any standard paint removal process such as commercial paint remover, or wire brushes. If you do use the commercial methylene chloride (a common type), be sure to wear gloves, and use it in a well ventilated area.

YOU CAN HELP PREVENT rust on bare metal iron locks by applying a mixture of beeswax and a little turpentine to the lock. Leave it on 15 minutes and buff it. Plain machine oil, or gun bluing will also work.

Bats In The House

To the Editors:

EVER SINCE purchasing the second old house of our marriage 4 years ago, my husband and I have become aware of a problem that plagues many old house owners (and lovers), and that is BATS. For 4 years we have battled them in various ways, none totally successful.

THE WARMER WEATHER has once again brought the creatures out of hibernation as evidenced by the return of fresh guano on the attic floor and I feel a desperate need for the kind of help that I feel can only come from those who have probably had first-hand experience with this problem. Thank you.

Patricia A. Hilliard
Waverly, IA

Answer I:

HERE IS A REPRINT OF a letter to the editor we received from Neal Kingsley, Lansdowne, PA, which was originally printed in O&J, May 75.

"I’VE HAD CONSIDERABLE experience with bats in the house. The first principle is to encourage them to move...not to kill them...since a single bat will eat up to 1,500 insects in one night. Rabid bats are quite rare, and all but unheard of in the North.

"TO EVICT A BUNCH of bats, plug all holes around the windows, fascias, cornices, chimney flashings, soffits, etc., that are larger than a nickel. If you wait for the cold weather, most, if not all, of the free-loading tenants will have moved South in search of food so they won’t be trapped inside the structure. Another common place for bats to hang out is in a seldom-used chimney. To discourage bats here, cover the top of the chimney with an inverted box made of ½ inch screening.

"IF YOU INADVERTENTLY trap some of the critters in the chimney or another space, it’s not too serious. They will die, but because they are in a dry place and are also quite small, they will not emit any noticeable odor."

Answer II, from Ardella Swanberg, Manchester, MI:

WE BOUGHT our 100-year-old farmhouse in the early spring. It was two months later that we discovered bats were living in it too. After trying to get rid of them by scattering moth balls in the attic, which was the only practical solution that anyone suggested, we were relieved when they went into hibernation in the fall. This spring, there were more bat droppings than ever on our window sills. Some had died off in the winter, but there were still about 200 living with us and probably multiplying.

WE CAME UP WITH A BAT TRAP which has taken care of the problem. We can now seal up the holes without worrying about the bats finding another exit through the house or rotting inside the walls.

THE BAT TRAP WORKS on the principle that in order to start flying the bat must first fall out of the hole far enough to spread his wings and begin a glide. We bought a piece (1½ yards) of cheap, sheer curtain material which we sewed into a funnel wide enough at the top to cover the bat-hole and small enough at the bottom to fit over a piece of metal tubing about a foot long (we used a piece of dryer vent). The metal tube is too slippery for the bats to climb up and too narrow for them to fly out. The cloth was securely taped to the pipe and a plastic garbage bag was attached to the other end.

WE THEN STAPLED THE TOP of the funnel to the bat hole at dusk. The cloth should not sag around the windows, fascias, cornices, chimney flashings, soffits, etc., that are larger than a nickel. If you wait for the cold weather, most, if not all, of the free-loading tenants will have moved South in search of food so they won’t be trapped inside the structure. Another common place for bats to hang out is in a seldom-used chimney. To discourage bats here, cover the top of the chimney with an inverted box made of ½ inch screening.

"IF YOU INADVERTENTLY trap some of the critters in the chimney or another space, it’s not too serious. They will die, but because they are in a dry place and are also quite small, they will not emit any noticeable odor."

Do You Have Questions for OHJ?

Send your questions with pictures or drawings, if possible. (We prefer black & white photographs.) We cannot promise to answer all questions personally, although we will try to answer all questions from current subscriber members. Questions of general interest will be answered in print. Write: Questions Editor, Old-House Journal, 69A Seventh Ave., Brooklyn, NY 11217.
Gold Leaf As A Decorative Finish

By R. Wayne Reynolds with Kate Conley

Gold leaf as a decorative finish has been popular since the Egyptians used it in sheet form to create the illusion of solid metal. In the 19th century, architectural details were often gilded. Greek Revival houses and townhouses in particular relied on gilded ornament for the richness of their parlor. Many Victorian Revival styles, Renaissance Revival, Rococo and neo-Grec for example, boasted as much gilding as their owners could afford. (See OHJ May 75 & Dec 74 for articles on Greek Revival & neo-Grec styles).

