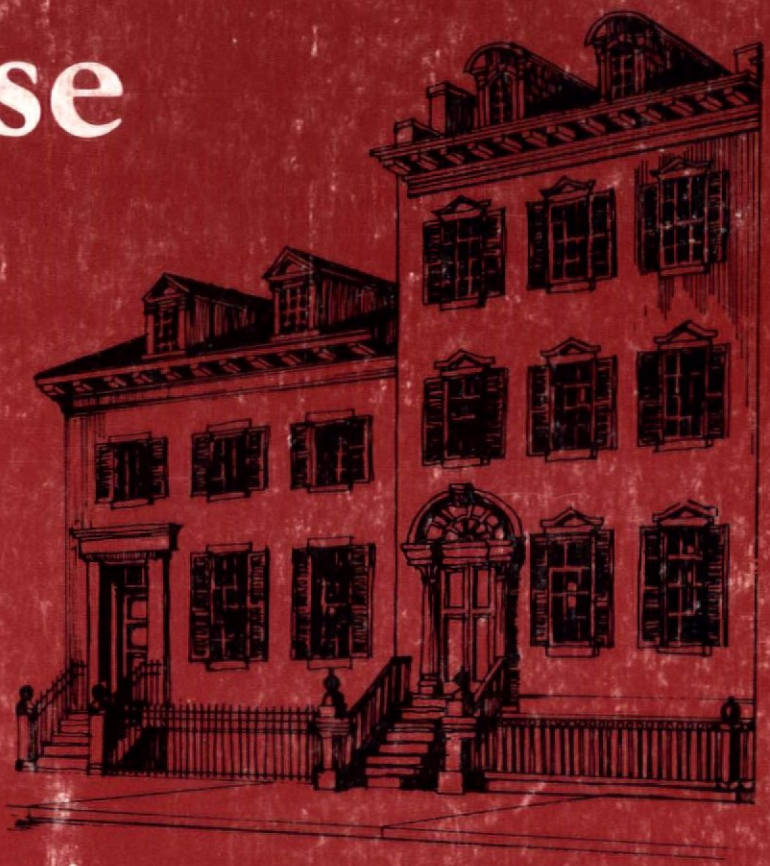
Restoration and Maintenance Techniques
For The Pre-1939 House

The Old-House Journal



Practical techniques for the sensitive rehabilitation of older buildings:

- do-it-yourself restoration methods
- decorating ideas and practices
- surveys of architectural styles
- sources for historically appropriate products

. . . and much more!

1977 YEARBOOK

RASO

The Old-House Journal

1977 Yearbook

A one-volume compilation of
all the editorial pages printed
in The Old-House Journal in 1977

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This **Old-House Journal Yearbook** is a one-volume compilation of all the editorial pages printed in The Old-House Journal in 1977.

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Beware!

This ad is typical of ads seen every day in newspapers. But...

When you get befuddled, your house gets remuddled.

Unfortunately, many homeowners "renew" their old houses by slapping on aluminum siding or the "latest" snap-together Tinkertoy porch. These well-meaning homeowners, in their quest for the "quick fix," destroy irreplaceable fine old craftsmanship and detail.

When owners aren't sensitive to their house's architectural style — regarding their home as an easily-alterable pile of sticks and bricks — they'll take the fastest, cheapest route to any renovation project. We call this inappropriate remodelling "remuddling."

When you remuddle, usually stripping architectural details in the process, you traumatize the structure. If you remuddle an Italianate building with contemporary lumberyard elements, you don't create a new "Contempianate" style . . . you just wind up with a befuddled structure . . . an aesthetic disaster zone. *And*, you substantially reduce its resale value.

Of course owners want to place their own personal stamp on the house. Whimsical touches are okay for interior decorations — the decorations move out when you do. But the architectural structure and character of the house should be preserved — that's the part that is, literally, irreplaceable.

The Old-House Journal

What's It All About?

This Yearbook is a compilation of one full year's worth of Old-House Journal issues. That's a lot of nuts-and-bolts information . . . but that's not where it all ends. Every month there is a continuing dialogue among our staff, homeowners and restoration professionals across the nation. Each issue is a combination of our own research — plus techniques from our readers — blended together in this unique old-house lovers' forum.

The Old-House Journal is the only publication devoted exclusively to the restoration, maintenance and decoration of old houses. Every month our plainly-written articles show you practical, economical ways of turning that old house "with a lot of potential" into the house of your dreams.

The Journal is written and edited by people who have restored old houses themselves. Their first-hand knowledge will help you *do it yourself*, turning *your* house into the kind of house photographed by those "pretty picture" magazines. Your picture-pretty home will breathe with new life from the floorboards to the finials . . . at costs that *won't* make you gasp.

The expert advice from The Old-House Journal will help you save money when it's time to bring in contractors. You'll be able to give specific instructions to them, and be able to supervise the work.

And, whether you do it yourself or have the contractors do the work, you'll avoid costly mistakes.

There are *extra* pluses that joining The Old-House Journal Network brings: Things like getting free classified ads, being able to use us as a professional consultant through our "Ask OHJ" column, getting let in on other subscribers' techniques through our "Restorer's Notebook," and being exposed to the best books and products available for the old-house lover.

New techniques and products are being discovered all the time . . . and we're always on the lookout for the *rediscovered* techniques of the old-time craftspeople.

If you love the look of old houses . . . the beauty of restored interiors and facades . . . quality materials and fine craftsmanship . . . and itch for the joy of doing it yourself . . . then The Old-House Journal is for you.

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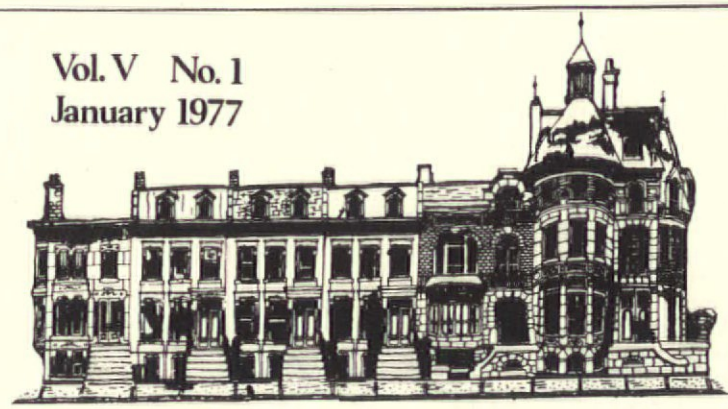

Renovation And Maintenance Ideas For The Antique House

The Queen Anne Style

By Renee Kahn

AMERICA GOT ITS FIRST LOOK at the Queen Anne style at the Philadelphia Exposition of 1876, the great "Centennial." It was love at first sight for this "tossed salad" (as Russell Lynes calls it) of Elizabethan, Jacobean, and Classical elements. For the next 20 years it was everyman's dream house, his castle, his retreat from the growing pressures of American life.

QUEEN ANNE was largely the creation of an English architect, Richard Norman Shaw. Nostalgic by nature, it was supposed to be a return to the simple, solid construction methods of the days of good Queen Anne (150 years earlier), when workmanship was emphasized over superficial architectural detail. In that sense, it was the architectural counterpart of William Morris and the Arts and Crafts movement of the time.

THE GREAT PUBLIC ENTHUSIASM for Queen Anne swept away both the Gothic and French Mansard styles. Its only competitor was the Romanesque, which had the weight, both figurative and literal, of Henry Hobson Richardson behind it. Romanesque, however, was a stone construction style, and therefore out of reach of most American pocketbooks. On the other hand, a wooden Queen Anne house could be put together quickly and cheaply by any competent carpenter and his helper.

QUEEN ANNE'S NICKNAME, the "bric-a-brac" style suited it very well. Earlier examples looked more Elizabethan, as though they had come out of Shakespeare's England, later came Jacobean towers and turrets, and still later, the more classical elements like Palladian windows and Grecian columns. The entire style was finally snuffed out by the Colonial wave which swept America at the turn of the century.

ALTHOUGH IT WAS POPULAR for only two decades, its impact on the American scene was enormous. The rapid growth of our cities and towns, along with innumerable technological advances, resulted in the construction of hundreds of thousands of Queen Anne houses. Although it is probably the most common "old house" we have around today, next to nothing has been written about it.

The Basic Shape

THE SIMPLE RECTANGLE of earlier days was gone: Asymmetry ruled the day. Wings and gables protruded in all directions, and modest porches expanded into full scale verandahs or piazzas. Balconies, overhanging gables,

(Continued on page 3)

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Coming Next Month

PERIOD LANDSCAPING

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The Sticky Problem of Linoleum Paste

EDITOR'S NOTE: In a recent issue, Elizabeth Tully asked for help from the readers with a floor problem. She wanted to know how to remove linoleum paste from an old floor without sanding. She was afraid that sanding would remove a lot of the character from the old pine boards. Below is a composite of the answers that we received:

THE READERS ALL AGREE that removing old linoleum adhesive without using big power equipment is a messy, time-consuming chore. With that advance warning, here are some of the suggestions passed along:

(1) TRY WATER FIRST. Most of the old-time linoleum pastes were water soluble. So they can be softened with water and then removed by mopping or scraping.

START WITH HOT WATER. Some people add a dash of detergent or trisodium phosphate to increase the water's soaking ability. Slosh water on with a mop and cover with a layer or two of newspapers. The damp newspapers will retard evaporation and keep the paste in contact with the water. Allow to soak for 20-60 minutes, then test for softness with a putty knife. If the paste needs more soaking, you may have to dampen the newspapers again with more hot water.

AFTER SUFFICIENT SOAKING, many of these old adhesives can then be removed with mops or sponges and more hot water—followed by a thorough rinse. If there's a lot of felt stuck to the adhesive—or if the stuff is proving difficult—you may have to remove the softened material with a putty knife or wall scraper. The most favored implement seems to be a wallpaper scraper—the kind with replaceable blades. Any residue left on the floor can then be cleaned up by scrubbing with hot water with a bit of detergent added.

MANY OLD WIDE BOARD FLOORS may also be covered with paint underneath the linoleum. The paint can be removed with a floor sander, but of course this will also grind off all of the patina, the tops of the hand-forged nails, and will level all the hills and valleys that give an old floor its character. Chemical paint removers, a lot of elbow grease, and a small belt sander will clean up most of these floors. But if you run into milk paint, reports G.S. Schmidt of Darien, Conn., the only method of attack is a scraper and a bottle of ammonia. Knee pads (like basketball players wear) and rubber gloves are also worthwhile investments for this grueling task.

(2) TRY HEAT NEXT. Most of the modern adhesives are not water soluble. When you are confronted with this type, the procedure outlined in (1) will not work. So the next step is to try softening with heat, then removing with scrapers. Best source of heat is a hot-air gun (see OHJ, April 1976 p. 3). You could also use one of the heat lamps that is sold for paint stripping purposes. One reader had good results with a wallpaper steamer. A propane torch with a spreader tip will also work, but there is the added hazard of fire and the possible scorching of the wood floor.

(3) THE CHEMICAL METHOD. Linoleum adhesives that resist water can be attacked chemically. But chemicals are recommended only if the heat method in (2) proves impractical. The reason: Potential health hazards from the chemicals used.

MODERN LINOLEUM AND TILE ADHESIVES can be softened with paint removers—the water-rinseable type. These removers contain methylene chloride, and all the ventilation precautions (see OHJ, May 1976 p. 9) should be observed. Professionals doing the job will often dilute the paint remover 50-50 with lacquer thinner to get greater coverage. This procedure introduces the added danger of fire, however.

AS THE ADHESIVE SOFTENS, it can be scraped up with a metal scraper or rubber squeegee. Be careful in disposal of the sludge as it is toxic—and flammable if lacquer thinner has been used. Rinse surface with mop and water or mild detergent solution. If stubborn spots remain, treat them again with the paint remover.

THANKS GO TO the following readers who helped with the answer: Leonardo Sideri, New York City; Chris Hunter, Detroit, Mich.; Ed Teitelman, Camden, N.J.; Nancy Plenge, Ellicott City, Md.; Charles & Doris Chickering, Highland, Md.; Morton Schlesinger, New York City; Don Bach, San Francisco; J.K. Walker, Washington, D.C.; G.S. Schmidt, Darien, Conn.; Judith Olney, Poland, N.Y.; Robert Meyer, Wallingford, Conn.; H.K. Pyles, Seattle, Wash.; Roger Oatley, Barrie, Ontario.

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This block in Stamford, Conn., shows a typical conglomeration of Queen Anne rooflines--hipped, onion dome, turrets.

(Queen Anne--Cont'd. from page 1)

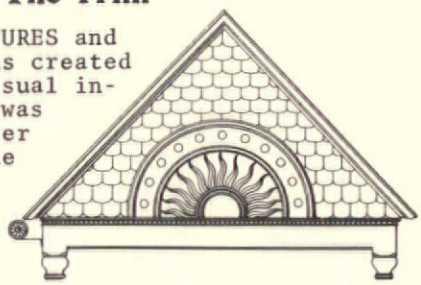
and bay and oriel windows dotted the facade. The house grew organically, from the inside out. Its inner structure determined its outer shape. Adding to the style's picturesque effect were the towers and turrets. "Here," according to one Builder's Plan Book, "the fastidious housekeeper could banish the smelly smoker." Towers were round, octagonal, or square, but the most fascinating were onion domed, like Arabian Nights fantasies. Rooflines varied: A street of the period often displayed many different styles. Whether gabled or hipped, roofs were high, in keeping with the medieval effect. Dormers were commonplace and not placed symmetrically. One rather charming roof variation was called "jerkin head," and the end tipped downward.

The Skin

THE DOMINANT DECORATIVE element was texture. A typical "skin" consisted of a clapboard or stone first storey, a shingled second storey, and a half-timbered attic floor. Sometimes, instead of half timber, still another variety of shingle was used. It was not uncommon for a house of the period to have three or four different kinds of shingles on it.

THE BANDSAW, which was perfected after the Civil War, made it possible to turn out shingles in great quantity and variety. Common forms resembled fish scales or feathers, while the more unusual versions looked like playing cards, or even fruits. An imaginative home builder could combine these ready-made forms with abandon, even placing them in wavy patterns so that the whole surface seemed to undulate.

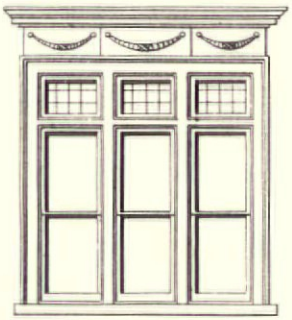
The Trim



WHILE WOOD TEXTURES and window patterns created most of the visual interest, there was no shortage of other kinds of trim. The typical Victorian carpenter looked upon ornament with great enthusiasm. Factories all over the country produced ready-made gingerbread, and one could browse through their catalogs with abandon. The dominant motifs of the period were the stylized sunburst and sunflowers associated with the English Arts and Crafts Movement. Innumerable variations of the two turned up on gables, brackets, over windows and doors.

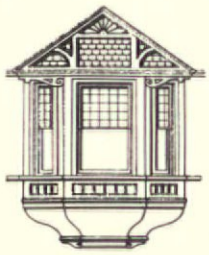
MOST ORNAMENT however, was "turned" (because of improvements in turning equipment). Spindles shaped like interior balusters and posts were used on porch railings, and other trim. Brackets were generally smaller, and less ornate than in preceding periods, and were often incised in an "Eastlake" manner.

GABLES provided space for considerable decoration. Finials rose and pendants descended. The gable peak was frequently filled in with sunbursts and sunflower designs, or an arrangement of spindles. Bargeboards, unlike previous Gothic styles, were relatively plain and unadorned.



QUEEN ANNE architecture was frequently called the "Free Classic" style because of its use of Greek and Roman decorative motifs. Dentils (rectangular toothlike projections) appeared under the cornice, along with swags, garlands, urns, and columns. These elements, plus the reappearance of the Palladian winow, forecast a full return to "Colonial" architecture in the 1900's.

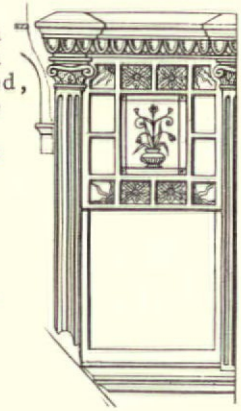
Windows



TO ENHANCE the picturesque, medieval quality, window panes were often small and squarish. These units were combined with larger "plate" glass areas in a number of different ways. The most common arrangement was a small-paned top sash over a solid glass lower half. Another version consisted of a border of small panes (fre-

The top sash of the window seen through the arch has small panes as a border. Other details frequently found in the Queen Anne style: Decorative panel, dentils, columns, varied texture of brick, board and shingles.

quently colored) set around a larger one. Sometimes only a transom on top was small-paned, and even less frequently, the entire window was made up of small squares. Stained glass was used mainly for hall or staircase windows where the filtered light added to the "times gone by" atmosphere. Both windows and doors often had glass panels with a decoration etched in the glass.



Paint

DURING THE FIRST HALF of the 19th century houses were generally painted white with dark green trim. Under Downing's influence in the middle of the century, this changed to fawns, greys, and drab green. During the last quarter, however, colors became deep and intense. Lewis Mumford refers to this period as the "Brown Decades," and ties the color choices to the depressed mood of the times (brought on by the Civil War, Lincoln's death, and the severe recession of the 1870's). At any rate, a warm red-brown seems to have been the most popular color, with deep greens, umbers, and golden ochres not far behind. Other color schemes called for maroons, burnt orange, and stone gray--all colors made possible by technological growth in the paint industry.

THE QUEEN ANNE HOUSE was rarely painted in only one or two colors. The body, trim, shutters, and sash were all treated differently. It was not uncommon for as many as five contrasting, but harmonious, shades to be used on one house. Only in an era of cheap labor could such elaborate color schemes be considered on an everyday basis. To invest in such a paint job today is a true act of love.

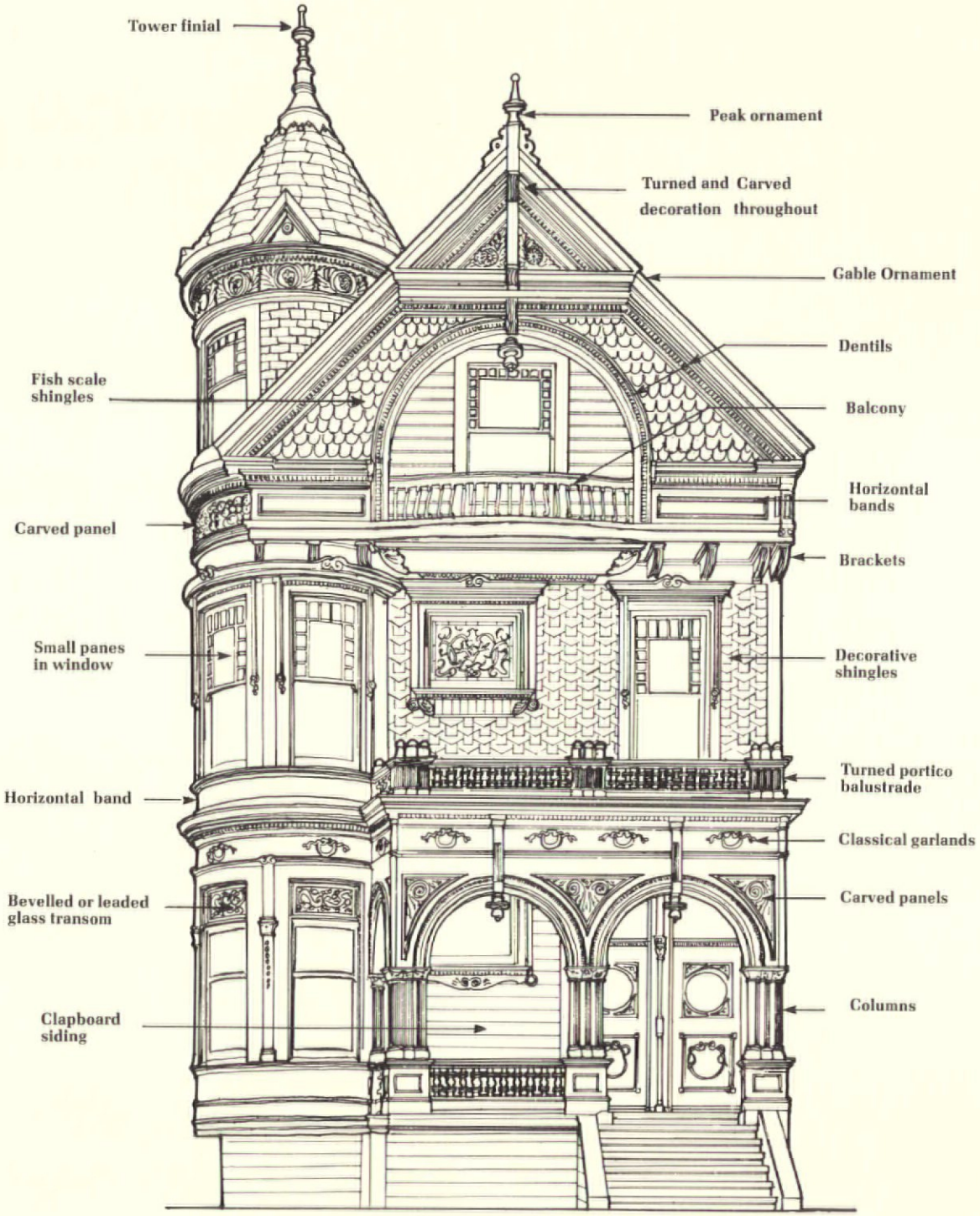
Interiors

THE DOMINANT FEATURE of a Queen Anne house was the large, squarish entry hall. Lined with dark oak wainscotting and woodwork, it was designed to impress and envelop the visitor. If finances permitted, it contained a baronial fireplace and a built-in bench beneath the stairs. A vestibule led to the outside door and protected against drafts.

ABOVE THE PANELLING there was either wallpaper (Lincrusta-Walton, a glazed, textured variety was popular, or fabric--preferably damask or velour.) Patterns were exotic: Japanese or Moorish in influence, with numerous friezes, borders, and dados. Three dimensional looking designs were branded "dishonest" and flat patterns were considered the only appropriate designs for flat wall surfaces. Plain plaster walls, when used, had stencilled borders beneath the cornice. If one could afford it, the ceiling had boxed-in beams or coffering. Otherwise, pale tints of plaster sufficed. The ornate plaster rosettes of previous periods were no longer used, and light fixtures hung from unadorned ceiling plates. Light came from stained glass, or stained glass bordered windows, which lent an appropriately medieval air to the room.

A drawing room corner furnished in the "artistic" manner fashionable during the period when Queen Anne houses were built.

Queen Anne Tower House



This Queen Anne house contains many features found in this picturesque style -- a variety of textures with 3 different types of shingles plus clapboarding; many different kinds of windows; and different kinds of wood decoration. The drawing is adapted from an excellent new book about Victorian architecture in San Francisco, "A Gift To The Street." Containing 301 beautiful photographs, with details of doorways, windows, decorative iron, columns, newel posts, faces, sunbursts. To order, send $12.95 to the Antelope Island Press, P. O. Box 31508, San Francisco, CA 94131. --Ed.

This restored Queen Anne is a good example of how elegant the style can be....

...but, typical of the plight of so many Queen Anne houses today are these two empty buildings in Stamford.

THE MAIN ROOMS came off the central hall, in an asymmetrical manner. As central heating came into popular use, it was no longer necessary to close off spaces with heavy doors--portieres were sufficient. Doors were still recommended for places where quiet and privacy were needed, such as the library. Despite heating systems, fireplaces remained important features and builder handbooks of the period recommended that they be made as elaborate as one could afford.

AS LATE AS THE 1880's the indoor toilet was considered a luxury and was found only in "better" homes. Except for mansions, there was rarely more than one bathroom, and that was next to the master bedroom.

Furnishings

GONE WAS THE red plush and white marble of the Civil War Era. In its place stood a hodge podge of "artistic" furniture, which claimed its roots in "medieval simplicity." Like the wallpaper, it was more than medieval. Any household with a pretense to good taste had its "Turkish Corner" and Japanese screens.

THE MAJOR INFLUENCE, however, was Charles Eastlake, whose "Hints On Household Taste" was a runaway best seller when published in 1868. "Art furniture," or "Eastlake," as it was called, dominated public taste for the next twenty years. Although it gave lip service to "simple, honest craftmanship," it ended up as ornate, and as poorly made as the furniture that preceded it. Despite Eastlake's disapproval, the cabinetmaker disappeared under the weight of the upholsterer. Fringes and tassels were everywhere.

EVEN THOUGH MACHINE MADE, furniture had a handcrafted, rectilinear look. Decoration was incised and gilded, or carved in a flat, stylized manner. Spindles provided an acceptable alternative to the squared-off lines, mainly because Eastlake saw them as a revival of the medieval "turners" art. He also deplored varnished furniture, and wood finishes were either ebonized, or left natural.

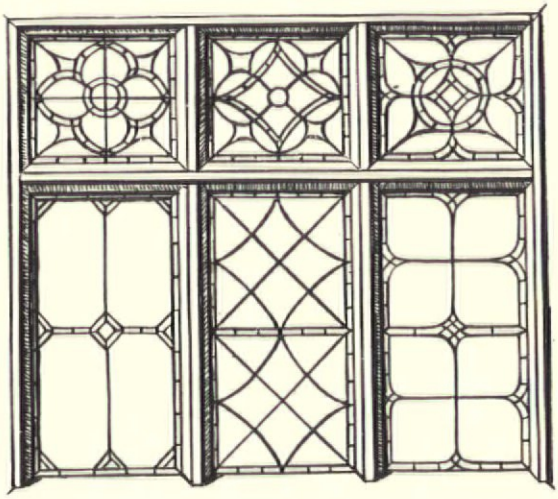
THE CENTENNIAL EXPOSITION of 1876 brought in yet another fashion, one which outlasted all the others. It was the collection of American antiques. One small exhibit, a colonial kitchen, set off a wave of patriotic collecting which still exists today. Since the supply could not possibly meet the demand, increasing quantities of reproductions were made.

Queen Anne Today

THE IMPACT OF THE Queen Anne style on the American scene was enormous. Today, we tend to make light of these romantic, overly embellished fantasies. We call them "white elephants," and complain about how much they cost to heat. Many of them are in rundown neighborhoods, unloved and exploited. However, they were solidly built, and respond well to a loving hand. Be brave! Tear off those asphalt shingles, let the original skin shine through. Strip off that louvred glass porch! Find another stained glass window for the hall, and just watch it come back to life! Top off your efforts with a real Queen Anne coat of paint (not white). How about rust color with maroon and orange trim?

Renee Kahn is a painter-printmaker, and teaches art history and American art at the University of Connecticut's Stamford Branch. Victorian Architecture is her great love and she lives in an old house with her husband and three teenagers.

Photo Credits:
Norma David, Stamford, Conn.
Carol Olwell, San Francisco, Calif.



Some Tips On Old Glass

Leaded Glass • Mirrors

By Felicia Elliott, Felicity, Inc.

DURING THE YEARS that we have been in business, we've picked up quite a few practical ideas for restoring old-house parts that you may find useful. Most of these we have stumbled on by trial-and-error; you would be amazed at the number of professional people who couldn't give us a clue on some of these simple restoration problems.

OLD GLASS—We carry a large selection of stained and bevelled glass plus old windows. Old glass that we buy for replacement parts often is embedded in putty so old that it has turned to "cement." To free the delicate old glass from this hardened putty, apply oven cleaner and allow to soften. Once softened, the putty will come out much more easily and the glass can then be removed without breaking.

ANOTHER HINT: When buying a piece of old, handmade wavy glass for a cabinet or window, buy more than you think you are going to need if there is any cutting involved. This old glass is not only scarce, but it also breaks much more easily than new glass when cut.

LEADED GLASS—If you buy an old stained glass window and the glass has bowed or sunk, soften the putty around the frame and remove the leaded panel. Carry the bowed section to an asphalt driveway on a hot sunny day and weight it down carefully. During the course of a few hours it will straighten itself out with a little gentle pressure.

BECAUSE IT'S BLACK, asphalt absorbs heat from the sun and provides a sufficient temperature to soften the lead and to let it ease back gradually to its original flat shape. If you don't have such a driveway, any flat black surface such as a roof or piece of building paper may suffice.

WHILE THE GLASS is out of the frame, clean all of the old putty and debris from the channel. The newly flattened leaded glass panel will take up slightly more room when it is re-installed.

CAUTION: If you have a dog, tie it up first. Our 100-lb. German Shepherd takes one look at an unprotected piece of glass lying on the driveway and steps on it! I've also noticed the same penchant in Irish Setters and St. Bernards.

Restoring Old Mirrors

OLD MIRRORS—Do you have an old mantel with a bevelled glass mirror that needs re-silvering? This process—at least in our area—is hard to come by and very expensive. Here's a low-cost substitute for re-silvering:

REMOVE THE MIRROR and place it on your work table with the silvered side up. Now you are going to try to remove all the old silvering. Try a little Clorox on a corner. If the mirror has only been silvered, the Clorox will remove it. However, some old mirrors are not only silvered—the backs are also coated with paint.

IF THE CLOROX moves nothing, you'll have to use a paint stripper first. Then when the backing paint is off and you are down to the silvering the Clorox can be used to melt all of the silvering away. You'll probably have to do some rubbing to help the Clorox along, but use ONLY terry cloth or very fine 0000 steel wool so you don't scratch the glass. Clean the glass meticulously and you'll end up with a good-looking piece of bevelled glass.

NOW, TAKE THE BEVELLED GLASS and your frame to your local glass and mirror shop. Have them cut a piece of new mirror glass to the exact dimension of your bevelled glass. The two pieces should be carefully fitted together and the edges sealed with masking tape to keep dust out. When the two-piece "sandwich" is mounted back in the frame, no one can detect the repair job—and your cost is about ¼ that of a re-silvering job.

FELICIA ELLIOTT runs an architectural antiques shop at 4005 Broadway in Knoxville, Tenn. She specializes in leaded and other types of antique glass—but carries many other house parts as well. She recently managed to locate some particularly exotic old window hardware for one of The Journal's readers.

Guidelines For Rehabilitating Old Buildings

RESTORING AND REHABILITATING old buildings is becoming so popular that almost as many crimes are being committed by misguided remodelers as were committed in the 1960's by the "clear and destroy" bulldozers of the urban renewal forces.

PEOPLE HAVE FOUND that it is the older buildings and neighborhoods that give cities and towns their own special character. Often badly neglected for decades, these old buildings—both residential and commercial—are increasingly being recognized as an undervalued asset.

FURTHER, it has become clear that it does little good to restore a single structure if the neighborhood around it continues to decay. Thus the accent today—for both homeowners and government officials—is on neighborhood preservation. Many old buildings that lack outstanding architectural merit nonetheless become important when viewed in the context of the street or neighborhood.

BUT THIS KNOWLEDGE ALONE does not arm the individual homeowner or local official with the proper know-how to handle the rehabilitation of an old building. Often the overzealous remodeler will destroy the essential character of the structure he set out to save —through a series of seemingly small but critical mistakes.

CONCERN ABOUT THE MISTREATMENT of old buildings prompted the Advisory Council on Historic Preservation to ask the Office of Archeology and Historic Preservation of The National Park Service to prepare a set of guidelines that would help homeowners and local officials who are working on old structures. The guidelines are currently only available in a preliminary draft form. But the principles involved are so important that the Editors of The Old-House Journal wanted to communicate them to our audience as quickly as possible. We have edited the guidelines slightly to fit available space. Anyone desiring a complete copy of the guidelines should contact the National Park Service.

THE UNDERLYING PRINCIPLE is that when bringing an old house or commercial structure up to modern functional standards, it is essential that its architectural character not be destroyed in the process. What follows is a set of 9 principles that should guide the rehabilitation of any old building...be it an 1855 Italianate house or a 1910 office building. Specific applications of the principles are shown in the "do's and don't's" on the following three pages.

The 9 Basic Principles:

- Every reasonable effort should be made to provide a compatible use for buildings that will require minimum alteration to the building and its environment.

- Rehabilitation work should not destroy the distinguishing qualities or character of the property. Removal or alteration of historic material or architectural features should be held to a minimum.

- Deteriorated architectural features should be repaired rather than replaced whenever possible. When replacement is necessary, new material should match material being replaced in composition, design, color, texture and other visual qualities.

- Replacement of missing architectural features should be based on accurate duplication of original features insofar as possible.

- Distinctive stylistic features and examples of skilled craftsmanship—which are scarce today—should be treated with sensitivity.

- Many changes to buildings and environments that have been made over the years are evidence of the history of the building and the neighborhood. These alterations may have developed significance in their own right and this significance should be respected.

- All buildings should be recognized as products of their own time. Alterations to create earlier appearances should be discouraged.

- Contemporary design for new buildings in old neighborhoods and additions to existing buildings or landscaping should not be discouraged if the design is compatible with the size, scale, color, material, and character of the neighborhood.

- Whenever possible, additions or alterations to buildings should be done so that if they were to be removed in the future, the essential form and integrity of the original building would be unimpaired.

The Environment

TRY TO:

Retain distinctive features such as the size, scale, mass, color, and materials of buildings, including roofs, porches, and stairways that give a neighborhood its distinguishing character.

Use new plant materials, fencing, walkways, and street furniture which are compatible with the character of the neighborhood in size, scale, material, and color.

Retain landscape features such as parks, gardens, street furniture, walkways, streets, alleys, and building set-backs which have traditionally linked buildings to their environment.

AVOID:

Introducing new construction into neighborhoods that is incompatible with the character of the district because of size, scale, color, and materials.

Introducing signs, street lighting, street furniture, new plant materials, fencing, walkways and paving materials that are out of scale or inappropriate to the neighborhood.

Destroying the relationship of buildings and their environment by widening existing streets, changing paving material, or by introducing poorly designed and poorly located new streets and parking lots or introducing new construction incompatible with the character of the neighborhood.

Building: Lot

TRY TO:

Retain plants, trees, fencing, walkways, and street furniture that reflect the property's history and development.

Base all decisions for new work on actual knowledge of the past appearance of the property found in photographs, drawings, newspapers, and tax records. If changes are made they should be carefully evaluated in light of the past appearance of the site.

AVOID:

Making hasty changes to the appearance of the site by removing old plants, trees, etc., before evaluating their importance in the property's history and development.

Over-restoring the site to an appearance it never had.

Building: Exterior Features

Masonry Buildings

TRY TO:

Retain original masonry and mortar, whenever possible, without the application of any surface treatment.

Duplicate old mortar in composition, color, and textures.

Duplicate old mortar in joint size, method of application, and joint profile.

Repair stucco with a stucco mixture duplicating the original as closely as possible in appearance and texture.

Clean masonry only when necessary to halt deterioration and always with the gentlest method possible, such as low pressure water and soft natural bristle brushes.

Repair or replace where necessary, deteriorated material with new material that duplicates the old as closely as possible.

Replace missing architectural features, such as cornices, brackets, railings, and shutters.

Retain the original or early color and texture of masonry surfaces, wherever possible. Brick or stone surfaces may have been painted or whitewashed for practical and aesthetic reasons.

AVOID:

Applying waterproof or water repellent coatings or other treatments unless required to solve a specific technical problem that has been studied and identified. Coatings are frequently unnecessary, expensive, and can accelerate deterioration of the masonry.

Repointing with mortar of high Portland cement content can create a bond that is often stronger than the building material. This can cause deterioration as a result of the differing coefficient of expansion and the differing porosity of the material and the mortar.

Repointing with mortar joints of a differing size or joint profile, texture or color.

Sandblasting brick or stone surfaces; this method of cleaning erodes the surface of the material and accelerates deterioration.

Using chemical cleaning products which could have an adverse chemical reaction with the masonry materials, i.e., acid on limestone or marble.

Applying new material which is inappropriate or was unavailable when the building was constructed, such as artificial brick siding, artificial cast stone or brick veneer.

Removing architectural features, such as cornices, brackets, railings, shutters, window architraves, and doorway pediments. These are usually an essential part of a building's character and appearance, illustrating the continuity of growth and change.

Indiscriminate removal of paint from masonry surfaces. This may be historically incorrect and may also subject the building to harmful damage.

Building: Exterior Features

Frame Buildings

TRY TO:	AVOID:
Retain original material, whenever possible.	Removing architectural features such as siding, cornices, brackets, window architraves and doorway pediments. These are in most cases an essential part of a building's character and appearance, illustrating the continuity of growth and change.
Repair or replace where necessary deteriorated material with new material that duplicates the old as closely as possible.	Resurfacing frame buildings with new material which is inappropriate or was unavailable when the building was constructed such as artificial stone, brick veneer, aesbestos or asphalt shingles, plastic or aluminum siding. Such material also can contribute to the deterioration of the structure from moisture and insect attack.
	Changing the original roof shape or adding features inappropriate to the essential character of the roof such as oversized dormer windows or picture windows.

Roofs

TRY TO:	AVOID:
Preserve the original roof shape.	Applying new roofing material that is inappropriate to the style and period of the building and neighborhood.
Retain the original roofing material, whenever possible.	Replacing deteriorated roof coverings with new materials that differ to such an extent from the old that the appearance of the building is altered.
Replace deteriorated roof coverings with new material that matches the old in composition, size, shape, color, and texture.	Stripping the roof of architectural features important to its character.
Preserve or replace, where necessary, all architectural features that give the roof its essential character, such as dormer windows, cupolas, cornices, brackets, chimneys, cresting, and weather vanes.	Placing television antennae and mechanical equipment, such as air conditioners, where they can be seen from the street.
Place television antennae and mechanical equipment, such as air conditioners, in an inconspicuous location.	

Windows and Doors

TRY TO:	AVOID:
Retain existing window and door openings including window sash, glass, lintels, sills, architraves, shutters and doors, pediments, hoods, architraves, steps, and all hardware.	Introducing new window and door openings into the principal elevations, or enlarging or reducing window or door openings to fit new stock window sash or new stock door sizes.
Respect the stylistic period or periods a building represents. If replacement of window sash or doors is necessary, the replacement should duplicate the material, design, and the hardware of the older window sash or door.	Altering the size of window panes or sash. Such changes destroy the scale and proportion of the building.
	Discarding original doors and door hardware when they can be repaired and reused in place.
	Inappropriate new window or door features such as aluminum storm and screen window combinations that require the removal of original windows and doors or the installation of plastic or metal strip awnings or fake shutters that disturb the character and appearance of the building.

Porches and Steps

TRY TO:	AVOID:
Retain porches and steps that are appropriate to the building and its development. Porches or additions reflecting later architectural styles are often important to the building's historical integrity.	Removing or altering porches or steps.
Repair or replace, where necessary, deteriorated architectural features of wood, iron, cast iron, terra-cotta, tile, and brick.	Stripping porches and steps of original material such as hand rails, balusters, columns, brackets, and roof decoration of wood, iron, cast iron, terra-cotta, tile and brick.
Repair or replace deteriorated material with new material that duplicates the old as closely as possible.	Applying new material that is inappropriate or was unavailable when the building was constructed, such as artificial cast stone, brick veneer, asbestos or asphalt shingles, or plastic or aluminum siding.
	Enclosing porches and steps in a manner that destroys their intended appearance.

Building: Exterior Finishes

TRY TO:	AVOID:
Discover and retain original paint colors, or repaint with colors based on the original to illustrate the distinctive character of the property.	Repainting with colors that cannot be documented through research and investigation to be appropriate to the building and neighborhood.

Building: Interior Features

TRY TO:	AVOID:
Retain original material, architectural features, and hardware—whenever possible—such as stairs, handrails, balusters, mantelpieces, cornices, chair rails, baseboards, paneling, doors and doorways, wallpaper, lighting fixtures, locks, and door knobs.	Removing original material, architectural features, and hardware, except where essential for safety or efficiency.
Repair or replace where necessary, deteriorated material with new material that duplicates the old as closely as possible.	Installing new decorative material that is inappropriate or was unavailable when the building was constructed, such as vinyl plastic or imitation wood wall and floor coverings, except in utility areas such as kitchens and bathrooms.
Retain original plaster, whenever possible.	Destroying original plaster except where necessary for safety and efficiency.
Discover and retain original paint colors, wallpapers and other decorative motifs or, where necessary, replacing them with colors, wallpapers or decorative motifs based on the original.	

Plan and Function

TRY TO:	AVOID:
Use a building for its intended purposes.	Altering a building to accommodate an incompatible use requiring extensive alterations to the plan, materials, and appearance of the building.
Find an adaptive use, when necessary, which is compatible with the plan, structure, and appearance of the building.	Altering the basic plan of a building by demolishing principal walls, partitions, and stairways.
Retain the basic plan of a building, whenever possible.	

New Additions

TRY TO:	AVOID:
Keep new additions to a minimum and make them compatible in scale, building materials, and texture.	Making unnecessary new additions.
Design new additions to be compatible in materials, size, scale, color, and texture with the earlier building and the neighborhood.	Designing new additions which are incompatible with the earlier building and the neighborhood in materials, size, scale, and texture.
Use contemporary designs compatible with the character and mood of the building or the neighborhood.	

Mechanical Services: Heating, Electrical, and Plumbing

TRY TO:	AVOID:
Install necessary building services in areas and spaces that will require the least possible alteration to the plan, materials, and appearance of the building.	Causing unnecessary damage to the plan, materials, and appearance of the building when installing mechanical services.
Install the vertical runs of ducts, pipes, and cables in closets, service rooms, and wall cavities.	Cutting holes in important architectural features, such as cornices, decorative ceilings, and paneling.
Select mechanical systems that best suit the building.	Installing "dropped" acoustical ceilings to hide inappropriate mechanical systems. This destroys the proportions and character of the rooms.
Rewire early lighting fixtures.	Having exterior electrical and telephone cables attached to the principal elevations of the building.
Have exterior electrical and telephone cables installed underground.	

Safety and Code Requirements

Investigate variances for historic properties afforded under some local codes.

Install adequate fire prevention equipment in a manner that does minimal damage to the appearance or fabric of a property.

Provide access for the handicapped without damaging the essential character of a property.

Reprints

REPRINTS of this 4-page article are available to groups that want to use these guidelines in their preservation efforts. Price is 10¢ each. For orders under $5.00, add 75¢ postage and handling. Order from: Old-House Journal, 199 Berkeley Place, Brooklyn, NY 11217.