During the "Gilded Age" between the Civil and First World Wars, gilded interiors were popular as much for the manner in which they displayed their owner's success, as for their style. Owners of fine American houses of the 1890's modeled their display rooms on those of their French and English counterparts. Much of the ornate architectural detail was intended to be gilded.

"Gilding" as it was refined in the Italian Renaissance is the application of gold or silver leaf to a prepared surface, intended to create the appearance of a solid metallic form. When properly executed, the illusion of solid metal is very convincing. As a result gilding was used extensively throughout the Baroque, Rococo, Directoire, Greek Revival and Empire periods of decoration. Decorative objects, furniture, mirror frames like the one I designed for an 1869 Baltimore townhouse parlor (see p. 152), picture frames and architectural moldings and ornaments were all embellished with gold leaf.

A professional gilder, I have often gilded architectural moldings and ornaments in period houses. Capitals of Ionic columns, dentil block, repeating egg and dart or shell crests in vestibules can all be authentically restored by the proper application of gold leaf. Although there are a number of less expensive substitutes for real gold leaf, none offers the permanence or shine and durability of gold.

Before I start a gilding job, I decide whether I want a high burnished shine, or a soft matte luster. I use both finishes on the picture frames I gild for museums: The burnished sections accent the matte sections. But for decorative architectural moldings, I find matte leaf by far the most practical to apply with satisfying results.

To determine how much gold leaf I'll need, I make a careful calculation of the area to be gilded. (A book of 25 genuine gold leaves costs $14. - $38. depending on the price of gold, and covers 1 1/2 sq. ft.) I recommend that a beginner test a small area to insure the accuracy of the estimated coverage to prevent expensive errors. For outside work, "patent" leaf can be bought, which holds the leaf in the book, as opposed to "loose" leaf which rests loose between the leaves of tissue paper.

A Burnished Finish is achieved by water gilding and requires a traditional ground of gesso and bole, and a professional's skill---and even many professional gilders find the old water gilding method difficult to master. A good job employs exact formulas, careful timing and hours of experience. A matte finish on the other hand can be accomplished by a serious beginner.

First, make any necessary repairs to the surface: rejoin any loose moulding and ornament with appropriate adhesive, depending on whether the original material is wood or plaster. Next, clean the whole surface thoroughly. This step can vary from simple damp dusting to complete stripping of many layers of old paint. Sometimes sanding is necessary to make the smooth, stable surface needed for laying the gold leaf.
THE FIRST COATING, if the surface to be gilded is wood, is gesso, a gelatin and shell mixture that is also used by artists to prepare wooden panels. Gesso is essential if you plan to gild bare wood. The gesso provides the glass smooth surface you need to make the thin sheet of gold look like solid metal. A rough surface may need several coats of gesso.

TRADITIONALLY IN THE Renaissance, a "bobe" or preparation of gelatin and a special clay called gilder's clay was applied over the gesso. The color of the bobe, usually in various shades of red, yellow or grey, contributes to subtle color changes underneath the gold leaf. I still use this procedure when restoring and gilding picture frames, but for architectural embellishments, I use a Japanese color paint base instead of bobe.

JAPAN PAINTS ARE GENERALLY used primarily by sign painters because they are easy to use, dry flat, have a nice flow, and don't run. They are called "japan" paints because they were originally mixed in 18th century France and England in an attempt to imitate real Japanese lacquer. The European artisans could not reproduce it, but lacquer is made from the gum of trees that grew only in Japan and China. But they could achieve a similar effect with "japan" paint, alternating with coats of varnish. Japan paint is simply ground pigment mixed with a little varnish.

IF THERE ARE MISSING PIECES of ornaments, they should be replaced after cleaning. I use modelling plaster for positive casting, but allow ample time for complete drying, sometimes up to three days depending on the thickness of the plaster. For simple patterns without undercuts, I make a mould by taking an impression in modelling clay. But for more complex pieces, I make a mold from silicone rubber. (Silicone rubber that comes at room temperature is available at art supply stores."

MODERN GOLD LEAF is only 1/250,000 of an inch thick, 1/3 of the thickness used in the Renaissance. If you hold it up to the light, you can see how translucent it is. The leaf’s fragility is why gilding consists of 75% patience. It can easily be handled or being in inexperienced hands.

THE JAPANESE COLOR you choose for gilding may be any earth tone of suited red or green depending on the color scheme. To be gilded, the bare surface must be finished. I find yellow ochre provides a humanizing color behind the gold leaf and makes small defects in the leafing procedure less noticeable. For a matte finish, I cover the paint with shellac. I add a thin layer of gold size. (Water gilding uses bobe instead of paint, and no shellac or size other than water.)

SHELLAC IS BEST when fresh because it deteriorates with age. I mix in myself by dissolving 6 ounces of flakes, available from H. Behlen & Bros. (see box), in 1 pint of alcohol. It is naturally orange. White shellac is refined orange shellac, and will darken with age anyway. Shellac is a varnish made from a substance carried by the lac insect found only in India. It is traditionally used with gilding. Medieval tempera painters who highlighting their work with gilded details protected their art with a thin coat of shellac.

A BURNTISHED FINISH, the bobe is wetted with a solution of alcohol and water—1 to 4—and the gold leaf is quickly deposited onto the wet surface. The gelatin in the bobe is activated by the water and acts as a glue that holds the gold when the water evaporates. The alcohol is added to speed the evaporation. But for a matte finish I apply a thin even coat of varnish called "burnout," literally something that blackens, but here something that catches the gold.

ONE TYPE OF SIZE is allow drying and takes from ten to twelve hours to reach "tack": The paint at which it is almost dry, but "tacky" enough to hold the leaf. The advantage of the slow drying time is that it builds tack for about two hours depending on temperature and humidity.
THE APPLICATION OF THE size must be done very carefully and thoroughly to produce a thin coat. You can tell it has reached the proper tack when you hear a "click" after pressing a knuckle lightly down and pulling it away. A sheet of gold is 3-3/8 x 3-3/8 inches. If you need smaller pieces, you can cut the leaf on a gilder's cushion with a gilder's knife.

GILDING TOOLS CONSIST of a gilder's knife (one gilder I know uses his little fingernail sharpened); a gilder's tip (a flat brush made with a thin layer of squirrel or camel hair placed between two pieces of cardboard); a gilder's cushion; a small tissue booklet of gold leaf and oil. I use a dab of Vaseline on my apron instead of oil, but the Renaissance masters merely flicked their brushes against their cheeks or hair. When I burnish the leaf, I use an agate burnisher. I use very slight pressure at first and then gradually increase the pressure until the firm strokes of the burnisher cause the clay and the gold to polish itself. The firmness of the burnish holds the leaf as I place it on the surface with a steady but quick motion. I repeat these steps until the gilding is complete.

AFTER THE LEAF HAS BEEN laid on all the tacky areas I smooth out the sheets of gold with a soft brush. Any excess can be retrieved in a wide mouthed container and saved for patching or detail work. If air pollution in the room is minimal, I leave the gold as is. The gold itself will never tarnish, but will slowly mellow in color and acquire a patina from atmospheric dirt. But if the gold is subject to much dirt, from a smoky fireplace for example, I do give the surface a thin coat of shellac which tones the gold with age. Both finishes, varnished and unvarnished, age gradually and you can expect a long shine from the magic illusion of gold leaf.

IF I WERE TO BURNISH the surface I would wait from one to three hours after water gilding, to allow the gesso and bole to reach the point of hardness when it is safe to burnish the surface. This is done very carefully with a polished agate burnisher. I use very slight pressure at first and then gradually increase the pressure until the firm strokes of the burnisher cause the clay and the gold to polish to a dark mirror finish. The reason I suggest this be left to a professional is the importance of timing. If you burnish too soon, the gesso under the gold leaf will mush. If you wait too long, it will chip. For gold frames I apply an "antique patina" finish. A typical formula consists of a little burnt umber pigment mixed with ordinary Butcher's Wax and dissolved in mineral spirits. But I usually leave architectural ornaments as they are.

GLAZING MAY BE used in detail work to complement gilding: A glazed wall with gilt mouldings makes an impressive room. (See OHJ Nov.'76 for notes on glazing.) Also a capital with many ridges may be effectively decorated by alternating gilded ridges with glazed ones.