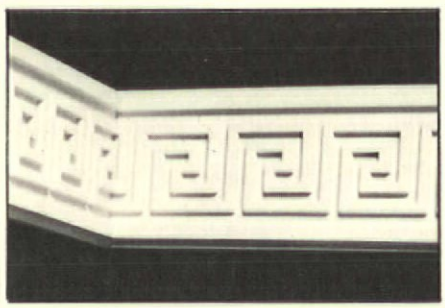
Products For The Old House

Greek Key Moulding

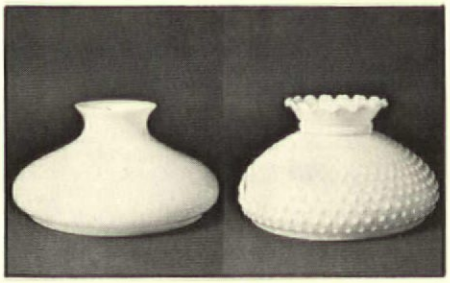
THE FOCAL POINT line of high-quality, accurately scaled reproductions of period cornices, medallions, mouldings and other architectural plasterwork is familiar to most of our readers. These reproductions are molded from lightweight, easily handled polymers.

A new pattern, the classic Greek key, has just been added to this line. It is an accessory moulding designed to be used with a crown moulding.

This classic design is, of course, especially appropriate for the Greek Revival house. But it is also fitting for a much later house--a Neo-Grec Brownstone, a turn-of-the-century classic revival, etc.



For information on the new Greek Key moulding, write to: Focal Point, Inc., 37600 Lower Roswell Road, Marietta, GA 30060. Tel. (404)971-7172.



New Glass For Old Lights

THE 262-PAGE full-color catalog of Angelo Brothers Co. contains quite a bit of contemporary material. But it also has a wealth of reproduction lamps and fixtures (some are nice; some not so good)—plus the largest collection of off-the-shelf new glass shades and metal parts for old lamps and lighting fixtures that you are likely to find anywhere.

THE COMPANY SELLS mainly to shops. So their big catalog costs $10.00—which is refundable with a $100 order. If you aren't making purchases on this scale, you ought to make sure that your dealer at least has the Angelo catalog on hand. Contact: Angelo Brothers Co., 10981 Decatur Rd., Philadelphia, PA 19154. Tel. (215) 632-9600.

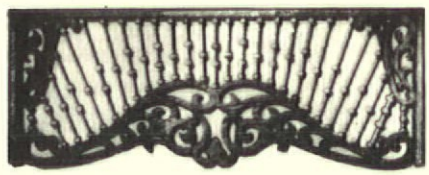
Wooden Fretwork

CUMBERLAND WOODCRAFT CO. originally was a custom shop specializing in period restaurant interiors. But they now have branched out into architectural embellishments that they are offering for sale.

AT THE PRESENT TIME, they have several styles of gingerbread, fretwork and corner brackets. And they are developing a line of solid wood raised panel wainscotting, as well as an assortment of carved wood cornices, back bar capitals and posts.

FRETWORK is made of solid oak and ready for finishing. It can also be made up in other native hardwoods.

FOR LITERATURE SHOWING fretwork, brackets, corbels and gingerbread, send $1.00 to: Randolph G. Reese, Cumberland Woodcraft Co., R.D. #5 Box 452, Carlisle, PA 17013. Telephone: (717) 243-0063.



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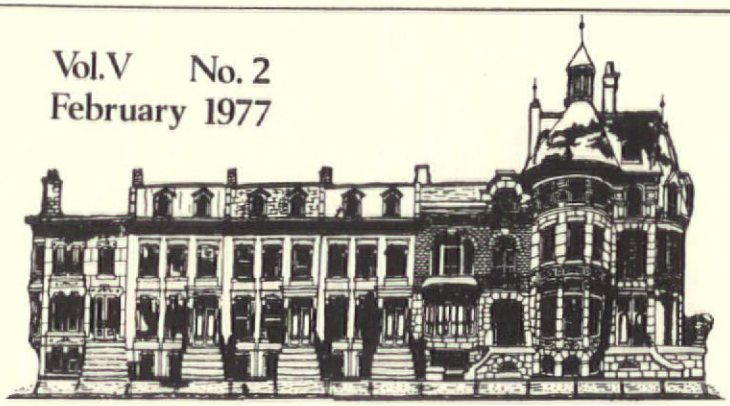
February 1977

Renovation And Maintenance Ideas For The Antique House



Landscaping The Pre-1840 House

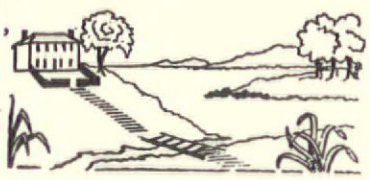
By Donna Jeanloz

GARDEN DESIGN IN English-speaking America changed very little from the earliest gardens of the Pilgrims until the advent of Victorian styles and architecture around 1840. Although landscape gardening underwent a revolution in Britain during the 18th century, only the most wealthy and stylish country estates in America reflected the new naturalistic English style.

THE VAST MAJORITY OF GARDENS continued the Tudor tradition of an enclosed garden of geometrical beds of plants outlined by paths. This garden form was adapted to every architectural style from Colonial through Greek Revival, from elegant Georgian townhouses to isolated farmsteads.

Social Function Of The Garden

THE EARLIEST SETTLERS in the new world planted gardens of dire necessity. They were almost totally dependent on their crops and livestock to supply their needs. Staple crops for food and fodder, such as corn, beans, and oats, were grown in fields. Everything else, including vegetables, herbs, medicinal plants, vegetable dyes, fruits, nuts, and other useful plants including some flowers, was grown on the home plot surrounding the house. Every available space was taken by these useful plants, for the health and survival of the household depended on their availability: Rue, dill, feverfew, wormwood, and other medicinal plants for various home remedies for common complaints; soapwort, teasel, madder, and woad, for processing and dyeing wool; flax, for linen and linseed oil; hops, for brewing beer; lavender and roses, to scent linen; rosemary, parsley, sage, thyme, mustard, garlic, mints, and onions, to make a constant diet of beans and root crops more palatable; plus any available sort of vegetable, herb, and fruit to vary what must have been a horrendously boring diet.



VERY LITTLE TIME and energy was expended on laying out the garden to nice effect, but rather everything was jumbled in together in patches, tall and short, according to the most suitable soil, drainage, and exposure for each plant.

LATER, AS THE COLONIES became well-established and enjoyed a degree of prosperity, necessary items became more or less available commercially so that the household was able to devote more of its garden space to non-essential plants. Especially by the early 19th century gardens were organized and planted to please the senses as well as to supply useful herbs, medicines, and foods. The vegetable plot was usually separated from the purely ornamental plants, which might include

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Coming Next Month

THE TUDOR HOUSE

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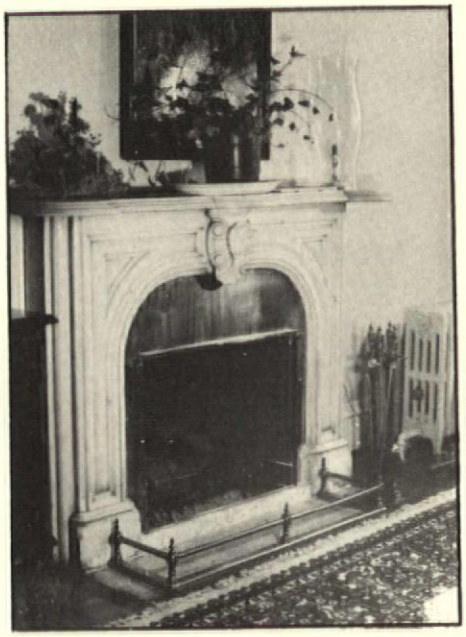
Notes From The Readers...



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Inexpensive Answer To Damper Problem

To The Editor:

THE FIREPLACES in our 1859 house had been built without dampers. We installed conventional metal dampers in two of the fireplaces—and found it to be an expensive and messy process. When it came time to work on a third fireplace, we resolved to find a better way. The design problem was complicated by the fact that we were also getting smoke in the room because the fireplace opening was too big.

WE ENGAGED Brooklyn architect Paul Draskovic (an old-house owner himself) to solve the problem for us. After working out the proper dimensions for the firebox, he ordered sheet metal brass cut to the proper size and installed it in the face of the fireplace. This created the square opening you see in the photo.

HE THEN HAD A GLAZIER cut a piece of tempered glass to fit the opening in the brass plate. The glass is mounted in a brass frame and is held in place by clips on the brass plate. When the fireplace is not in use, the glass totally seals the opening and eliminates all drafts—performing the same function as a conventional damper...and at far less installation expense.

TOTAL COST was under $100 and, as you can see, the overall appearance is neat and clean.

Frank Newton
Brooklyn, N.Y.

An Alternative To Exterior Paint

To The Editor:

OUR 1780 COLONIAL had no paint on it when we purchased it 5 years ago. So one of our first acts was to apply a coat of white paint. We soon developed severe peeling problems, however, and no amount of scraping and repainting did any good. Finally, in desperation, we had all of the paint burned off.

WE THEN APPLIED a coat of crankcase oil that we thinned with kerosene. We have had this unorthodox finish on the house for about 3 years—and can only wish that we had applied it originally. Some of the advantages: The oil gives a natural-looking brown color; it waterproofs the wood yet allows water vapor from the interior to escape; there's no peeling problem; it's easy to re-apply a touch-up. And, of course, crankcase oil is much less expensive than paint.

Judith Skinner
Worcester, Mass.

What To Do About Old Porcelain?

To The Editor:

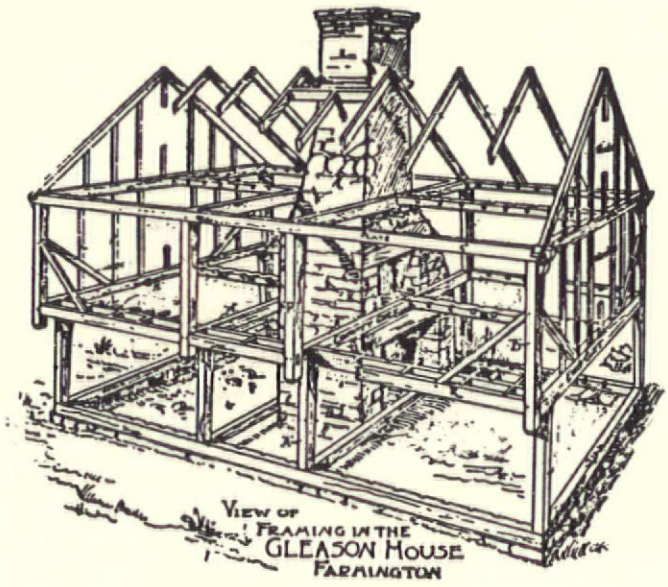
I RESCUED a lovely turn-of-century sink and bathtub from a demolition site. While the two fixtures are basically sound, the porcelain is cracked and stained. I'm not sure if I will be able to rehabilitate these sufficiently to install them in our house.

I HAVE READ ABOUT epoxy paints that can be used to resurface porcelain. And I've heard about re-porcelainizing services. Before I invest a lot of time and money in this project, I'd like to know if any of your readers have successfully revived old bathroom fixtures. Thank you.

Mary Ryan
Chicago, Ill.

We'd like to publish a symposium-in-print on ways to deal with old porcelain. If you have accumulated any experiences—good or bad—let's hear from you...please!--CL

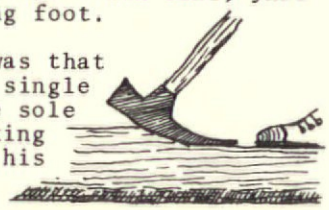
Basic Timber Framing Exposed



By H. Weber Wilson

To properly restore old houses, we have to know something about how they were built...and to understand the people who constructed them. With this article, The Journal starts a series on American construction before 1840. Antiquarian H. Weber Wilson gives us a glimpse of the methods and people that were hard at work more than 150 years ago.--CL

IN THE DAYS WHEN the neighbors gathered for a "house raising," there was sometimes a little contest between the adzmen...the fellows who stood atop a log with a razor-sharp, axe-like tool, and moved steadily forward, chopping the top of the log smooth and flat, just in front of their leading foot.



THE CHALLENGE—or bet—was that an adzman could, with a single normal stroke, split the sole of his boot without nicking either the log below or his several toes above.

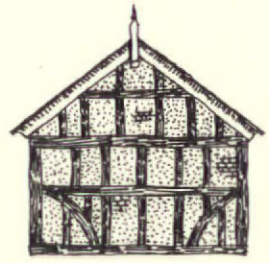
OTHER TASKS of house building didn't require such stringent tests of nerve. But it still took large quantities of skill and hard, sweating work to properly manipulate the special tools that fashioned rock-hard oak into the various building timbers. And by and large, they built well. The houses so built have proved able to survive 200 years. Those that have been lost usually fell to fire or the hand of man...not structural defects.

THE ERA BEFORE 1840 can be called the time of the hand-hewn house. It was a time when most areas of the United States did not have pre-cut dimensioned lumber readily available. And nails were still a rare and expensive item. As a result, the basic method of building a house was radically different from the techniques used today.

The Basic Difference

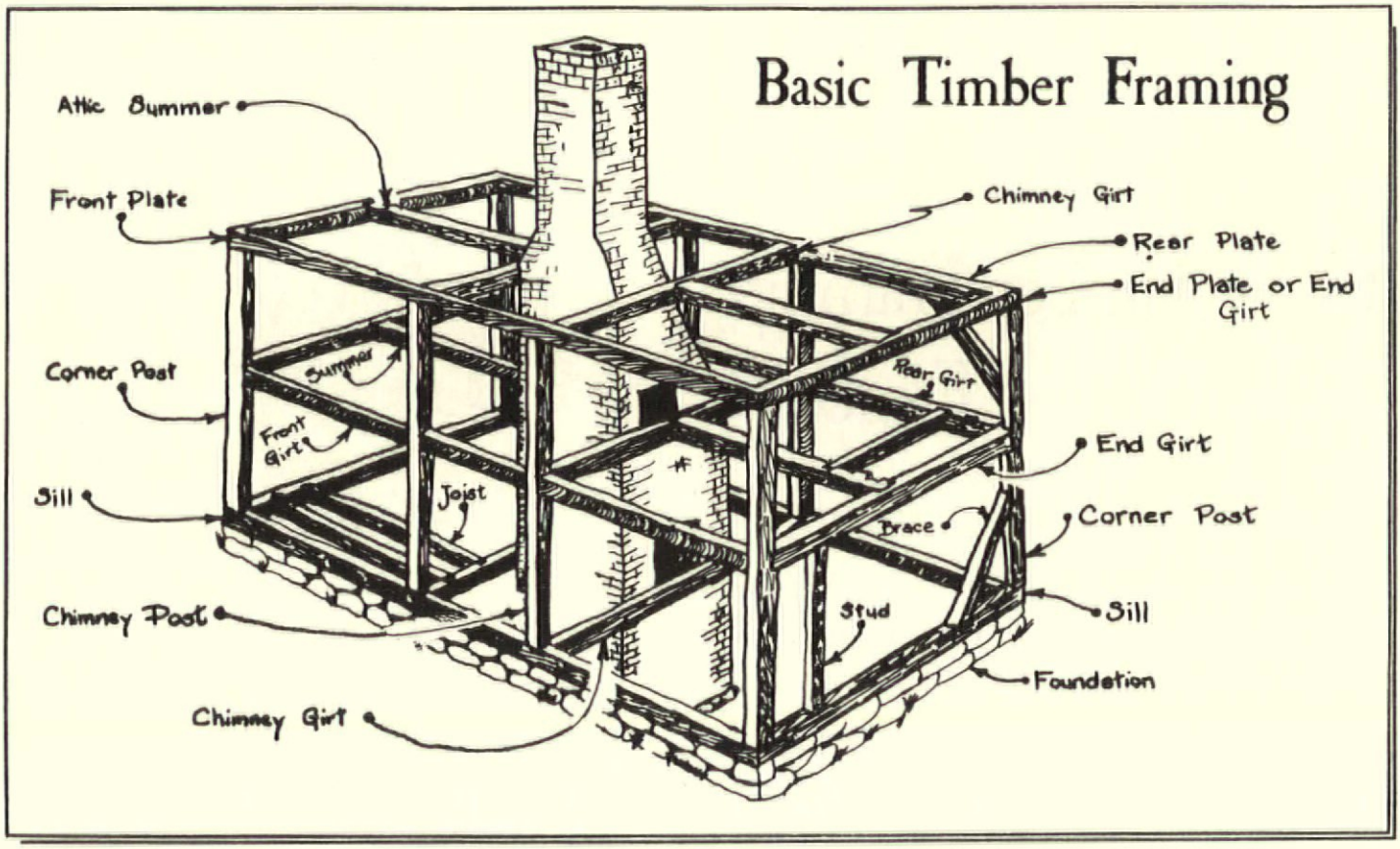
THESE HAND-HEWN HOUSES were started by completely framing up the structure with large hand-cut timbers held together with wooden pegs ("tree nails"). The entire weight of the structure was carried on the massive beams—rather than through the whole wall as is the case with modern balloon framing. The studs and boards added between the main framing timbers were merely fill-in materials to keep the wind and rain out. This method was also called "Post and Beam" construction.

THE WEIGHT of these heavy framing members required a lot of muscle power to hoist them into place. Hence the need to call all the neighbors together for a "house raising." At the end of a long hard day of pegging together the beams that had been previously cut and fit, the framed house would stand with its bones for all to see—much as in the sketch above.

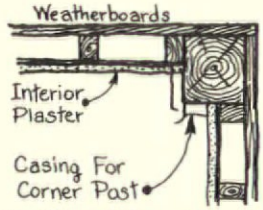


FRAMING WITH MASSIVE TIMBERS was a carry-over from medieval Europe. There, the in-fill material was often bricks and stucco inserted between the beams. Sometimes is was just "wattle-and-daub"—a straw and mud mixture that was applied over crude lath. This frame plus in-fill gave the characteristic appearance to European "half-timbered" houses that we see imitated in Tudor-style homes that remain popular to this day.

SETTLERS IN THE NEW WORLD, however, found weather changes much more severe than in Europe. This meant that structures expanded and contracted a lot more than they had in



the old country. As a result, cracks tended to develop between the infill and the main framing timbers. The answer was to apply "weather boards" (we now call them clapboards) over the entire exterior to keep the wind and rain out.

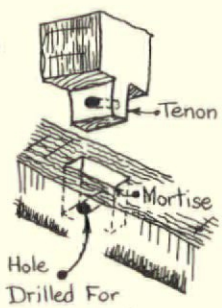


BECAUSE OF THE BOARDS covering the exterior, it is sometimes difficult to tell at a glance whether a Colonial home is a hand-hewn structure built in 1776 or a clever reproduction built in 1976. But if you could see the kind of framing underneath the skin, there would be no difficulty in making an instant identification. Most timber-framed houses give themselves away inside, however. Many corners will have tell-tale bulges where the big timbers pass through the walls. Originally, these timbers were very carefully encased with smooth planed boards. Sometimes, alas, these casings are removed by people who prefer the "rustic" look of the hewn timbers.

Framing & Joining Methods

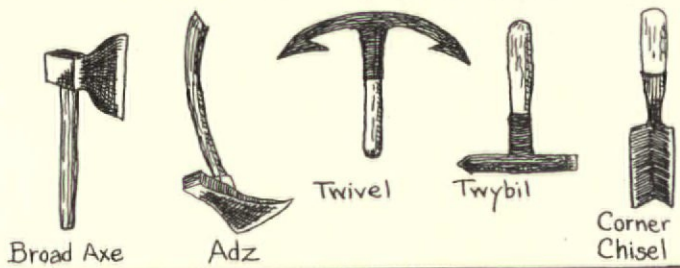
IN THE ERA OF HAND-HEWN HOUSES, each builder solved the inherent problems of construction a little differently. That's why these old structures are so fascinating to study in detail. However, there were certain fundamentals that governed timber-frame houses.

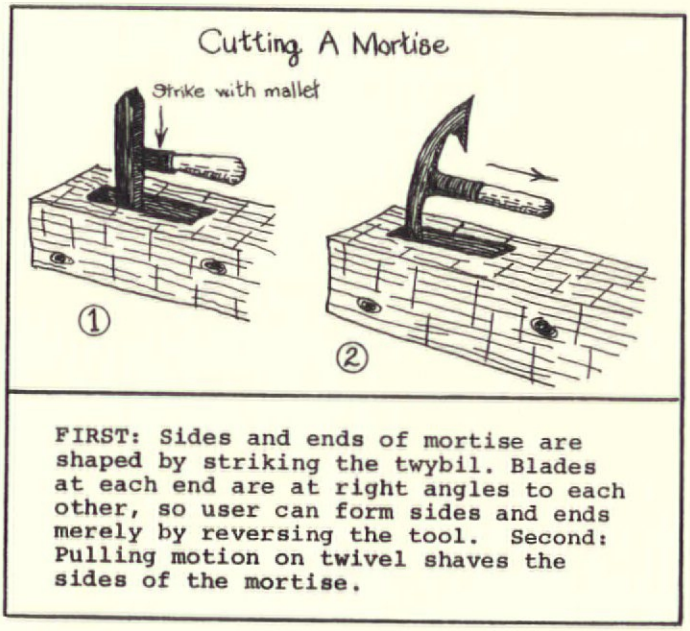
IN NEW ENGLAND, the building would be centered around massive hearths and chimney. Normally there would be a cellar and then an underpinning of stone was laid in "shovel deep" to serve as a foundation. Once the foundations were built up to ground level, the sills were laid on. Remaining timbers were laid out on the ground, connected in sections, and then raised up with the help of many hands—and the best liquid refreshment.



TO GET THE TIMBERS ready for assembly required many hours of arm-aching work. All the mortise-and-tenon and dovetial joints had to be carefully cut in advance. This required knowledge of several specialized tools that are long forgotten now—but which were indispensable then.

THE ADZ, as mentioned, was used to square off the tops of logs. Another tool for squaring logs was the broad axe—a wide-bladed, short-handled axe used by a man standing alongside the log to be shaped. Before broadaxing (with the grain), the log was scored with a felling axe perpendicular to





FIRST: Sides and ends of mortise are shaped by striking the twybil. Blades at each end are at right angles to each other, so user can form sides and ends merely by reversing the tool. Second: Pulling motion on twivel shaves the sides of the mortise.

the grain. When you examine an old hand-hewn beam, you can usually see the marks of these two types of axe strokes. In the hands of an expert, the broad axe can shape a log almost as smoothly as a plane.

Tools Of The Trade

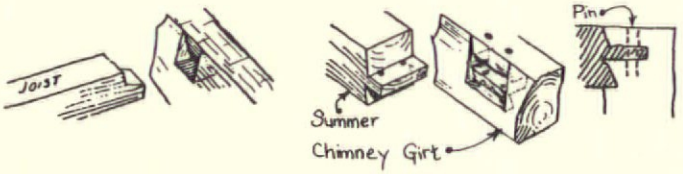
TENONS WERE RELATIVELY simple to form, since they could be sawn or split from the end of a beam. But forming a mortise required the digging out of a perfectly shaped rectangular opening from a stout timber. To aid in this work, a couple of implements with the unlikely names of "twivel" and "twybil" were used.

THE TWYBIL was actually two chisels at each end of a single piece of metal, with a handle in the middle. The blades were at right angles to one another...which enabled the joiner to cut both the ends and the sides of a mortise by merely reversing the ends of the tool. He didn't have to move.

THE TWIVEL was of similar construction, except that the two cutting ends were hook-shaped and sharpened. It was used to shave wood from the sides of the mortise with an easy chopping motion.

A CORNER CHISEL with a right-angled cutting edge was used to make square corners in the mortise. Depending on the specific cuts to be made, other tools might come into play such as the mortising axe and other specialized mortising chisels. For final smoothing of joists and other small framing members, sometimes a "slick" was employed. This was a giant paring chisel—pushed from the shoulder—whose blade was up to 4 in. wide and which had an overall length of three feet.

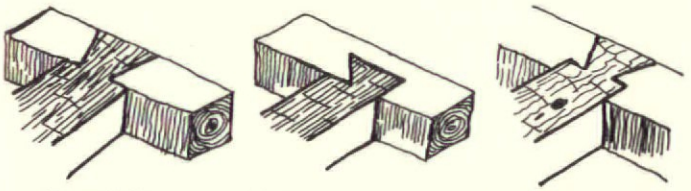
FASCINATING VARIATIONS in timber frame construction show up when you examine the ways that the posts and beams were actually connected. Individual housewrights would develop their own special ways of making joints and connecting timbers. Frequently one finds ingenious combinations of mortises, tenons, dovetails and multiples thereof.



TUSK TENON TUSK AND TENON

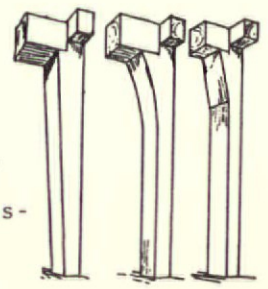
Putting The Pieces Together

WOODEN PEGS were usually hammered through the connections. Often the builder would add to the rigidity of the frame by using a "draw-bore" tenon. In this connection, the hole drilled through the mortise and tenon were purposely out of alignment slightly. This meant that the connecting oak pin would have to bend slightly to pass through the holes, thus ensuring the tightness of the connection. This little trick of Colonial construction has caused great frustration to many a modern-day dis-assembler who can't for the life of him knock out the pin that is holding the end girt to the corner post.



IN THE USUAL HOUSE, there were four corner posts and four chimney posts. These 8 posts carried the entire weight of the floors, walls and roof. The posts were normally two storeys high.

IN ORDER TO IMPROVE the load-bearing capacity, the posts were usually flared out where the girts connected. A typical 8" x 10" post would flare out three or four inches underneath each girt. Innumerable variations of this transplanted European building method are found because each builder had his own ideas as to what was the easiest, strongest and most attractive style.


Types Of Flared Posts

MOST IMPORTANT among the internal framing timbers is the "summer beam" or "summer tree." This massive span of wood was laid between the end and chimney girts—and sometimes one is also found between the sills and the girts of the first floor as well. Its purpose was to provide a mid-point at which to frame in the floor joists. Summers have been found as big as 9" x 17½". ■■

(Landscaping--Cont'd from page 1)

some shrubs as well as flowers, and arbors, swings, pavillions, etc. began to appear in the garden as the garden began to be viewed as a nicety rather than as a necessity.

Layout Of The Grounds

ORIGINALLY, there was a greater distinction between the terms "yard" and "garden" than we make today. "Garden" included any area where plants were grown and tended, whereas "yard" was a smallish enclosed area where animals were kept, as in "barnyard," or where work and chores were done. A lawn of tended, mowed or clipped (scythed, in those days, or grazed) grass fell into the garden category and was a luxury of maintenance and space.

MOST HOUSEHOLDS, including urbanites, had a more varied set of outdoor activities than we do today, and therefore the organization of the space around the house itself was more complex. Areas were allocated for various gardens including orchards and fruit bushes, for yards housing at-home animals such as chickens and goats as well as for larger pasture animals; and for work such as boiling and drying laundry, making soap, chopping wood, drawing water from the well, drying fruits and herbs, and hundreds of other chores which were best done outside. There would also have been clearly defined roads and paths to the house, barns, sheds, dependencies, pastures, etc.

A CAREFUL RE-CREATION of the landscape surrounding almost any house of the pre-industrial era would include spaces set aside for each of these uses: Gardens, yards and work areas, and access routes. An accurate restoration of the area around the house would require knowledge of how space was originally allocated, but this is usually not too hard to come by--obviously the yards for animals were adjacent to the barn and probably downwind of the house, and the work areas likely were close by the back door and sheds.

GARDEN AREAS may be harder to locate. If the house faces the street, there may well have been a garden between the house and road as dooryard gardens (enclosed by a fence which ran along the road) were popular. Usually the garden was enclosed, so old remains of walls, hedges, or fences would give a clue. Old paths and cartways often appear as sunken areas along the ground; early spring, before the grass grows up, is the best time to look for these.

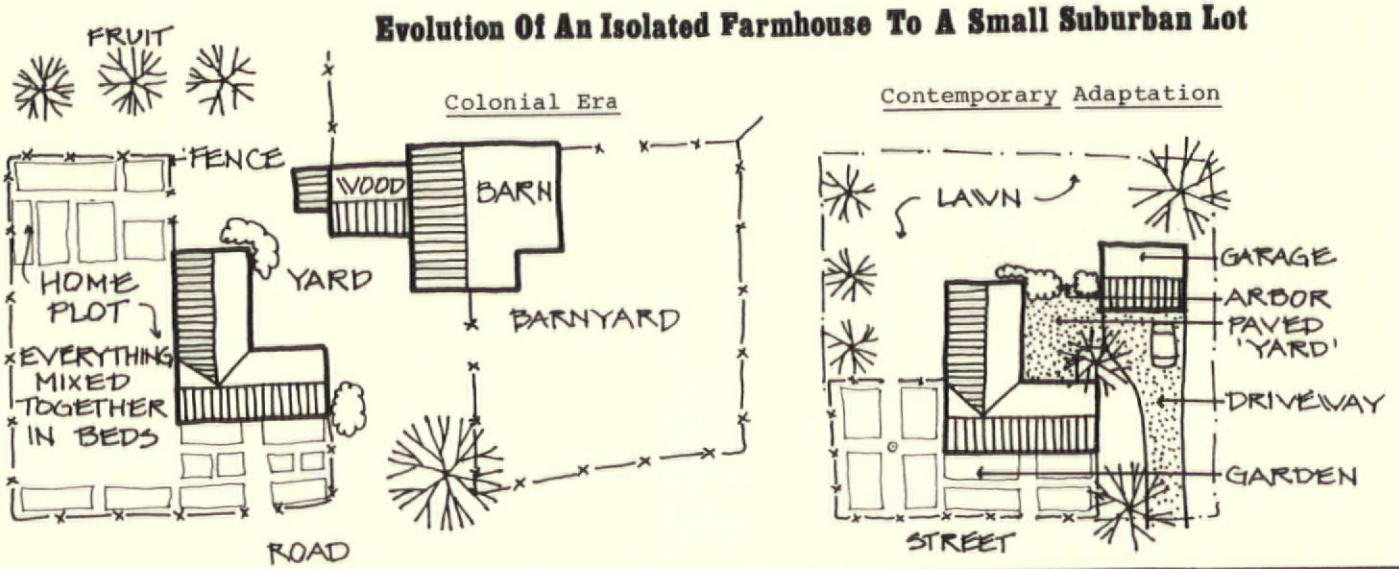
YARDS CAN BE EASILY SYMBOLICALLY represented by our modern equivalent, the lawn. To be historically more accurate, this space would be enclosed by a wooden fence, but fences are expensive and if there is no good reason for enclosing the yard a fence may even look foolish. If the yard is represented by a clearly defined area it should suffice. Remember that lawnmowers were unknown in this era and relax on maintenance accordingly.

WORK AREAS, or service areas, are usually best located near the back door or in the space between a garage or shed and the house. Probably in the old days this area was simply packed dirt, but you will probably prefer some sort of informal paving. Brick is excellent in the mid-Atlantic states and in the south, where it was always popular; it should be laid in sand.

IN NORTHERN AREAS where old-style soft brick is apt to crack as a result of winter freezing the best solution is to lay random flat stones--the kind used to make dressed fieldstone walls--in sand, or river cobbles, or Belgian block ("cobblestones"). Water-struck brick can also be used but it is expensive. Less expensive solutions would include crushed stone or pea stone or crushed stone rolled into a tack coat of road tar.

PATHS AND DRIVES were probably earth or gravel, but you may prefer them paved. (Gravel gets tracked into the house and is hard on the floors.) Black top is the least expensive method and unfortunately the least appropriate.

Evolution Of An Isolated Farmhouse To A Small Suburban Lot



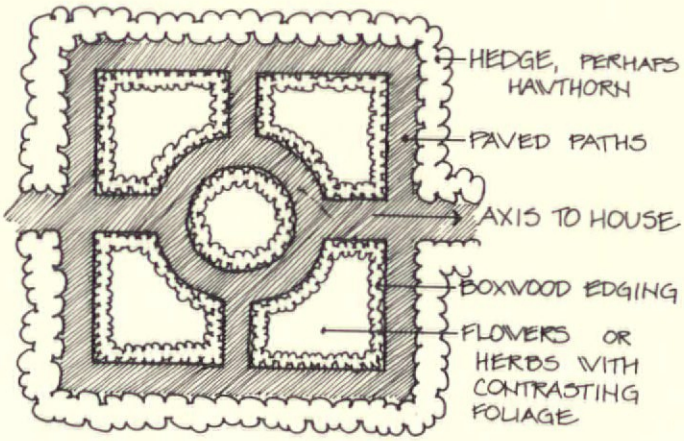
A FAR BETTER SOLUTION is crushed stone rolled or tamped into a temporarily sticky base, usually black road tar. There are also new systems on the market which utilize an epoxy resin for a binder and crushed stone as the aggregate. Exposed aggregate concrete is also good, especially with relatively large stones (1-2 in.) as the aggregate. Crushed stone, cobblestones, and brick also look well, but when laying stones or brick in sand remember to provide a base solid enough to support the fuel oil truck if necessary. The path to the front door was often paved with brick or large rectangular dressed stones. It might be worthwhile to probe a bit in the soil where the walk is or would have been to see if the stones are still there. If grass grows vigorously in your front yard expect at least a foot of soil to have built up over any stones.

Form Of The Garden

SINCE GARDENS are primarily composed of plants--ever-changing living organisms which are manipulated by humans--it is extremely unlikely that even the original form of the garden is discernible. Probably the garden has been moved, possibly several times, according to fashion, personal preference of the gardener, and worn-out soil. You will therefore almost certainly have to re-create the planted areas according to what you can learn and infer about the original gardens.

IT IS HELPFUL to first determine the social class of the house and its early owners. Is is a humble farmhouse, reflecting the needs and uses of subsistence agriculture? Or was it the home of the most important man in a small town? Or the Georgian townhouse of a professional man or merchant? Or the country estate of a gentleman? Try to imagine how dependent the household would have been on its garden, and how many hands would have been available to tend it.

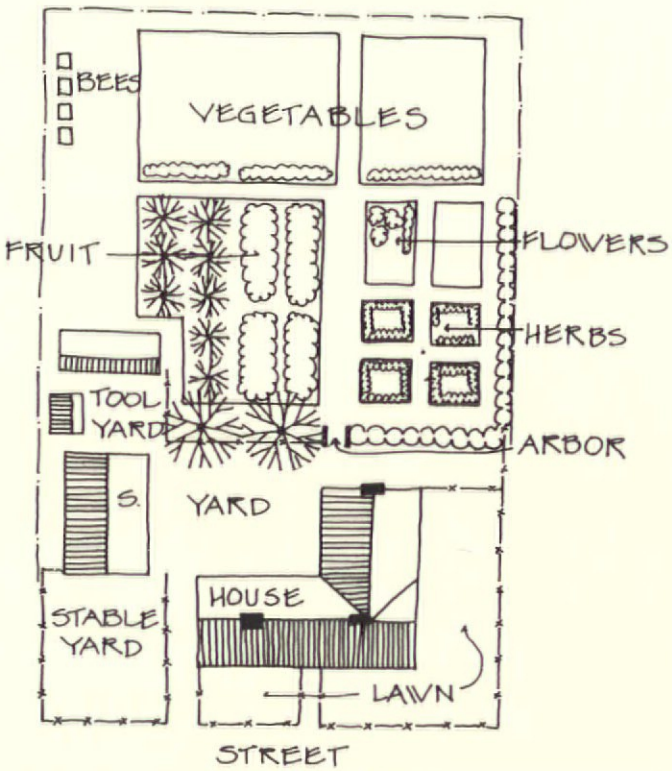
An Elegant Pleasure Garden



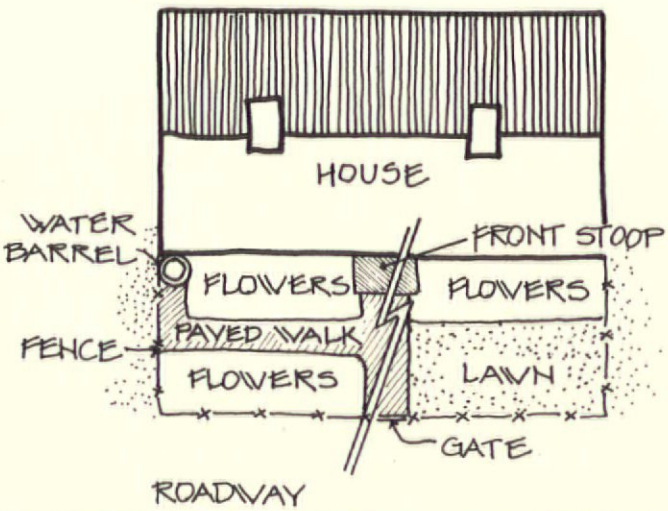
THE SIMPLEST GARDENS, in terms of form and layout, would accompany isolated farmsteads and humble dwellings. These gardens would be very close to the house and composed of groups of garden beds, roughly rectangular or square, with narrow paths running between them. The beds would be small, probably only about 6 ft. wide at the widest point, and not very long.

THEY MIGHT HAVE BEEN EDGED by stones or saplings pegged along the ground, and they might have the soil mounded up somewhat higher than the level of the pathway, as good drainage was considered important. The paths might be gravel or even crushed clam shells, but probably were simply packed dirt. The entire garden would certainly have been somehow enclosed, either by a rough but tight fence or a stone wall.

Colonial Townhouse Garden



Typical Dooryard Gardens



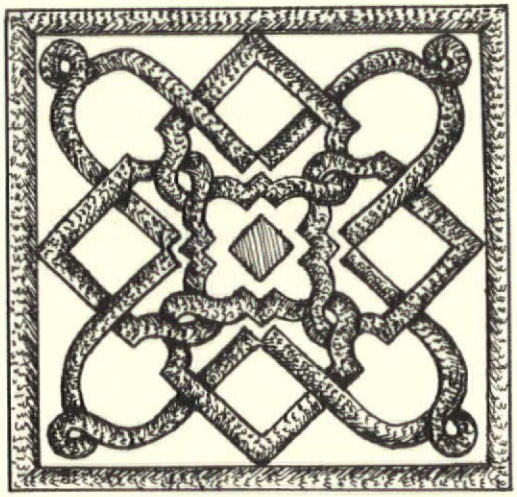
VEGETABLES, HERBS, AND FLOWERS would be grown in patches in the bed according to where they would thrive best. Tall and short, coarse and fine, vegetable and flower would all be mingled together. Most of our colorful annuals were developed after this time, so consult a listing of period plants before selecting any of these. (The box at right contains only a partial list of some of the common garden plants used in the Early American period. Local libraries and garden clubs can help with research.) Almost all our common vegetables and herbs were around in the old days (except sweet corn.) Probably there were few shrubs in the garden, although "laylocks" (lilacs) and roses are commonly mentioned.

ADJACENT TO THE BEDS would be fruit trees and bushes. Fruit was much appreciated and was included in every garden. Apples were a staple but almost every other kind of fruit was known and tried. Nuts were also carefully cultivated.

IF THE HOUSE WAS IN A VILLAGE or along a main road, it might have had a dooryard or parlor garden between the road and the front of the house. This was created by extending a fence (usually pickets) from the sides of the house out to the road and then along the road in front of the house, with a gate at the front walk. This garden was planted with flowers. Since the parlor of the house was usually at the front these flowers provided scent and color outside the parlor windows as well as a welcoming entry to anyone approaching the front door. More utilitarian plants might be grown near the back door or in a "kitchen garden" to the side or rear of the house.

THE OWNER of a more substantial or elegant house was able to devote greater efforts to the organization of the garden. Probably servants or slaves were available to do the actual work. Flowers, herbs and vegetables might have separate areas, with each bed larger and carefully planned. Herbs were occasionally worked into knot gardens, showing off the nuances of foliage color and texture as well as the gardener's skill.

A Knot Garden



Some Plants In Use Before 1840

FLOWERS

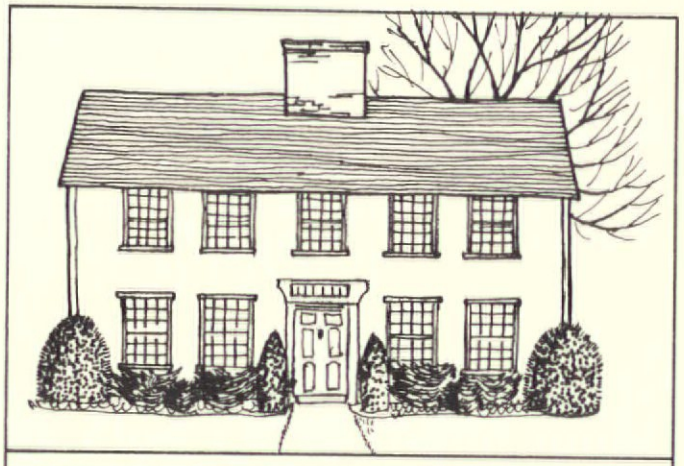
Balsam
Batchelor's Button (formerly Cornflower, Blue Bottle)
Calendula
Canterbury Bells
China Aster
Chinese Lantern Plant
Chrysanthemum
Crocus
Delphinium
Forget-Me-Not
Four O'Clocks (formerly Marvel-Of-Peru)
Geranium--Rose, Lemon, Nutmeg, Mint, Garden
Grape Hyacinth
Heliotrope
Honesty--Money Plant
Iris--Florentine, German, Sweet
Jonquil
Larkspur
Lily-Of-The-Valley
Lupine
Marigold--African, French, Sweet Scented
Mignonette
Morning Glory
Narcissus
Peony
Poppy; Opium, Rose
Salvia
Snapdragon
Sunflower
Sweet William
Sweet Violet
Tulip
Zinnia, Violet, Red, Yellow

TREES, SHRUBS AND VINES

American Holly
Bittersweet
Catalpa
English Ivy
Flowering Quince
Gingko
Hawthorn
Horse Chestnut
Mulberry
Rose-Of-Sharon
Spice Bush, Carolina All-Spice
Tree Of Heaven
Trumpet Vine
Tulip Poplar
Weeping Willow
Witchhazel

HERBS

Garlic
Chive
Dill
Camomile
Tarragon
Caraway
Lavender
Sweet Marjoram
Catnip
Sweet Basil
Garden Parsley
Anise
Rosemary
Garden Sage
Summer Savory
Winter Savory
Tansy
Thyme
Common Rue
Peppermint



WRONG: Colonial house anachronistically landscaped with foundation plantings popular in the 20th century.