WHETHER YOU'RE GILDING column or pilaster capitals that flank doorways, mouldings, ceiling medallions, mirror frames or even valances, you may be certain that a gold leaf finish will enhance the beauty of your room.

H. Behlen & Bros. Rt. 30 North Amsterdam, NY 12010 (618) 843-1380 Primarily mail order. Gold leaf books & packs. "The Art of Wood Finishing" with a good section on gilding, $2.50, includes free catalog.

M. Swift & Sons, Inc. 10 Love Lane Hartford, CT 06101 (203) 622-1181 Primarily mail order. Gold leaf packs only. "A Guide to Genuine Gold Leaf Application", free.


The Old-House Journal 153 October 1980

Raymond LeBlanc, $7. 212) 265-2066 New York, NY 10011

Gold leaf books (25 leaves) & packs (20 books).

Gold leaf books & packs.

R. Wayne Reynolds is a skilled gilder who has completed restorations for the National Gallery in Washington D.C. as well as many private jobs, including the pier mirror pictured here. He loves his work and uses traditional methods. You can reach Wayne in his workshop at (303) 484-1028, or write him at P.O. Box 28, Stevenson, MD 21153.
THE ARTICLE ON SCREEN DOOR PATTERNS in the July issue succeeded in bringing to light a number of commercial sources for wooden screen doors—both stock and custom-made. The upshot seems to be that you can get plain thin-frame wood screen doors through many lumber yards. These doors are factory made by the companies listed below, and are distributed through lumber yards and building supply centers. BUT IF YOU WANT a screen door with a thick frame, or with old-fashioned scrollwork or spindles, you'll have to have it custom-made. The one exception is Renovation Products (see first listing), which is just introducing a standardized line of old-fashioned decorative screen doors.

PRICES FOR STOCK wooden screen doors seem to range from about $50 to $100, depending on material and quality of construction. A custom-made door will usually range from $100 to $300 and up.

Stock Screen Doors

• RENOVATION PRODUCTS, 5302 Junis, Dallas, TX 75214. (214) 827-5111. This company is coming into production with a line of standard decorative old-fashioned screen doors, inspired in part by the article in the July CHJ. Doors come with ball & dowel brackets or scrollwork brackets. Doors are made in standard sizes, but can also be made to fit odd-size openings. Door frames are full 1 in. thick. No dealers; sells direct to home-owners. Catalog $2.00--available after Oct. 31.

• IDEAL MILLWORK, P.O. Box 889, Waco, TX 76703. (817) 754-4631. Supplies a standard line of Ponderosa pine screen doors to jobbers throughout the country except the West Coast. Write or call company for name of nearest dealer. Free flyer.

• COMBINATION DOOR CO., P.O. Box 1076, Fond du Lac, WI 54935. (414) 922-2050. This company manufactures a line of standard pine screen doors. They also specialize in a combination screen and storm door in all-wood construction; the screen panel slips out and a glass panel is inserted for winter. All sales are through wholesalers who in turn supply local lumber yards. The company's doors are distributed as far west as Denver, through the Midwest states and the Northeast. To find distributor nearest you, call or write the company. Free brochure available.

• E. A. Nord Co., P.O. Box 1187, Everett, WA 98206. (206) 259-9292. This is the world's largest producer of stile and rail doors...and among their products is a line of standard screen doors made from Western hemlock. Sells nationally through dealers and distributors only. No literature on screen doors; call or write for name of nearest dealer.

• NATIONAL SCREEN CO., P.O. Box 1608, Suffolks, VA 23434. (804) 559-2178. In addition to a line of standard plain screen doors, the company also makes a line of decorative screen doors that have scrollwork and/or louvers. They also make a combination screen and storm door. Doors are made from fir and pine. Call or write for name of nearest dealer. No literature.

• DELTA MILLWORK, P.O. Box 8866, Jackson, MS 39204. (601) 922-2771. Makes standard Ponderosa pine screen doors in 3 designs. Doors use aluminum screening—but they put a charcoal grey finish on the wire to cut the glare of the aluminum. Doors are available through dealers in all the Eastern states. No literature.

Custom-Made Doors

• DRUMS SASH & DOOR CO., P.O. Box 207, Drums, PA 18222. (717) 788-1145. This architectural millwork company has available a couple of standard patterns for all-wood screen and combination screen/storm doors. Can be made up in any size; normal thickness is 1-1/8 in. All doors are made to order. No distributors, but will ship. Catalog & price list: $1.