RIGHT: Classic Colonial houses had trees, shrubs and flowers away from the house in imitation of the formal Georgian ideal.

IN THE SOUTHERN AND MIDDLE COLONIES, boxwood edging for each bed was extremely popular, as can be seen in the restored gardens of Colonial Williamsburg. Topiary work--training or trimming trees or shrubs into ornamental shapes--was especially popular with the Dutch in New Amsterdam, but might be expected to appear in any wealthy man's garden.

IN FORM THE GARDEN would be more rigidly geometric, with brick or crushed stone paths. It might be enclosed by a brick wall or a hedge of hawthorn or boxwood. Probably the central axis of the garden layout would be in line with the house or an important window. A larger area of space around the house would be devoted to a lawn of scythed grass, and for elegant country houses in the South this green could become quite large. Fruits and nuts would be included as well.

THE EFFECT THAT YOU should strive for in landscaping the old house is that of harmony between the house and its surroundings. If the house itself is elegant and refined, so should be the grounds. If, on the other hand, you are landscaping a simple cottage, you should seek a somewhat rustic effect.

Period Landscaping Errors

FOUNDATION PLANTING as we practice it today was unknown in this period. Preservationists believe that the house almost always sat on a rather low foundation with the barge board exposed. Frequently a shrub was planted at a corner of the house to soften its outline, and deciduous trees were planted to the south and west to provide summer shade. If you feel the house looks too naked without foundation planting, try planting a bed of perennials or a low ground cover along the foundation.

INDIVIDUAL SHRUBS were planted, but the shrub border was not usually an element of the garden. Shrubs were used formally as hedges and espaliers to contain and enclose rather than in naturalistic plantings to provide edges.

MUCH OF OUR MOST POPULAR PLANT material was unknown during the young days of our republic. This includes such favorites as Japanese Yew, Spirea, Weigela, White Wisteria, Hall's Honeysuckle, Pachysandra, and generally speaking, plants from the Orient, most of which were introduced in the 19th century. Furthermore, a large number of our native shrubs and plants appear to have been known but little used. Included in this group are Junipers, Mountain Laurel, Rhododendrons, etc. Favored garden plants were those brought from England which proved hardy here, such as Mulberry and Boxwood. When selecting plants for a period garden, it would be wise to consult a list of plants known to have been cultivated at that time.

PICTURE BOOKS of historical gardens are readily available in libraries to suggest ideas. If you delegate the task of landscaping to your nurseryman or landscape architect, make sure he or she understands the distinction between good landscape design and period landscaping, and is willing to do a little research into what would be appropriate for your house. ■■

Donna Jeanloz is a landscape architect especially interested in the preservation of period landscapes. She has done work with the urban landscape of Lowell, Mass. and with old houses in rural western Mass., including an early nineteenth century farmhouse which she and her husband revived. Now living in Quebec, they are awaiting spring thaw to start work on an old "maison Canadienne" near Montreal. She will be contributing further articles of landscaping for later periods.

Refinishing Clinic...

Final Finishes On Wood

By Frank Broadnax

IN THIS ISSUE, The Journal is starting a regular column on wood refinishing. This article answers a question a reader recently asked about the advantages of various final finishes. To get your questions answered, see box elsewhere in this article.—Ed.

THE OBJECT OF A FINAL FINISH is to protect the surface of the wood and to reflect light in such a way that you get the effect you are looking for: High gloss, satin finish or flat. For starters, be sure the surface is smooth, clean and free of dust, oil, lint, etc. The smoother the surface, the better the final finish will appear. Failure to prepare the surface properly is probably the #1 mistake made in refinishing.

VARNISH, LACQUERS AND SHELLAC are the three most popular finishes. Unlike oil finishes which penetrate the wood, these three form a finish by making a film on top of the wood. The average person can achieve a beautiful finish using any of these materials. One secret of using varnish, lacquers or shellac is to thin them—especially for the first application. The reason: Thin coats dry faster and harder than thick coats. In addition, thinning the first coat enables it to seal the wood properly.

I PREFER TO USE several thin coats of finish rather than one or two thick coats. Here are some guidelines I follow in thinning:

VARNISH—I find it best to thin varnish using (4) four parts varnish to (1) part turpentine.

LACQUERS—Never thin lacquer with anything but lacquer thinner. Caution: There are two types of lacquer...brush on and spray on. Never use spray lacquer for brushing and vice versa.

SHELLAC—Denatured alcohol is the proper thinner for shellac.

Applying Film-Forming Finishes

THE THREE FINISHES listed above can be applied with a brush or rag. In addition, lacquer and shellac can be sprayed. (Varnish is too thick for spraying.) I get best results applying finishes with an old nylon stocking. Always apply finish with the grain of the wood. With the nylon stocking you don't get brush marks and bristles in your finish.

LET EACH COAT dry thoroughly—at least 24 hr. between applications. Humidity plays a major role in drying. Never apply a finish in damp weather. The best time for refinishing work is when the humidity is 50% or less.

AFTER A COAT OF FINISH has dried, buff with 0000 steel wool (very fine) working with the grain. You are now ready for the next application. Apply as many coats as needed to get the appearance desired.

SOME DISADVANTAGES of these finishes are: They are water resistant, but not waterproof. Water will cause spots, circles from glasses, etc. (Shellac is especially bad in this regard.) They tend to darken with age and are not heat resistant. One exception are the good varnishes, such as the polyurethane and tung oil types. These neither darken nor show water spots. But varnishes leave a plastic film on the surface of the wood that some people find aesthetically unpleasing in certain high-visibility areas.

The Oil Finishes

BOILED LINSEED OIL is a popular finish. It has some advantages as well as disadvantages. One advantage is that because it penetrates the wood, when properly applied and rubbed out it yields a soft, warm natural-looking finish that most people find very beautiful. Because the oil is thin, it can be sprayed or hand-rubbed.

HAND RUBBING usually is practical only for furniture. It is too much work for large jobs. To hand-rub the finish, place a small amount of oil on the palm of the hand and rub

Your Questions Answered

IF YOU HAVE any special problems with wood finishing, stripping, rescuing old finishes, etc., we'll try to provide answers. Describe the problem as completely as possible and send—along with a stamped, self-addressed envelope—to: Refinishing Clinic, The Old-House Journal, 199 Berkeley Pl., Brooklyn, N.Y. 11217. Questions of widest interest will also be answered in this column.

About The Author

FRANK BROADNAX is President of Broadnax Refinishing Products. The company makes some excellent refinishing products that were reviewed in The Journal, Feb. 1976 p. 12. You can get free product literature from Frank by sending a stamped self-addressed envelope to: Frank Broadnax, P.O. Box 196, Ila, Georgia 30647.

with the grain of the wood. Pressure from the heel of the hand creates heat that drives the oil into the wood. Allow to dry thoroughly and apply additional coats as necessary.

DISADVANTAGES of linseed oil: It takes too long to dry and tends to darken with age.

TUNG OIL is becoming a popular finish. It is applied the same way as linseed oil... and has the same advantages—without some of the disadvantages. Unlike linseed oil, a tung oil finish can be built up like a varnish. It gives a soft rich finish that doesn't turn dark. It is waterproof and is alcohol-, heat- and acid-resistant.

TO APPLY LINSEED OR TUNG OIL, I find it easier to use a piece of soft cotton cloth as an applicator. I put on a goodly amount, let it set approximately 15 min., then buff with a clean cotton cloth to remove all excess oil. Buff with the grain. This procedure works fine on furniture—but may require too much elbow grease for larger jobs.

TO APPLY OIL to large surfaces such as panelling, you can use a brush—but be sure to apply the coat very thinly. After 15 min., wipe off all excess with a soft cotton cloth, buffing with the grain. It is not necessary to sand or buff with 0000 steel wool between coats when using oil finishes.

THREE COATS OF OIL applied to furniture or woodwork and carefully buffed as described will give a beautiful lustrous result...a close approximation to a hand-rubbed finish.

THE TWO MOST IMPORTANT things to remember when applying a finish—regardless of what material you are using:

(1) Always work with the grain of the wood;

(2) Allow plenty of drying time between each application of the finish. ■■

Helpful Publications

Woodburning Stoves

"MODERN AND CLASSIC WOODBURNING STOVES" is a practical guide to heating and cooking with wood. The authors, Bob and Carol Ross, have adapted this oldest, yet still most reliable, source of heat to the demands of modern living. They discuss and illustrate, with easy-to-follow diagrams, everything from the mechanics of combustion to selecting a stove. Topics include: Heating one room or a whole house, fireplaces, how and where to buy a stove as well as where to put it, ceiling and roof supports, and multi-fuel and solar systems. To order "Woodburning Stoves" send $10.00, plus $1.00 postage and handling, to Overlook Press, P. O. Box 58, Woodstock, New York 12498.

Repointing Old Mortar

REPOINTING MORTAR JOINTS is the process of removing deteriorated mortar from the joints of a masonry wall and replacing it with new mortar. Improper techniques or materials in the repointing can alter the appearance and lead to further deterioration of the masonry. While most people don't consider repointing a do-it-yourself job, it is wise to know a good deal about the subject when having it done by a masonry contractor to assure a proper job. There is an excellent 8-page booklet on the subject that discusses: Identifying the problem, various joint types and bondings, materials, and a bibliography for further reading. Ask for "Preservation Brief No. 2--Repointing Mortar Joints in Historic Brick Buildings"--free from Interagency Historic Architectural Services Program (I.H.A.S.P.), Office of Archeology and Historic Preservation, National Park Service, United States Dept. of the Interior, Washington, D.C. 20240.

Maintaining Historic Buildings

THIS SOFTCOVER BOOK is intended for administrators, architects, and others involved in the preservation and maintenance of historic properties. However, much of the information is useful for the old-house owner. Basically, the book deals with dirt, dust and erosion--how to deal with them in the most efficient yet gentle manner that will not harm the surfaces. One of the most important areas is what not to do--what chemicals (present in many supermarket cleaners) may attack various materials like wood, marble, etc. Areas discussed are maintenance of walls, ceilings, and floors, interior masonry, papers and fabrics, mechanical systems, exteriors and the incompatibility of materials. To order: Send $2.00 to the Superintendent of Documents, U. S. Government Printing Office, Washington, D. D. 20402, and ask for "Cyclical Maintenance for Historic Buildings" Stock Number 024-005-00637-1.

Products For The Old House

Finishing Supplies

H. BEHLEN & BROS. has the largest stock of traditional and old-world finishing supplies up to and including material for water gilding. In business since 1888, they have long furnished items used by the hardwood finishing and painting trades.

Some of their specialized products include: Alabaster casting plaster, bronze powder and paste, lacquer tinting colors, wood fillers and glue, various lacquers, stains (including dry aniline), varnish, and cotton waste.

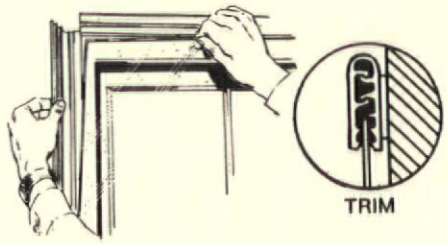
There is a minimum order requirement of $25.00, but with the wide selection available, this should not present a problem.

For a booklet describing their full range of products, ask for "Everything For Wood Finishing," free, from H. Behlen & Bros. Inc., P. O. Box 698, Amsterdam, New York 12010.

Inside Storm Windows

THERE IS A PLASTIC STORM window available for the inside of the house. It can be an additional energy saver if you already have storm windows on the outside. It is also an easy answer to the problem of the odd-shaped bay or oriel window that defies installation of the conventional outside storm window.

AN ADVANTAGE of this treatment is that the clear plastic sheet does not interfere with the old window style and lets a six-over-six or leaded glass window be visible without too much distraction.



THIS PRODUCT consists of three parts: A clear, rigid plastic sheet that comes in three sizes (you have to cut it), a frame of vinyl mounting trim, and vinyl sill trim.

THE PLASTIC MOUNTING TRIM is adhesive backed to stick to the window frame and the sheet can be removed for the warmer months. Curtains can hide the trim. It is not necessary to have a sill or use the sill trim, and the sheets can be used for odd-sized windows, ventilators, skylights, or windows with air conditioners.

USED WITH OUTSIDE STORM windows, this installation will provide an ideal of two dead air spaces—one on each side of the window. The plastic sheet can be cleaned with a mild soap or detergent and the trim can be painted with a water-base paint.

THE IN-SIDER STORM WINDOW is made by Plaskolite, Inc., 1770 Joyce Avenue, P.O. Box 1497, Columbus, Ohio 43216. The window, however, is sold through retailers and can be found in department and hardware stores as well as home centers.

THE OLD-HOUSE JOURNAL

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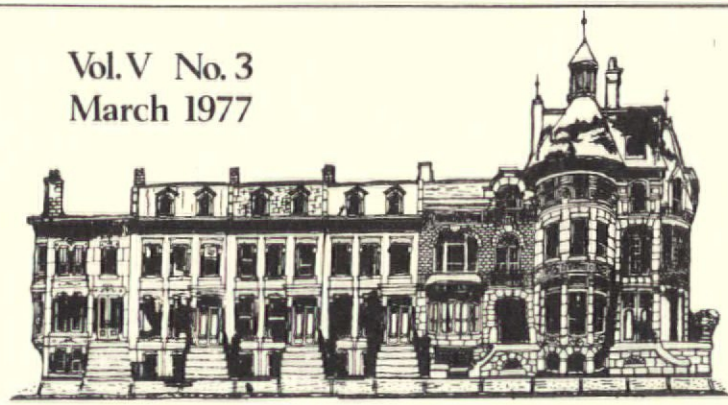
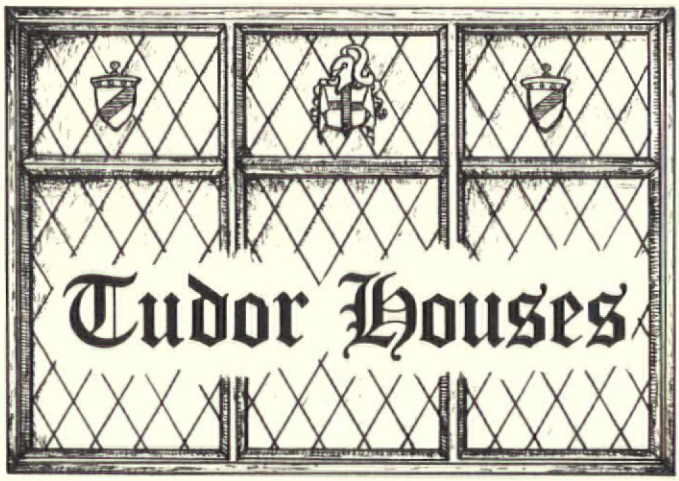
March 1977

Renovation And Maintenance Ideas For The Antique House





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Coming Next Month

EARLY AMERICAN ROOF FRAMING

By Carolyn Flaherty

ONE OF THE MOST POPULAR styles of house building in America is the Tudor. The style began with the first English settlers and continues today. Although the original English Tudor is well documented in the architectural books, hardly a word has been written about the American Tudors. The Tudor homeowners have been asking The Journal for more information about the style and its history, as well as help in decorating it to enhance its architectural charm.

THE TERM "Tudor" in American houses refers to the house that has some half-timbering in the picturesque style of the old English house. Other readily identifiable features are the small, diamond-shaped panes in bay and oriel windows, and large medieval chimneys. An American Tudor might be a small suburban cottage built in the 1880's or a huge country mansion of the '20's and '30's.

THE ORIGINAL TUDOR PERIOD in England was the 16th and first half of the 17th centuries. The great social and religious changes began with Henry VIII in 1509 and continued till the death of Mary Tudor in 1558. It was during the reign of Henry's daughter, Elizabeth Tudor, from 1558 to 1603 that life in England was peaceful and prosperous enough to begin the great adventure in domestic building. In 1603 the Stuart dynasty began with James I. Since Jacobus is the Latin for James, the period is known as Jacobean. The Early Jacobean period is included in the label "Tudor" as house building and decoration did not change dramatically. The Late Jacobean period ending with the Commonwealth, saw enough decorative changes to make another article.

THE TUDOR IS REALLY THE FIRST house as we know them today. Previously, real houses had been built only for the wealthy and the rest of the population lived in temporary, roughly built dwellings. But under Elizabeth's reign houses began to appear in great numbers built of oak beams and plaster. Interestingly, as the peaceful times did away with the need for real castles, the Englishman began to look upon his home as his castle. It was a time of great pride in the domestic house and of good, cheerful living.

SHAKESPEARE'S PLAYS and the many Elizabethan fairy tales we grew up with have kept this "Merrie Old England" alive in our memories and perhaps explains the emotional

(Cont'd on page 32)

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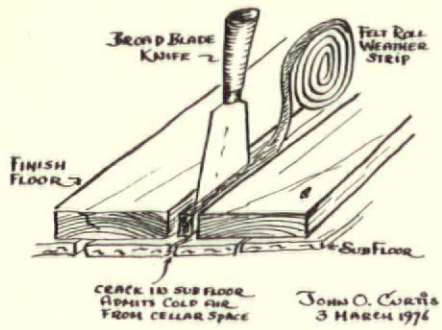
Plugging Cracks Between Floorboards

To The Editor:

SOLID MATERIALS can't be used to plug cracks between floorboards because of the constant shrinking and swelling of the boards due to varying moisture content. I thought your readers might be interested in my inexpensive and reversible solution to cold air drafts between old floor boards:



FORCING INEXPENSIVE felt weather stripping into the cracks with a broad bladed knife neatly solves the problem of drafts. Wider cracks require two or three thicknesses of felt. Width of the felt is less than the thickness of the boards so that the filling lies below the plane of the floor. Friction holds the material in place so that not even a vacuum cleaner will dislodge it. Being resilient, the felt compresses and expands in concert with dimensional changes in the boards.

I SUPPOSE THAT PAINT could be flowed into the felt to match it to the boards. But I find that when it is pushed down, the neutral gray-brown color is scarcely evident. Best of all, like any good conservation procedure, the process is readily reversible and can be easily undone by using an awl or other pointed instrument to pry out the felt.

John O. Curtis
Brimfield, Mass.

THE OLD-HOUSE JOURNAL®

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- 6.6 gas lamps burning the year round consume the same amount of gas as required to heat the average home for a year;
- It takes almost 3 times as much energy to keep a gas lamp burning as it does to produce the same amount of light by electricity;
- Most areas lighted by gas lamps don't require 24-hr. lighting. But unlike electric lamps, most gas lamps can't be turned on and off each day.

SMALL WONDER that the FEA has urged homeowners to turn off their gas lamps or to convert them to electricity. The gas lamp may have been an appropriate restoration symbol for the 1960's, but a more suitable symbol for our time might be a roll of insulation.

John Casson
Brooklyn, N.Y.

Gaslights Are Charming, But...

To The Editor:

GAS-BURNING LAMPS have become the symbol of restored neighborhoods in many parts of the U.S. But in light of the current—and future—natural gas shortage, these statistics from the Federal Energy Administration should take on added urgency:

- There are about 4 million gas lamps in the U.S., mostly used for nonessential entrance-way or yard lighting;
- They burn about 71 billion cu.ft. of natural gas each year—about 5% of the shortfall this winter;

The Beauty Of Ivory Soap

To The Editor:

A BAR OF IVORY SOAP can be a big help in trying to fit tongue-and-groove flooring when the joints are too tight. Just moisten the bar slightly and rub it on the top and bottom of the tongue. The parts slide together more easily, and it helps eliminate splitting.

ALSO: When driving screws into hardwood, rub the threads over a moist bar of soap before driving them into the pilot hole. They go in 50 times easier; any excess soap can be wiped off the wood readily.

Elmer M. Smith
Hamilton Square, N.J.

Why I Swear By Tung Oil

By Frank Broadnax

In the February issue, Frank reviewed the properties of various clear finishes, giving them all equal time. This month, he tells about his favorite.—Ed.

OIL FROM THE TUNG NUT is valuable for wood refinishing because it dries to a durable, invisible film that is highly resistant to penetration by water, alcohol, acids, acetone, etc. Because of this drying property, a tung oil finish on wood is virtually impervious to spills of alcoholic beverages, fruit juices and water spots from cold glasses. It is also heat resistant and doesn't darken with age. The tung oil film can be buffed to a low lustre finish that is highly desired by admirers of antique furniture.

IN ITS NATURAL STATE, tung oil is a colorless liquid. It dries by polymerization rather than oxidation, which makes it a unique drying oil. When mixed with phenolic resins, tung oil has excellent dielectric properties—which makes it useful as an insulating material for electrical wires. Its major use, however, is as a raw material for finishing products such as varnishes, paints and enamels.

Tung Oil Protects Metal

TUNG OIL also makes a good finish on metal. Lacquer, for example, is the conventional finish for brass. But lacquer will darken with age, and the brass will tarnish under the lacquer. Tung oil will give better results on brass than lacquer.

HERE'S HOW TO APPLY tung oil to brass: After the old lacquer has been removed (soaking in a strong solution of Mr. Clean usually does it) and the brass is cleaned...heat the metal slightly. Small pieces such as brass furniture pulls can be placed on a tray and warmed in an oven at low heat for approximately 20 min. Larger pieces can be placed in direct sunlight for an hour.

AFTER THE BRASS IS WARM, small pieces can be dipped in tung oil and hung to dry for 4 hr. On larger pieces, tung oil can be applied with a soft cotton rag. Apply a thorough coat, let it set for 15 min., then buff off excess oil with a soft cloth. Let dry for at least 4 hr.

CAUTION: After the brass is polished and before the tung oil is applied, be careful not to touch the metal with your bare fingers. (Skin oil will interfere with the drying of the tung oil.) Wear rubber or plastic gloves when handling the brass.

THIS SAME PROCESS can be used on metal tools to prevent rust, as well as wrought iron furniture, hand rails, fences, etc. This process has also been used successfully on such items as copper kettles that are used daily. It has been known to keep metal from tarnishing for up to 15 years.

TUNG OIL IS ALSO an excellent sealer for concrete, brick, stone and tile. I have used tung oil on patios, concrete and brick steps to keep fungus from growing. The time to eliminate such problems is BEFORE they occur. One application of tung oil on brick, concrete, slate and tiles is usually enough to seal the moisture out of these materials. Be sure the surface to be sealed is clean, dry and free of any fungus, dust, etc. before applying the oil. It can be applied with a paint brush or with a string or rag mop. Allow the tung oil to dry 24 hr.

How To Apply To Wood

TUNG OIL CAN BE APPLIED with a soft cotton cloth, with a soft-bristled brush, or with your hand. Multiple coats can be applied, but sufficient time must be allowed (at least 24 hr.) for drying between coats. If this is not done, the finish will remain sticky.

FRANK BROADNAX is President of Broadnax Refinishing Products. Not surprisinly, tung oil is one of the products the company sells. You can get free product literature from Frank by sending a stamped, self-addressed envelope to: Frank Broadnax, P.O. Box 196, Ila, Georgia 30647.

Your Questions Answered

IF YOU HAVE any special problems with wood finishing, stripping, rescuing old finishes, etc., we'll try to provide answers. Describe the problem as completely as possible and send—along with a stamped, self-addressed envelope—to: Refinishing Clinic, The Old-House Journal, 199 Berkeley Pl., Brooklyn, N.Y. 11217. Questions of widest interest will also be answered in this column.

WHEN MULTIPLE COATS of tung oil are properly applied, each succeeding coat can be buffed to a lustre slightly higher than that of the preceding coat.

I LIKE TO HAND-RUB tung oil on my table tops. To do this, pour a small amount on the palm of your hand and rub the wood, working with the grain. Rub until the surface feels dry. Let the wood dry at least 24 hr. Repeat the process until you get a satin finish—usually 3 coats give the desired result.

A CLOSE APPROXIMATION of a hand-rubbed finish can be obtained in an easier way. With a soft cotton rag, apply a coat of tung oil to the entire piece. Let this set for 15 30 min. Then with a clean soft cloth, rub VIGOROUSLY with the grain of the wood to remove excess oil. Let dry 24 hr. and repeat. After three applications, the wood has a satiny hand-rubbed appearance. It is not necessary to buff between coats with fine steel wool or fine sandpaper like we have to do with other types of finishes.

WHEN APPLYING TUNG OIL to large areas such as panelling and wainscotting, I prefer to use a soft cotton cloth. However, a paint brush will also work. Allow the brushed on oil to penetrate for 10-30 min., then buff with the grain using a clean, soft cloth. ■■

Unsticking A Balky Sliding Door

By Clem Labine

THERE IS SOMETHING VERY SATISFYING about a pair of sliding doors that roll smoothly out of the wall...appearing as if by magic. And when the host parts the doors silently to announce to the guests in the front parlor that dinner is served...well, that is the height of elegance.

BY THE SAME TOKEN, nothing is quite so frustrating as a sliding door that won't slide. It is quite difficult to maintain that air of elegance while tugging and hauling on a 100-lb. hunk of wood that steadfastly resists your efforts to withdraw it from its hiding place inside the wall.

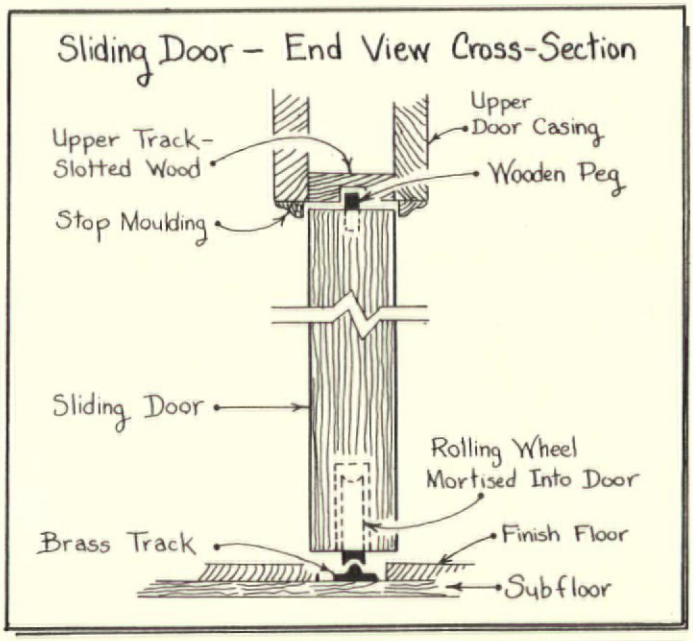
WHEN A SLIDING DOOR WON'T SLIDE, the first instinct is to think that it needs new rollers. In fact, new rollers are usually that LAST things that are needed. In most cases, the problems are more complex. A sliding door is a more delicately balanced mechanism than most people realize; there are at least 6 major things that can go wrong. And many door problems involve two or more of these hazards.

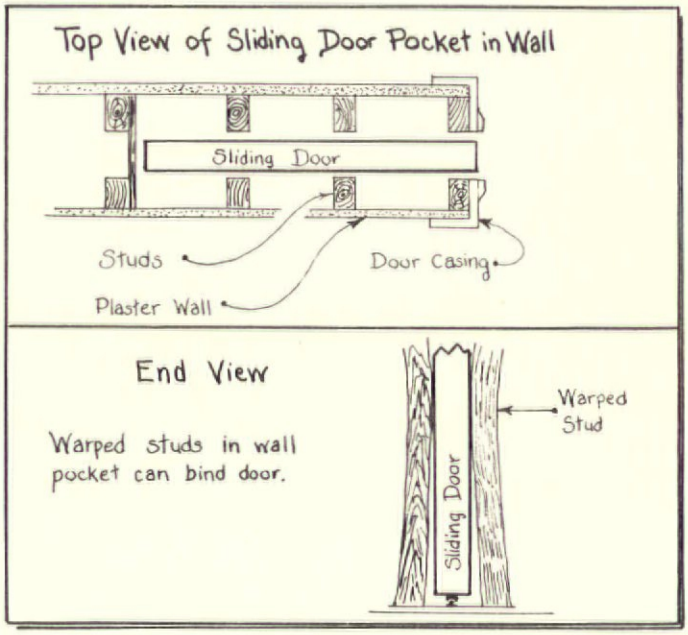
THE ONLY WAY to trouble-shoot a balky sliding door is to check out all the possibilities... starting with the easiest ones first.

How It Should Work

IN ORDER TO REPAIR a malfunctioning sliding door, you should understand how one works under ideal conditions. This analysis is based on the repair of half a dozen sets of sliding doors in houses built from 1840 to 1890. Some houses may have different door mechanisms than the one to be described, but all doors examined in this 50-year construction span were built about the same.

IN THEORY, a sliding door mechanism is quite simple. There are two wheels mortised into the bottom of the door that roll on a metal track fastened to the floor. Normally, there are also wooden pegs that extend about ½ in. from the top of the door. These pegs travel in a slotted groove in a top wooden track and keep the door aligned at the top. In some doors examined, however, these pegs are missing and apparently never were installed even when the doors were new. In these cases, the door is held in alignment at the top only by the stop mouldings.





The Secret: Correct Alignments

ALIGNMENT IS THE KEY WORD in analyzing sliding door problems: Alignment between the door, the top track, bottom track, and sides of the wall pocket. The alignment problem is complicated when the door is warped—which is not uncommon.

MANY OF THE CLEARANCES involved in a smoothly operating door are only ¼ in. or so. But in 100 years of existence, the shifting and shrinkage of a house's timbers can easily amount to an inch or more. So it should be no surprise that a door that glided silently when the house was new now grinds and grumbles like a freight train. The remedy, in most cases, is merely to correct the alignments so that the geometry of the door, upper and lower tracks, and side walls is the same as when the doors were installed. This process isn't simple; it often requires a lot of trial-and-error.

WHEN A DOOR ROLLS HARD...or jumps the track...the first thing to check out is the track itself. Sometimes the solution is as simple as clearing debris from the channel around the track, especially the portion inside the wall. In other cases, the brass track will be battered and bent from floor traffic. Careful work with a hammer and pliers often can set things aright. Other times, the finish floor boards will have shifted so close to the track that the wood binds the rolling wheels. Remedy: Cut back the old board, or else lay in a new, smaller piece. In yet other cases, the treatment may require lifting the entire track, straightening it out, and relaying it in the exact center of the groove in the floor. If the floor has settled, some shims under the track may be required.

SURPRISINGLY, the brass track often is not tacked to the floor inside the wall. If the track has drifted out of position inside the partition, the door may bump into some of the wall studs. Often, this can be corrected by working through the opening in the door frame. Here's how:

REMOVE THE METAL STOP from the top of the door frame. This allows you to roll the door being worked on all the way across the opening—to occupy the space normally taken up by its mate. (The mate door is tucked into the wall.) The vacancy created allows you to get a good look inside the wall pocket. Usually you can get a hammer far enough inside so that the track can be straightened and tacked in place.

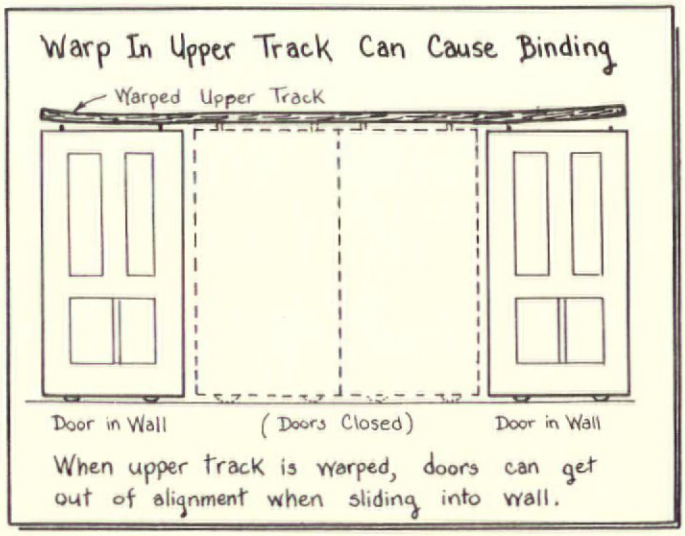
IF YOU CAN'T get a hammer far enough inside to totally reposition the drifting track, the only option is to break open the plaster wall opposite the end of the track. Then nail the track firmly in place in the precise middle of the wall pocket.

Floating Top Track

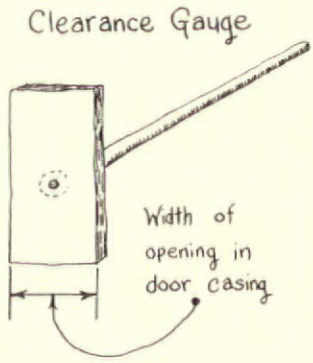
IF THE DOOR IS BINDING inside the wall—and you have determined the bottom track isn't the culprit—the next thing to investigate is the top wooden track. Frequently, the top track is not fastened in any way inside the wall; it just sort of floats. Thus it can—and often does—warp in any of four directions. If it warps to the right or left, it may run the door into the studs at the side of the pocket. If the track has warped upwards, it may no longer hold the pegs and may allow the door to flop.

IT MAY BE POSSIBLE—working from outside the door frame as described earlier—to correct a left-right warp by inserting shims between the track and the first set of studs. If this doesn't work, the only alternative is to open the wall and nail some braces to the studs to hold the wooden track in the correct position.

IF THE TOP AND BOTTOM TRACKS are perfectly positioned in the middle of the wall pocket... and the door still binds inside the partition ...the problem is probably caused by studs



that have bowed inward. Often you can spot the offender visually with a flashlight. If not, you can make a gauge by cutting a block of wood the exact width of the opening in the door casing. Tack the gauge block to the end of a broomstick and push it into the wall pocket, checking clearances between all the studs.



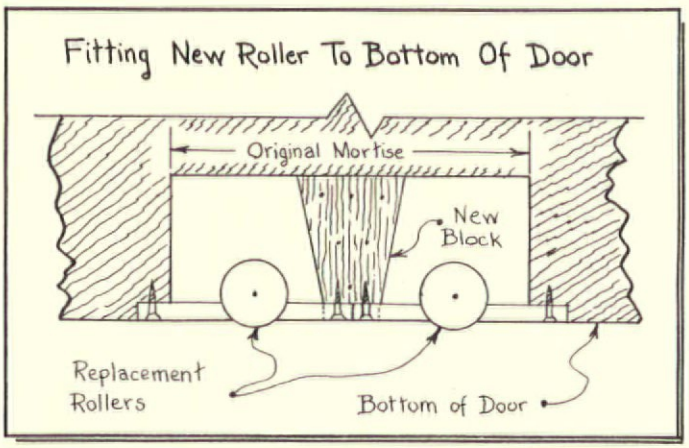
IF THE AMOUNT OF BULGE is small—less than 1/8 in.—and located in the first set of studs, you may be able to remove a sufficient amount of material with a drum rasp attachment on a power drill. But if you can't reach the trouble spot, more drastic remedies may be required. In special cases where the problem is in the last set of studs, it may be possible to pry them apart with wedges inserted through the door frame...and to keep them at the proper spacing via an inserted block. (Be ready for some cracked plaster.) Otherwise, the only answer may be to open the wall and to turn or replace the studs.

When Rollers Need Replacing

SOMETIMES the roller wheels do need replacing—or perhaps they are missing altogether. The large rolling wheels that the doors originally had are no longer made. You may be fortunate enough to find a set of the correct size as a salvage item. But if you can't, there are modern substitutes that will suffice.

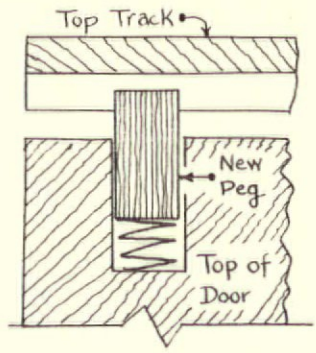
IF THE TRACK IS STILL IN PLACE, for example, and all you need are the wheels, there are large window pulleys made that may fill the bill. The Grant #1415 Sheave has been used with success; this is just a large window pulley with a nylon roller and pot metal housing. Certain types of patio door rollers can also be used.

BECAUSE THE OLD ROLLER WHEELS were larger than the ones you can buy today, the old mortise will have to be adapted. The best idea is to get as many rollers as possible into the old mortise (see diagram below). Just be sure that the rollers are carefully aligned with each other and with the centerline of the door.



REPLACING SLIDING DOOR ROLLERS calls for dismounting the door. Here's how: Remove the stop mouldings at the top of the door frame. With many doors, this gives you enough clearance to lift the door off the bottom track and to tilt the door free of the top track. If the top pegs are still caught in the groove, you can usually raise the upper track sufficiently by pushing up on it with a 2x4.

IF THE DOOR IS MISSING A peg and you wish to add one to improve the alignment of the door at the top, use a piece of wooden dowel of sufficient diameter to fill the existing hole. Put about ½ in. of coil spring into the bottom of the hole. Then cut off the dowel so that it will extend half way into the groove in the upper track when there is no compression of the spring. (The function of the spring is to allow you to depress the peg sufficiently so that you can slip the pegs into the upper track when remounting the door.) The pegs should not bear against the top of the groove when the door is mounted on the tracks.



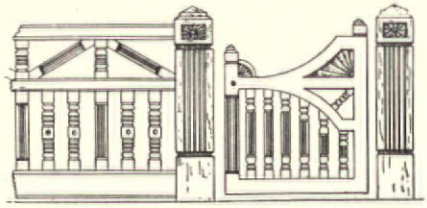
Where To Buy Hardware

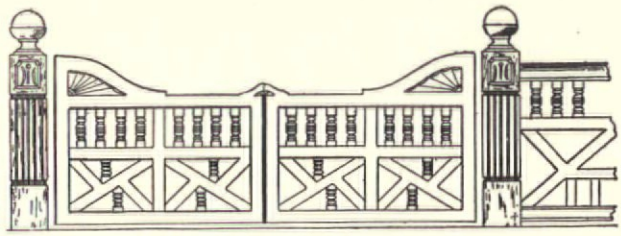
IF YOU LIVE IN the New York City area, there are two hardware stores that carry a range of rolling door hardware: Simon's Hardware at 421 3rd Ave., and David Weiss Hardware at 169 Bowery (both in Manhattan). At Simon's, for example, you can get the Grant #1415 Sheave. (Frank in the office is especially knowledgeable about rare hardware.) David Weiss has an even bigger stock—but the personnel there seem to have taken special grumpy lessons.

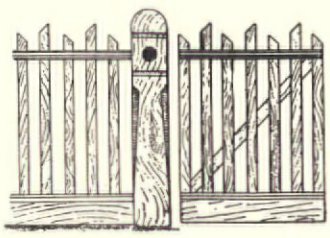
IF THERE IS NO SOURCE of rolling door hardware near you, your best bet is Blaine Window Hardware, 1919 Blaine Dr., Rt. 4, Hagerstown, MD 21740. Their catalog #132-1976 OHJ is available for $1.00 and contains a number of patio door roller assemblies. For example, their roller RA-125 would answer situations where you also need a matching track. Blaine also has large window sheaves, such as their model 00571-A-054. Blaine also has specialized rollers that aren't in their catalog. A request addressed to their Research Dept. can obtain help about roller hardware that doesn't appear in the catalog.

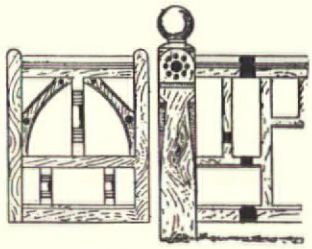
SPECIAL THANKS TO Michael Clark, Brooklyn's craftsman extraordinaire, who was of great help in assembling the technical information for this article. ■■

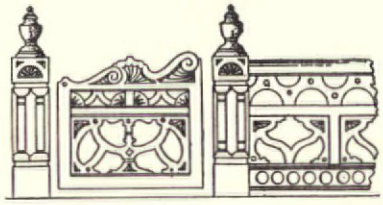
Designs for Victorian Fences & Gates

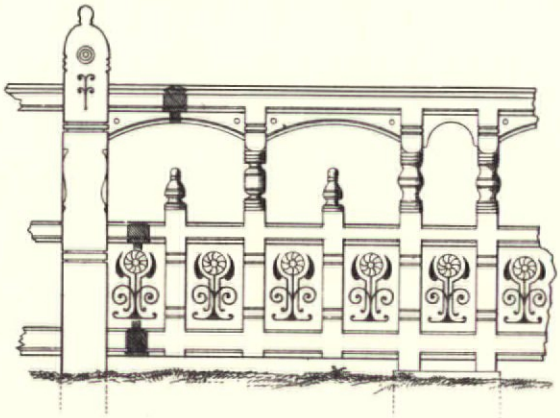


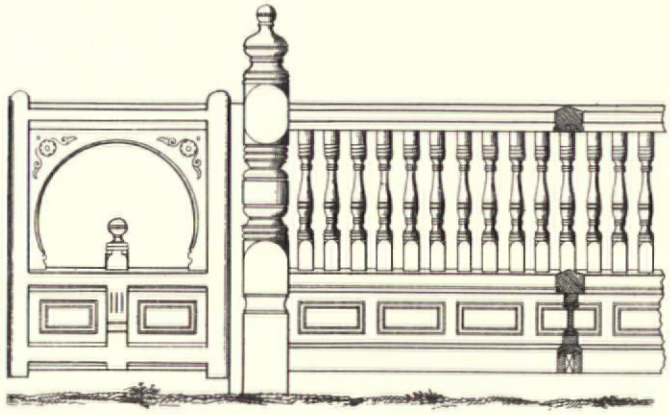


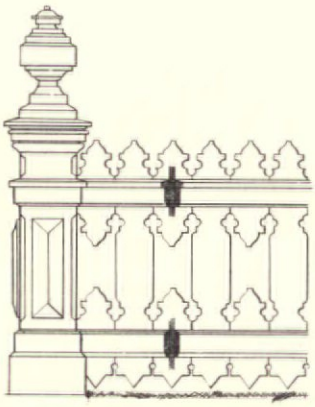


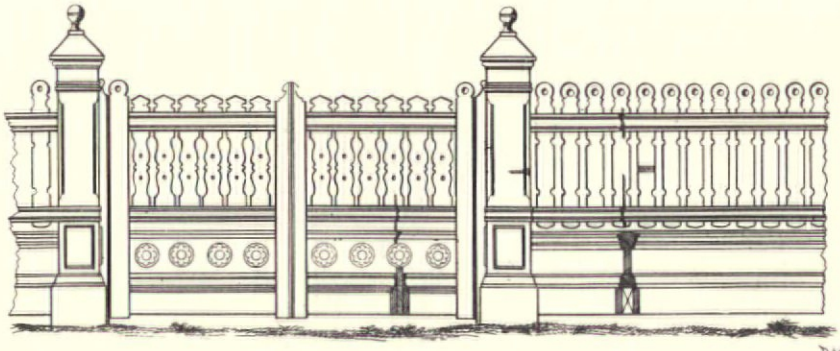




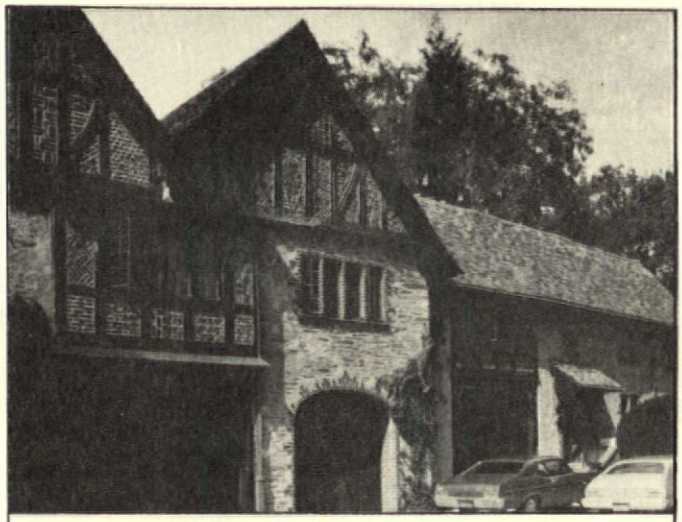








A typically American Tudor built c. 1914 in Pennsylvania adds Colonial features (shed dormer, shutters) as well as regional characteristics (fieldstone front, pent roof over the oriel window) to the old English form and half timbering.



Not as commonly found in the American versions, this 1929 Pennsylvania Tudor has varying brick patterns in the "nogging" between the beams. These decorative brick patterns were often used in old English half-timbered houses.

(Tudor--Cont'd from page 25)

attachment America has had to the old English house.

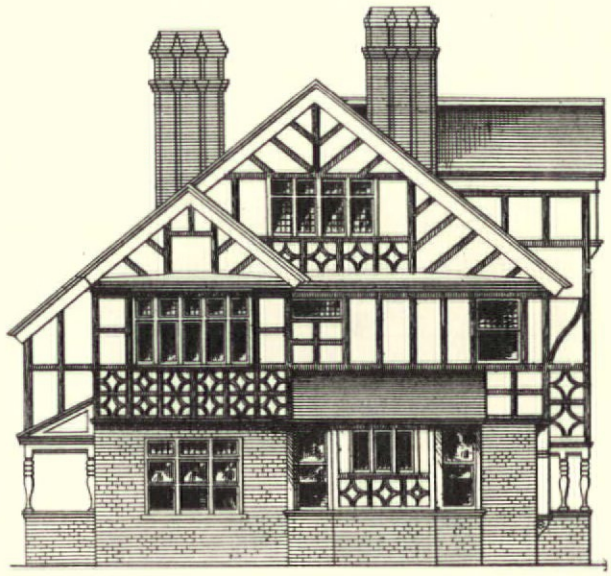
IN HALF-TIMBER CONSTRUCTION the actual timber framework of the building was left exposed to view and the spaces between the timbers filled or "nogged" with brick work often covered with stucco. English workmen have always loved oak, and in the 16th century it was plentiful. The timbers were heavy and broad and gave the house a decorative look. Beams were often shaped into circles, herringbone patterns, or cut out in trefoil and quatrefoil shapes. These "black and white" houses often had elaborately carved verge boards.

LEFT OUT IN this discussion are the many buildings of the Tudor period built in stone. These large masonry structures were generally manor houses and were ornamented with crenellations, sculptured finials, Tudor arched doorways and combined both Gothic and Italian Renaissance ornament. This style has been copied in America mostly for public buildings and is often labelled "Collegiate Gothic." A typical masonry Tudor is illustrated below.

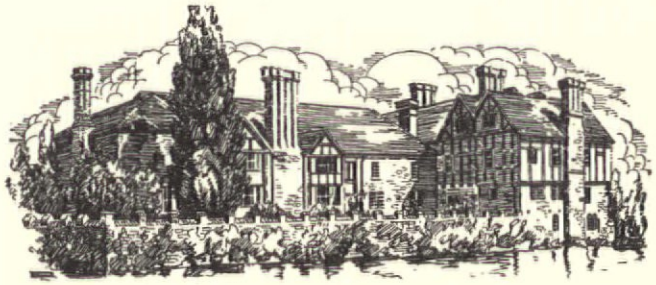
Tudor In America

THE PURITANS BROUGHT the half-timbered style with them to America as well as the more austere aspects of Jacobean decoration. Houses in New England, however, quickly took on a different appearance than their English counterparts due to the harsh climate.

THE TUDOR STYLE was revived dramatically in the late Victorian period when "picturesque" styles were the fashion. The Elizabethan style (as it was called then) was adapted for large country houses as well as smaller town and suburban houses. The use of cement stucco, which was weather resistant, made half-timber construction feasible.



From Palliser's "New Cottage Homes"—1887



AS THE QUEEN ANNE STYLE reached its height and began to decline around the turn-of-the century, the Tudor style again became very popular. From 1900 to the First World War, Tudors were the rage. Some historians have, rather coyly, labeled this period "Jacobethan" Revival.

UNLIKE MANY OTHER BUILDING styles, the Tudor did not go out of fashion. Another enormous surge of popularity took place in the 20's and 30's. Author Russell Lynes remembers a contractor in the 20's, who had a good business converting Queen Anne houses into half-timbered ones by removing the porches, nailing irregular timbers to the outside, and filling in the interstices with stucco.

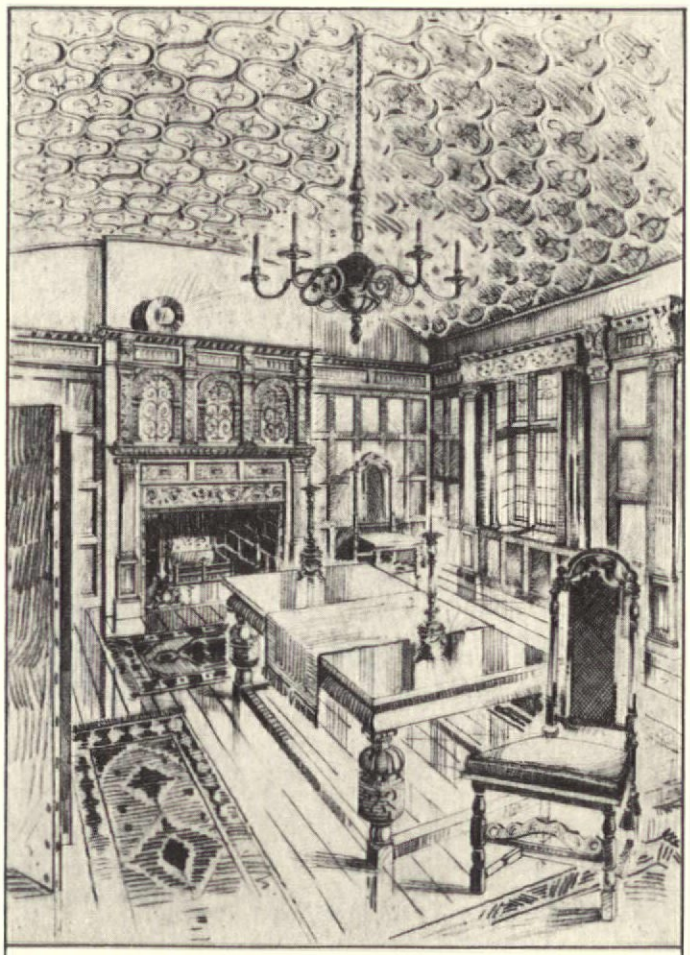
Original Tudor Interiors

DURING THE ELIZABETHAN AND EARLY JACOBEAN eras everything was made from oak, giving the Tudor age the name "The Oak Period." This sturdy wood was used for walls, to make furniture, hewn beams and floors. Walnut was not used until the Late Jacobean period.

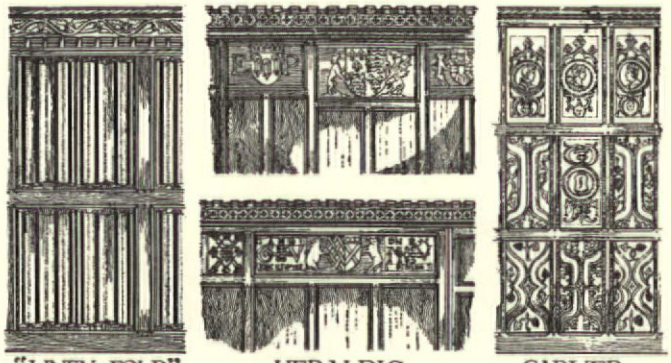
A FAVORITE FORM of Elizabethan decoration was the vine with leaves, tendrils and grapes, carved on exterior and interior beams. It is the lavish carving and exuberant decoration in wood that is the main characteristic of the Tudor interior.

BEFORE THE TUDOR PERIOD houses were on the order of castles--with comfort and decoration taking a place far behind defense. Small windows protected against seige and interiors were fairly grim. Now, with peace and progress afoot, and the need to defend gone, the house builder could let in light and air and begin to give thought to decorating walls, ceilings, fireplaces and furniture.

The main staircase from Sheldon Hall, in Leicestershire, England. It was characteristic of the first wooden staircases to build them around a square well and break them up into short flights with a low pitch.



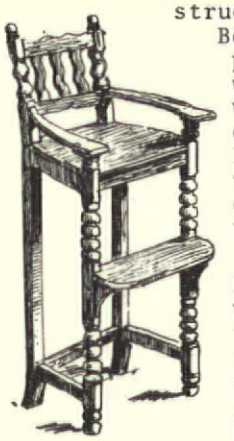
An Early Jacobean oak room from Herefordshire, England. The brass chandelier is of the kind Colonists made or imported to America in later centuries, and is still reproduced today.



"LINEN-FOLD" HERALDIC CARVED

OAK PANELLING

WALL PANELLING transformed crude interiors into rooms of architectural beauty never surpassed. Intricate panelling appeared even in smaller homes. The linenfold motif--taken from the chalice napkin covering the host--was most popular and used for wall panelling, chests and furniture.



EARLY TUDOR FURNITURE was still structurally dependent on walls. Beds extended from the wall panelling and were decorated with the same carving. Beds were actually like little cabins with heavy drapes of leather or fabric to keep out the chill. Most seats and cupboards were also attached to walls.

LATER INTO THE TUDOR period wood turning began to take the place of carving and more furniture appeared. With the introduction of coffee in 1645, chocolate in 1657, and tea in 1658, a need for tables for serving arose.

CUSHIONS were all there was in the way of upholstery and, often as not, there would be no more concession to comfort than a piece of Turkey carpet on a bench or chair.

Windows

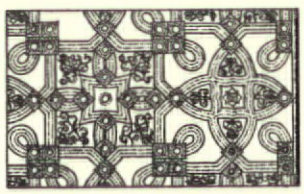
TUDOR HOUSE BUILDERS brought as much light as possible into the house. Tall bay windows rose from the ground often to the roof line. The frieze window, a horizontal band of windows above the wood panelling was a common way to admit light, particularly in the half-timbered cottage. The small, diamond-shaped panes were often brightened with insets of stained glass with heraldic patterns.

TUDOR WINDOWS, one of the most recognizable features, have been copied in all the later revivals. Palliser and Palliser, an architectural firm prominent in the 1880's, gave specific instruction for windows with "heraldic effect in art glass."

This is the entranceway of a Tudor style house, built in 1914, in Waterford, Conn. Typical of Tudor revivals, the walls are oak panelled and the floor is polished oak.

Decoration And Fabric

IF THE DESCRIPTION OF abundant oak and massive furniture in the Tudor house gives the impression of drabness, this is wrong. Tudor interiors, although dignified, were actually bright and cheerful. The windows, of course, did much to create brightness with daylight and colored light from the small bits of stained glass filtering in. Another element was the use of stucco ornament.



PLASTER CEILING

STRAPWORK ORNAMENT

CEILINGS WERE a vital part of decoration. Ornamented with rich plaster Renaissance motifs or strapwork, we still marvel at their elegance in pictures of great English houses. Smaller homes usually had some ribbing, relief work or oak beams to produce a decorative effect.

RUSHES WERE OFTEN used to cover floors of public rooms and, in grand houses, Oriental carpets were used for private rooms.

IN THIS PERIOD of flourishing trade, rich velvets, damasks and tapestries were imported to England. The richest fabrics were used for bed hangings. Tapestries (many made at the Mortlake factory in England) were used as wall hangings and for cushions and drapes. Embroidery, an art at which the English have always excelled, appeared on crewel work--wool patterns on linen or cotton.

LIGHT CAME FROM elaborate iron or brass chandeliers and tall iron standards. Helmets, armour and hunting implements were also hung on walls.

Decorating The Tudor House Today

THE TUDOR HOUSE OWNER will most likely have many features in the interior that are reminiscent of original style and probably have a great deal of oak. A widely imitated feature of the old English style is the massive fireplace. In chilly England it was a vital part of the house and was often a colossal floor-to-ceiling structure. Revival styles often feature a large carved wood chimney piece. Heavy wrought iron fireplace accessories should be used, minus the Colonial decorative motifs. (The 1977 Buyers' Guide lists many sources of hand-wrought iron.)

Furniture

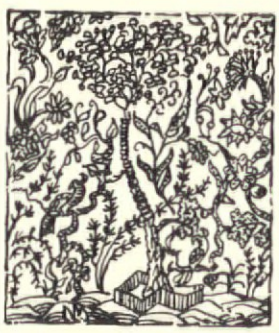
TO GET THE EFFECT OF dignity from heavy pieces of furniture and the warmth of wood, it is necessary to keep small articles and trimmings to a bare minimum. Furniture is very important in the Tudor house because the large proportions of the panelling, staircases, windows, etc. make delicate or fragile furniture look quite out of place. If you are lucky enough to have Jacobean style furniture, you don't need much more in the room. But if you have to add furniture here are some suggestions for achieving the right proportions.

Antiques--The Puritans brought the Jacobean style (in its most austere form) with them. Any of the very early New England chests, large refectory tables, etc. would be appropriate. The 1850's saw a great revival in "Elizabethan" furniture recognized by the many turnings and leather or tapestry covered seats, bulbous carved legs, stout stools. There is quite a lot (it was made up to the turn of the century) of this kind of furniture still around. The Mission Style, just coming into vogue now, also looks well because of its large proportions.

Contemporary--If you are furnishing in contemporary or a mixture, stick to the large, solid types: campaign furniture, classics like the Chesterfield leather sofa. Some of the large reproduction oak pieces are suitable.

WHILE A BENCH with a piece of carpet may not be our idea of comfort, beware of too much in the way of stuffed pieces in the room and use a bench with cushions where possible.

Fabric



CREWEL WORK was done in "long and short" stitch on natural cotton or homespun with brightly colored wool and used to relieve the monotone of the wood in the room. The "Tree of Life" pattern from India was widely copied as it was later on in New England. Crewel (source in The Journal's Buyers' Guide) is excellent for drapes, bedspreads and cushions. For the same reasons, printed India cottons are excellent.

THE MOST WIDELY USED textile in Tudor times was tapestry. Tapestry, however, is almost impossible to buy today. While some is advertised in the back pages of decorating magazines it is of poor quality and even worse--French, of the pastoral scene with the "Empress as Milkmaid" type. There are some new fabrics that have a rough burlap-type finish. If they are patterned with a medieval type, naive floral design or a plain, dark color they can be effective. Plain wools are also good.

RICH TUDOR HOMES used elegant fabrics--velvet and damask mostly. Colors here are very important--crimson (which looks beautiful with oak) was very popular as were all the dark and rich colors--deep reds, greens, blues, browns and perhaps dark yellow.

PERHAPS THE MOST IMPORTANT thing with fabric is what not to use. Any material in a pastel--pink, violet, etc., will throw a Tudor room off as will any fussy patterns; little flowers, large roses, etc. Thin materials--light silks, sheers, etc. are also inappropriate.

CURTAINS WERE USED to keep out the draft and they were hung in a utilitarian manner--on rings from a heavy iron bar and pulled across the window by hand. Heavy gold gimp and braid were sometimes used for trim and as a rope to pull the curtains. Since it is virtually impossible to find any good old-fashioned heavy trimmings, macrame could serve for cords and trimmings.

Furnishings, Floors And Walls

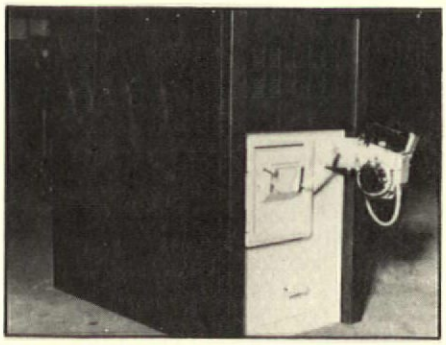
MIRRORS WERE IMPORTED during Elizabeth's reign and were rare and expensive. When used they had rich frames. Use mirrors sparingly and frame them elegantly. Holbein portraits were fashionable and a portrait or two will give a nice flavor.

ALTHOUGH ARMOUR was an important decorative accessory, as was heraldry, modern replicas do tend to look quite tacky and evoke the image of a brand new "Ye Olde Tavern" on the state highway.

FLOORS SHOULD BE polished to a rich, dark luster and any floor coverings used should be small enough to leave plenty of wood showing. Straw mats are appropriate as are small Oriental or "Turkey work" carpets. Small strips of carpet were used in old English houses on chests, cupboards and tables as well as floors.

WALLS ARE preferably white or creamy beige. White is especially effective with beamed ceilings. Since wallpaper was rare, hand-blocked and very expenseive in Tudor times, it is best to say away from paper. Most patterned papers will be anachronistic and give an undesirable look of fragility to the Tudor room. ■■

Products For The Old House



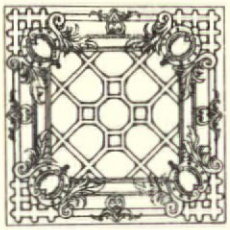
Wood Or Wood/Oil Furnace

ANYONE WITH A CIRCULATING air heating system who has just been shocked by the February heating bill may want to investigate the Charmaster furnace system. It's a central heating plant designed to operate on wood.

UNIT WILL BURN wood up to 30 in. long and 11 in. dia. It converts the wood to charcoal and burns the gases at high temperature. Combustion products pass through a large heat exchanger before going to the chimney. Can be hooked up to existing systems without changing ductwork. It can also be placed alongside existing furnace to add fuel flexibility.

CHARMASTER SYSTEM comes in 3 models: (1) Simple gravity-feed system burning wood ($765); (2) Wood burning system with thermostatic control ($985); (3) Wood/oil combination furnace that switches from wood to oil when required for long periods of unattended operation ($1,245).

FOR FREE DATA SHEET with more information, contact: Carol Lessin, Modern Industries, 2307 Highway #2 West, Grand Rapids, MI 5574'. Telephone: (218) 326-6786.

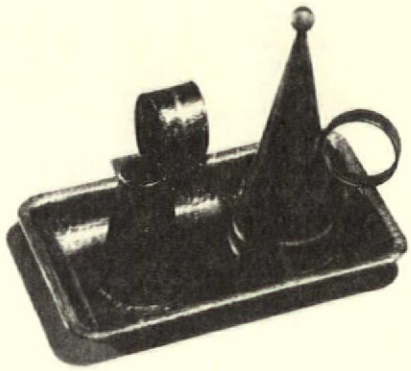


Embossed Ceiling Panels

REPRODUCED from old pressed tin patterns, these 24-in. panels are now being made in styrene and self-extinguishing vinyl. They have been designed primarily for use in suspended grid systems. Thus they have found primary usage in restaurants and commercial establishments seeking to establish a turn-of-the-century flavor.

THE MATERIAL can also be fastened to sheetrock and plaster with adhesives. So the panels could be used in 1880-1910 rooms where the original plaster has been destroyed and the owner is looking for an inexpensive way to add character to the replacement sheetrock.

PANELS are available in two patterns. For free literature, contact: J. David Sinclair, Ceilings, Walls & More, P.O. Box 494, Jefferson, TX 75657.



For The Early American Home

GREENFIELD VILLAGE and Henry Ford Museum have a handsome 48-pg. catalog of reproductions based on the museum's collections. Items include household accessories (such as the candle extinguisher above), clocks, pewter, furniture, hooked rugs, lamps, mirrors, wallpaper and fabrics. Items are appropriate for houses from Colonial through Greek Revival.

TO ORDER Reproductions Catalog, send $2.50 to: Henry Ford Museum, Dept. OHJ, Dearborn, Mich. 48121.

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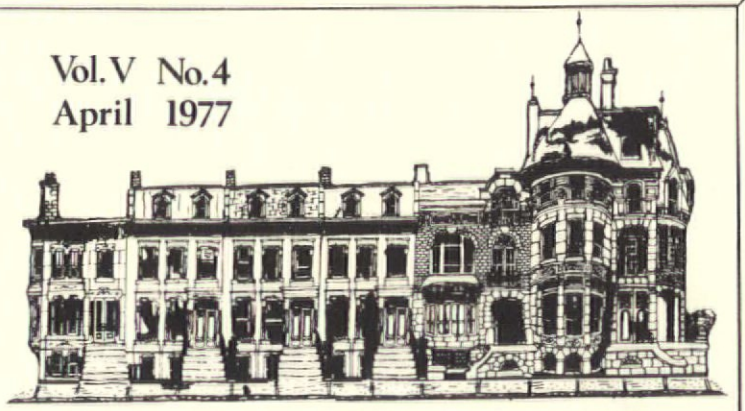

Renovation And Maintenance Ideas For The Antique House

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Awnings For Old Houses.....48

Coming Next Month

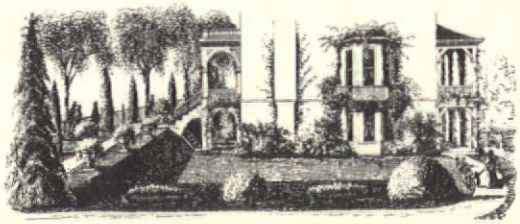
REMOVING STAINS FROM MASONRY

By Donna Jeanloz

WHILE ENGLISH GARDENING STYLES underwent a profound change in the 18th century, coincidental with the Romantic Movement, American gardens continued to follow the earlier Tudor traditions of geometric gardens until well into the 19th century. It was not until the appearance in 1841 of Andrew Jackson Downing's book, "A Treatise On The History And Practice Of Landscape Gardening," that popular taste shifted toward the English naturalistic garden style.

DOWNING'S NAME is familiar to any student of the 19th century. "A Treatise" was the first of his several enormously popular books, written while he was a young nurseryman in Newburgh, N. Y. It was an overnight success, virtually revolutionizing middle-class garden styles. The neat, geometric, ordered garden was out, replaced by man-made "nature": soft, curving masses of green.

DOWNING evidently gleaned many of his ideas from the leading British landscape authority of the day, J. C. Louden, who had conveniently published a book on landscape gardening a year previously.



THERE WERE a number of reasons for the overnight success of Downing's book. For one, it was written by an American specifically for the American scene at a time when national pride and self-confidence was on the upswing. Life styles were changing with the growth of industry, and the many solid citizens benefitting from this growth felt intuitively that their gardens no longer needed emphasis, direct or implied, on simple survival. The outdoors was increasingly regarded as a place to play rather than as a hostile environment.

ALSO, the introduction of exotic plant material including colorful annuals and a marked increase in horticultural journals and available printed information did much to interest the public in improving its surroundings. Further, the passage of fence laws starting at about this time had a strong influence on the householder's view toward improving his property. Fence laws obligated the owner of livestock (cattle, swine, etc.) to contain the animals, whereas before the burden of fencing had been on the gardener to keep the free-roaming animals out of the garden.

IN HIS BOOK, Downing divided art into two realms, the beautiful and the picturesque, and suggested that

(Cont'd on page 44)

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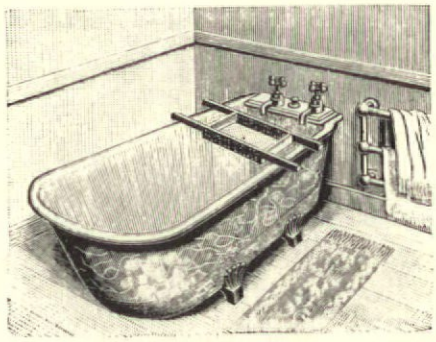
The Vexing Problem Of Old Sinks And Bathtubs



IN THE FEBRUARY 1977 ISSUE, we asked readers to share their experiences with rejuvenating old porcelain fixtures. A cross-section of the responses will be found on these two pages.

IN BRIEF, there are two approaches: (1) Resurface old fixtures with epoxy; or (2) Learn to love them as they are. Readers report mixed results with epoxy paints. The most common complaint is peeling of the epoxy within a year or so. This relates to surface preparation. The slightest bit of soap or other contaminants embedded in the old porcelain will keep the epoxy from adhering. Thorough cleaning according to manufacturer's instructions is imperative. Where a filler is needed for chips, some readers report success with the two-tube epoxy "liquid steel."

BUT EVEN UNDER the best of conditions, an epoxy coating is not a permanent cure. Like the paint on the exterior of a house, it will have to be renewed from time to time. It all comes down to aesthetics: If the chipping and staining isn't too bad, perhaps the best thing to do is to revere each blemish as a badge of antiquity!--CL

To The Editor:

WE USED A COMMERCIAL SERVICE that recoats old tubs with epoxy enamel. It was done only 6 months ago, so we can't be sure how long the job will last. But so far we are quite happy.

OUR TUB WAS IN very bad shape, with many gouges in the porcelain. We chose to have the tub worked on while in place—although the company would have taken it into their shop if we perferred. It turned out to be a three-step process: (1) epoxy filler was applied to the gouges and allowed to cure; (2) primer coat applied and allowed to cure; (3) finish coat applied. In all, the tub was out of commission for about two weeks.

BECAUSE OUR TUB REQUIRED so much filling—and because we wanted a special color—total cost ran about $250. A simpler job in white that didn't require filler would have been about $150. The service we used was Tuff-Kote Industries, which serves the New York metro area.

Joseph Kitchel
Brooklyn, N.Y.

To The Editor:

UPON MOVING INTO our 1850's home, we found an old claw-foot, oak-rimmed tub that dated from the 1880's. But it was in terrible shape. A brass water heater had leaked into it for years, resulting in brown stains that could not be removed.

WE DECIDED TO TRY a do-it-yourself epoxy paint. We cleaned the tub thoroughly, then wiped it out with epoxy thinner. We applied two coats of epoxy, building up the chipped areas with heavier layers of paint. We sanded lightly between coats with crocus cloth and allowed 7 days drying time after the second coat. The oak rim was finished with marine varnish.

FOUR YEARS LATER, the tub still has a nice shine—despite hard use by our family of seven. I don't use abrasive cleaners on the surface, but rather spray-on foam cleansers.

Jan Zenner
Dubuque, Iowa

SPECIAL THANKS ALSO TO: Anna P. Waterloo, Palatine, Ill.; Charlotte A. Winzenburg, Denver, Colo.; Mrs. A. K. Henry, Manistee, Michigan.

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Caring For Antique Plumbing Fixtures

By Beth Yenchko Facinelli, Elizabethville, Pa.

WHEREVER I GO, the plumbing fixtures—unusual and mundane alike—always get a second glance from me. The daughter of a plumber can't help but have some of her dad's knowledge rub off on her! So it was natural when my husband and I started our own restoration company (and bought our own old house) that I would take a special interest in the plumbing fixtures that we came across.

UNFORTUNATELY, because of age and incorrect cleaning procedures, most old fixtures that we see are badly worn or discolored. Many people have tried various ways to rejuvenate these antique lavatories and tubs—but no method is long lasting or truly adequate. To learn why, we must look at the way fixtures are made.

Cast Iron Fixtures

CAST IRON BATHTUBS AND SINKS are made in two steps. First the iron is cast in a sand mold, cooled, cleaned and ground down to remove rough edges, etc. It is also smoothed to create a good bonding surface for the next step: Applying the porcelain enamel. The cast piece is reheated in a kiln until it is red hot, and then pulled out. While still red hot, ground glass (enamel) is sprinkled uniformly over the fixture. When it cools, the porcelain enamel finish is smooth, shiny and ready to go. No polishing is required.

IF THE PORCELAIN FINISH should become worn, pitted or scratched, the only way to renew it permanently is to refire it as was done at the factory.

Vitreous China Fixtures

VITREOUS CHINA FIXTURES are also manufactured in two main steps. First, clay is cast into the desired fixture shape, and when it is dry, is trimmed and smoothed. Then the "green" piece is fired for the first time. After the first firing, the fixture is coated with glaze—which is a suspension of chemicals in a liquid phase that form a glass-like coating when fired.

AS WITH CAST IRON PIECES, the only way to get a permanent repair to the porcelain finish on vitreous china pieces would be to reglaze and refire. However, this would be prohibitively expensive—even if you could find someone to do it.

Special thanks to Dick Lemmerhirt of Kohler Co. for the information he provided.

Limits Of Porcelain Paints

BECAUSE THE PROCELAIN FINISH is essentially a thin coating of glass, it should be clear that there is no such thing as true "re-porcelainizing" short of re-firing in a furnace. The materials that are sold for this purpose (and services that advertise) are just paints—usually epoxy. No one should delude themselves that a paint will be as long-lasting as the original porcelain.

EPOXY PAINT does look all right (right after you do it and if the fixture is seldom used) but it requires painstaking surface preparation and may last only a year or two. We tried an epoxy in our bathtub, and it began peeling in a year.

MY ADVICE is to use old fixtures as they are or else throw them away. Both worn china and cast iron fixtures are quite useable as long as they hold water and have no major cracks or leaks. Surfaces that are crazed present special appearance problems, however. Crazing consists of many small cracks in the enamel glaze on vitreous china. Dirt works its way through the cracks and into the clay body itself, turning the cracks dirty brown.

THE ONLY POSSIBLE WAY to clean crazed surfaces is with muriatic acid. It may or may not work—and of course the user must be extremely careful of eyes and skin while working with muriatic acid. Some stains can also be removed with muriatic acid, but before trying acid, try the milder methods described below.

Cleaning Products For Porcelain

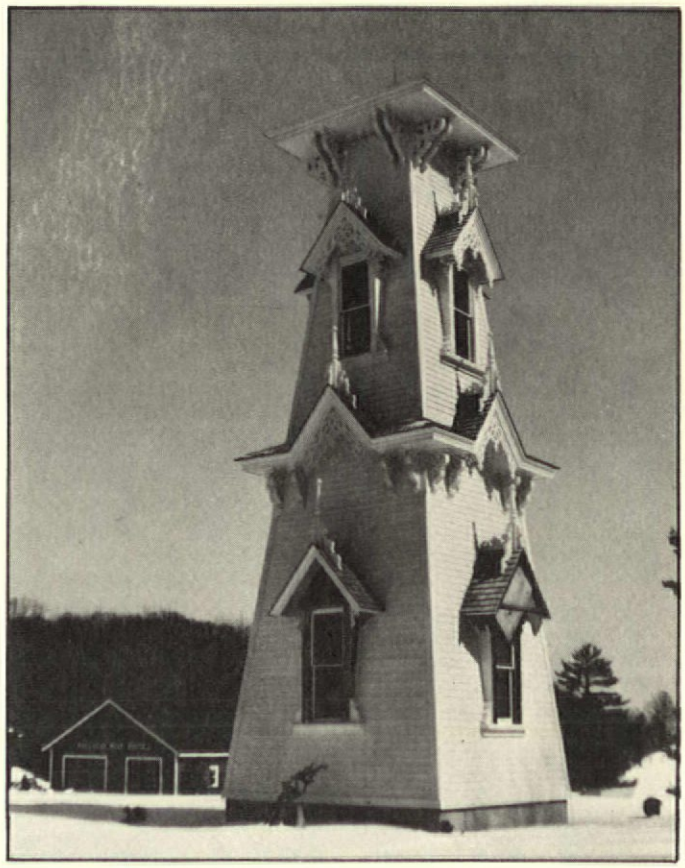
THERE ARE SEVERAL good non-abrasive cleaners that can help clean your fixtures without wearing the enamel away any further. It is especially important to use one of these non-abrasive cleaners on new porcelain so that you don't start the wearing-away process.

BON-AMI (available in grocery stores) and Kohler Cleanser (available through your plumber) are the only powders I know of that have little or no abrasives. Most grocery store cleansers (such as Ajax and Comet) have a high abrasive content and destroy enamel.

MULE-KICK is a pink polishing cream made by Sexauer and should be available through your plumber. It will remove marks and dirt, and will clean and protect your cherished antique fixtures for years. My parents' bathroom fixtures were cleaned exclusively with this product since installation, and the enamel finish still looks brand new—25 years and three kids later.

PROPER CLEANING won't restore damaged porcelain...but at least it can remove many of the marks and won't damage the fixture any further. Any scars that remain can be attributed to the character and antique nature of the fixture! ■■

A Towering Victorian Status Symbol



By Barbara Schiller

BEN ENSLEY, like many a newly-rich man before and after the 1860's, wasn't shy about showing off what money could buy. His fabulous Michigan farm boasted barns big enough for 200 head of cattle, a grand many-gabled farm house, a smoke house resembling a small cathedral, a gingerbread brick privy with ornamental ceiling and birdseye maple seats.

BUT TOWERING ABOVE ALL this architectural splendor was the pièce de resistance of the Ensley place--the windmill tower. A bracketed marvel of intricate symmetry with its gables and cornices delicately decorated with scrollwork and its peaks capped with beautifully turned finials.

HARLEY STOVEN FIRST SAW the Ensley tower in 1952 and in spite of its shabby state immediately knew it for what it was--the finest example of a decorated windmill tower he had seen. Feeling a deep responsibility to preserve this piece of America's heritage, Harley started negotiating for its purchase.

BY 1965 HE WAS TIRED of trying to buy the tower and had decided to content himself with making a scale model. Harley had devoted the years since the early fifties to research on the American windmill. He has original catalogs, photographs, drawings, clippings, and Windmill Gardens Museum Village--the historic restoration that the Stroven family operate during the summer in Fremont, Michigan.

THEN, JUST LIKE THAT, the tower was given to the Strovens. The owners needed the site for a new silo.

BUT HOW WERE THE STROVENS to get their 43-ft., 15-ton structure to the mill yard at Windmill Gardens? There were two bridges across the Muskegon River. Neither would accept the tower because of possible damage to their metal work. Luck intervened again. A new bridge without superstructure was opened. Now all that was needed was money and a crane to accomplish the let-down and 30-mile trip of the Ensley tower. The local historical society donated $500. But no crane contracting company would even bid on the job. These obstacles only served to make Harley more determined. So he devised his own plan for the move, using rented equipment. The tower was to travel by goose-neck trailer, resting on its most deteriorated side. All details and trim were removed from this side and extra bracing added.

THE LET-DOWN was to be accomplished by using the winch of a wrecker with steel cables and tepee-rigged shear poles. Everything proceeded smoothly according to plan. The tower was eight ft. from the ground when the brake started to slip, unable to hold the great weight any longer. The wooden shear poles bowed and "exploded." Down dropped the tower--onto five stacks of rubber tires--safe and sound. Harley laughs about this near-disaster now. "I bought those tires that morning just as an afterthought."

BY THE WINTER OF 1967 a new foundation and new sills were laid. The tower received further reinforcement in preparation for its lift-up by a 70 ft. boom crane. For a tense hour and fifteen minutes the old tower hung between earth and sky. Then at 1:55 it was gently hinged onto its new foundation.

THE STROVENS had fulfilled their fifteen year old ambition...almost. Restoration was to take longer than they had planned. They scoured the countryside for materials from old houses being wrecked. They found sashes, glass and rough sheeting lumber laden with layers of paint.

This section of the mid-tower roof shows the extent of deterioration.

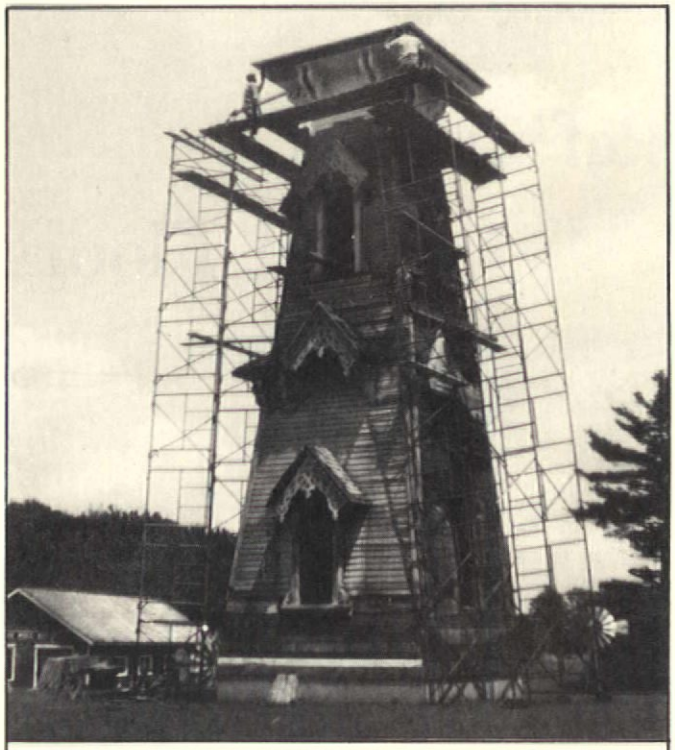
STARTING AT THE TOP and working with two or three craftsmen, Harley sought for an accurate restoration, using only those modern materials that would serve best to preserve a structure that had not been repaired since 1910. The original batten roof was replaced with plywood and selvage edge roofing. Extra flashing and new shingles were added. In six weeks the top half was completed, and the Stroven's resources depleted.

IN 1973 they regrouped and began work on the lower half. As she had before, Mrs. Stroven did all the painting, working downwards on the scaffolding with the carpenters. To make seven new finials Harley had to put an old wood lathe big enough to handle the 6x6 lengths back into working order. Their daughter traced patterns and cut scrollwork of 1½ in. pine seemingly by the mile on a bandsaw.

THE PAINT-LADEN salvaged sheeting lumber was recycled by putting it on backwards and skimming off the old saw marks with a disc sander. An elderly Belgian woman told the Strovens about a "natural way" to straighten warped woodwork. The 30 in. scrolls were placed on the damp grass and if the sun was good and hot they would be straight in a matter of hours.

THE STROVENS were aiming to have the Ensley tower ready by July 4, 1976. They beat their Bicentennial deadline by two days. However, as with any old building, the work is never finished. There is still 40 ft. of railing to be restored. Mrs. Stroven wants to paint the trim its original color, a dark wine red. And as the crowning effort, a ten ft. wooden wheel will be added so that the Ensley tower will look as it originally did over a hundred years ago.

FOR THOSE OF OUR READERS who might like to visit the Windmill Gardens Museum Village in Fremont, Michigan: It is located one mile east of Fremont and half a mile north on Luce Avenue. It is open Wednesday through Sunday from 10 a.m. to 5 p.m. Memorial Day to Labor Day.

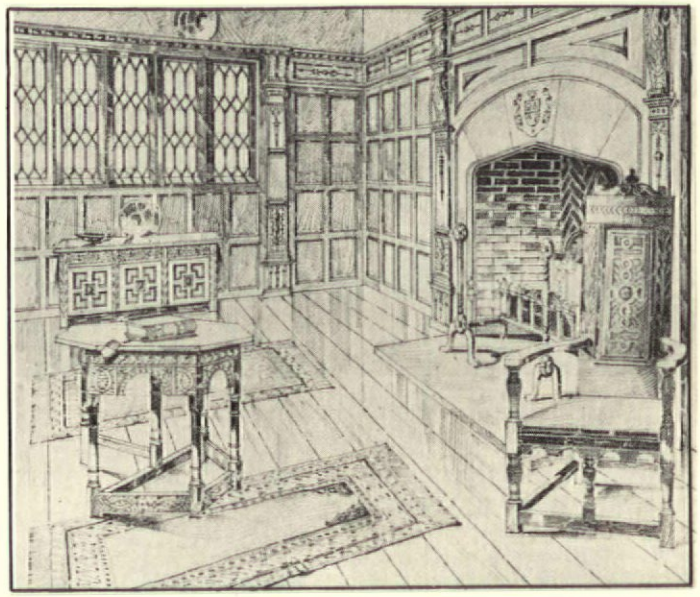


The extensive repairs necessary for the gingerbread, clapboards, etc., required full scaffolding to be set up.

A 70-ft. crane raises tower onto its new foundation. For move, all projecting trim had been removed from one side.

Refinishing Wood Floors

By Frank Broadnax



WHEN YOU DECIDE to refinish your floors, the preparatory work is difficult and somewhat special. The Old-House Journal did an excellent job on this in its December 1974 issue. You may wish to refer to that article in preparing your floor for its new finish.

ONCE YOUR FLOOR IS nice and clean, free of any old finish, dust, dirt, wax, etc., you are ready to apply the new finish. Here I'm assuming that you'll want a clear finish that will allow the beautiful wood grain to show through. In The Journal's January 1975 issue, Clem Labine described his favorite finishing system. I have some different techniques, and this is what I will share with you in this column.

Before The Finish Goes On

FIRST OF ALL, the weather plays a major part in applying a successful finish. NEVER apply a sealer or finish in damp, humid weather. I prefer the humidity to be 50% or less...and the temperature to be somewhere between 50-95 F. Make sure the floor is dry and that you have good ventilation.

IF YOU USED a mineral spirits or turpentine-soaked cloth to remove dirt or dust, you saw what the floor will look like when it has its new finish. If you did not use such a cloth, at this point I suggest that you moisten a small section of the floor with turpentine or mineral spirits. This will tell you whether or not the floor will be too light with its natural finish...and whether you'll want to stain. Obviously, you have to stain before sealer is applied.

WHEN AND IF you stain the floor, allow the stain to dry at least 12 hr.—and preferably 24 hr. You should buff lightly with fine steel wool...using a machine if you have access to one. Otherwise, it's hands-and-knees time. Anytime you buff with fine steel wool, you should vacuum to remove the fine dust and bits of steel.