• MOUSER BROTHERS, 3rd & Green Sts., Bridgeport, PA 19405. (215) 272-1052. Has made custom screen doors for many old-house restorations. Will work from architect's drawings or homeowner's sketch. No literature; stop by with plans.

• JULIATIC DOORS, 522 Elizabeth St., Key West, FL 33040. (305) 296-3750. This company has been making quality custom screen doors in Key West. They use quality hardwoods and either glass or aluminum screens. Prices have ranged from $100 to $300, depending on pattern and woods used. Are willing to make up custom screen doors and ship to fellow CHJ subscribers who can't get them locally. No literature; call for more details.

• CREATIVE OPENINGS, 1013 Holly St., Bellingham, WA 98225. (206) 671-7435. Each screen door is individually designed and crafted to meet customer needs. They specialize in designs with a Victorian flair. Some are made with bentwood laminations and hand-turned spindles. Corners are of mortise-and-tenon construction, secured with pegs. They like to get photos of your home so that door can be specifically tailored to match the style. Prices differ depending on type of wood selected. Call Tom or Patricia Anderson for more details, or write for free literature.

Screen Door Plans

IF YOU WANT TO MAKE a screen door yourself, you can get a blueprint for an attractive Victorian-style combination screen/storm door from Utah Historical Society. The plans were drawn up by preservation specialist Larry Jones to encourage homeowners to use appropriate wooden screen doors. You can get a set of the plans by sending $5 to: Preservation Section, Utah Historical Society, 3337 West 2nd South, Salt Lake City, UT 84101.
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BOOKS AND PUBLICATIONS
VINTAGE "How-To" booklets back in print: Slate Roofing (hips, valleys, ridges...); Tile Roofing (flat, Spanish, Mission, Roman, French); Steam Heating (single and two pipe); Plumbing (valuable 50-year old solutions) $3 each, mailed first class.

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1830's EYE-BROW-WINDOW COLONIAL on 3 acres with view. 2 bdrms, 1 1/2 baths, LR with FF, DR, Kitchen, Full cellar. Large deck, 2 car garage, small barn. Renovated. New sills, sash, wiring, plumbing, heat, fixtures, septic, insulation and more. $89,500. John Staber, Box 91, Old Chatham, NY 12116. (518) 794-9091.

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PUTNEY, VT—French Second Empire style mansion on Main Street, 14 rooms, attached carriage house, beautiful wainscoting, 3 fireplaces, years of loving care, and parking. Drilled water well & town sewer. Very solid condition. $135,000. 4000 sq. ft. downstairs. 10 year owner financing. Nat Hendricks, 325 State St., Brookyln, NY 11217. (212) 858-7760.
ITALIAN REVIVAL, c. 1857, National Register, mansard roof, solid brick, 3 front entrances, 2 large fireplaces, 3 marble fireplaces, 5 bedrooms, 3 baths, full basement, and stone fireplaces. In 1872, the Rock-Hocking Wine Cellars were constructed under existing cellars. Recently restored with new electric, plumbing, and heating systems. 520 square feet, 100 square feet of lawn. 301 8th St., Lancaster, OH 43130.

SUCKYLLK COUNTY, PA. 1845 stone farmhouse, barn and mill with operable 4 ft. x 24 ft. water wheel. Full basement, 5 bedrooms, and stone fireplace. Inground heated pool, too. 5 sent. Call Mr. W. John, 201 S. Hl^ St., Lancaster, OH 43130.


140 YEAR OLD, 2 story brick home with widow’s watch in relaxed country setting—4 bedrooms, 2 baths, 1 1/2 baths tastefully modernized with over 2 acres of land. Lots of good outbuildings. Owner being transferred. Dey, R. 5, Box 177, Vent Van, Ohio 45891. (419) 495-2847.

THE HOUSE OF MAYORS, c. 1850, on the National Register. 3 of the City’s Mayors owned and lived in this home. It has been almost completely restored: all new wiring and plumbing, new wood trim, oak flooring and columns, central heat and air, etc. Murfreesboro, TN. A diamond-shaped house of 35,000 square feet, 30 miles southeast of Nashville. $65,000. Matt Ward, Century-21, Austin & Napper Realty. (615) 690-2350.