Your Questions Answered

IF YOU HAVE any special problems with wood finishing, stripping, rescuing old finishes, etc., we'll try to provide answers. Describe the problem as completely as possible and send—along with a stamped, self-addressed envelope—to: Refinishing Clinic, The Old-House Journal, 199 Berkeley Pl., Brooklyn, N.Y. 11217. Questions of widest interest will also be answered in this column.

Sealers & Varnishes

TO SEAL THE FLOOR, I prefer to use refined tung oil. It is quite easy to apply: Use a good soft bristle brush and apply a thin coat, brushing with the grain of the wood. By putting on a light coat, you avoid the need to wipe out excess with a soft cloth as one would when refinishing furniture. Allow the tung oil to dry 24 hr.

NEXT I APPLY A good floor varnish. I prefer one that has a tung oil base. Two such brands that we have available locally are Var Tung and Tung-Roc. Among the nationally distributed brands, McCloskey's is the one that I use most often.

IF I WANT A HIGH GLOSS, I go with gym-coat. This is the type of varnish used on gym floors. Always apply at least two coats, allowing 24 hr. drying time between each coat. Remember that applying several thin coats is always far superior to one thick coat.

SHOULD YOU NOT WANT a high gloss, use a satin finish varnish. Again, apply at least two thin coats.

I THINK THE MOST BEAUTIFUL floor I've ever done used a combination of high-gloss and satin finish varnish. Here is the procedure I followed:

(1) Apply a thin coat of tung oil to seal the floor;

(2) Apply one coat of gym-coat high-gloss varnish;

(3) Apply a final coat of satin-finish floor varnish.

The top finish had a soft, satiny look. But by using the high gloss as an in-between coat, the finish had a deep, rich appearance—even though thin coats had been used.

HOW DOES THIS TYPE OF FINISH hold up? Great! It will last for years. And if you use a good quality varnish that doesn't darken with age, you can apply a touch-up coat as the finish wears off in high-traffic areas.

Floor Care

TO CARE FOR the finished floor:

(1) I never recommend waxing. This only leads to trouble...especially if you ever want to add a touch-up coat of varnish. Should you use wax, use a paste wax. Carnauba wax is the hardest available and does not turn yellow. Carnauba will last 8-12 months longer than other waxes.

(2) To care for the floor, vacuum regularly and dust with a treated dust mop. You can treat your own string mop with a product such as Endust.

A WORD ABOUT POLYURETHANE. I personally feel the virtues of polyurethane have been oversold. I no longer use it, nor do many of the experienced floor finishers that I know. It is quite possible to get unpleasant surprises with polyurethane, many of which stem from its rather long drying time. If you are using polyurethane, be doubly sure not to apply it in humid weather and to allow plenty of time between coats.

FRANK BROADNAX is President of Broadnax Refinishing Products. One special item they sell is a furniture refinishing kit. To get free product information, send a stamped, self-addressed envelope to Frank at: P.O. Box 196, Ila, GA 30647.

Recent Arrivals...

Helpful Publications

Manual Of Neighborhood Preservation

"A NATIONAL LOOK AT MAKING NEIGHBORHOOD PRESERVATION SUCCESSFUL" is the subtitle of the Proceedings of the 2nd annual Back To The City Conference held in St. Paul, Minn. in 1975. This 66-page softcover volume is a valuable compendium of know-how and case histories from neighborhood revivalists across the U.S. Among the 21 articles: Creative Promotion Techniques; The Corporate Conscience; Townscape Conservation—A Manifesto for Activists; Neighborhood Preservation and Downtown Vitality; Dealing With Displacement; New Life for Old Buildings. Copies of the Proceedings of the St. Paul Conference can be obtained by sending $5.00 to: Back To The City, 12 E. 41st St., New York, NY 10017.

Tips On Historic Paint Colors

ANYONE PLANNING TO PAINT their old house—inside or out—should have a copy of this 8-pg. brochure: "Property Owner's Guide to Paint Restoration and Preservation." It contains useful guidelines on researching original color schemes, and has helpful hints on the types of new paint to apply. Especially valuable is the bibliography of sources for additional information. Bulk rates are also available for this booklet, so it could be a useful handout for neighborhood groups trying to interest property owners in restoring historically appropriate colors. Single copies of Technical Series #1 can be had by sending $1 to: Preservation League of NY State, 184 Washington Ave., Albany, NY 12210.

Dealing With Architects & Contractors

"HOW TO BUY AND FIX UP AN OLD HOUSE" is directed more to the remodeler and renovator than to the person who is attempting a sensitive restoration of an old house. Thus some of the specific advice on what to do to a structure will not be appropriate where the owner wants to restore. But where the book is particularly helpful is in its sections on selecting and dealing with architects, contractors and decorators. It contains a lot of practical advice as well as useful checklists and sample sets of specifications. If you have a major project coming up, the book could be a worthwhile investment. 125 pp.; softcover; comb bound. $8.95 from: Home-Tech publications, 7315 Wisconsin Ave., Bethesda, MD 20014.

Architectural Styles In Masonry

EVERYTHING about this delightful 42-page booklet is clear and easy to understand—except its title: "Evolution of Masonry Construction in American Architectural Styles." Behind that rather imposing title stands a well-illustrated, brief history of the major architectural styles in the U.S. as exhibited in masonry structures. Because the scope is limited to masonry, most of the buildings shown are either public edifices, or else rather grand private dwellings. Of particular interest, the styles are grouped together according to their historical roots, which makes it easier for the neophyte to see how some of the finer points of architectural detailing relate to each other. The booklet, written by architect Maximilian L. Ferro, is available for $1.00 by writing to: Delbert D. Stoner, Sermac Surface Maintenance Systems, 2300 Warrenville Road, Downers Grove, Illinois 60515.

(Landscaping--Cont'd from page 37)

architectural styles and landscape improvements should complement each other. He felt that the classical architectural styles--Greek Revival, Italianate, Tuscan--represent the beauty of harmony and grace and call for the beautiful landscape treatment, while the irregular architectural styles--Gothic, castellated, Norman, bracketed--require the picturesque mode of landscape improvement to balance their striking and unsymmetrical aspect. With typical American preoccupation with the new, he did not consider any of the pre-existing residential styles as candidates for either mode of the new landscape gardening.

HOW DID THE BEAUTIFUL in gardening differ from the picturesque? The beautiful was thought to embody grace and harmony; hence it was represented by softly flowing grassy lawns studded with stately, regular-shaped trees and shrubs. Curving paths wound among the trees on the grounds, and in the flower garden a path might be cut through the lawn, which was punctuated with curly-shaped flower beds.

THIS "ENGLISH FLOWER GARDEN" was characterized by rather violently curved outlines. Each bed was planted with only one or two varieties of colorful blooming annuals--"the aim being a brilliant effect." Favorite plants were fuchsia, salvia, lobelia, and red geranium. Shrubs were planted near the house, in beds along the walkways. Flowering shrubs such as mock-orange, lilacs, etc. were preferred.

DOWNING FURTHER recommended that classical-style houses should be tied to their grounds by terraces with balustrades reminiscent of the Italian gardens of the Renaissance. He recommended a terrace 5-20 ft. wide, and raised 1-8 ft. above ground level, paved with flagstones, and bounded by a balustrade with coping studded with "architectural decoration" at regular intervals. The architectural decoration might consist of vases or urns, either empty or planted in the Italian manner with formal plants (topiary work, or yuccas) or statuary. If money for the grand balustrade treatment was unavailable, vases or urns might be set on plinths or pedestals to delineate the terrace area.

THE PICTURESQUE IDEAL emulated wild nature. The total effect was much less carefully groomed and harmonious than in the beautiful mode; the goal was a kind of raw roughness appropriate to craggy stones, rushing water, and dark thickets. This effect was achieved in landscape planting by the use of irregularly-shaped or dramatic trees, especially conifers, used in tighter groups to simulate natural groves or thickets and to increase the play of light and shadows. Native shrubs might be used in naturalistic plantings. Paths through the grass and woods were even more meandering and rustic, sometimes with sharp changes in level. Rockeries, grottos, and other oddities were appropriate.

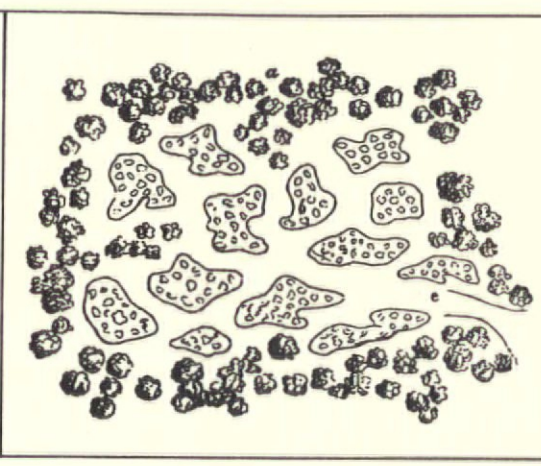
DOWNING DESCRIBES a flower garden suitable to this mode in the following terms: "The irregular flower garden is surrounded by an irregular belt of trees and ornamental shrubs of the choicest species, and the beds are varied in outline, as well as irregularly disposed, sometimes grouping together, sometimes standing singly, but exhibiting no uniformity of arrangement." This was considered a suitable accompaniment to the house and grounds of a lover of the picturesque-rural Gothic style.

DOWNING WAS ALSO a great advocate of the use of vines to soften and give character to architecture -- the stylistic prelude to the use of foundation planting for the same purpose after the turn of the century. Vines growing up on wires were used to screen areas of the verandah or porch from public view, and vines were encouraged to ramble over features such as bay windows. Hall's honeysuckle, introduced from the Orient in this period, quickly became a favorite.

IT IS IMPORTANT to note that while the grounds and pleasure gardens visible from the street and house--the modern equivalent would be the front yard--followed the new stylistic trend toward "nature," every household continued to require the same service spaces as before for drying laundry, chopping wood, etc. Most homes were still outfitted

This is an example of Downing's landscaping in the "beautiful" manner.

The imitation of wild nature is evident in Downing's "picturesque" style.



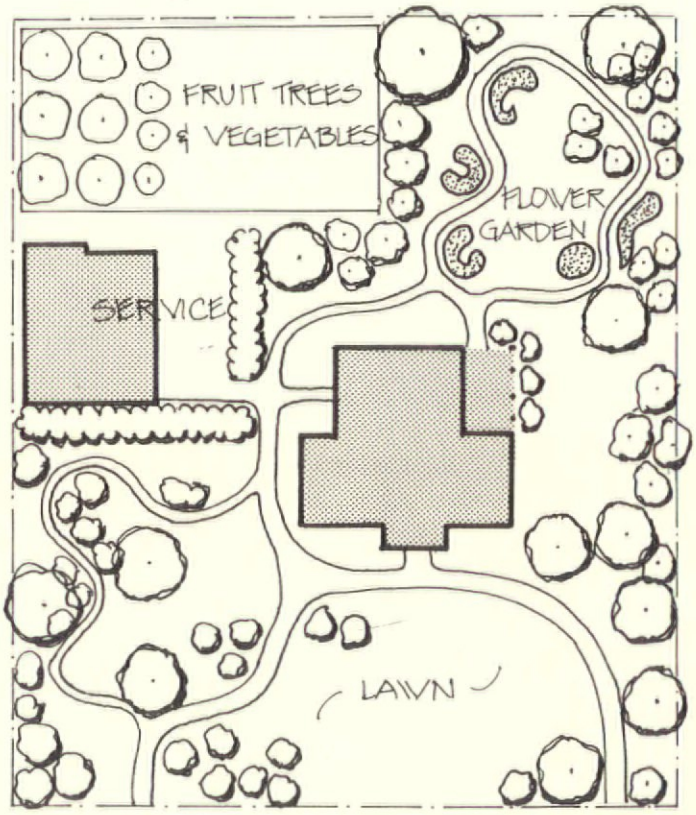
At left is Downing's "English Flower Garden," a suitable accompaniment to the beautiful mode of landscape gardening.

At right is Downing's "Irregular Flower Garden," recommended for the Gothic Revival and other romantic styles that called for the picturesque manner of landscape gardening.

with the sheds, dependencies, barns, and stables of the former era. These were carefully placed behind the house and screened in some way from the street and drive. Behind them could be found the vegetable garden and fruit trees, planted in rows.

DOWNING'S BOOK ran through 6 editions, the last of which was published more than 20 years after his untimely death in 1852. During the decades following the Civil War, the streetcar changed the shape, size, and social climate of the city as millions of well-to-do Americans moved out into newly created suburbs. The average suburban lot was far smaller than the grounds surrounding the "rural villa" of Downing's time, and its proximity to its neighbors demanded a slightly different treatment than the "beautiful" or "picturesque" advocated by Downing 30 years before.

Plan of a "Suburban Villa" and grounds, ca. 1850.



AT ITS BEST the suburban concept was that of gracious homes set in a shared park-like environment, and the problem presented to the landscape designer was thus how to maintain the overall effect while affording privacy and individuality to each of the houses.

BY THE 1880's two features were considered essential to a businessman's home: A fine lawn and large trees. The development of the lawnmower as we know it today (almost) did a lot to popularize the fine lawn. Instead of designating certain spaces within the lot for planting grass, the entire lot was thought of as a lawn, and plantings, drives, etc. were cut out of the grass area, much as a sub-division builder does today.

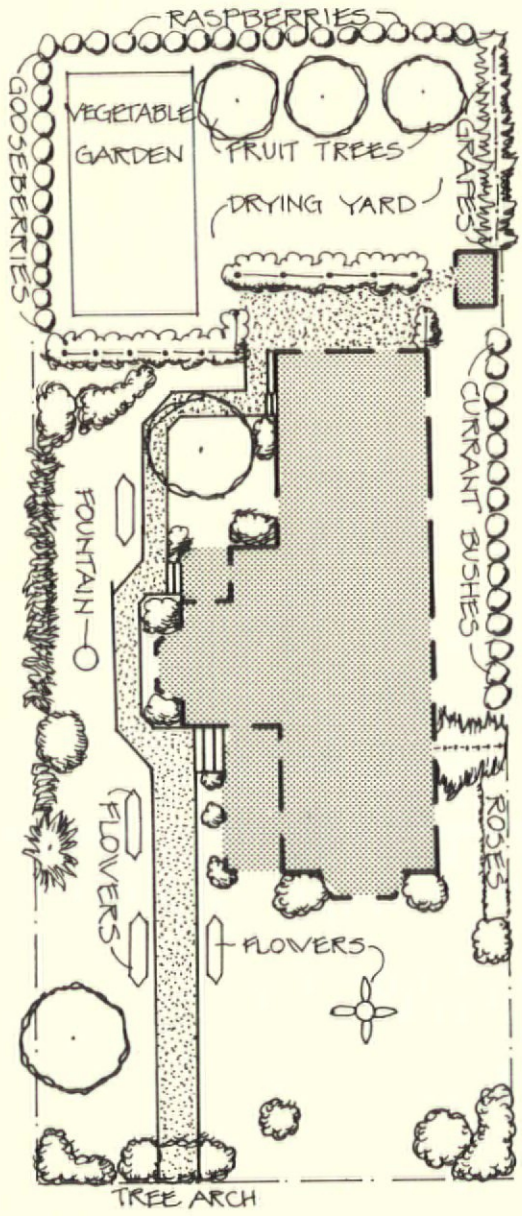
TREES WERE STRATEGICALLY PLACED in the lawn to provide shade or complement architecture by providing a backdrop or accent, but they were very rarely used en masse to create a grove or a barrier. Large, stately trees such as American elm and European beech were extensively used as suitable companions to the large homes of the Queen Anne style, and fast-growing trees such as silver maple were also popular.

SHRUBS BECAME increasingly popular, both in mass plantings and as single specimens. Naturalistic plantings of shrubs in clumps and groups were used to screen undesirable views into neighboring windows and service areas, to delineate property boundaries and areas of lawn such as the croquet field, and to direct the view to and from the street.

SINGLE SHRUBS were used as accents in the lawn and as centerpieces for garden beds. Although planting to hide the house foundation had not yet appeared, flowering shrubs were often planted along the verandah's edge or under a window for their beauty and fragrance.

FLOWERBEDS REFLECTED the Victorian era's love of ornament and ostentation. Typically they were now complexly geometric: starshaped, cruciform, trefoil, and combinations. They were cut out of the lawn along walkways or in strategic and conspicuous places and planted with brilliantly colored annuals or with

PLAN OF A HOUSE AND SMALL SUBURBAN LOT, ca. 1880



roses. Flowering shrubs or fountains or statuary might provide the centerpiece for a circular bed or arrangement of beds.

SUBURBAN HOUSES, like their urban predecessors, usually had two entrances from the street: a straight or elegantly curving formal walkway from the street to the front entrance, and a less elegant drive leading to the service areas hidden in the recesses of the lot. The view of the house as one approached from the street was carefully controlled. The walkway was placed to give maximum effect to the house, and plantings were introduced as necessary to enhance this view.

An illustration from Scott's "Suburban Home Grounds" depicts a typical iron rail fence.

WHEN THE LOT WAS FENCED, as it frequently was, the fencing was of a type allowing maximum visibility, usually iron bars or rails, as the goal seems to have been a psychological sense of boundary rather than a barrier to produce privacy. Often the ground level of the lot was raised slightly above the sidewalk by a concrete or cut stone retaining curb which served a boundary function similar to the fence. It was considered desirable to have the land slope up to the house from the street, as this made the house appear larger and taller. If screening or privacy from the street was desired, shrubs were the usual solution.

MOST SUBURBAN HOUSES concentrated their landscaping efforts on the front yard, as the side yards were quite narrow and the backyards continued to be taken up by carriage houses, privies, wood or coal sheds, drying yards, and vegetable gardens. In Frank J. Scott's "Suburban Home Grounds," published in 1886, almost all the suggested lot layouts show vegetable plots and fruits. Those which are simply too small to accommodate vegetables use fruit trees and bushes as the ornamental landscaping elements.

THE URBAN DWELLER of the Victorian period was generally far less concerned with landscape improvements. After all, he had less space, particularly in an attached row house with no side yards or drives to worry about. The service areas were located behind the house, with access via an alley. This rear area is now often very successfully converted into a small city garden. It need not be a period garden or a restoration since it was not originally a garden area at all.

THE FRONT YARD, usually quite small, was grassed over and often enclosed by a cast iron

decorative fence. a paved walkway led to the entrance. There might be a specimen tree or shrub planted in the lawn or under a window, or a flower bed alongside the walkway, or a geometric flower bed cut into the lawn to be viewed from an upstairs window. Ivy and other vines might be encouraged to cover the masonry or twine up the downspouts.

BY THE END OF THE 19th century many of our modern annuals had been developed, and horticultural institutions were sending expeditions to the Orient to discover new plant materials suitable to our temperate climate. Japanese yew was introduced in 1855, Siebold viburnum by 1880, weigelia in 1845, kudzu vine in 1885, Boston ivy in 1862, Japanese barberry in 1875, flowering quinces before 1880, and pee gee hydrangia in 1862. In California, the eucalyptus species were introduced from Australia and New Zealand. Flower favorites, predictably, were in brilliant colors: geraniums, coleus, cockscomb, castor beans, cannas, nasturtiums, lobelias, alyssum, zinnias. Extensive work was done in developing vegetables and fruit, especially by Luther Burbank, resulting in sweet corn and smooth red tomatoes.

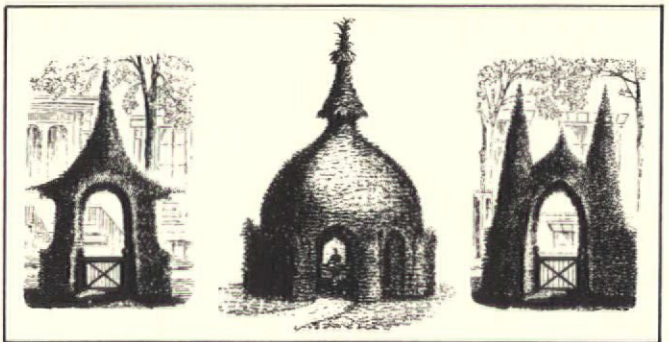
WHIMSEYS OF ALL KINDS enlivened the Victorian garden. Dripping fountains and birdbaths, statues of children and animals, complex arbors, garden houses, rockeries, grottos, and fantastic and complicated topiary work were all welcomed.

A whimsical entrance to a rural villa.

A weeping larch for the "picturesque."

Victorian Garden Book

Frank J. Scott's famous book on landscaping published in 1886 is now available in a soft-cover reprint. Originally titled, "Suburban Home Grounds," it contains over 200 illustrations of plans for gardens and embellishments. The reprint version has a sewn binding and it is retitled "Victorian Gardens For Victorian Homes." To order "Victorian Gardens," send $6.95, plus 50¢ postage and handling, to: The Old-House Journal, 199 Berkeley Place, Brooklyn, New York 11217.

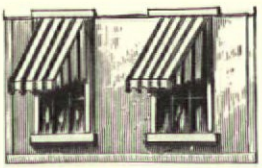


These whimsical examples of Victorian topiary are from Frank J. Scott's book, "Suburban Home Grounds."

BY THE TURN OF THE CENTURY garden styles began a definite shift back toward naturalism from the striking stiffness of the late Victorian period. Gently curving "borders" of flowers and shrubs were used to delineate spaces, with individual species planted in clumps or drifts. Perennials became popular again, as did pastel-hued flowers. The lawn with trees remained an American institution, no longer interrupted by flowerbed cut-outs but as a continuous sweep of green carpet from border to border. And the new vogue for foundation planting decreed that every house be tied to the ground by a layer of massed shrubs.

DESPITE THE ever-increasing amount of exotic and Oriental plant material, there was a growing respect for native shrubs and trees. This was especially true in the prairie states, where extremes of cold, wind, and drought combined to make foreign plants less than happy. Shrubs such as box-elder and osage orange and our native willows, cottonwoods, and elms were extensively used by garden designers evolving a uniquely American landscape art which was the complement to the developing prairie school in architecture. ■■

Products For The Old House

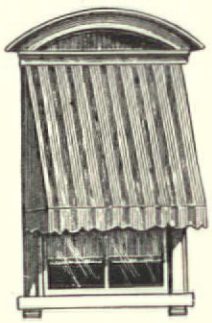


Awnings

AWNINGS are really an old-fashioned way to reduce heat and sunlight in the home.

ROOMS WITH AWNINGS on the windows are 8° to 15° cooler and, if the room is air-conditioned, operating costs will be considerably reduced.

BLOCKING THE SUNLIGHT coming in a room also protects rugs, drapes and fine furniture from deterioration.



The 100-year old Astrup Co. makes fine fabrics and hardware for the awning manufacturer. While they make many different patterns, the old-fashioned stripe is recommended for the old house.

SINCE ALL awnings are custom-made anyway, it should not be difficult for the homeowner to have the maker create exactly the style most suitable for the period house.

WRITE TO Astrup for the name of the dealer in your area. Astrup will also send you information sheets on their fabrics. Contact: Mr. L. A. Millward, General Sales Mgr., The Astrup Company, 2937 West 25th St., Cleveland, Ohio 44113. Tel. (216) 696-2800.

Custom Duplication Of Hardware

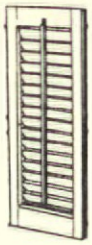
RITTER & SON can reproduce almost any piece of cast or wrought hardware. They began this service for the U. S. Nat'l Park Service to replace hardware needed in historic structures. For cast hardware, they pour only brass or bronze. For wrought hardware, they use steel, iron, brass, bronze, tin, and other metals. Some of the items commonly reproduced are: pulls, knobs, keyholes, rosettes, legs, hinges, hooks, finials, lamp-bases, candlesticks, door knobs, door bell housings.

THIS, OF COURSE, is not an inexpensive service and there is a minimum charge of $25.00. It is best to write first, preferably enclosing a snapshot, to get an idea of the magnitude of the job.

Ritter & Son also has a stock of Victorian hardware including: dresser pulls, keyholes, lockplates. Catalog is $1.00 but they will send it free to readers of The Journal.

FOR MORE INFORMATION about their stock or custom service, contact: Walt Ritter, Ritter & Son, P. O. Box 907, 119 E. Alice Ave., Campbell, Calif. 95008. Tel. (408) 378-3272.

Shutters: Standard & Custom



WHILE THE FRIENDLY neighborhood lumberyard usually carries stock shutters, invariably they don't have the right size. That is why it's handy to have the price list and spec sheet of a major shutter supplier handy. It tells you which sizes are standard...and which would require special make-up.

THE PRICE LIST covers both the stock items and custom fabrication. Shutters are pine, and can be ordered unfinished or with a standard color or stain. If you have to match existing hardwood window framing, shutters could be grained as described in The Journal, June 1975. Price list free from: Perkowitz, 135 Green Bay Road, Wilmette, Ill. 60091.

THE OLD-HOUSE JOURNAL

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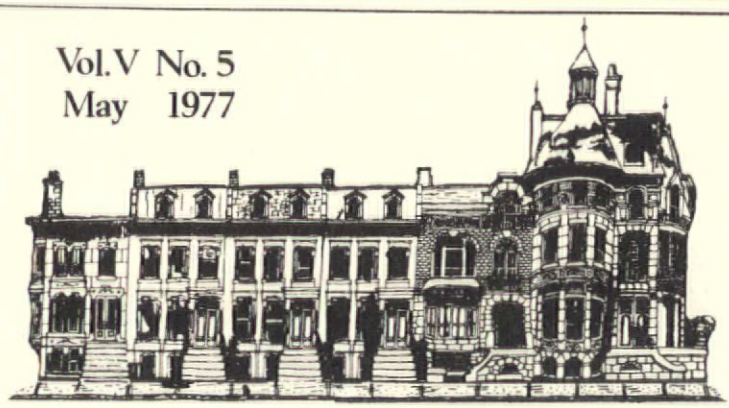
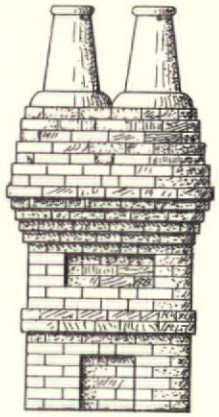


Renovation And Maintenance Ideas For The Antique House



Repairing Old Chimneys

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Coming Next Month

DECORATING WITH URNS AND FOUNTAINS

By Matt Huff, The Clean Sweep

Restoring old chimneys to working order is usually a job for a professional. But competent pros are hard to find. In this article, an expert lays out the ABC's...so you'll know what you can do yourself—and when it's time to call for help.--Ed.

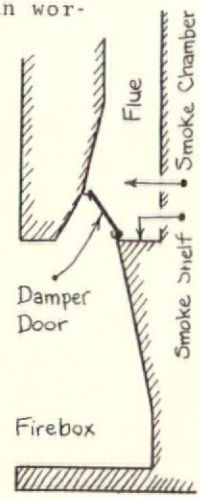
IN FIREPLACE WORK—as in washing windows—the sensible approach is to start at the top. There's not much sense in worrying about renovating the firebox if the flue is plugged and the chimney toppling. First step in checking out a chimney is to see if the flue is clear. One simple way to do this is to light a fire; open the damper (if it has one) and light a crumpled sheet of newspaper in the firebox. Add other sheets of newspaper slowly so that you won't have too much smoke in the room should the flue be plugged.

IF THE FIRE BURNS satisfactorily, smother the fire with a folded newspaper to see if the flue can accommodate all the smoke produced.

IN SOME FIREPLACES, you can hold a hand mirror above the damper and see the sky reflected in it. This only works in flues that are straight or nearly straight—but it does offer convincing proof that the flue is clear.

OR, IF YOU CAN REACH the top of your chimney, you can lower a weighted rope down to the fireplace, and then pull a burlap bag stuffed with papers up through the flue to check for obstructions.

ALL THREE OF THESE METHODS presume that you can open the damper. But in many old houses, especially those in which the fireplace has seen little use, the damper will be stuck shut. Many years' accumulation of debris may be piled atop the damper to a depth of several feet. Flues in old houses were lined with mortar, not tile, and the weathered mortar deposits a lot of sand and lime on top of the damper.



IF YOUR DAMPER has a sliding plate on it (as is common with many 19th century fireplaces), tap the sliding plate back and forth to loosen the debris behind it. It will probably move very little at first because of the weight of the debris, but continued tapping will eventually loosen it. The falling dirt will produce a lot of dust. To protect the room, tape a sheet of

(Cont'd on page 50)

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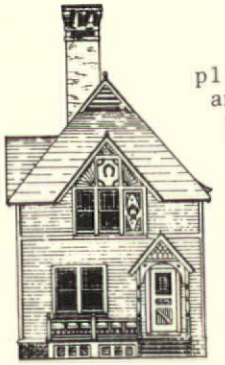
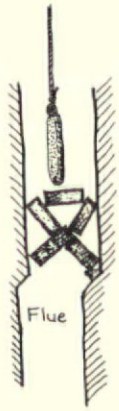


plastic over the fireplace opening and work through holes in the plastic. Or, if the fireplace is large enough, don goggles and filter and work inside the fireplace.

USE ANY LONG TOOL to dig through the slots in the damper. As you dig the dirt out, more and more debris will cascade down. When you finally dig out enough debris to open the damper, the digging goes a lot faster. As soon as you poke through the deposits and establish a draft, the dust will begin to go up the flue instead of out into the room—making your task easier. When all the debris has been dug out, apply one of the tests described earlier to see if the rest of the flue is clear.

IF THE FLUE is still plugged, you must locate the blockage. Look at the top first, because a previous owner may have capped the flue to keep cold drafts out. If the flue isn't capped, pinpoint the obstruction by lowering a weight on a rope. When you feel the weight go slack, you have reached the plug and can measure the length of rope you've played out. Try breaking the plug free by hauling the weight (a window weight is ideal) up a few feet and dropping it on the plug. This may free an obstruction that is only composed of a few bricks.

MOST OBSTRUCTIONS are formed when the brick divider that separates flues tumble down. The resulting plug can be several feet thick and quite resistant to pounding with the weight. If your plug is of this stubborn variety, it can only be removed by surgery. Knock the plaster off the inside wall where the plug is located, then break into the flue by removing several wall bricks with a hammer. (A rented electric hammer may save time.) And beware—the operation is very dusty!



DIG OUT THE RUBBLE plugging the flue and test again for a draft. When it is working, brick up the hole and replaster.

INSPECT THE CHIMNEY TOP next. If it leans, it should be torn down and rebuilt. You may want to raze the chimney to roof level because it is nearly impossible to match new bricks to existing bricks. If sections of the chimney are covered with white powdery efflorescence (often in attics, just below the roof), it means the bricks have been saturated with water for a long time. If the water leak can be stopped and the bricks given a chance to dry out, the bricks may be saved. But if water has deteriorated the bricks too badly, the chimney should be rebuilt.

IF A LOT OF MORTAR has weathered out of the joints, tuckpoint with fresh mortar. If your chimney needs extensive tuckpointing, it may be worth your while to tuckpoint every joint because it is so difficult to match the color of the new mortar to the old. (See The Journal, March 1975, for discussion of "hard" and "soft" mortars in old brickwork.)

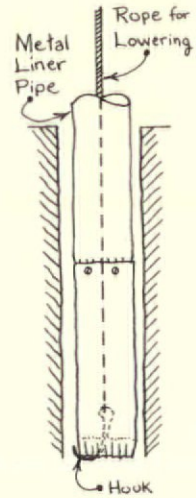
Lining The Flues

YOUR OLD CHIMNEY probably has more than one flue. The flues are separated by brick dividing walls—usually only one brick thick. These dividers are typically in worse shape than any other part of the chimney. The top few feet of these dividers may be missing altogether. You can line the flue with metal pipe to prevent the dividers from tumbling down the flue as they continue to erode.

METAL PIPE for lining flues is available in sizes from 6 in. to 12 in. diameters. Local heating suppliers may have only small sizes, but large sheet metal shops should have a complete range.

STAINLESS STEEL PIPE must be used in furnace flues because furnace exhaust gases corrode ordinary metals very quickly. In a fireplace flue, you may use the much cheaper (but shorter-lived) galvanized steel pipe. Choose the largest diameter that will fit down your flue without binding. Three-foot sections are the most convenient to install.

INSERT THE PIPE, crimped end first, from the top of the chimney—one section at a time.



Lining Flue With Metal Pipe

THE OLD-HOUSE JOURNAL®

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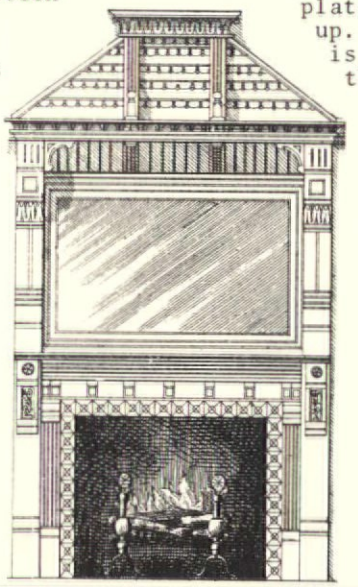
TIE A ROPE to a hook and hook the first section of pipe so that you can keep the liner from getting away from you as you lower it. Just before each section enters the flue, secure it to the previous section with metal screws.

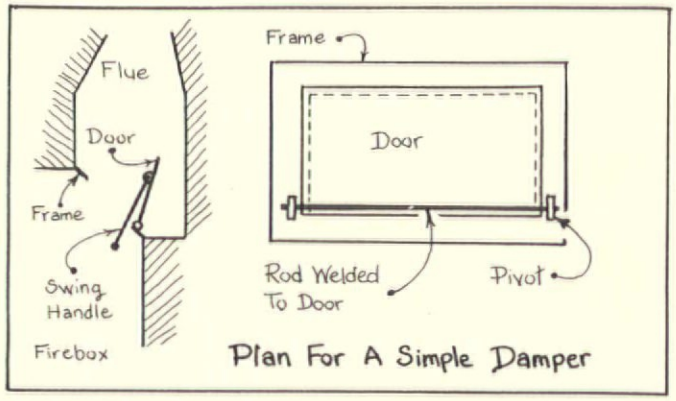
IF THE BRICK DIVIDERS between flues are decrepit, put one section of pipe part way down the other flues so that you won't knock any loose bricks down into the other flues while you work.

LOWER THE LINER down the flue until the bottom end reaches the top of the fireplace throat. Seal the bottom end by forcing screen around the liner and dumping mortar down from the top. Seal around the liner at the top, too, to keep water out.

INSTALLING A METAL LINER is simple in a smooth straight flue. But in a flue that bends too much, or whose inside surface is rough with mortar and broken brick, you may be unable to slide one down. In this case, you will probably have to break into the chimney to install flue tiles. Also, if your fireplace has a weak draft, do not install a metal pipe liner because it will reduce the cross-section of the flue and thus reduce draft.

INSTALLING TILE FLUE LINERS requires breaking into the chimney as described earlier for the removal of major obstructions. But in this case, you have to open up ALL of the chimney. When the chimney brickwork is exposed on the outside of the house, the work can be done from the exterior—but it requires scaffolding. If the chimney is inside the house, the work has to be done from the interior. The process is quite messy—and also expensive. It could run $700-800 or more to have a professional tile-line a flue that runs from a ground floor fireplace to the top of a three-storey house. This is definitely not the normal do-it-yourself kind of job.





Plan For A Simple Damper

Fireplace Repairs

IF YOUR HOUSE is over 120 years old, its fireplaces were probably designed to burn wood. If newer than that, the fireplaces may be designed for coal grates or gas logs. Most coal fire dampers were made of two slotted plates—one behind the other. To open these dampers, slide the back plate left or right until the slots line up. Total area opened by these slots is small—probably too small to handle the smoke from a wood fire.

IF YOU PLAN to burn wood and need a larger damper opening, sometimes the slotted coal dampers can be pushed back together to provide the larger area. If the plates are fixed, you will have to remove the old one and replace it with a fabricated flat damper.

THE OLD DAMPER is probably made of cast iron and can be broken and removed with a hammer. Flat dampers must be custom-made because you will not be able to buy any damper to fit the small opening of a late 19th century fireplace. My favorite damper design is shown in the diagram above. A welder should be able to make one for about $20.

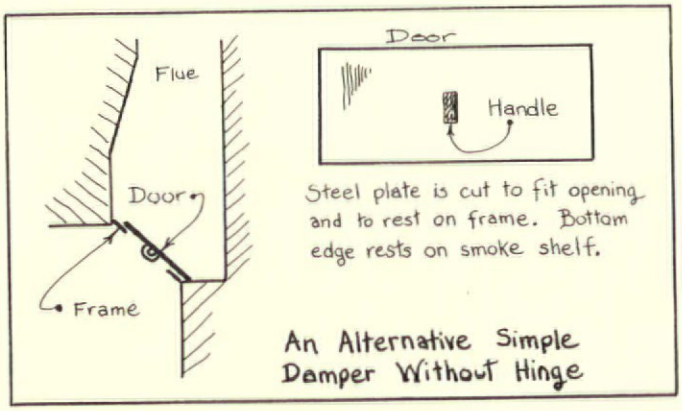
DANGER: Wood Fires & Unlined Flues

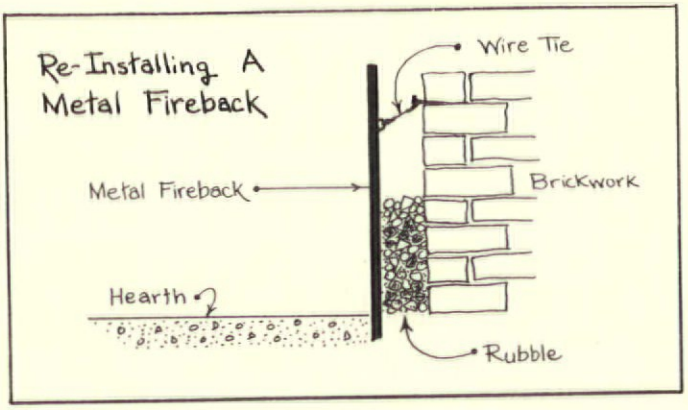
BUILDING A WOOD FIRE in a fireplace that has an old unlined flue is an invitation to a house fire. Often, the mortar in the old flues has eroded, providing many side exits for the combustion products. To make matters worse, sometimes old house builders rested wooden beams right in the chimney wall. These beams can be ignited by a stray spark.

WOOD FIRES are particularly hazardous because, in addition to sparks, the fire gives off soot and tar that can build up as deposits inside the flue—and which can suddenly ignite as a spectacular chimney fire. In a well-lined flue, a chimney fire can be harmless. But in an unlined flue, a chimney fire can easily spread to the rest of the house.

THE CHIMNEYS in many late 19th century houses were not lined—because they were meant only for gas logs or coal fires. These burn more cleanly than wood—and don't create the extensive deposits that a wood fire does. You could still use a gas log safely in an unlined flue. And a coal fire burning anthracite (hard coal) produces a clean flame. Cannel coal, however, tends to produce a lot of sparks.

THE PROPER LINING for old flues may be governed by your building code. Some localities insist upon tile linings for flues used with wood fires. Cost of a tile lining can run around $20-30 per ft. installed.





WHEN INSTALLING THE DAMPER of your choice, wrap the edges with fiberglass insulation. This fiberglass buffer will allow the steel damper to expand and contract without breaking the adjacent mortar. If you have to re-mortar areas around the damper, mix some fireclay with the mortar to increase its resistance to heat.

IF YOUR FIREBOX is still in good condition, you will probably need to do little more than tuckpoint the joints. Again, use fireclay.

IF YOUR FIREBOX has crumbled or is completely gone, begin the rebuilding by laying a level hearth. You can remove the existing hearth and lay a brick hearth, or pour a fresh slab of cement with a high sand and fireclay content over the existing rubble. A level hearth is the most important factor in building a neat, even firebox. (See The Journal, June 1976.)

USE FIREBRICK throughout the firebox. The joints should be as thin as you can make them —about 1/8 to 1/4 in. Allow the mortar to set at least three days before lighting any fires.

Installing A Mantel

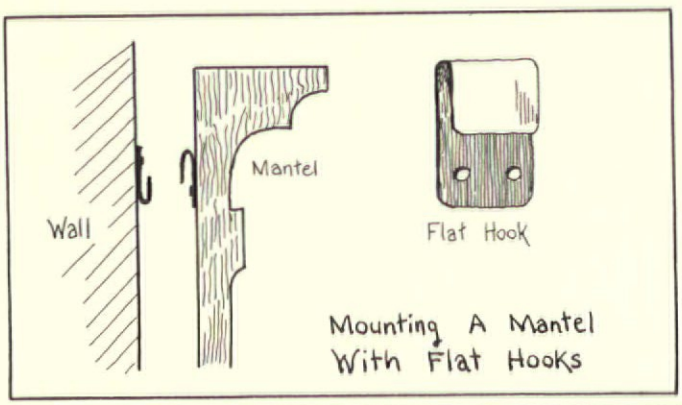
SHOULD THE MANTEL and the facing on the front of your fireplace be missing, you'll have to locate an appropriate mantel from an architectural antiques shop. After any refinishing, the mantel can be hung above the fireplace by securing two or three flat hooks to the wall and to the back of the mantel (see sketch below). You will need accurate measurements—and perhaps several tries—to position the hooks so that the mantel just touches the floor. Mantels can also be wired to the wall using heavy picture-hanging wire.

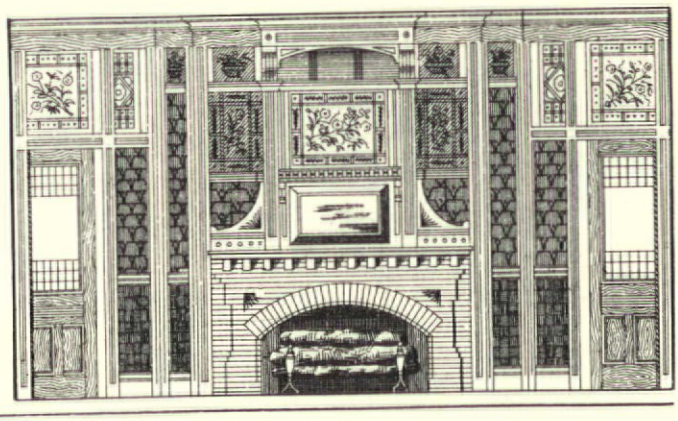
THE FIREPLACE FACING that covers the area between the fireplace opening and the mantel can be made of tile, marble or brick. Your taste, the size and shape of the mantel, your purse, and the original facing (if known) will all help you determine which facing to use. Bricks can be laid up with regular mortar. Most other facings can be applied using plaster of paris as a "glue."