ROCKVILLE CENTER: Older Victorian, Hewitt School District, 5 bedrooms, 2 baths, full finished basement and attic, L-shaped enclosed porch, living room, dining room, eat-in kitchen, 30 ft. x 40 ft. panelled room with fireplace, 75 ft. x 175 ft. fenced yard, 2 car garage. $79,600. (516) 757-6155.

RESTORABLE HOUSE IN EAST SIDE section of Providence. Front 19th century Greek pre-1900 house in reasonable (habitability) condition. 5 bedrooms, 3 bathrooms, 55 South Marlborough St., Boston, MA 02116. (617) 335-0687.

1 POSSIBLY 2 Round glass cutter. Gloria Green, 2449 Fremont Ave., Bham, AL 35214.

2 SETS OF 1874 VINTAGE DOORS—preferably oak, with brass hardware, measure in (1) 63½ in. x 85½ in., and (2) 63½ in. x 96 in. in width, and for left side of interior surface of door. Silverts, Rt. 2, Box 298A, Staunton, VA 24401. (703) 337-3474.

MATCHING PAIR OF INTERIOR DOORS, 30 in. wide, 90 in. tall, up to 2 in. thick. Glazed (any style) or fire-panel. Will be used to replace missing panels do occur. P. Bluhm, Box 265, New York, NY 10159.

WORKING RIM LOCK of wrought iron, cast iron, or brass, or any combination. Must not be less than 3-15/16 in. in height, and 6-15/16 in. in width, and for left side of interior surface of door. Silverts, Rt. 2, Box 298A, Staunton, VA 24401. (703) 337-3474.

VARIETY OF MOLDS formerly used for casting ornamental plaster, stucco, compo etc. Plaster and stucco models needed. Molds for Franklin, LeChicchi, Jr., P.O. Box 268, Galway, KY 42341. (502) 453-4221.

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SELECTED STUDIES A—Historic Preservation—Assists with regional directions. Exhibits, publications and literature. Knowledge of preservation resources and issues. Excellent written and verbal skills. Resume and salary history to: David Gillespie, Assistant Director, 100 Franklin St., Boston, MA 02110.

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PERIOD LANDSCAPE DESIGNS to complete the restoration of your home. Custom designs to meet your needs yet remain true to the period and style of the architecture. Sinclair, MLA, ASLA, 14 Cranbrook, New Canaan, CT 06840. (413) 258-6572.

WATERCOLOR PAINTING of your old house (from photographs). 9 in. x 12 in. $15. Howard Johnson, Rt. 2, Box 150, Seavy, AK 90213.

Lizzie's—A VICTORIAN INN. Lodging with the service, atmosphere and charm of a gentler era. 73S 1st Street, Port Townsend, WA 98368. (206) 355-4168 or 385-9827.

FINE FLOORWORKING—Will work from architect's drawings, pre-historic, historic and pre-Cast styles. Lawrence Med (212) 855-3884, or (212) 766-3221 ext.

MEETINGS AND EVENTS

THIRD ANNUAL VERBENA TRADE DAY—Oct 4-5. 12th Annual Verbenas in Historic Chippewa County, AL. Crafts, food, entertainment and a walking tour. 3 miles off Interstate 65 on highway 31 south. Mary Homestead. (205) 755-1484.

VICTORIAN ALLIANCE house tour of 5 great mansions on South Van Ness Ave, San Francisco, Sunday, Oct. 1, 5 to 7 pm. $7.50 donation includes color catalog and Victorian Alliance tour. Also starts at 859 South Van Ness Ave. (between 20th and 21st Sts). Free parking. (415) 646-7716 or 654-6834.

CHURCH AUCTION, October 11. Items include tin ceiling tiles, 22 oak pew, wall clock and photographs. 9 in. x 12 in. $15. Howard Johnson, Rt. 2, Box 150, Seavy, AK 90213.

OLD HOUSE FAIR—Oct. 18, 10 am to 5 pm, Gloucestcr, MA at the Fuller School on Blackmore Circle off of Route 128. 1 mile for parking and show and sale. Houy 82 between Paris and Bonham. Activities for children. Suzanne Tston, (217) 378-9886.

LANDMARK HOUSE HOUR: Chicago—Historic Pullman Centennial House and Garden Tour, October 11, 10 to 5 pm. 8 homes and 2000 products and services for old buildings, with demonstrations, workshops and films. (617) 283-2135.

HOUSE TOUR—Wilmington, DE, Oct, 19, 11 am to 5 pm. Historic St. Mary's Church and 18 houses including former Delaware Governor home, E.F. Dulany house, and Delaware Governor's Cottage. P.O. Box 1775, Wilmington, DE 19899. (302) 656-5766.

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THE TWO PULLISER BOOKS reprinted in this edition are: "American Cottage Homes" (1878) and "New Cottage Homes & Details" (1887).

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THE DRAWINGS shown here are a tiny sampling of the illustrations in the book—and they are reduced in size here by 25%.

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Master Appliance is the maker of heat guns in the U.S.; they sell more than 4,000 of their heavy-duty HG-501 units to OHJ subscribers annually. So the heat gun has a proven track record of long life and reliability. When The Old-House Journal decided to make these hard-to-find tools available directly to our readers, we naturally turned to the #1 heat gun.

Of special interest are the safety factors. The heat gun avoids the hazards of methylene chloride vapors that are given off by most paint removers. And because it operates at a lower temperature than a propane torch, there's no danger of vaporizing lead the way a torch will. (Of course, you should observe normal precautions in handling the scrapings of any lead-based paint.) Too, the fire danger is lower than with a propane torch or blowtorch. (But because it is a heat-generating tool, caution should be observed with wall partitions that contain dust.)

The heat gun is ideal for stripping paint from interior woodwork where a clear finish is going to be applied. There's none of the scorching such as you get with a propane torch. Use the heat gun for stripping paint from such places as: (1) Doors; (2) Wainscotting; (3) Window and door frames; (4) Exterior doors; (5) Porch columns and woodwork; (6) Baseboards; (7) Shutters; (8) Panelling. In addition, the heat gun can be used for such purposes as thawing pipes in winter, loosening synthetic resin linoleum paste, and softening old putty when replacing window glass.

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NEW Restoration Publication

RESTORATION PRODUCTS NEWS is the first publication in the Restoration Field to give news about products and services on a monthly basis. It is a large format, newspaper-type publication for restoration architects, interior designers, restaurant operators and designers, contractors and other professionals involved in building restorations—as well as serious homeowners.

RPN IS THE RESULT OF THE explosive rate at which interest in old buildings has been growing. Until now, there has been no single publication exclusively devoted to what products are available—what is new, where to get it. RPN covers old commercial buildings as well as old houses; renovations as well as restorations.

THE PRODUCTS RANGE FROM small household items to large architectural products and building materials. You will be able to find sources for architectural salvage, antique lighting, and ornaments. RPN, published by The Old-House Journal Corporation, includes Classified Ads and, unlike OHJ, paid display advertising.

THE FIRST ISSUE, OCTOBER 1980, tells you where to find such sought-after items as: Cast-iron cresting, architectural terra cotta, encaustic tile, plaster and composition ornament, fireplace dampers, scenic mural wallpaper, mini rimlocks and small glass bevels. Services include a hard-to-find company that does theater seat restoration. The October issue also features an exclusive interview with a skilled stair builder and a news article about Jack Cunningham's innovative "Period Products Showrooms."

The Restoration Reading Page reviews a book about California design in the early 20th century, and a book about commercial rehabilitation. RPN WILL ALSO provide a forum for those in the Restoration Field who wish to communicate with one another. Through RPN, a man developing a new 19th century paint color line hopes to reach people who will send him color samples, which he will reproduce.

RPN'S EDITOR is Carolyn Flaherty. Ms. Flaherty has been with The Old-House Journal since the beginning, and was Decorative Arts Editor for 5 years before being promoted to the editorship of RPN. She has returned to the Journal's original office at 199 Berkeley Place. (The Old-House Journal has since moved around the corner to 69A Seventh Avenue.) Helping her with this enterprise is the Journal's Mike Carew, Production Manager. Mike, who has been with the Journal for over 2½ years, will now share his time with RPN as Advertising Sales Manager.

RPN COMES OUT 10 times per year. A year's subscription costs $10.00. To order send $10.00 with the order form in this OHJ issue, or send a check or money order for $10.00 directly to RPN at 199 Berkeley Place, Brooklyn, NY 11217. Call Ms. Flaherty if you have an interesting product, or story, or to place an ad reservation, at (212) 857-3907.

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