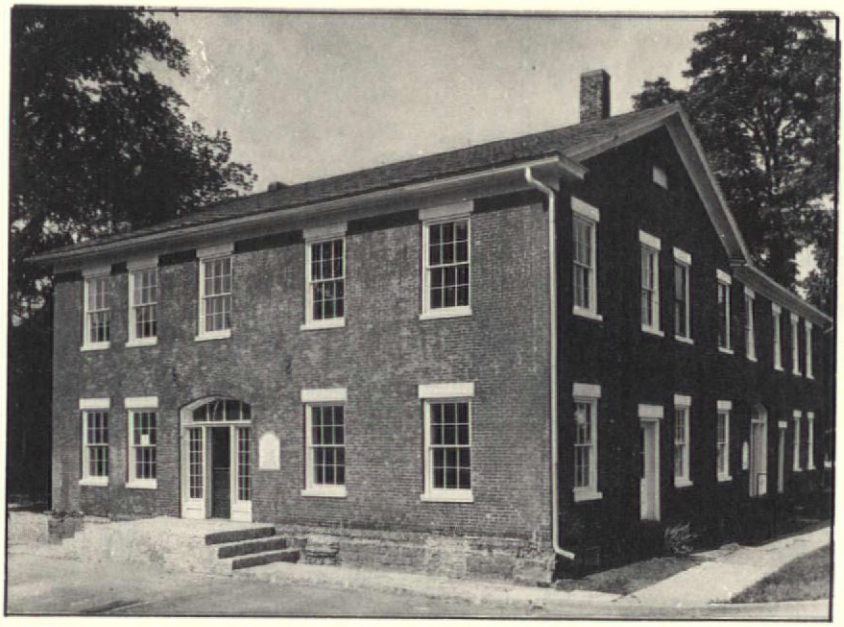
THE FACING SHOULD fit behind the mantel and behind the metal frame that surrounds the firebox opening. This is much easier than trying to butt the facing up against the frame and mantel.

IF YOUR FIREBOX was lined with metal firebacks and sides, they can be reinstalled in your renovated fireplace. Prop them in the desired position and wire them to masonry nails pounded into the surrounding walls. Fill behind them with rubble and pour a new concrete hearth around their base. ■■

Matt Huff owns and operates his own fireplace business—The Clean Sweep—in Wheaton, Ill. A man of many parts, Matt has a degree in economics and enjoys writing as well as wrestling with ornery flues.



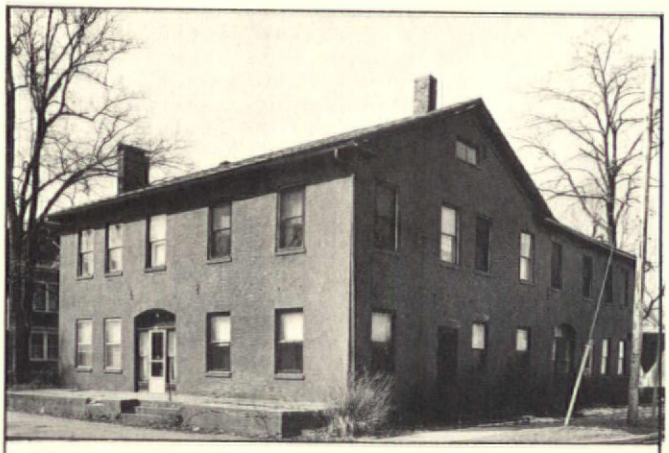




Restoration Is "Inn" In Marshall, Michigan

A DRAMATIC CONTRIBUTION to the city of Marshall, Michigan has been made by the restoration of the National House Inn. Marshall is a restoration-conscious area known for its many beautiful 19th century homes. The inn, built in 1835, only served as an inn for 44 years. It then became a factory—and was later converted to flats. It was in sad shape in January of 1976 when it became the property Mr. & Mrs. Harold Minick and Mr. & Mrs. Norman D. Kinny.

OVER THE YEARS, many of the building's original Greek Revival features had been obliterated. The exterior had an additional doorway cut into the wall. Four windows had been bricked up, but fortunately the stone lintels and sills had been left so re-opening them was not a major problem. All exterior surfaces had been sprayed with red barn paint including lintels, sills, and trim.



The National House Inn as it looked at the time of purchase in January, 1976.

TO RESTORE THE EXTERIOR appearance, a chemical pressure spray was used to remove the paint. The chemical stripper didn't remove 100%—but the little paint that remains will be allowed to weather away. Three original six-over-six windows were found in the building, so it was decided to replace all of the large one-over-ones with new sash that duplicated the original fenestration of the inn.

EXTENSIVE RESEARCH yielded nothing that could give an idea of the interior structure as it was in 1835. During its factory period it was thoroughly gutted and so practically nothing remained of the original woodwork, partitions, or other details. The ten foot ceilings had been lowered to eight feet by the installation of suspended acoustical tile ceilings. All floors were covered with asphalt tile. Many partitions and partial paritions had been erected to create rooms, hallways, and storage areas.

AFTER MUCH RESEARCH, study, and many visits to inns in various parts of the country, the two couples collaborated to recreate a 19th century inn. Hal Minick, an industrial designer, sat down at the drawing board and came forth with an 1835 inn, complete with a keeping room fireplace in the lobby. It's a fine example of "interpretive restoration"—work that has to be done without an exact model to follow.

THE FOUR THEN SET ABOUT TO CARRY OUT the plan. Ceilings were removed as well as the heating

The lobby and entrance to the dining room in its former condition.

Beams and fireplace have been added to the lobby for early 19th century effect.

and wiring that was discovered above the false ceilings, walls were torn down, tile scraped from the floors, wallpaper stripped from the walls, holes filled, doorways eliminated, doorways cut, etc.

AFTER THE TEARING DOWN process was completed the rebuilding process was begun. The wiring, heating, and plumbing were contracted. With the help of a carpenter and a mason who were expert craftsmen the long process of creating the National House Inn was underway. Walls went up, forming skeletons of new bedrooms and bathrooms. The huge fireplace in the lobby began to take form--with the bricks removed from the windows and several interior openings. New interior walls and all ceilings were plastered. Old walls were retained where possible or patched and sanded where necessary.

MANY LATE EVENING HOURS were spent going over decorating ideas and furniture selection and arrangements under the expert direction of Jacque Minick who is an interior decorator. The Kinneys and Minicks, along with several college students and local teachers on summer vacation, totally involved themselves in scraping, painting, papering, hauling, etc.

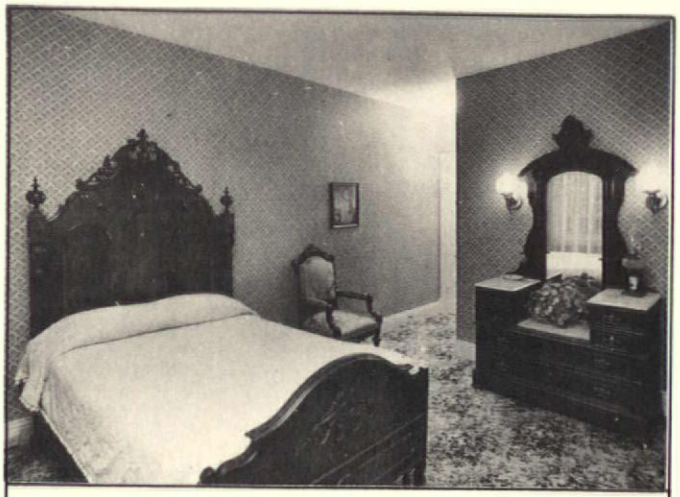
ALL PROCESSES seemed to overlap and intertwine during those several months from February to November. The first guests were welcomed the day before Thanksgiving with four guest rooms yet to be completed. The last one was finished exactly one year from the starting date of February 3, 1976.

THE INN WAS WELL RECEIVED by Marshall residents, many of whom donated their time and talents during the restoration process. The news of the National House spread rapidly throughout Michigan and the neighboring states.

GUESTS ARE GREETED in the winter by a roaring fireplace in the lobby with its old rough plank floor and hand-hewn beam ceiling. The check-in desk is the drygoods counter from Marshall's first general store owned by Chauncey Brewer whose lovely Italianate house is now the Minick home.

THE DINING ROOM where guests are served a complimentary continental breakfast is furnished with old tables of varying sizes and woods. Chairs are a mixture of pressed backs, arrow backs, and bentwoods. The walls are lined with pegboard shelves which hold an interesting collection of antique tin ware. The carpet is a copy of an early 19th century hooked rug. The chandeliers in this room and the lobby, along with the wall sconces which line the hallways, are replicas of early tin candle lights.

ALL FOURTEEN GUEST ROOMS, including the Victorian suite, are furnished in antiques covering the period of the first National House Inn. They range from country primitive to Victorian and are coordinated with reproduction wallpapers, paint colors, and lighting fixtures which were authentic to the period. Each room boasts a bath complete with a new "antique" marble sink. The way the sinks came into being is an especially interesting aspect of the restoration. Facing the almost impossible



Ketchum Room, named after Marshall's founder, is furnished with Victorian antiques.

Documentary wallpapers and painted woodwork give each bedroom a distinct personality.

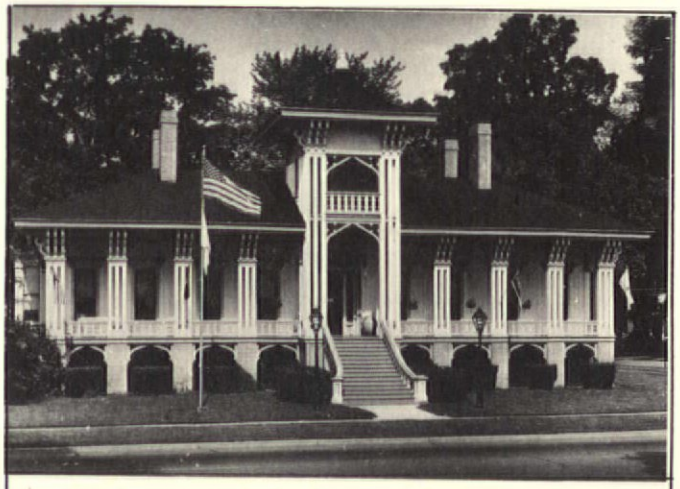
task of finding 17 antique sinks in good condition, the intrepid restorers located three old sinks that could be used as models. They then had molds made and had new sinks cast in cultured marble along the old lines. Sinks made from these same molds are now being sold (see The Journal, Nov. 1976, p. 12).

KATHRYN KINNEY ADDS, "As we moved through our restoration, the four of us made constant references to The Old-House Journal. In many ways it guided us through our project. When friends come to us with restoration quandries, we can usually produce an issue of OHJ to satisfy their needs."

THE MARSHALL HISTORICAL SOCIETY'S president, John J. Collins, is quite pleased with the restoration. "The Minicks and the Kinneys have made a truly dramatic contribution to our little city. The structure before the restoration was the one weak point on our Fountain Circle area. Less than a year later, it has not only ceased to be a weak link, it has become a social center for the community." Mr. Collins is so pleased with the Inn that he and Miss Susan Jones are having their wedding reception there on April 30.

MARSHALL, MICHIGAN is located very near Battle Creek and not too far from Kalamazoo and Ann Arbor. If you are planning to be in the area and would like to stay at the National House Inn, call or write Norm Kinney, Innkeeper, for details. The address is National House Inn, 102 South Parkview, Marshall, MI 49068. Telephone: (616) 781-7374.

One of the lovely 19th century homes in Marshall is this lovely Gothic Revival. Owned by the Macheks, they began its restoration by removing 30 yr. old shingles.



Built by Judge Pratt to remind him of his former residence in Honolulu, this unique building is now headquarters for the Marshall Historical Society.

Restoring Victorian Picture Frames

By Shirley Denison, Fairfax Station, Va.

VICTORIAN PICTURE FRAMES add a touch of elegance and grace to any room in the 19th century house. Flea markets and antique shops are experiencing an upsurge in searchers of "instant" ancestors. In many dusty attics are old, cracked, ornamental frames with corners chipped and ornamentation missing. Professional repairing and restoration is expensive. So, too often, the frames are either recommitted to the attic dust or the pictures removed and the frames discarded.

BUT RESTORATION of Victorian frames can be done relatively easily and inexpensively. It takes some patience and some hit and miss effort, but the materials are cheap. A few practice attempts can soon develop one's competence in repairing missing parts and restoring frames to their original color and brilliance.

ORNATE FRAMES WERE AN IMPORTANT part of the Victorian home. Whole walls were often covered with photographs, watercolors, oils, drawings--and the styles of the frames were as varied as the subject matter. But to duplicate in number the Victorian home hangings would be very expensive if mint-condition antique frames were purchased.

THE SECRET is to tread where most of us turn away. That is, take those broken or damaged frames from the attic and in only a few evenings restore them to the same quality of frames that hang in mansions. It's really not hard. If your attic is barren of frames, try flea markets, antique shops and second hand stores. Most shops have damaged frames that can be bought for a few dollars--far less than if in near-perfect condition.

MOST VICTORIAN picture frames are wooden, covered by a composition known as "gesso," which has been molded into a variety of ornamental patterns. In the passing of the decades, this "gesso" ornamentation dries out, shrinks and deteriorates from rough treatment. It's a rare frame that is unscathed.

SO, THE FIRST STEP is not to be deterred by the damaged appearance of the ornamentation. If the basic wooden frame is in good condition and not splintered or cracked, the foundation is secure for your rebuilding job. First renail any joints that have separated and brace where necessary so that the basic frame is structurally sound. Second, the frame should be vacuumed front and back, preferably outdoors. Lysol spray can be used if desired. A good dusting of the frame is preferable. Soap and water may be used, but scrubbing sometimes causes more ornamental pieces to come loose.

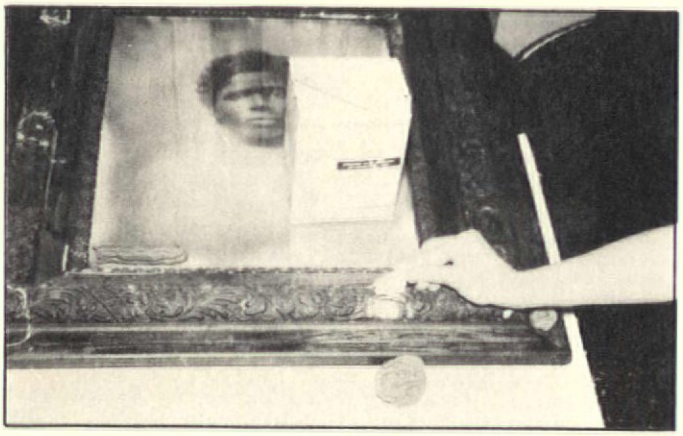
FOR YOUR FIRST EFFORT select a frame with only a few pieces of ornamentation missing. Frames repeat again and again the ornamental pattern, so find an area on the frame that duplicates that which is missing. For example, if the corner ornamentation is missing (which is often the case), one of the remaining three corners usually is intact.

TO DUPLICATE THAT CORNER--and all other areas--you must (1) make a mold, (2) pour a plaster compound into the mold and (3) place the casting into the broken area. The steps are relatively simple.

1. Using florist's clay (available at variety stores) knead in your hands sufficient clay to form a thin pancake-like amount that will cover the area to be molded. (Plastilene is too sticky for mold use.) Press your thin pancake of clay into the selected area, being sure the clay is forced into all crevices. Take a second piece of clay and knead into a much thicker pancake and place on top of first clay to give the mold rigidity and strength. Pull mold away carefully so as not to distort the pattern. If mold sticks and tears apart, dust the area with corn starch and try again.

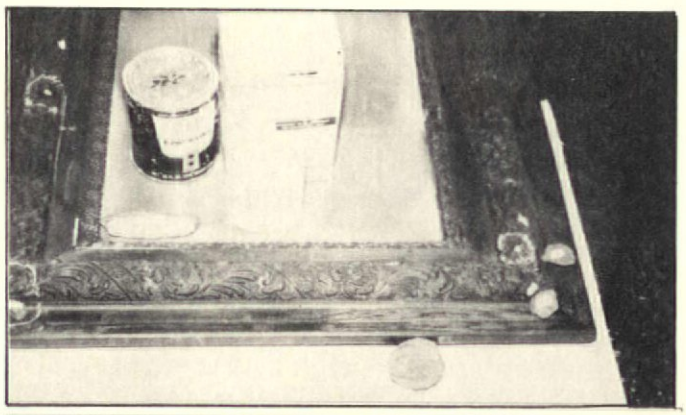
2. When you have achieved a satisfactory mold, set aside and check other areas of frame, making molds for each area that needs replacement of ornamentation.

3. Use Hydrocal plaster (available at art supply stores) to make your castings. It has a strength and hardness that ordinary plaster does not have. Mix by putting water in bowl (small plastic margarine bowls are ideal) first and then adding plaster until small islands form and the water is absorbed. Stir well, tapping out air bubbles. Pour plaster into molds, using a small brush to insure that all crevices are filled. Plaster will harden in about 15 min. but it is best to wait until all moisture has dried--small castings take an hour or two, larger ones should sit overnight. Once dry, work very slowly to roll the florist's clay away from the casting's edges. The florist's clay can be used over and over again.



4. Place the casting over the area to be repaired. Draw a pencil line on the casting where you want it to be trimmed to fit. Using an X-acto knife, serrated knife saw or coping saw, depending on the size of casting, make cut to fit. Sandpaper off the rough edges. Check height and trim bottom if necessary. Casting should not sit higher than surrounding area.

5. Before final seating of the casting, spread a coat of Elmer's Glue on a brush and coat the frame area and the back of the casting. This is very important. Unglued castings often come loose. Second, spread a coat of vinyl spackle into the repair area (vinyl spackle can be bought ready-mixed in hardware stores.) Once the spackle has been spread, set the casting in place, pushing down firmly so that the spackle beneath will rise up and around, filling the cracks and the adjoining areas. Wipe away the excess spackle and allow the repaired area to dry for a day.



6. Once dry, use an X-acto knife to trim away any ridges or imperfections. Follow with fine sandpaper on rough areas and joints. There may be other areas of the frame that need touching up with plaster. Gouges in flat areas, nicks and dents can be filled in with the spackle and sanded smooth when dry. With all the damaged areas now restored, the frame is ready for finishing.

DO NOT USE a bright gold spray paint for the finish--it gives a harsh and unnatural look. An antique finish can be achieved by using a furniture antiquing kit or by the following method.

FIRST, lay down a paint base of acrylic kitchen floor wax mixed with any water-based paint of black or brown color. 1/2 cup of half wax, half paint is sufficient for a large frame. Let this base coat dry. Then dip the tip of an artist's paint brush into clear acrylic floor wax and then into gold powder. Using dry brush technique, brush this combination lightly over the high spots of the area covered by the base paint.

SOMETIMES, as a change, you can use Treasure Gold, which is available in hardware and art supply stores. Take a small amount on the end of your finger and rub the compound over the areas to be highlighted. This is particularly useful if your repairs are few and the original finish of the "gesso" is still satisfactory.

IF PART OF THE FRAME is in natural wood--and many Victorian-era frames were alternately natural wood and ornamentation--the wood area usually needs only to be cleaned with turpentine or denatured alcohol and finished as furniture (two coats of a sealer such as Deft--rub with fine steel wool. Finish with two coats of paste wax.) The natural wood is to be left unpainted in all cases.

SOME FRAMES have very thin ornamentation. To develop eggshell-like molds and make castings for these requires different materials. Stay away from this sort of frustration. For easy restoration jobs, choose frames that have large ornamentation. For starters, don't attempt to restore frames where the wood underneath the "gesso" is broken. The major reconstruction needed is usually not worth the effort. If a key ornament is missing--at the frame apex for example--and there is nothing to duplicate it on the frame at hand, look around your home for an ornament that is of similar size and style. Ornamentation on tables, chairs, and other frames can be duplicated and transferred.

FINALLY, the hanging of the frame itself. The Victorian style was to set the eyelets halfway down the back of the frame. When strung and hung, the frames tilted away from the wall and looked down on the room, usually from high-ceilinged vantage. Today's style is to hang flush with the wall, so if you wish to hang them this way, put the eyelets only one-fourth down the back of the frames and string the wire with only slight slack.

Removing Stains From Masonry

By Theodore Prudon

STANDARD MASONRY CLEANERS generally remove only surface dirt and not stains. Most stain removal is done with the aid of a poultice. Poultices are also used when large amounts of water are undesirable as in interiors. A poultice is made by adding a solvent or chemical cleaning agent (or both) to water, into which an inert filler is stirred until the consistency of thick paste is achieved. The paste is then applied to the area to be cleaned.

THE INERT FILLER as an absorbent powder controls the rate of evaporation or reaction thereby giving the solvent or chemical cleaning agent the time to dissolve the stain. Upon evaporation or completion the solvent or cleaning agent is drawn out of the masonry into the absorbent powder together with the material that caused the stain. When the poultice is completely dried out, the powder with the stain material can be brushed off.

THE SELECTION OF THE CLEANING AGENT or solvent depends upon the type of stain to be removed. A variety of chemically inert fillers can be used as filler materials for the poultices. Essential is that they are finely divided, have a high absorbency value and do not react with the chemical cleaning agent selected. Used are, for instance, talc, whiting, Fuller's Earth, bentonite, powdered silica, etc.

PRIOR TO APPLICATION, excess staining material, such as tar, should be scraped off. Sometimes stains are pre-wetted with water to prevent too deep a penetration of the chemical cleaning agent. Apply the paste in layers not much thicker than one quarter inch. To prevent too quick an evaporation, the poultice can be covered with sheets of polyvinyl, taped against the wall. Poultice can be re-wetted. Once dried out, the powder or dry paste can be scraped or brushed off with bristle brushes and wooden paddles or other non-metallic implements. If not effective, the application can be repeated. The area cleaned should be rinsed thoroughly with clean water to remove any chemical residue.

THE PROBLEM WITH removing stains from masonry is similar to that of fabric. The area cleaned with a poultice will appear as a "clean spot" because not only the stain but also all other dirt will be removed, while the remaining area is still soiled. Exposure over a period of time reduces this quite quickly but the best solution is to remove the stains at the same time that the remainder of the masonry is to be cleaned.

Iron And Corrosion

MASONRY IS FREQUENTLY stained by the run-off of corrosion or rust from adjacent or embedded iron or steel. The removal of these stains is generally quite easy if the stain is not too deeply embedded. For light staining a solution of oxalic acid and water can be brushed or sprayed on. Solution is 1 lb. oxalic acid in one gallon of water or 1 to 10 parts by weight. A small amount of ammomium bifluoride is added to increase the effectiveness and speed of the removal. However, great care is necessary because the ammonium fluoride gives hydrofluoric acid, which etches acid-sensitive materials including brick or glazed terra cotta. A second application might be necessary if the stain is too deeply embedded. Upon completion the area is to be rinsed carefully with clean water to remove all chemical residue.

A second method, used for deeply embedded stains, involves the use of a poultice. Sodium or ammonium citrate, glycerine and warm water are mixed in the proportions 1:7:6. An inert filler such as whiting or kieselguhr (which is not easily available) is added to form a thick paste. The mixture is applied to the stained area and left to dry for several days till the poultice can be brushed or scraped off.

Lichens And Mosses

LICHENS AND MOSSES do grow on damp masonry, usually in shady locations or areas that are only sunlit for very short periods. Dampness of masonry can indicate problems in the masonry wall itself, although lack of moisture evaporation because of location is hard to remedy. Nevertheless these areas need watching. Lichens and mosses can be killed with a solution of zinc or magnesium silico fluoride (by weight, one part to forty parts of water.) A commercial weed killer can also be used with care. Household detergents or bleaches might also prove successful. If growth is a result of location and exposure, the problem is likely to recur. Green stains that do not respond are probably vanadium stains.

Copper And Iron Stains

STAINS FROM BRONZE AND COPPER are generally found as a result of the run-off from flashing, gutters, statuary and fasteners. Its removal is not too complicated. A mixture of one part ammonium chloride (sal ammoniac) and some 4 parts of talc or diatomite plus ammonium hydroxide or household ammonia is prepared till a thick paste is obtained. Placed upon the stain, this poultice is left to dry. The dried poultice can be scraped or brushed off with wooden or non-metallic tools. More than one application might be necessary before stain is removed. Upon completion the area is to be washed thoroughly with clean water.

Oil Stains

THE REMOVAL OF PETROLEUM and lubricating oil stains is not unlike the removal of asphalt stains. After the excess on the surface is removed by scrubbing with soap, scouring powder and trisodium phosphate, a poultice with a solvent can be used. Solvents generally recommended are carbon tetrachloride, trichlorethylene, benzol and others. Care is necessary and good ventilation is required indoors because solvents are highly volatile. A poultice with 5% sodium hydroxide (caustic soda) followed by scrubbing is also effective. However, use of these alkaline solutions can cause efflorescence after completion.

Asphalt And Tar

TAR AND ASPHALT stains, usually caused by sloppy or temporary roof repairs, are more difficult to remove and cannot always be totally cleaned. After the excess material is scraped off (taking care that the surface is not damaged) a poultice made of inert filler and solvent can be used. Solvents are one of the following hydrocarbons: Xylene, toluene, trichloroethylene or mineral spirits. The solvent strength varies as does the evaporation rate; when solvent strength is high so is the rate of evaporation. A too rapid evaporation might reduce the effectiveness. Trichloroethylene has high solvency, while mineral spirits have less dissolving power and slow evaporation rate but are quite readily available. Benzene has similar characteristics but extremely toxic requiring special precautions. Because most of these solvents are highly volatile, flammable and sometimes toxic, extreme care is necessary, especially when used inside. If an emulsified asphalt stain is encountered, repeated treatments with a poultice of diatomaceous earth and toluene or benzol might be necessary.

ASPHALT STAINS might not be able to be removed completely. The success will not only depend upon the depth to which it is pentrated, but also upon the surface texture. If the surface is textured, rough or has many small crevices, residual fragments do occur. However, the visual impact of the stain will be substantially less. Washing and scrubbing after the poultice application with a detergent or scouring powder is desirable.

Manganese And Vanadium

SOMETIMES BRICK CAN STAIN in a particular manner as a result of its composition. Manganese grey or brown brick sometimes stains as a result of the manganese used to color the brick. Generally it will occur on the mortar joints but also sometimes on the brick itself as brownish stains. It is difficult to remove and not soluble in hydrochloric acid, while sulfuric acid is much too strong. After the wall is wetted, a solution of acetic hydrogen peroxide solution can be brushed or sprayed on. The solution is composed of one part acetic acid (by volume of 80% or stronger), one part hydrogen peroxide (30-35%) and 6 parts of water. When all the stains have been removed, they can possible recur after a few days. Again they can be removed in the same manner.

VANADIUM STAINS on brick work are green, brownish-green or brown. They are frequently mistaken for organic growth of some sort. Its origins are not quite clear, but is usually attributed to impurities within the masonry itself or as a result of metal anchoring or support systems, which can contain vanadium alloys. The stains might sometimes occur after chemical cleaning. Washing with hydrochloric acid (muriatic acid) is detrimental because it fixes the stains rather than removing them and turns them brown. These stains can be removed with strong caustic soda solution which has to be left on the surface for some two or three days. It can be harmful to the brick masonry. Another possibility for removal is washing down with a solution of ethylene diamine tetra acid (EDTA) in one part to ten parts of water.

Theodore M. M. Prudon is a lecturer in Columbia University's Graduate Program for Restoration and Preservation of Historic Architecture. He is also a principal of Building Conservation Technology, Inc. in New York City.

THE FOLLOWING ITEM is offered without comment or endorsement. It is taken from the 1870 edition of "Dick's Encyclopedia of Practical Receipts & Processes."--Ed.

Red Wash for Bricks. To remove the green that gathers on bricks, pour over the bricks boiling water in which any vegetables (not greasy) have been boiled. Do this for a few days successively, and the green will disappear. For the red wash melt 1 ounce of glue in a gallon of water; while hot, put in a piece of alum the size of an egg, 1/2 pound Venetian red, and 1 pound Spanish brown. Try a little on the bricks, let it dry, and if too light add more red and brown; if too dark, put in more water.

Products For The Old House

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STENCILLING requires paint, time, imagination and a stencil. Megan Parry can supply you with all or some of the above. An old-fashioned itinerant stenciller, Megan will travel to your house to stencil a room. Her rate is $10/hr. plus transportation and lodging.

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Heat Gun For Stripping Paint

THE JOURNAL's readers who have tried all types of paint strippers seem almost unanimous in their opinion: When there is a lot of woodwork to strip, the easiest and most economical method is the electric heat gun. (See The Journal April 1976, p. 2.)

THE HEAT GUN, which resembles a large hair dryer, is used like a propane torch. The gun supplies an even heat, which softens the old paint. Paint can be removed in long sweeps with a scraping knife. Some cleanup with chemical remover is required—but it is far less messy and far less chemical is used than if chemical removers had been used to do the whole job.

COMPARED WITH a propane torch, the heat gun offers two basic advantages: (1) Heat is evenly distributed, so you don't get scorching that a torch can cause; (2) Because operating temperature is lower (500-700 F.) than a torch, there isn't the danger of lead poisoning from vaporized lead paint (see The Journal, May 1976 for full discussion of hazards).

THE MAJOR PROBLEM has just been finding heat guns. They are an industrial tool—and many readers report difficulty in finding a local source.

BECAUSE of this difficulty, The Journal's editors decided that we would make heat guns available directly to our readers. We found the heat gun that had the best record in paint-stripping applications, and made special arrangements with the manufacturer—Master Appliance Corp.

THE MASTER Heavy-Duty Heat Gun draws 14 amps at 120 v. It sells for $56.90—about as much as 6 gal. of paint remover. Price includes shipping via United Parcel Service. (Please give street address for UPS rather than P.O. Box number.) N.Y. State residents add applicable tax. Order from: The Old-House Journal, 199 Berkeley Place, Brooklyn, NY 11217.

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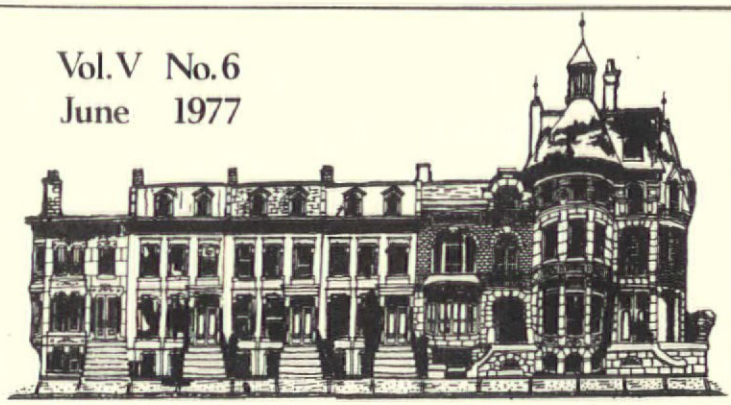
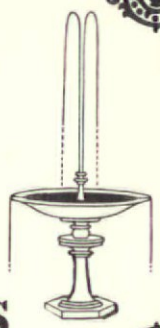
Renovation And Maintenance Ideas For The Antique House



Victorian Fountains And Urns



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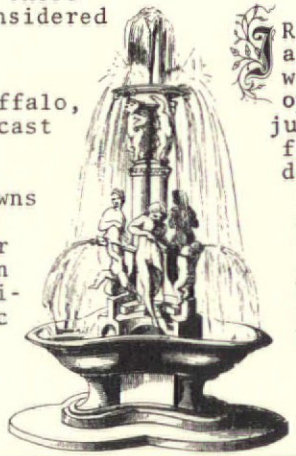
Coming Next Month

PRACTICAL HINTS FOR VICTORIAN DECORATION

By Tom H. Gerhardt

FROM MID-19th century until World War I, mass-produced cast iron supplied decorative beauty to the home and lawn. Used for fences, cresting, railings, columns, urns, statues, fountains, and lawn furniture, it was almost as common as the "molded-stone" garden ornaments that are available today... although far more durable and detailed. There was never as many fountains and urns as other works of art in cast iron and they seem to have had a higher mortality rate as they could be, and often were, easily removed and donated to scrap drives or sold to the dump. Therefore, the remaining ones should be considered prized possessions.

FOUNDRIES SUCH AS Mott, Walbridge (Buffalo, New York), and Fisk (Danbury, Conn.) cast these Victorian beauties and shipped them by train and boat throughout the country (Colorado's wealthy mining towns even had their share.) Major centers of production seemed to be located for the most part in the Northeast. Often sparking the interest of owners of private residences in such finery, public parks and streets boasted large examples of this iron art--decorative horsetroughs; man, dog and horse drinking fountains; and huge decorative fountains complete with life-size figures and smaller drinking fountains around the edges.



FOR TODAY'S VICTORIAN HOMEOWNER, iron urns and fountains are important elements of decoration that are often missing from the lawn or the conservatory, or are still present but in poor condition. On the other hand, they are often added to provide greater interest and authenticity for the Victorian house where the owner can find no evidence of this decorative art ever being present.

Iron Urns

IRON URNS WERE USED in greater proliferation than the fountains as the latter works of art took plumbing and water to operate. Being available in basically just a few styles, these urns were manufactured with square bases or with more decorative figured bases and were made in sections so that they could be taken apart and moved around very easily. For the most part, the pieces are interchangeable and usually starting with a base (of which the larger ones are made of separate iron panels held together by tie rods) the pedestal, water reservoir, and bowl with or without bolted-on handles (handles were optional and

(Continued on page 66)

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Refinishing Clinic...

Spots On Furniture And Woodwork

By Frank Broadnax, President
Broadnax Refinishing Products

HEAT OR MOISTURE can cause spots on furniture or woodwork. The cure for spotting conditions is the question I am asked most frequently on my lecture tours of the Southeast. In this column I'll review some of the specific problems I have run into.

FIRST OF ALL, about 98% of all furniture polishes contain wax...often beeswax. This is a soft substance—and subject to change by moisture. When condensation from cold glasses (or steam from hot cups of coffee) gets under the wax, it turns white. After the surface dries off, the white rings remain.

OTHER COMMON SOURCES of water that cause white spotting: Spilling water on a table while watering plants; water splashes from a sink that run down the front of a cabinet; mopping floors that gets water on the bottom of furniture or cabinets. I've even had a case where a person accidentally sprayed Lysol on a piece of furniture, causing the entire front to turn white.

REMEMBER: Water is wood's worst enemy! If water penetrates beyond the wax, the problem gets much worse—water turns wood black.

TO REMOVE WHITE SPOTS from waxed finishes, the easiest method I have found starts with a small piece of soft cotton cloth (old sheet, pillow case, undershirt or baby diaper). Moisten it by running water over the cloth—then squeeze out ALL excess water. Put a small amount of toothpaste on the damp cloth and rub the spot. Use one of the old brands such as Colgate, Ipana, Pepsodent, etc., that contain a fine pumice abrasive. (Modern brands like Gleem don't contain abrasives—and thus are useless for this job.)

USE THE INDEX FINGER to provide pressure as you rub the spot. The whitened wax will come off—leaving the rest of the finish untouched. Another mild abrasive that you might use is cigar or cigarette ashes. Mix with some mayonnaise to form a paste. Rub this on the white spot with the damp cloth.

IF YOU USE WAX POLISH on furniture or floors, I suggest removing the old wax at least once every 4-5 years with mineral spirits. Then if you must use wax, apply a fresh thin coat. Otherwise, you may generate a problem like the one I ran into recently in a Baptist Church here in Georgia. The church was threatened with a lawsuit because people were ruining their clothing when they sat in the pews.

THE CHURCH-GOERS were bogging down in 50 years of wax polish—and upon rising they were taking some of the wax with them. A local refinisher had given them an estimate of $3,000 to refinish the pews. I showed them how stripping off the old wax with mineral spirits could achieve the same results. One gallon of mineral spirits, along with some #0000 steel wool and 8 working hours for the janitor solved the problem!

WHITE SPOTS can also occur on clear finishes that don't have any wax on them. Often these can be taken care of by applying a thin coat of lemon oil (or our Broadnax Wood Preservative) with a soft cotton cloth. If the finish is gummy, you might want to apply the oil with #0000 steel wool—rubbing very lightly so as not to damage the finish.

I HAVE BEEN CALLED IN to give estimates on refinishing kitchen cabinets and panelling—when all that was needed to restore this woodwork was lemon oil or our wood preservative. A dried, bleached, whitish appearance can usually be fixed with a $2.00 bottle of lemon oil preservative—quite a saving over a $1,500 restoration fee.

RATHER THAN WAXING, I recommend applying lemon oil or our Broadnax Wood Preservative once a year. It keeps the wood from drying out, keeps the wood looking good—and helps keep the moisture OUT.

Editor's Note: Free information about the Broadnax wood preservative can be obtained by sending a stamped, self-addressed envelope to: Frank Broadnax, P.O. Box 196, Ila, GA 30647.

NEXT MONTH: What To Do About Black Spots.

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Old-House Living...

A Greek Revival Phoenix

By Meg Houser

FIRE IS A TERRIBLE WORD if you own and love an old house. Our house was built of the wood from its own land, between 1809 and 1822, and was a fine example of the transition from Federal to Greek Revival architecture. So it wasn't just the place of our happiest memories; it was our proudest possession. When we had to move to Iowa in 1972, we put caretaker tenants in it. Alas, in December 1975 it burned, a few months after our second set of tenants moved in.

WE WERE TOLD THAT the house was a total loss. We drove back East immediately, and found the house roofless and gutted--in ruins. We stayed several days, saying goodbye to it.

ON THE FINAL DAY I was sitting in the car, looking my last at the house's beautiful front, with its stately Federal pilasters and elegantly detailed doorway. I suddenly realized what I should have seen the first day--that many of the things we loved best about the house were still there.

THE PEDIMENT WAS DAMAGED, its oval window with the delicate lead tracery gone, the applied Greek Key motif in the freize gone; but the facade below it was almost intact. And, inside, you could walk around in the parlor and front hall; their floors, and the joists under them, were untouched. The inside shutters and panelling and some of the old glass in the parlor windows were still there, though the paint was blistered.

After the fire, not much more than the facade was left. All of the windows with the shutters remaining were saved.

THE MANTELPIECE WAS SMOKY but undamaged. There was good wood under the blackened paint of the hall stairs. The beautiful cherry banister was charred and twisted but the applied scroll-sawn decorations that ascended with the stair were there, though the elliptical ceiling with its concentric mouldings was gone, as was the curving wall. In the big bedroom over the parlor the floorboards were all right, and so were the mantelpiece, the door and frame, and some of the window enframements—though these things, like the stair hall, stood under the open sky. Some of the exterior walls still stood, and the chimneys, and a few interior partitions.

I BEGAN TO FEEL a wild hope, that the house could be rebuilt.

WHEN WE GOT BACK to Iowa I telephoned a builder who had previously worked on the house, and asked him to go over and look at it. He called back to say it couldn't be saved. Even the rooms that appeared relatively undamaged had been fatally charred within the walls, he said; the stairs could never be made safe; the first wind would take down the facade. He urged us to forget our crazy idea.

A RESPECTED RESTORATION BUILDER told us the same thing, and worse, a few weeks later. Other builders refused to bid. Still other builders promised to bid, or even said they had bid, and then the bids never came. Every builder or architect who went to look at the house thought we were kidding. It was an impossible situation, trying to rebuild a ruin from a thousand miles away.

THEN MY BROTHER in Washington told me to call the New York State Parks Department, because they know about preserving old houses. The Parks Department told me to call The Landmark Society of Western New York, in Rochester.

THE FIRST PERSON I TALKED TO at The Landmark Society was Mrs. Elizabeth Stewart. She gave me immediate comfort, encouragement and advice. And then she told Mrs. Patrick Harrington, the Society's Executive Director, about our house and what had happened to it. It was Mrs. Harrington and The Landmark Society, in the purest altruism I have ever witnessed in a long life, who made it possible to rebuild our house; out of their generosity of spirit and their skill and experience, they made it happen.

MRS. STEWART SUGGESTED that I telephone the famous preservation architect, Carl F. Schmidt. Mr. Schmidt was immediately kind, saying he would go and look at the house even though it was 60 miles away. After he saw it, he said that much of it could be salvaged, but the cost would be prohibitive --$100,000 to $150,000. We had $28,000 from the insurance; $25,000 after the rest of the existing mortgage was paid.

AS FAR AS I KNOW it is not possible to insure an old house for anything like its value or replacement cost, at least not in that part of New York, where there are still dozens of fine Greek Revival and Federal houses standing, not particularly appreciated. Insurance companies look skeptically at any attempt to insure a house like ours against the loss of its architectural and historical value.

IT WAS PAINFUL to have our loved house turned into a replica of itself. But it was much more painful to lose it all. So we began to ask banks to give us a mortgage. We thought we could rebuild the main block for about $60,000 if we did all the detailed restoration ourselves. We then began the search for a builder.

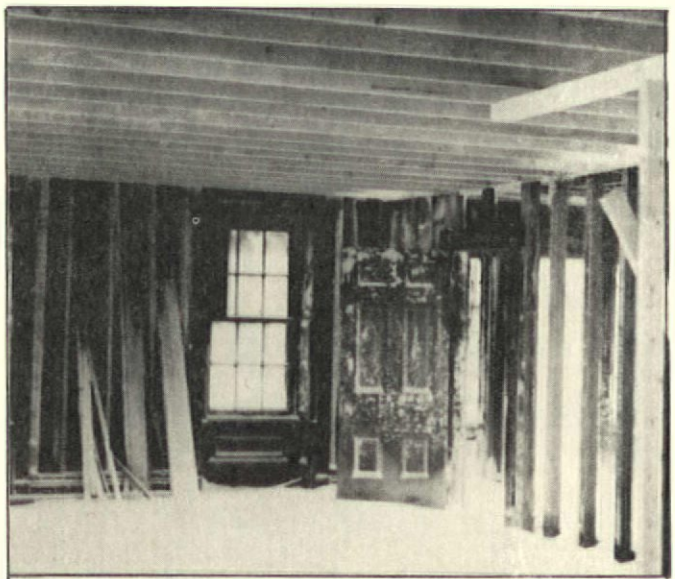
WHEN IT HAD BECOME CLEAR that only a small part of the house could be saved, Mrs. Harrington asked two young men finishing their doctoral work in History of Architecture at Cornell to look at the house and make a report to the Society. The two men, Carl Stearns and Kevin Harrington, agreed that the house had had architectural merit, and Kevin Harrington said that the facade alone was worth every effort to save it.

WE WAVERED NO LONGER. We had been entrusted with a beautiful thing. It had been destroyed while under our care, and we had an obligation to save what we could of it. Elaine Harrington kept urging us to look at a badly-burned Federal house being restored in Ithaca by a young builder she and Kevin knew about. We resisted; we had tried so many builders. One day we did walk by the house and as a result, the builder promised to come look at our house.

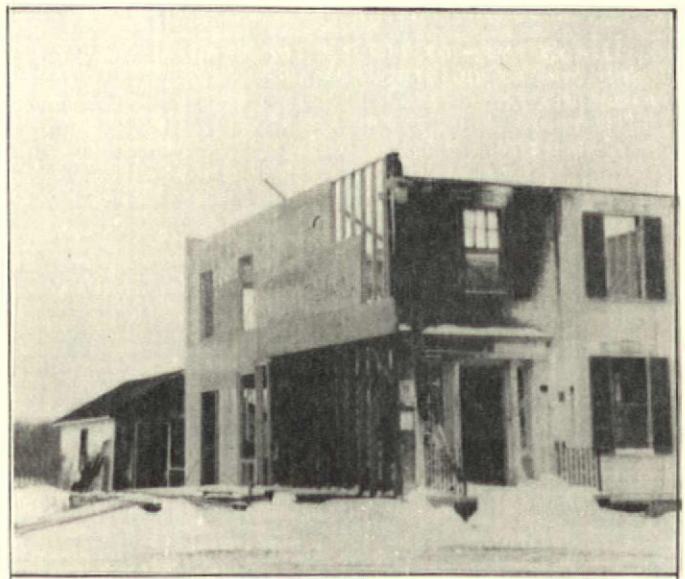
HE CAME THE NEXT SATURDAY, July 3, 1976, the day before we had to leave for Iowa. Alexander Ardwin (Sandy) said he could save most of the front two rooms, and some of the bedroom over them, and of course the facade and probably the front door and pediment. And he could begin work at once. We were filled with joy, and we still are.

WHEN WE GOT BACK to Iowa, the last bank turned us down, but what did we care? Sandy Ardwin was going to save a third of the main block of our house. We asked Sandy what he would do for $28,000 to $30,000. He said he would demolish the ruined part of the house, carefully removing or leaving in place what could be used. He would build a new house, an almost exact replica--except for the sad fact that it would no longer be a timber-framed house but a modern balloon-frame.

THE NEW HOUSE would enclose and preserve most of the two main rooms and some of the bedroom above, and would preserve the facade.



Parlor, in the midst of re-creation, with inside shutters and panelling left in place and new joists for upstairs bedroom floor. Parlor floor is under snow.



The house now shows the rebuilt portion, with the pediment removed for copying and salvage. The heavy bracing and studding is original.

HE WOULD REPLACE THE PEDIMENT, though we would have to manage the window and window grille and the original and copied mouldings. He would build a new main chimney. He would re-create the oval ceiling and the curving stairwall of the front hall. He would build a one-storey, somewhat shorter kitchen wing, which Kevin had told us was its original form. (The second storey of the wing, dating only from about 1900, was not in scale with the rest of the house, in any case.) He would put in a new bathroom downstairs, and side and roof the whole house, providing subfloors and the studding for bearing partitions.

THIS WAS ALL WE HAD HOPED FOR. Now, work on our house is going on.

THE DEMOLITION was done with great care and skill. Before and during it Kevin Harrington and Martha Gates carefully photographed the structure for documentation, and the mouldings for copying. Also, Mrs. Gates copied all the mouldings with a moulding comb. The pediment was removed and the bricks stored, to be used as material for paths in a projected formal garden, like the one in the February 1977 issue of The Old-House Journal.

THE ORIGINAL STUDDING in two partitions was saved, and the old wide boards in all three rooms. The joists under the big bedroom had to be replaced, not because of the fire but because they sagged dangerously, even before the fire. The mantelpieces were removed and carefully stored, and the frames of windows and doors remain in place, in the front of the parlor and in the hall. Other window frames were removed and will be put back into the new walls. The walls are up to the top of the second floor, though the snows came before the roof could go on.

THIS SUMMER we will, ourselves, paint the exterior and repair the damaged pilaster and shutters. We will have a new oval window put in the pediment; the window grille will be copied from our photograph and re-created, in pewter-finish iron, by a firm we found in The Old-House Journal Buyers' Guide: Steve Kayne Hand Forged Hardware in Smithtown, N. Y.

STEVE KAYNE will also be able to duplicate our 5 in. brass front door key, once we remove our lock and send it to him. E. N. Pfaff and Sons, near us in Horseheads, New York, will duplicate the Greek Key moulding that frames the pediment, from a piece we still have. Using these new parts, we hope my husband will be able to restore the pediment and the facade in detail, under the supervision of Martha Gates.

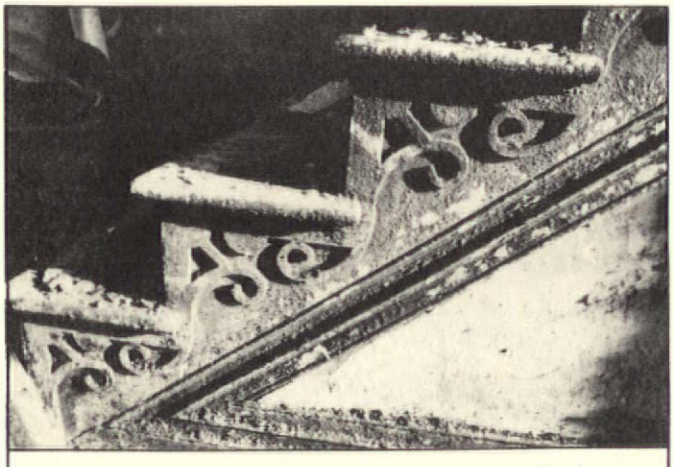
ON THE INSIDE OF THE HOUSE, we will scrape off all the charred paint, using the instructions in "Restoration and Preservation," Carl Schmidt's new book. ($24.50, plus tax and postage, from Mr. Schmidt in Scottsville, N.Y.) We will plane the surfaces smooth; Mr. Schmidt feels that sandpaper raises the grain and thus dulls the wood. We'll repair with putty the damaged medallions at the corners of door and window frames. We hope to remove the modern front steps and put suitable wooden ones there.

WE WILL DECORATE in the 1810-1820 style, using Mr. Schmidt's fascinating book, which describes in detail just how those houses were painted and papered, and in what colors--even how to make the paint! We'll be advised by Kevin and Elaine Harrington, and we'll use the household inventories for that house, found by Kevin as he documented its history. When we put the described rag rug in the kitchen, or aspire to the Brussels carpet once used in the hall, we will feel the resonance of the house's past.

WE WILL NEVER PRETEND that the replica part is original, but we will try to make the combination of replica and real into a beautiful, harmonious and satisfying new entity.

BY THE END OF THE SUMMER the five main rooms will be done, and then we're going to have a wedding! Our second daughter and her fiance are waiting for the house, to be married in. And so a joyous celebration will begin a new life for our phoenix house.

(Photos by Martha Gates and Kevin Harrington)



The Housers are hoping that some of these charred decorations can be duplicated.

The original house as it looked in December 1959, the day the Housers moved in.

An iron octagon-shaped aquarium with plant brackets, the familiar seahorse base, and a less-familiar small umbrella boy spraying water made the long Michigan winters more pleasant in the tiled conservatory of the Edward Buckley residence, Manistee. The conservatory remains with only a cement patch in the tile floor where this beautiful aquarium-fountain once stood. (Photograph courtesy of the Manistee County Historical Museum.)

(FOUNTAINS AND URNS--Cont'd from page 61)

if present at one time are often missing) are all stacked together without being bolted. The dead weight prevents them from being turned over by the wind; however, they are still vulnerable to the thrust of vandals.

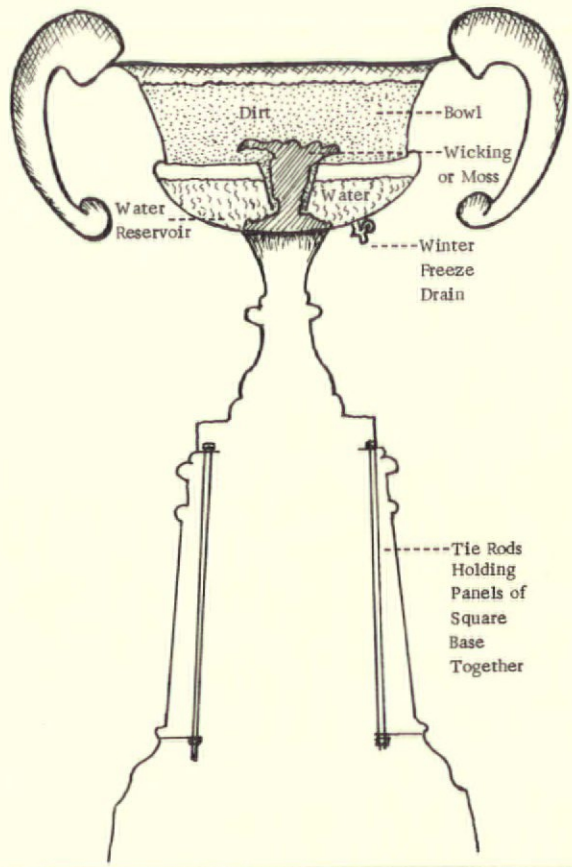
THE IRON URNS are often used on balustrades near the house, along driveways, or just out in the center of the yard. In the house, the smaller versions can be used in the conservatory or plant room. When iron urns are placed on the lawn, a concrete pad should be provided so that the hollow base does not start sinking to one side; and when they are placed indoors, a heavy wooden pad with casters makes it easy to roll them around.

THE WATER RESERVOIR is often the least understood part of these urns. It is the pan that receives the bowl where the flowers are planted. And in the bottom of the bowl, there is usually a funnel-shaped opening that extends downward into the water reservoir. This is where wicking or moss is placed so that the bowl is to some extent self-watering when the water reservoir is kept filled with water. If the urn is left out during the winter it is a good idea to place a drain in this reservoir to prevent it from filling with water and breaking. If a drain is not already present, a hole drilled at the lowest point and tapped eighth-inch pipe threads can be equipped with a pet cock to be opened in the winter.

WITH PLANTS AND FLOWERS selected according to geographical location, these urns are beautiful when filled with appropriate and compatible plants that seem to spray upward and overflow downward like a fountain. Plants such as the spike (Dracaenas Indivisa), that grows quite large if taken in during the winter year after year, as well as fern, caladium, geranium and coleus provide height. Variegated Vinca and wandering Jew trail downward.

DUSTY MILLER (a plant that has now escaped to the roadsides) provides a complete variation in color with its grayish-white lacelike leaves. There are really all sorts of possibilities in planting urns that provide a very artistic and Victorian effect.

DIAGRAM OF BOWL, WATER RESERVOIR, PEDESTAL, AND BASE OF IRON URN



Iron Fountains

ALTHOUGH THE IRON DECORATIVE FOUNTAIN is a more complicated embellishment to the Victorian setting, nothing can duplicate a certain restful, peaceful, and yet mysterious feeling found in the sound of a fountain's falling water or can imitate the glistening spray that sparkles in the sunlight.

THE CAST IRON FOUNTAIN was the first type to be mass produced. Available with its own iron pool, it eliminated the use of dirt ponds or lead tanks and was often installed by homeowners as a most pretentious symbol of elegance in celebration of the completion of a town's waterworks.

IN ADDITION TO its presence on the lawn, it was often used inside the house (often in the form of a large aquarium) in a bay window or a conservatory to hasten away the gloom of fall and winter by providing the sounds and delights of spring and summer through those bleak seasons of the year.

HOWEVER, because of the rising costs of water (in the beginning it was sold at cheap, flat rates based on the number of fountains, hydrants, cocks, and water closets) and the difficulty of maintenance caused by a lack of knowledge along these lines, many iron fountains were allowed to go dry, fell in poor repair, and were removed. Therefore, the few remaining ones or pieces and parts are highly prized today as ornamentation for the Victorian home. The availability of small electric pumps that consume little energy has provided a method of making them workable one more without such a great expense in water.

Fountains for the Lawn

BASICALLY, the iron fountains include: (1) A central section with one, two or three spills (bowls where the water runs over the edges) that are stacked together like the urns and are often surmounted by a small iron or lead statue, (2) A large iron or lead statue on a low base. The central section is often surrounded by a round iron basin or concrete basin with a sculptured edge. The weight of course is terrific--a three-spill fountain, 8 ft., 2 in. high with a 7 ft., 6 in. iron basin costing $215 (painted) and $235 (bronzed) in 1909 from N. O. Nelson Manufacturing Company weighed 1,400 lbs. When having the iron basin on the Onekama, Michigan, Village Park fountain moved for repairs after being damaged by an automobile, the author found it necessary to find seven men to lift it onto a truck.

This fine example of a residential fountain is located in Anna, Illinois, and through repairs could run once more. It shows the typical cement basin that some of the iron fountains were constructed with.

THE ELABORATE AND WHIMSICAL DECORATIVE motifs of the different foundries for these fountains follow the same patterns with most parts being interchangeable. The iron basins have an edge with frogs or turtles nestled in rocks among waterlily and/or ivy leaves (a rare version is the one that was at the D. W. Filer home, Manistee, Michigan--it had light bulbs popping up around the edge for nighttime viewing.) The pedestal under the first spill is the most ornate, commonly equipped with seahorses or cranes intertwined among cattails and arrowhead plants, or equipped with a fluted column decorated with lionheads and curling acanthus leaves.

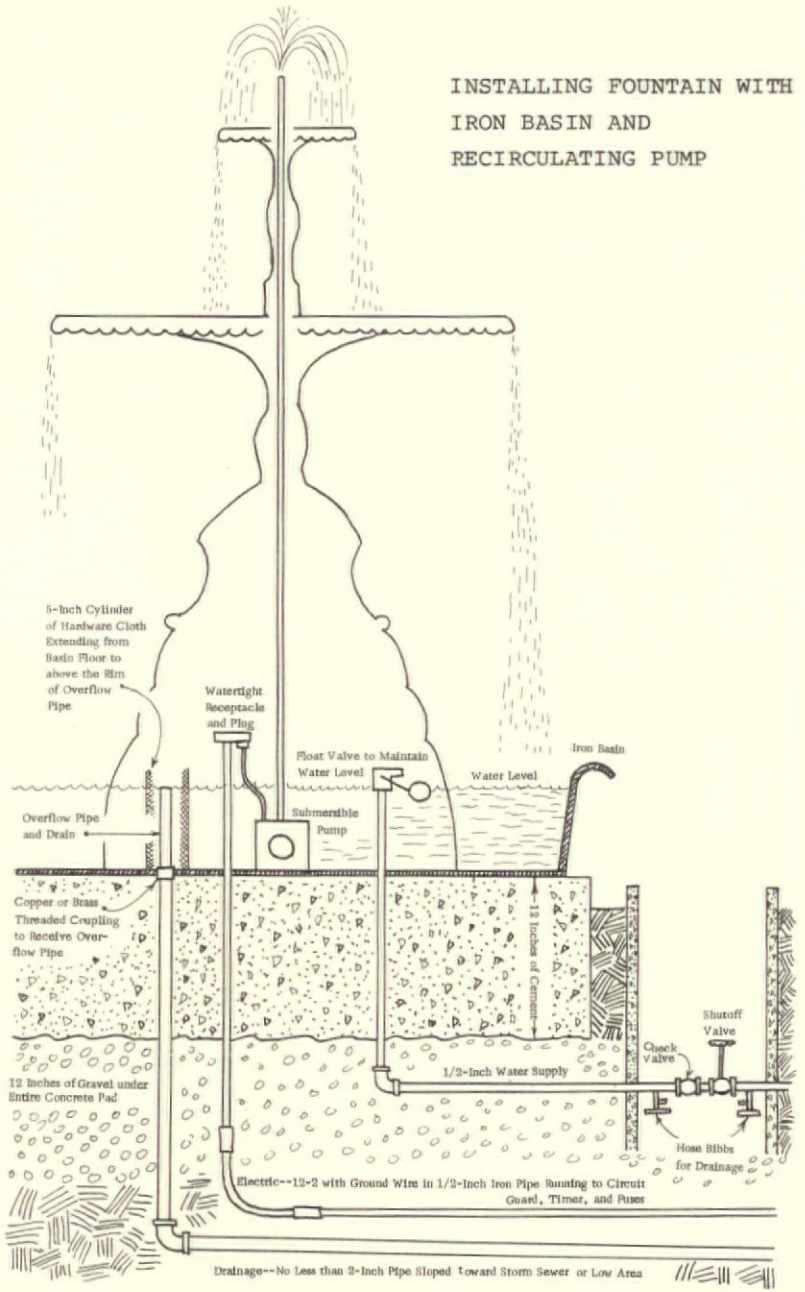
THE PEDESTALS UNDER the other spills are usually smaller and less ornate but compatible in design, and the spills themselves often have carved edges to vary the size and location of the drip with acanthus leaves spreading outward underneath from the central column. The statue (large if alone in the pool, small if on top of one or more spills) is of iron or lead depicting the Victorian imagination at its best in very interesting and detailed forms of time-honored favorites such as the boy and swan, the boy riding a dolphin, the umbrella boy, the boy with a serpent, the lady at the well, and the huge bird--all of which are usuall perched on a base of extremely intriguing iron or lead rocks.

IF THE IRON FOUNTAIN does have a statue, the spray usually emerges from the mouth of the featured beast, the top of the umbrella, or the jug; a ring of sprays might also be used at the statue's feet. For those fountains lacking a statue, a ring of sprays or a single spray sometimes placed in the middle of two or three iron leaves and flowers in the top spill provides bubbling action.

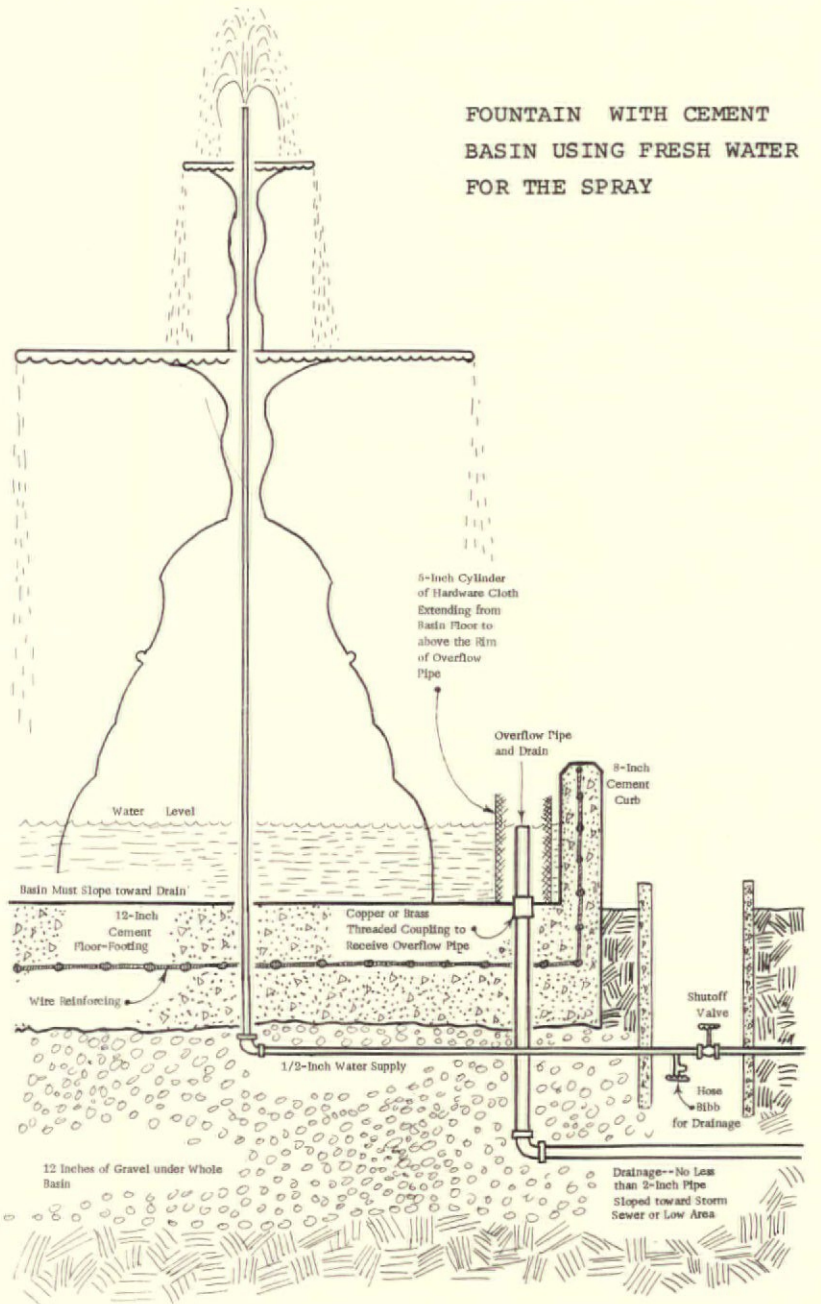
BASICALLY, THE SPRAY IS supplied by a central pipe that in reality also holds the stacked-up parts together. Then, usually under the base of these central parts out in the basin, is the overflow pipe that carries the water off so that it does not spill out over the edge of the basin. It is typical that this overflow pipe may be unscrewed from its socket in the basin floor to drain all of the water out of the basin. A valve on the supply line is often located in the yard or under the central base to turn the water on and off.

THE ACCOMPANYING DIAGRAMS show piping for using the fountain with fresh running water and for the addition of a small electric pump to recirculate the water through the fountain. Especially in the smaller basin that contains a fountain using a pump, it is important to install a float valve on the water supply to maintain the water level as the water splashes out and evaporates.

INSTALLING FOUNTAIN WITH IRON BASIN AND RECIRCULATING PUMP



FOUNTAIN WITH CEMENT BASIN USING FRESH WATER FOR THE SPRAY



IF NEW PIPING IS REQUIRED in restoring a fountain, copper or red brass piping are the most desirable. Adequate provision must be made for draining the supply piping so that winter frost damage will not occur. Regardless of the piping used, a copper or red brass fitting is a must for the socket in which the overflow pipe is screwed as these threads will quickly rust out when the overflow pipe is left out to keep the pool drained in the wintertime. And the larger the drain line, the better. It is much easier to wash out a pool where the drain is large enough to carry out small bits of debris without clogging.

IN RE-SETTING AN IRON BASIN, a level concrete pad should be built as a foundation; then, the iron basin is placed (above ground level) on this pad using a seal of wet cement beneath the basin floor to seal around pipe openings and to adhere the basin to the pad. A level should be used in checking the basin and spills at all times to avoid the one-sided or unlevel-dish effect of a leaning fountain.

DUE TO THE UNAVAILABILITY of cement and the difficulties in forming and working it, cement basins for iron fountains were not usually used unless the desired pool size and/or depth exceeded dimensions offered in iron. Larger fountains in parks often have the hexagon or octagon shaped cement basin combined with an iron coping that was supplied by the manufacturer; however, the smaller residential fountans usually have a round cement basin that has a cement curb as well, when cement was substituted for the iron basin. The edges of the curb are usually simple and still can be formed by adding wooden mouldings in circular forms built with well-supported flexible sheets of wood. The author has never seen brick used originally as a coping around these basins, although several instances of sculptured sandstone coping have been evident.

Color scheme of dark green with white accents this unusual ramhead fountain on the lawn of the Hamill House in Georgetown, Colorado. Iron leaves and flowers ornament the spray on the top spill while small iron flowerpots adorn the edge of the basin.

IN THIS UNDERTAKING OF CEMENT WORK, it is important to follow the information given in the diagrams in order to avoid frost damage. The mixture for the cement should be no leaner than four parts sand, two parts cement, and one part gravel. After the forms are removed, the surfaces can be troweled and broomed. The finish should not be real slick as algae forming on the wet surfaces makes them as slick as smooth ice and very dangerous when cleaning the basin.

THE IRON BASINS are usually not more than 8 in. deep and are very safe for children. However, they may be used for a few goldfish in the summer and such water plants as water hyacinth (which produces beautiful purple bloom spikes) and parrot's feather. If one desires to grow waterlilies, water irises, or arrowheads in a fountain, the basin must be a large concrete one with a depth of not under 24 in. Generally, the water garden is kept to a minimum in a basin with an active fountain, as most of these plants do not like to be kept wet on top and do not like currents of rushing water around them. Also, a water garden must receive at least partial sunlight.

THE PLANTINGS AROUND THE FOUNTAIN should be compatible with water as the area is usually kept wet by the wind blowing the spray. Ivy is excellent around the basin.

MAINTENANCE OF THE IRON FOUNTAIN will require cleaning of the basin more often if re-circulated water is used. Algae (green water), which forms from the bottom of the basin will always be a problem unless fresh water is added continuously. The author has found that the only real solution to this algae is to place in the basin the oxygenating plant water-milfoil or Myriophyllum that shades the basin floor and prevents the formation of algae. The problem of mosquitos should not be evident in the fountain basin that has fresh water and fish.

WINTER AND FREEZING TEMPERATURES must bring the draining of all fountain parts and the basin (unless it is a deep one in which logs should be placed to prevent the breaking of the cement by the freezing of the water) and the covering with canvas of the spills and statue.

The second part of Tom H. Gerhardt's article on Victorian Cast Iron Fountains and Urns will appear in the July 1977 issue of The Old-House Journal. It will discuss fountains for the conservatory and give sources for garden ornament.

Preparing To Paint

By Clem Labine

FEW PEOPLE REALIZE that, in painting, the actual application of paint is the easiest—and in many ways the least important—part of a paint job. Proper surface preparation is EVERYTHING. In old houses, you can easily spend 4-8 hours or more in preparation for every hour that will be spent actually painting.

BEFORE PLUNGING into preparation for painting, however, ask yourself the basic question: Is repainting really needed? Or will just a thorough cleaning (and maybe some touch-up) suffice? Too often, people lay on a new coat of paint rather than cleaning. But repainting year after year has two serious drawbacks: (1) Thick paint layers blur detail in woodwork and ornamental plaster; (2) Heavy paint layers create lumpy surfaces and increase the likelihood of alligatoring and other paint problems.

A CLEANING SOLUTION of Soilax (or similar non-rinse soap powder) can provide an amazing rejuvenation of old paint. And since old painted work should be washed free of dirt and grime before repainting anyway, you can delay a final decision until the cleaning step is completed.

IF THERE IS WALLPAPER on the wall—painted or unpainted—you're best advised to strip it off. Wallpaper that is tightly bonded to the wall can be painted—but it doesn't look as good as paint on flat plaster. Also, the paper can always come loose at a later date—ruining the whole paint job. (See The Journal, Sept. 1975, p. 10, for tips on removing wallpaper.)

The Calcimine Factor

BEFORE 1940, calcimine paint was widely used on ceilings (and sometimes walls) to avoid problems of paint build-up. Calcimine—essentially a tinted chalk in a weak glue—was meant to be washed off before a new coating was applied. That way, you always had only a single layer of paint on top of your plasterwork, and all outlines were crisp and sharp.

WHEN OIL-BASED PAINTS began to replace calcimine, often these new paints were applied right on top of the old calcimine. This was a mistake. Over the years, the glue that holds the calcimine to the plaster weakens... and as it peels it takes all the other paint layers with it.

THERE ARE ONLY TWO WAYS to deal with chronic peeling caused by old calcimine:

(1) Allow the surface to continue peeling and touch it up periodically;

(2) Remove the calcimine and covering paint layers. Calcimine dissolves in water—but you'll have to use heat or chemicals to remove the water-impervious paint on top of the calcimine. Or use the steam process described in The Journal, May 1976, page 2.

IF YOU HAVE A SURFACE that is still covered with its original calcimine (you can tell by its solubility in hot water), be sure to wash it ALL off before painting. (The May 1976 article has tips on washing calcimine.)

Beware Of Alligators

THE MOST FRUSTRATING of paint problems is alligatoring—an over-all series of cracks in the old paint film. The cracks originate not in the plaster or woodwork below, but rather somewhere in the layers of paint on top. One common cause is applying a flat paint over varnish or glossy enamel.

ONCE ALLIGATORING is occurring, you can do only one of two things:

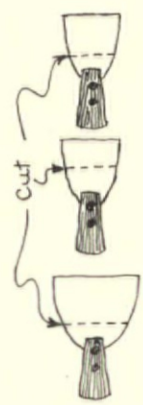
1. Treat the problem symptomatically by filling the cracks with spackle or joint compound. Recognize, however, that the alligatoring will probably show up again within a year;

2. Remove all the paint layers with a heat gun or chemicals and start all over again.

IF YOU ARE EVER painting over varnish or a glossy enamel, prevent future alligatoring by sanding thoroughly, or use a liquid deglosser.

Elbow Grease Needed

AFTER WASHING (and having determined to repaint), the next step is to thoroughly scrape all loose and flaking paint. This is a boring—but essential—part of the job. Proper scraping not only removes blemishes and loose material; it also calls your attention to cracks and loose plaster that will need more work.



IT'S AMAZING what a difference the proper scraper makes. Although there are many types on the market, most professional painters find that the best scraper is a homemade "short scraper." They take a good quality flexible scraper (such as a Russell or Warner) and have it cut down as per the sketches at the right. Best way to cut them is at a metal shop that has a sheet metal cutter. In a pinch, you could cut one with a hacksaw and straighten the edge with a grinding wheel or file. A file

is used during scraping to sharpen the scraper should it become dull. Professional painters usually have a number of short scrapers—cut to different lengths from different width blades. For the homeowner, a good all-purpose scraper can be made from a 4" flexible scraper cut so that about 2" of blade remains.

PROPER LIGHT is a great asset in the scraping and subsequent patching operations. Best way to get this is with an extension light fitted with a reflector. Hold the lamp in one hand and the scraper in the other. You'll be astounded at the imperfections that show up in the glare of your hand-held lamp that aren't noticeable in ordinary lighting conditions.

Loose Plaster

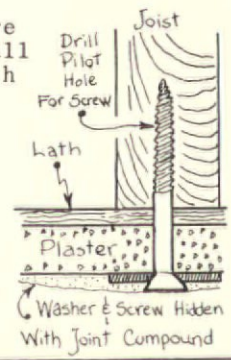
FTEN THE SCRAPING will turn up areas of loose plaster in walls or ceilings. In severe cases, the only solution is to remove all the old loose material and replaster or replace with sheetrock. But if the problem is localized, there are a couple of short-cut repairs.

PLASTER OF PARIS can be used to make a "key" to anchor the old plaster. Cut away the heart of the loose material, exposing the lath. Make sure that the lath is firmly attached to the studs. After thoroughly wetting the lath and surrounding plaster, trowel in a stiff mixture of plaster of paris—making sure that some of it oozes behind the lath strips. Trowel the plaster of paris firmly against the old plaster to obtain a good bond.

RUN A BOARD across the patch to make sure that none of the new wet plaster is higher than the surrounding surface. Much better too low than too high. Low spots can be filled in later with spackle or joint compound. If any plaster of paris gets on adjoining painted surfaces, sponge it off while wet—or else remove it after it is dry with your short scraper and coarse steel wool. Plaster does not adhere well to painted surfaces, so if you don't remove this slopover before painting, you run the risk of chipping at a later date.

BEWARE ESPECIALLY of ceilings that seem spongy to the touch. Lath nails can work loose from old dried joists. Or the plaster keys may have broken loose from the lath. In either case, loose plaster in a ceiling is just an accident (possibly fatal) waiting to happen.

IF INSPECTION SHOWS the lath are still secure to the joists, small loose areas can be repaired with plaster of paris keys as described above. If the lath is loose—or the area involved is several square feet—you can drill through the plaster with carbide bits, and secure the plaster with 2" washers held by 3" wood screws driven into the joists. The washers can be camouflaged by feathering out with several applications of joint compound. These anchors should be placed at about 18" intervals throughout the loose area.



Joint Compound: The Magic Material

O BRING OLD PLASTER SURFACES up to snuff for painting, many professionals rely heavily on joint compound (also called "wallboard compound," "taping cement," etc.) They use this in preference to commercial spackle. The advantages of joint compound: It has good adhesive properties (it will stick to paint); works smoothly and can be easily sanded when dry. The premixed joint compound, although more expensive than the powdered form, has better working properties and is worth the added cost.

JOINT COMPOUND is excellent for leveling imperfections in walls or ceilings...such as places where old paint has chipped out, cracks caused by alligatoring, etc. Used in conjunction with joint tape, it's also useful in covering structural cracks. When professional painters are preparing an old room that's in bad shape, very often every square inch will be gone over with a thin layer (or layers) of joint compound to even out all irregularities.

ONE DISADVANTAGE of joint compound is that it shrinks on drying. Thus if any build-up more than 1/32" is required, you should put the material on in several applications. Each coat should dry thoroughly before the next one is applied. Try to get the bulk of the material put on in the first application—and smooth it out as much as possible without fussing excessively. The subsequent coats...applied thin...will complete the smoothing of the patch.

THE WIDER THE AREA being worked, the wider the taping knife you should use. Some professionals have taping knives as wide as 12". For the homeowner, however, a 3", 5" and 6" knife should handle 99% of the situations you'll encounter.

FTER THE JOINT COMPOUND dries, it can be smoothed by sandpaper or "wet sanding" with a damp sponge. If you've worked carefully with the taping knife, however, the need for sanding should be minimal.

JOINT COMPOUND is highly absorptive of paint. Therefore, before the finish coat of paint is applied, all patches—both raw plaster and joint compound areas—should receive a coat of primer. The primer should be tinted the same color—or slightly darker—than the finish paint that will be used.

NEXT MONTH: The Best Way To Handle Cracks

SPECIAL THANKS for technical advice to Howard Zucker—a member for 31 years of the Brotherhood of Painters and Decorators.

Products For The Old House

Authentic Victorian Wallpapers

BECAUSE both editors and readers of The Journal have often bemoaned the lack of truly Victorian wallpapers today, we are especially pleased to discover this source for authentic and beautiful Victorian fabric and wallpaper.

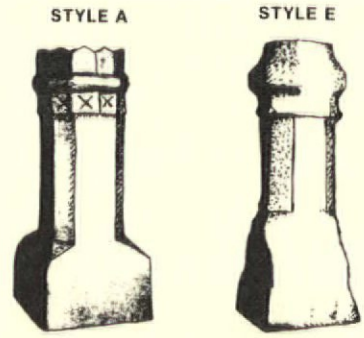
WATTS WALLPAPERS are very popular in England for restorations and several of the Pugin designs have been hung in the Houses of Parliament. (The paper shown at right is Pugin's Pineapple.) Still made from the original carved pear wood blocks, they are printed by hand in any combination of colors.

THE WATTS PRINTERS can copy a color from paint chips, a piece of fabric or carpet, etc. There is a minimum order of 10 rolls. Each roll is 21 in. wide and 11 yards long. The papers start at approx. $30 per roll; price increases according to the number of colors used and the size of the patterns printed. There is a three month delivery. A separate estimate is given for each order.

THE PATTERNS are by the famous Victorian Church and domestic interior designer, George Bodley, and some by the architect, Pugin. The designs reflect their interest in late Gothic art as well as Venetian and Florentine textiles. The patterns range from small-scale up to monumental size for public buildings.

WATTS & CO., one of Britain's leading Church furnishers, also offers a selection of genuine Victorian fabric which is excellent for upholstery.

A FASCINATING BROCHURE with photos of both fabric and wallpapers is available for $1.00. Address inquiries to: Mrs. Lindy M. Drury, Watts & Co., Ltd., 7, Tufton Street, Westminster, London, England, SW1P 3QB.



Chimney Pots

CHIMNEY POTS—made from fired terra cotta—are used at the top of chimney flues to increase draft, keep out the weather, and to add architectural interest. Popular in Europe for many centuries, chimney pots were widely used in the U.S. in the 19th century. They are useful as a replacement for rotten chimneys where it is required to keep the top at least 2 ft. above the highest roof point.

THESE CHIMNEY POTS are hand crafted by an American firm that uses the same molds it has been using for 100 years. They weigh approximately 100 lb., measure 2½-3 ft. high and 12-13 in. at the base. Prices range from $50 to $110. Shipping would add about $10-20.

FOR DETAILS on styles, prices and installation, send $2 to: William L. Lavicka, Historic Boulevard Services, 1520 West Jackson Blvd., Chicago, Ill. 60607.

THE OLD-HOUSE JOURNAL

Vol. V No. 7
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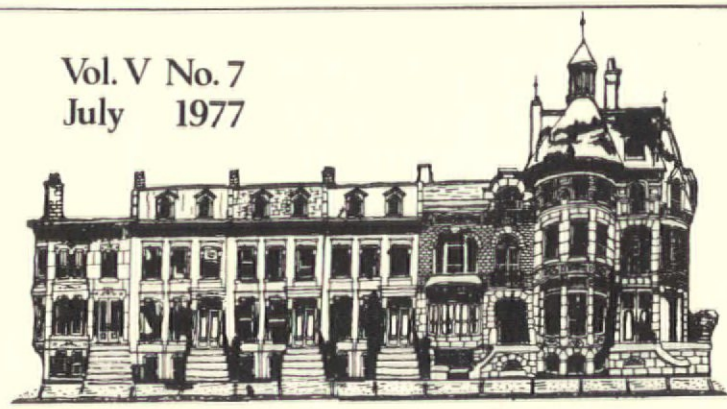
Renovation And Maintenance Ideas For The Antique House



Late 19th Century Decoration

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Restoring Marble Sinks.....82
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Coming Next Month

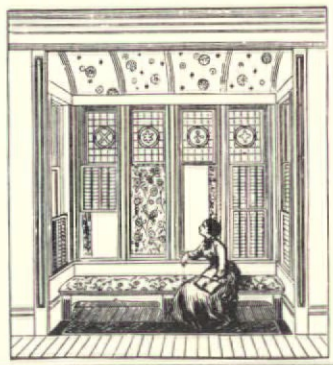
EARLY AMERICAN ROOFS

By Carolyn Flaherty

AS MORE AND MORE old-house owners become involved in restoring Victorian houses to their original architectural charm, the question of how to decorate them becomes more urgent. Many people never had any intention of getting into period decoration, but after a few years of very hard work they have on their hands a house with lovely plasterwork, beautiful parquet floors, and period lighting fixtures.

THEY HAVE GOTTEN THIS FAR, and they want to continue the Victorian look and feel of the house they have so lovingly restored. But they also may not be overly fond of the stereo-typed image of antimaccasars, beribboned lamps, and frou-frou all atop a carpet of bright red cabbage roses.

THE VICTORIAN ERA produced many theories of decoration usually voiced by cranky gentlemen who decried the poor taste of the day. One such man was Charles Eastlake (The Journal, August 1975) whose influence was felt throughout the late Victorian era. Another was Henry Hudson Holly. Holly is mainly remembered for his very popular books concerning architecture. His volume, "Holly's Country Seats," published in 1863, presented designs and plans for rural and suburban houses which were widely copied around the country to build for a growing nation.



BUT HOLLY did not confine himself to the design of the house itself. A large section of his later book, "Modern Dwellings," published in 1878, is addressed to the decoration and furnishing of the house. Written in high Victorian dudgeon, he attacks the craftmanship, taste, manufactured goods, and attitudes of the day. But Holly is more than a negative voice of his time.

WITH A DEFINITE SET of guidelines for painting and decorating, use of color, fabric and furniture, he presents a sophisticated and elegant mode of decoration for the late 19th century house. He formed his theory of interior decoration by drawing on the more original work of A. J. Downing, Eastlake, and the creative genius of Dr. Christopher Dresser in England. But by putting it all to-

(Continued on page 76)

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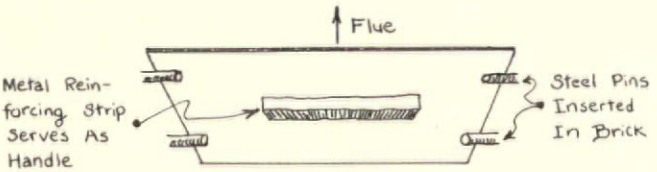
A Simple Damper

To The Editor:

I THOUGHT YOUR READERS might be interested in another solution to the problem of old fireplaces that don't have dampers.

WE HAVE A COLONIAL house with six fireplaces in two chimneys. Since one chimney needed considerable rebuilding, we installed conventional dampers. But for the other fireplaces we had a local craftsman fashion draft shields out of sheet metal to fit the throat of the flue at the top of each fireplace.



Underside Of Draft Shield

THE SHIELD RESTS on 4 steel pins inserted in small holes in the brick made with a star drill. There is a reinforcing strip of metal along the center which stiffens the shield and serves as a handle in sliding it in and out. Small wood wedges are used with the pins to keep the shields tight and to prevent chatter in high winds.

THIS ARRANGEMENT is quite inexpensive (about $50 for the four fireplaces when done five years ago) and has no effect on the chimney draft when fireplaces are in use.

Francis Manwell
Conway, Mass.

The Virtue Of Shellac

To The Editor:

WITH ALL OF THE INTEREST in "miracle" finishes, I'd like to say a few words in praise of old-fashioned shellac. In areas where water resistance is not a critical factor, shellac has an important characteristic: It is readily removed by washing with alcohol.

SHELLAC WILL DARKEN with age. But after 25 or 50 years if the darkness is a problem the old finish can be easily stripped off without damaging the wood.

SHELLAC WAS A STANDARD FINISH for woodwork in the late 19th and early 20th century. Where it has darkened with age, old-house owners are able to strip it off easily. But how many people, when refinishing the stripped woodwork, ever consider how the finish they are applying will age? All materials change with age...including the modern "non yellowing" finishes. But when some of these penetrating oil-based finishes darken, there's no way to remove the darkened material that has penetrated into the pores of the wood.

IN ANY HISTORIC HOUSE where you want to consider what the wood will look like 100 years from now, a shellac finish has the property prized by all preservationists: It is totally reversible.

Joan Davis
San Francisco, Calif.

THE OLD-HOUSE JOURNAL®

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Help Needed: Paint On Fireplace

To The Editor:

WE HAVE BEEN LOOKING—unsuccessfully so far—for a good way to take paint off of the brick facing on the fireplace in our main parlor. Chemical strippers seem to leave too much paint in the pores of the brick.

HAVE ANY OF YOUR READERS coped successfully with this problem?

Jean Watson
Chicago, Ill.

A number of readers have posed this question. Anybody have a good answer?--CL

Fountains For The Conservatory

This is the second part of an article by Tom H. Gerhardt on Victorian Cast Iron Fountains and Urns. The first part appeared in the June 1977 issue.

IN THE GREAT HOUSES OF SAN FRANCISCO, Thomas Aidala describes the use of plants in the Victorian house. "If money allowed, you could almost always find a conservatory, a wonderful glass room, just off the drawing room on the first floor, filled with plants growing around an artificial pond fed by trickling water, which often contained goldfish and occasionally frogs." The conservatory fountain is really one of the more delightfully whimsical, exciting, and unusual decorative pieces that is allowable in the Victorian scheme.

THERE ARE THE SMALLER VERSIONS of the larger outdoor fountains, usually consisting of a figure on an iron basin around 2½ ft. in diameter that is set up on iron legs. Also, usually on pedestals following the same motifs as the ones under spills on exterior fountains, are often found iron octagon-shaped aquariums piped with a spray in the middle and having a drain and overflow. The plumbing is very similar to an exterior fountain. One could then watch the fish through the glass sides while enjoying the sound of the splashing spray.

HIGHLY ORNAMENTAL rectangular aquariums were also produced, a very early model being on a cast iron stand that looks like rustic pieces of tree limbs nailed together. The corners of the conservatory fountain-aquarium often have iron brackets for flowerpots and/or iron eagles gazing down into the pool of water.

GOLDFISH, along with standard aquarium plants are excellent for ornamenting these aquariums. There are even miniature water lilies available that will do well in the proper light. A long algae scraper equipped with a razor blade takes care of the "green stuff" that forms on the glass and is not consumed by those helpful scavengers, pond snails. Coarse gravel and rocks make the bottom very interesting. The addition of fresh water by the use of the spray and avoiding the introduction of too many fish or overfeeding will eliminate the need for frequent cleanings.

DRY SPELLS FOR THESE AQUARIUMS should be avoided as the lack of water causes the seal to give out, necessitating the use of aquarium cement to form a watertight bond once more.

Restoring Cast Iron

EXCELLENT SUGGESTIONS for restoring cast iron are given in the December 1974 issue of The Journal. To these suggestions might be added an emphasis that cast iron should not be sandblasted as this removes the smooth, rust-resisting (to some extent) finish that was placed on the item at the foundry. Stripping through the use of chemicals and then wirebrushing the pieces are much safer (to the cast iron) methods of removing the paint and rust.

MISSING PIECES, especially urn handles, can often be recast by a local foundry if they are willing to make a mold. Although it is tricky, broken pieces may be welded through the use of nickel rod on an evenly heated surface (often, the cast iron will break elsewhere while the welded place is cooling if the whole surface has not been heated.)

AN INTERESTING VICTORIAN COLOR SCHEME for iron urns and fountains consists of dual (compatible) colors that bring out the features in sort of a "Wedgwood" design. White with pale blue, pale green, pale gray, or cream were often used on these garden ornaments during Victorian times. Less "Wedgwood" look-

ing but also used, were black with silver or dark red, and green with dark red.

IT MUST BE REMEMBERED in painting fountains that regardless of the colors used the water will always stain the paint according to the chemicals that are in it. Fountains supplied by artesian wells often will have an iron coating all over the wet surfaces within days. This staining might to some extent dictate the color scheme; otherwise its evidence must be regarded as an artistic patina and a necessary evil.

THE BLUE SWIMMING POOL LOOK for a fountain basin must be avoided. If a coat of paint must be applied to the cement basin, it should be black waterproofing tar. Most people think at first that this might be gloomy-looking. However, the black surface gives an illusion of depth, causes the surface of the water to reflect beautifully, and hides the dirt between cleaning.

FOR THOSE WHO WISH TO acquire iron urns and fountains for use in restoring Victorian houses, the search for the old is not easy. There are only a few antique and restoration shops that specialize in these iron ornaments. Sometimes nurserymen, florists, and caretaking services that do cemetary work have several of the relic urns that are surplus. Pieces and parts should not be overlooked and left behind, as they will most likely interchange with others that may be found.

Sources For Garden Ornament

Robinson Iron, Inc., Robinson Road, Alexander City, Alabama 35010. Cast iron fountains and urns--stock, custom-made and restoration work. Brochure, "A Selection From Robinson," free.

Tennessee Fabricating Co., 2366 Prospect, Memphis, Tenn. 38106. Victorian style cast iron garden furniture. Ask for free ornamental furniture brochure.

Kenneth Lynch & Sons, Inc., Wilton, Conn. 06897. This firm works with professional landscape architects, decorators, etc., but will sell directly to the consumer. The ultimate catalog is their "Garden Ornament, An Encyclopedia" which begins with an illustrated section on The Fountains of Rome and offers everything from urns and fountains to statuary, topiary frames and gazebos. A large hardcover book, 768 pps., Illustrated with photos and drawings, it is $25.00, plus $2.50 postage.

Their "Garden Ornament Catalog" contains the items most homeowners would want and is $2.50, plus $1.50 postage.

(Holly--Continued from page 73)

gether in an easy-to-read, popular book, it was easily digested by the public and had a wide influence on the American reader.

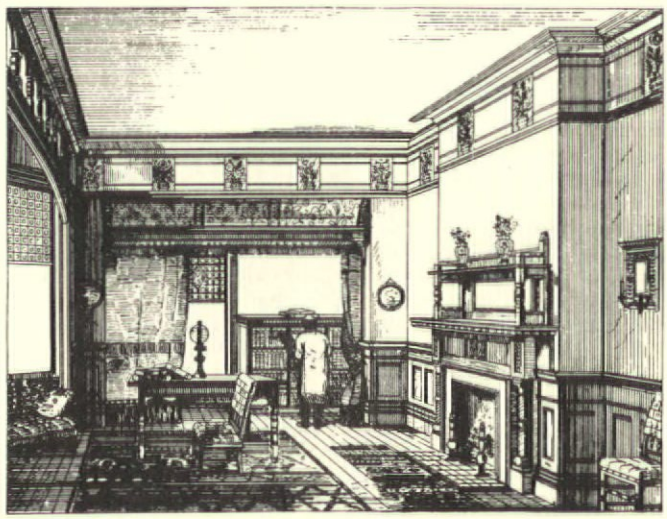
SOME OF MR. HOLLY'S suggestions, culled from his writings in his own words, are presented here as a practical set of guidelines for decorating in an authentic late 19th century manner:

Color And Wall Treatments

COLOR CAN GIVE prominence or subordination. Blue produces the effect of distance, and if placed upon the ceiling, causes it to appear higher, or, if in a recess, will deepen it. Yellow, on the contrary, appears to advance toward the eye; and, if used upon the ceiling, will seem to lower it, or if upon a projecting moulding, will exaggerate its prominence. Red is the only color that remains stationary.

IT IS GENERALLY ADMITTED that furniture and costume show to a better advantage when the walls of an apartment are dark, while pictures look well upon a light background. In order to accommodate these requirements, the dado, or lower three feet of the walls, may be dark in color; the surface, where the pictures are to be hung, of a neutral tint; while in the cornice and ceiling any number of brilliant hues may appear. By this means a harmonious gradation of colors is achieved. Indeed, it would be well if this arrangement of colors were to be made the rule in decorating apartments. The heaviest and richest colors should be upon the floor or near it, and the lightest and most brilliant either upon or in the neighborhood of the ceiling.

A DARK COLOR, also, when applied to a skirting or dado, gives the effect of strength, which is always desirable to suggest in parts bear-



ing a super-incumbent weight. Brown, rich maroon, dull bronze-green, or even black, may be used here to advantage.

THE ASSOCIATION OF COLOR with strength claims a larger part in decoration than is generally supposed. Thus, the trimmings of the exterior of a dwelling, if painted a color darker than the body, seem to produce a constructive effect, and convey the idea of ribs and stanchions supporting the house. So, too, the frame of a panel, if painted darker, gives the idea of strength, while the panel itself, being light, appears to be supported.

A SKIRTING OR MARGIN ALSO, having in any way the effect of a frame, should be emphasized by a stronger color. This includes cornices and trimmings of doors and windows. These trimmings, or architraves, as they are called, should be of a color more pronounced than the wall, but not so dark as the surbase, unless black be introduced, in which case one or two narrow lines of bright color or gold may be added. When black is used, it would be well to have a portion of it polished, thus producing a contrast between a bright and dead surface.

DOORS SHOULD BE DARKER than the walls--something in tone between them and the trimmings. Thus if a wall be citrine, the door may be low-toned Antwerp blue or dark bronze-green; but in either case a line of red, being complementary to both, should be run around the trimmings.

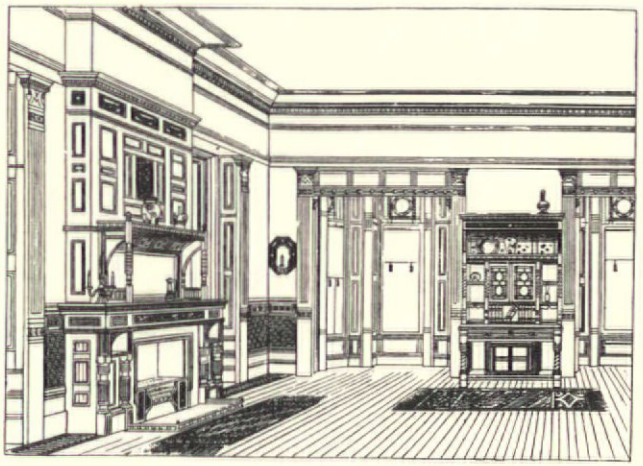
Ceilings And Mouldings

HOLLY ALSO has some definite opinions about the treatment of ceilings and mouldings:

CEILINGS ARE ESPECIALLY susceptible to ornamentation, for the reason that their entire surface may be seen at once. If we wish to limit the decoration of our rooms, let us expend our efforts here, as the walls and floors can be relieved by pictures and furniture.

I WOULD RECOMMEND the avoidance of structural members, and especially of that chef d'oeuvre of plaster art, the centre-piece, with its impossible flowers and feeble ornaments. It would be better to use some flat design in color, making it the principal feature of the ceiling, reaching, if you choose, to within a few inches of the border. I say border, as the cornice, unless broad, is much improved by being extended with a margin of color. Now, these borders on the ceiling are like the dado on the wall, and have the effect of breaking up its broad surface. The same rule applies to floors. By surrounding them with a margin of darker color, a similar advantage is attained.

IT MAY NOT BE INAPPROPRIATE to introduce around the ceiling a margin of some tasteful design in wallpaper--one, for instance, in which brilliant colors appear on a gold ground. In a large room, the effect would be good if this margin were the entire width of the roll. It might also be appropriately edged with a wooden moulding.

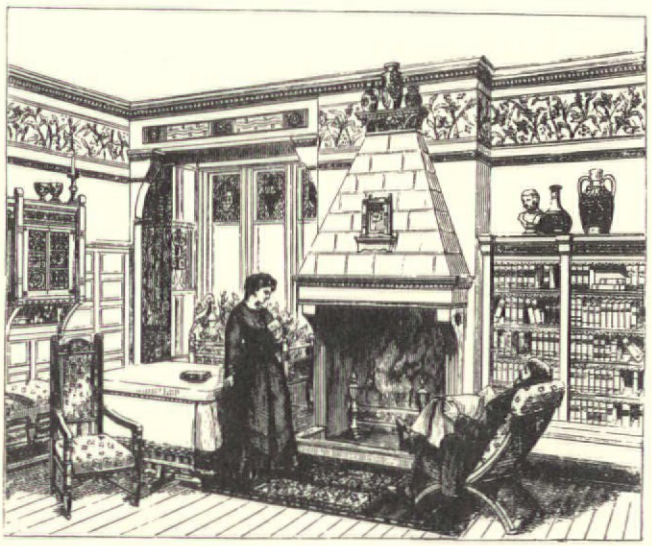


A LARGE MOULDING on top of the dado may frequently be employed with advantage. It not only improves the appearance, but, if placed at the proper height above the floor, it will also serve to protect the wall from the chafing of chairs and other furniture.

LOWER MEMBERS ought never to be light and so gilt mouldings should not be placed below the level of the eye. Therefore, black walnut or ebony are more appropriate here.

AS A GENERAL RULE, if light, transparent tints are used, the moulding should be black. If a dark or maroon inlay is employed, gilt mouldings would make a pleasing contrast. The remainder of the ceiling, if low, should be of some tint calculated to give an appearance of elevation, such as, for instance, one of the many delicate shades of blue or violet.

HOWEVER, if there be sufficient height to warrant it, a rose tint, or a buff, appears well, provided the general tone of the room will permit. Violet has the advantage not only of increasing the height, but it will also harmonize with paper of a green or olive tint, these being among the best colors for a wall.



Decoration In General

HOLLY WENT TO ENGLAND in 1856 and was very impressed with the new "Queen Anne" movement. Many architects, designers and craftsmen in England were rejecting the Gothic style as too church-like for domestic living. The "free classic" or Queen Anne style was emerging. Holly was the first to bring these ideas back to America. Here are some of his miscellaneous remarks about decoration in general:

Wallpaper

LIKE OTHER INDUSTRIES that have come under the influence of the general advance in decorative art, the manufacture of wallpaper has greatly improved. (Holly, did, however complain that there was not enough interest in good wallpaper to warrant the import of the famous William Morris papers.--Ed.)

THE BREAKING UP OF WALL SURFACES with frieze and dado is one of the peculiar characteristics of the English designs, and in this way some of the best combinations of color and pattern are produced. The dados are sometimes of a checkered chocolate pattern, relieved with gold and black, while the intermediate space above contains a neutral design, as introducing moss or delicate ivy.

THE FRIEZE is of an utterly different treatment, sometimes Japapnese in character, positive in color, and either conventional or natural in design. In some, storks, or other fowl, in various attitudes seem gliding through the air. In others, vines and trellis-work, laden with vivid green and golden fruit, relieve the frieze as if the intermediate space represented a wall or screen, over which the various scenes of the vegetable and animal kingdom are made to show in bold outline.

FOR A ROOM in which convivial conversation, wines, and viands are to be enjoyed, the color should never be light, but of neutral or complementary tint. In reception rooms or parlors, the eye should be gratified, the senses of the palate not being brought into competition; and hence floral designs and gay colors--something of an enlivening nature--would be appropriate.

THE FLATNESS OF A WALL should be left undisturbed, and the decoration as little obtrusive as possible. For instance, use a diaper pattern (a diagonal pattern made up of regular repeats of small geometric or floral motifs, often surrounded by connecting lines) that imitates a flat stencil design. No attempt should be made to show figures in relief with shades and shadows which are in bad taste and produce a disagreeable effect. Such vulgarisms are, however, happily passing away; yet the public taste is far from being cultivated in these matters; and paper, instead of forming a background to pictures, is apt to assert itself far beyond its due importance.

General

DINING ROOMS--Dining rooms, as a general thing, should be treated in dark colors, so that their walls may form an agreeable background for the tablecloth and fixtures. A white tablecloth is generally too glaring in its effect and out of keeping with the surroundings. For general purposes, one of a cream tint is preferable.

PLANTS--An inexpensive method of decoration is the introduction of flowers, according to a system quite common in England, but only recently introduced here. It consists of an arrangement of plants in the fireplaces in summer. Of course, in a position like this, where the sun cannot reach them, there are only certain plants which could thrive, as for instance, the English ivy, or some varieties of fern. If cut flowers, which can be changed as they fade, are added, the effect will be as bright and cheerful as that of a wood or sea-coal fire in winter. ■■

Reprint Of Two Famous House Books

HOLLY'S "COUNTRY SEATS" is a paperbound volume containing Henry Hudson Holly's two famous books--"Country Seats" and "Modern Dwellings."

"COUNTRY SEATS" was originally published in 1863; it has 34 original Holly house designs complete with floor plans as well as a rationale for the various functional and decorative features. House styles include: Tudor, Italian and Gothic.

"MODERN DWELLINGS," originally published in 1878, contains many designs in the Queen Anne style. A section on decoration--color, wallpaper, furniture, etc., incorporates the ideas of Eastlake and many others and is a valuable aid in the decoration of the Victorian house.

TO ORDER "COUNTRY SEATS," send $7.95, plus 50¢ postage, to: The Old-House Journal Reprint Library, 199 Berkeley Pl., Brooklyn, New York 11217.

Removing Black Spots From Wood

By Frank Broadnax

WE TALKED LAST MONTH about white spots on wood and how to remove them. When moisture penetrates into a wood finish, it usually turns the finish yellow or dark gray. The discolored finish then has to be removed. But when the moisture penetrates all the way through to the wood, the wood itself turns dark—sometimes black. Once the wood has turned dark, even though the finish is removed the dark spots remain.

TO REMOVE DARK SPOTS from wood, you have two choices: Sanding or bleaching. Bleaching is often the only practical solution because the spot may go fairly deep into the wood and you don't want to remove that much material. And you certainly wouldn't dare sand a spot on veneer. The dark spot certainly goes all the way through the veneer.

THERE ARE TWO METHODS for bleaching wood. The first method involves commercial wood bleaches, which are high-powered acidic bleaches. These come in several brand names, which can be purchased at most paint and hardware stores. Please follow directions on the labels.

SECOND BLEACHING METHOD, which I prefer, uses household chlorine bleach. It takes longer to bleach the wood, but it is a lot safer to use and does less damage to the wood. I use full-strength household bleach. I have tried all brands and they all work equally well.

YOU CANNOT SUCCESSFULLY spot bleach. For example, if you have a table with a black spot in the middle, you can't just bleach out the spot. You'll have to bleach the entire top.

THE PIECE TO BE BLEACHED should be placed outside in the shade. Don't put the wood in direct sunlight: The combination of moisture and heat from the sun can cause warpage. In addition, the wood to be bleached should be free of all old finish, wax, dirt, etc.

APPLY THE HOUSEHOLD BLEACH full strength. I prefer to use a piece of #0000 steel wool to apply the bleach. It has to be rubbed on because bleach has a high surface tension and if it is just poured on it will bead up and leave white spots. We want the wood to be bleached evenly, so rub the bleach in. Work with the grain of the wood. After applying a good heavy dose, let it set until the surface is dry. Then put on another application. Repeat this until all spots are bleached out.

AFTER ALL SPOTS have vanished, apply a coat of white vinegar over the entire surface and let dry. The vinegar will stop the action of the bleach. After the wood is dry, buff thoroughly with dry steel wool. Apply a light coating of lemon oil (such as our Broadnax Wood Preservative). This does two things: It puts natural moisture back into the wood and brings out the true color. Should any of the dark spot remain after applying the lemon oil, you may wish to bleach again. Follow the same procedure as you did the first time.

AFTER YOU have bleached out all the spots, buffed with steel wool and applied lemon oil, you are now ready to stain. The color of stain to use will be governed by the effect you are seeking. If you are bleaching a top to a piece of furniture, naturally you'll want to stain the top to match the rest of the piece. Sometimes, unless you are an expert at wood identification, you may not know what the wood in your piece is—and so are not sure what color stain to use.

IF THE PREDOMINANT wood tone is brown, select a walnut stain. This comes in several different shades. All serve the purpose of darkening the wood. (I won't cover stains in detail here, as that will be covered in a future column.) You should allow the stain to dry at least 24 hr. in clear weather before applying a final finish.

IF YOUR WOOD is part of the house and cannot be taken outside, follow all the above instructions—working as best you can with the wood in place.

ONE WORD OF CAUTION about using household bleach: Under certain conditions, bleach can be deadly. Never mix bleach with other products, such as ammonia, cleansers, etc. The combination can produce toxic gases. Also, tobacco smoke mixing with fumes from household bleach can form a poisonous substance. Always have plenty of ventilation when working with bleach. ■■

Frank Broadnax is President of Broadnax Refinishing Products, which markets some excellent refinishing compounds. You can get free product literature by sending a stamped, self-addressed envelope to Frank at: P.O. Box 196, Ila, Georgia 30647.

Preparing To Paint—Part II

Patching Cracks in Plaster

By Clem Labine

Last month we looked at the best way to get plaster surfaces ready to paint. In this installment, we'll examine the best way to deal with structural cracks in plaster.

BAD STRUCTURAL CRACKS—the kind that tend to re-open year after year—require a different treatment than the surface repair described in the June issue. Structural cracks are the result of movement. Few people realize that a house is constantly in motion due to changes in temperature, humidity, winds, foundation movement, etc. Expansion and contraction of structural elements at differing rates sets up stresses in plaster walls and ceilings. Although the amount of movement is normally quite small, it can be great enough to cause cracks to develop along lines of greatest stress. Cracks are the building's way of relieving tension.

THE FACT OF CONSTANT MOVEMENT dictates the best approach to mending structural cracks. If you use a rigid material like plaster of paris or powdered spackle to patch a stress crack, it's likely that the structural movements that created the crack in the first place will cause it to re-open in a year or so—sometimes almost immediately.

THE SECRET lies in using a mending system that has some "give" to it. An excellent mending system can be created by using the materials used for covering sheetrock joints: Premixed joint compound (such as U.S. Gypsum's "Durabond Wallboard Compound") plus a cloth or paper reinforcing tape.

PREMIXED JOINT COMPOUND is more expensive than the powdered mix-it-yourself variety, but it more than makes up for the added cost in better workability. If you have a lot of patching to do, you can save quite a bit of money by buying the joint compound in 62-lb. pails.

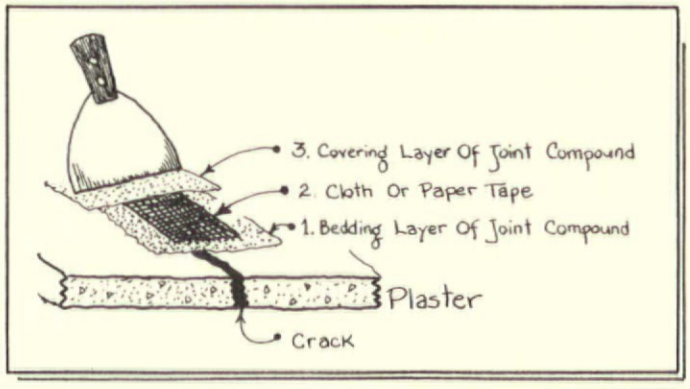
THE CLOTH REINFORCING TAPE is better for flat surfaces than the paper tape. The open weave of the cloth tape allows the joint compound to ooze through easily and thus beds the tape securely to the compound. This characteristic is especially important when you have to overlap tape when following jagged cracks (see diagram on p. 81).

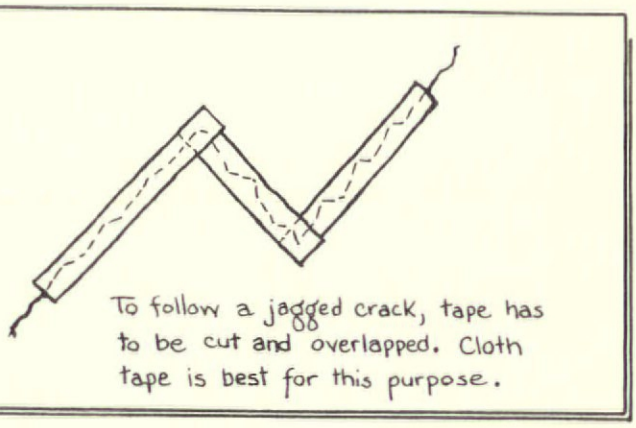
THE CLOTH TAPE is difficult to find in certain parts of the U.S., however, and so you may have to make do with the paper tape. This shouldn't cause any great problem except when overlapping tape on jagged cracks: You'll have to make sure there is an adequate bed of compound between the two layers of paper. In any event, the paper tape works best on corner cracks, as explained later.

Applying The Tape

TO PATCH CRACKS, apply joint compound with a wide (5-6 in.) joint knife. Butter the compound into the crack, spreading it about 3 in. on either side of the crack. Center the reinforcing tape over the crack, and force the tape down into the bed of joint compound with the knife. It should be pushed hard enough so that some of the compound oozes up through the fibers of the cloth tape—but not so hard as to disturb the fibers of the tape. If you are using paper tape, push hard enough to bed every portion firmly against the bed of compound—but not so hard as to squeeze all the compound out from under the tape. There should be a thin layer of compound left under every square inch of tape to form a bond between the tape and the plaster surface. Remove any excess compound by wiping with the joint knife.

AS SOON AS the tape is bedded, cover with a thin layer of compound and smooth as much as possible by working with the joint knife. When first coat has dried (at least 24 hr.), smooth out any ridges by "wet sanding" with a damp sponge or a heavy-nap cloth folded flat or wrapped around a suitable block. (You can also sand with sandpaper, but it creates a lot of dust.) Apply a second thin coat of joint compound and feather the edge at least

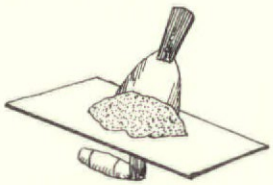




To follow a jagged crack, tape has to be cut and overlapped. Cloth tape is best for this purpose.

1 in. beyond the first coat. After second coat has dried, wet-sand lightly and apply a thin finishing coat. The finishing coat can be worked quite smooth with the joint knife. A professional can work it so that no further sanding will be required. But most of us will find that our work will need a final light wet-sanding.

WHEN WORKING WITH joint compound, be sure to keep any crusted material that forms on the taping knife out of the fresh material. The old stuff will just cause lumps that make it impossible to feather out the joint compound smoothly. Throw away any material that shows signs of losing its workability. Better to waste a little than risk fouling all the material remaining in the can.



TO KEEP JOINT COMPOUND in the can from getting fouled—and for ease of working—a second tool is used to hold a working amount of compound. (Plasterers would call this tool a "hawk.") A large joint knife or finishing trowel will serve for this purpose. Just be sure the holding tool is bigger than your working knife; you need a long edge to wipe the edge of your working knife against.

Inside Corners

PAPER TAPE works best on cracks in inside corners because it can be folded easily to conform to the shape of the corner. Apply compound to both sides of the corner, then fold tape along center crease and press into position. Firmly press both sides of tape into compound with the joint knife. As noted before, it's very important that every square inch of tape have an adequate bed of cement underneath it. Otherwise, it will pull away from the plaster surface sooner or later.

WIPE EXCESS off both sides of the angle. Immediately apply a coat of compound over one side of the angle only and allow to dry (at least 24 hr.). After compound has dried, apply coat to other side of angle and allow to dry. (It is possible to cover both sides of the angle with a single application, but the two-step process ensures that you don't disturb your work on one side while you are smoothing out the other side.)

APPLY A FINISH COAT, and feather it out beyond the edge of previous coats of compound. Wet-sand as needed.

Cracks In Coves

A SLIGHT VARIATION in technique works best when dealing with cracks in curved surfaces, such as a cove between ceiling and wall. The bedding layer of joint compound can be brushed on with a 2½-in. nylon paint brush. The cloth tape is then pressed into position by hand, and then a covering layer of joint compound is brushed on. Brush back and forth until it looks smooth. If the compound is too stiff to brush smoothly, you can loosen it by adding a small amount of water.

AFTER DRYING, the first coat can be wet-sanded with a damp sponge, and then a finish coat is brushed on. The brush adapts itself to these curved areas much better than a joint knife.

Problem Cracks

IF YOU HAVE a structural crack that you know from experience is subject to an unusual amount of stress and strain, it may break through the sheetrock tape and compound. For these special problem areas, the best thing to use is a commercial patching system called Krack-Kote. It uses a pliable adhesive and a glass fiber reinforcing tape, and thus has more flexibility and strength than ordinary joint compound.

KRACK-KOTE, manufactured by Tuff-Kote Co., Woodstock, Ill., should be available through large paint supply stores. The main drawbacks of this system: It is more expensive than the joint compound, and also takes much longer to apply.

GAPS BETWEEN PLASTER surfaces and surrounding woodwork are also subject to a lot of movement because of the shrinking and expanding of the wood with changing temperature and humidity. Thus you need a filler that has some flex to it. Acrylic latex caulk, applied with a caulking gun, works very nicely for this purpose. Any excess can be cleaned off with water and a sponge before it sets up.

A FINAL WORD on the taping system: Don't go "tape crazy." Minor cracks can be handled with the surface spackling techniques described in the June issue. Only experience, unfortunately, can sometimes distinguish between major and minor cracks. Also: If a wall has so many cracks that it would take an undue amount of time to tape them all, consider either totally replastering or else canvasing the surface. We'll discuss canvas in detail in a future issue.

SPECIAL THANKS for technical advice to Howard Zucker and Helmut Buecherl—both professional decorators and members of the Brotherhood of Painters and Decorators.

Restoring Marble Sinks

By David S. Gillespie, Executive Director
Historic Pullman Foundation, Chicago

AT ONE TIME or another most of us have come across those fine marble sinks so common to Victorian buildings of the 1870's and 80's. They usually stand against the walls of junk shops gaping forlornly. The marble is stained, the bowls cracked or missing, and the faucets are corroded beyond recognition. We scratch our heads and think, "If only I could use that," and then go out and buy an imitation marble thing.

WHEN MY WIFE AND I set out to restore an 1883 home in Michigan we discovered one such sink in the original bathroom. Local garage sales yielded three others in various states of disrepair so that we now had sufficient sink tops for the house.

THESE TOPS can usually be had in this area for between five and fifteen dollars and are thus a good cheap sink as well as being authentic. Moreover, they are not difficult to use and any old house owner can do it with easily available tools and small expense.

THE FIRST STEP IS CLEANING the top. One of ours had been painted black (modern?) but paint, we found, comes off quite easily with common paint remover. Stains, particularly rust and water stains, are very difficult to remove since marble is a porous, soft stone. Cleanser will clean off most grime and surface stains but for deeper stains a weak solution of muriatic acid worked fairly well.

SCRATCHES AND SMALL PITS are more difficult but they can usually be worked out with a very fine grade of wet/dry sandpaper. In some areas there are shops which will polish the marble to give it a harder surface which will resist stains in the future. For the very deep stains there is just no solution and you should either avoid buying tops that are badly stained or be prepared to live with the stains.

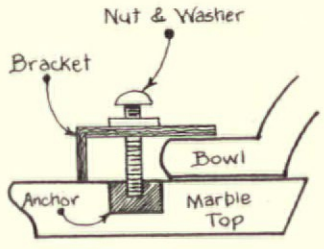
REPLACEMENT BOWLS are really no problem. (See box below.) Since marble is very soft it is easy to work with common shop tools. Re-aligning the mounting screws (necessary when using some replacement bowls) is not hard but must be done with care. Place the sink top upside down on a work table and place the bowl where you want it, marking the location of the four mounting points. Then set the bowl aside and shim up the top between the work table and the top. This step is crucial because the sink top is made with a lip which contacts your work table but the flat part of the top itself does not. Attempting to work on the sink top without properly supporting the face can result in a cracked or broken top.

NEXT, DRILL NEW MOUNTING HOLES using a half inch masonry bit. Be careful not to drill through the top and lubricate the bit with water as you are working. Drilling through stone generates a good deal of heat and the water will cool both the bit and the stone to minimize the possibility of cracking. The holes will need to be about three quarters of an inch deep and once this is accomplished set the new mounting screws. The old way of doing this was to drip hot lead into the hole around the screw head.

IF YOUR TOP HAS MOUNTING SCREWS which need to be removed simply heat the lead with a small propane torch and the screws will come out easily. An easier method for the amateur is to buy four star anchors at the hardware store.

THESE ARE SIMPLY a machine screw nut surrounded by a lead sleeve. Place one in each of the half inch holes, and, using the tool provided with the anchors, tap them until the lead expands and the anchors feel solid. Be sure that the face of the marble beneath each hole is firmly resting on a block of wood or other shim. Otherwise you will break right through the face. If the original mounting brackets are on the sink top new ones can be fabricated quite easily out of flat steel or bars.

USING A PIECE of eighth-inch metal about ½ in. wide and two in. long, bend one end at right angles so that you have an "L" with the short side about ½ in. long and the long side one and a half inches.



DRILL A HOLE large enough to take your machine screw in the long side and you are ready to go. The short end of the "L" braces against the marble and the long end goes over the bowl edge to hole it firmly in place.

FAUCETS ARE ALSO no problem. If you have the original faucets you may want to use them. They will need to be thoroughly cleaned (I recommend having them boiled out at a local radiator shop) and possibly will need to be

replated. Replacement of the rubber washers will then yield a perfectly functional and original faucet.

IF, LIKE US, you have gone soft and prefer mixers, almost any wide-spread faucet set will do. Most sink tops had two holes for the faucets and a small hole in the middle to which the chain on the rubber stopper was connected. The faucet holes are usually too far apart for modern wide-spread faucet sets so you will have to go to the plumbing supply house to get a short length of 3/8 in. copper tubing to replace the pieces which come with the set (18 in. should be more than enough).

YOU WILL ALSO FIND that the faucet holes in the sink top are just a bit too small. A 1 in. grinding wheel in an electric drill will enlarge the hole sufficiently to use modern faucets. These are available at most hardware stores or through the Sears catalogue. The central hole will have to be made much larger and for this I recommend a large masonry drill bit if one can be had. If not, it can also be made with a series of grinding wheels though it is a tedious job.

SOME SINKS WERE MADE with only one hole for a faucet and a large hole in the center for the drain plunger. I discovered that Delta makes a faucet which requires only one hole for mounting. The center hole in the sink top which had once held the drain plunger was much too large, however. To solve this problem I had two stainless steel washers made and, by placing one above and one below the surface of the marble, was able to reduce the size of the hole to fit the new faucet set. The hole for the old faucet was used up by the new drain plunger.

WITH THE NEW FAUCET SET and the bowl firmly installed on the sink top, the next step is to hang the sink on the wall. On my sinks they mounted from 22 in. to 26 in. apart which isn't very handy for hitting pre-existing studding. If your wall is torn up for plumbing anyway, don't forget to install new studs or braces in the proper location before sealing up the wall. If you are hanging the brackets on a finished wall, try to hit a stud on at least one side and then use toggle bolts on the other.

IN MANY CASES THE BRACKETS will have been lost. If there are no brackets with your sink you have several alternatives. Any metal shop (including the local high school) can fabricate new brackets cheaply. Another alternative is the chrome posts used to support more modern wall-hung sinks though I don't think they look very well in an old house.

A CHEAP ALTERNATIVE I used is to support the sink with old stair balusters salvaged from a demolition site. Brackets are probably preferable as they are easier to clean around.

INSTALLATION is the last and easiest step requiring only that the sink be level from side to side and that you allow a very slight drop from back to front to prevent water running back toward the wall. Another thing to consider is height. Both my wife and I are tall and so we installed the sinks 36 in. above the floor. Normal height of 32 in. will be too low for most people over five feet tall.

NOW HOOK UP the water supply and turn on the faucet. You will have an authentic addition to your bathroom. It is both inexpensive and easy to maintain. No Victorian home should be without one.

Sources For Replacement Bowls

Sherle-Wagner, 60 East 57 St., New York, N. Y. 10022. Bowls in a variety of sizes including round and oval in 15 and 17 in.

W. T. Weaver & Sons, 1208 Wisconsin Ave., N. W., Washington, D. C. 20007. Also has a variety of sizes including 15 and 17 in.

Kohler Co., Kohler, Wisconsin. Makes a plain white bowl called "the Claxton" which will fit 17 in. tops if you re-align the mounting screws.

Mayfair China Corporation, 142 22nd Street, Brooklyn, N. Y. 11232. 12, 14 and 19 in. round bowls, and a variety of oval sizes. Bowls are plain or decorated.

Products For The Old House

Restored Lighting Fixtures

ORIGINAL GAS, OIL and early electric lighting fixtures add the finishing touch to any period restoration. The London Venturers Company specializes in original fixtures including chandeliers, hall lights, wall sconces, and table lamps. Each item is disassembled, completely restored to its original state, then wired and prepared for hanging.

MOST PIECES are solid brass, which is polished and lacquered to preserve its luster. Pictured is a typical gas chandelier, with handblown and etched gas shades.

BECAUSE THE SUPPLY is dwindling, original fixtures have the appreciation potential of any fine antique. London Venturers will ship anywhere, and an illustrated catalog is available for $1. Write to: The London Venturers Company, P. O. Box 434, Rockport, MA 01966.

Victorian Design Tile

CERAMIC TILE can be used effectively in the Victorian house providing, of course, that the tile is similar to the kinds used in the 19th century.

AN UNGLAZED QUARRY TILE with a Victorian design is available from H & R Johnson, Inc. The decoration on these tiles is applied by silk screen while the tile is still in clay form, so that the pattern is absorbed into the tile and does not wear off as the tile wears down.

THERE ARE THREE PATTERNS of this decorated quarry tile--V32 Lambeth Harvest, V40 Blenheim Red, and V51 Holyrood Sienna--that would fit well in the Gothic or Eastlake type Victorian house.

TILES WERE OFTEN USED on vestibule floors in late 19th century houses, and were generally encaustic or unglazed. The unglazed quarry tiles are similar to the old tiles in pattern and color. They can also be used to give a dramatic Victorian character when used for a kitchen floor.

THE H & R JOHNSON CO. has recently been involved in making encaustic tile (tile with inlaid color similar to marquetry in wood) for restoration in the Smithsonian Institution. In order to make these tiles, the company had to relearn and revive the lost art of making encaustic tile.

WITH THIS KNOW-HOW, they can now produce encaustic tiles in other sizes, shapes and colors on a custom-made basis. This can only be done, however, for a fairly large-scale restoration.

FOR THE NAME of a distributor of the unglazed quarry tile in your area, write: H & R Johnson, Inc., Marketing Dept. OHJ, State Highway 35, Keyport, New Jersey 07735.

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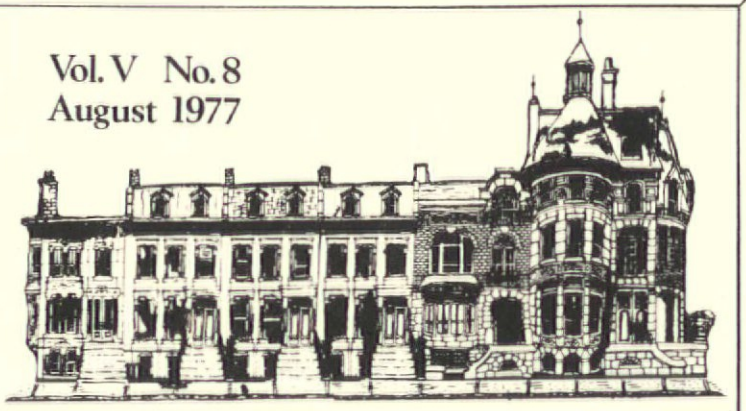

Renovation And Maintenance Ideas For The Antique House

Roofing With Wood Shingles

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Coming Next Month

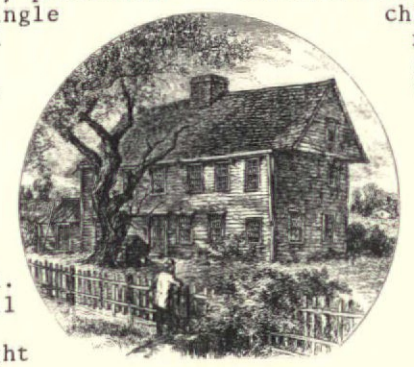
ENERGY EFFICIENCY IN THE OLD HOUSE

By C. R. Meyer

WOOD SHINGLES WERE the standard roofing material in America throughout colonial days, and continue today as the roofing treatment of choice in many locations across the country.

COLONISTS ON THE ATLANTIC coast split shingles from native white pine and other timber species. During the 1700's most of the nation's shingles came from New Jersey cedar swamps. The popularity of that material was so great that by the 1800's the natural stands had all been depleted. It was then discovered that the swamps had as many logs under them as they had had over them.

THE SWAMP BOTTOMS were covered with layers of old cedar, some of the logs having lain there for hundreds of years. The supply, cut off as it was from oxygen, was perfectly preserved and served as a major source of shingle wood from that time up to the Civil War. Cedar continues today as the nation's most popular shingle wood, although the supplies now come not from New Jersey swamps, but primarily from the red cedar forests of the Pacific Northwest.



THE STORY of the New Jersey swamp bottoms is not just an interesting tale but an instructive one as well. It points up the fact that wood will not rot if deprived of oxygen, nor will it decay in the absence of light or moisture. Those oxygen-free New Jersey cedars had been preserved by continued submersion. It is the variations of moisture and temperature that are the principal decay-causing factors in wood deterioration. Thus, wood exposed to conditions that favor decay deteriorates more rapidly in warm, humid areas than in cool, dry ones. High altitude locations generally are less conducive to deterioration than low ones since the warm growing season for decay-causing fungi is shorter.

CONTROL OF NATURAL FORCES involved in wood deterioration is not practical, but the use of wood species such as cedar, with a high natural decay resistance, combined with proper application can help prolong the life expectancy of a wood roof. In addition, in certain instances the application of commercially marketed solutions of fungicides such as pentachlorophenol to the roof will kill moss and fungus and prevent their growth for some time. These solutions can be quite toxic to both plants and animals, however, if not used correctly. Follow directions carefully.

LEAKAGE PROBLEMS associated with wood shingle roofs often occur because the roof has deteriorated over the years due to lack of proper maintenance. Moss will

(Continued on page 93)

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An 18th Century Pennsylvania Farm House

By H. Weber Wilson

"IMAGINE," declares Bill Bowers, present "squire" at Irwinton near Greencastle, Pennsylvania, "we were tightening up the woodwork around the fireplace when it dropped out."

WHAT DROPPED OUT was the broken end of a brass watch key wrapped in a paper. After carefully laying back the folds, Bill and his wife Dorothy found themselves looking at a dance invitation addressed to the original owners and builders their house. The date read January 3, 1792.

"SOMETIMES WE WONDERED about taking on all the responsibilities of an old house," declares Dorothy, "but finding an authentic artifact like that becomes a real link to the people who lived in the house before. It somehow lets us know that others saw tough times in these very same rooms, and that gave us inspiration and confidence to complete our restoration efforts."

THE BOWER'S HOUSE is known as Irwinton, after the Irwin family which built it and a mill along side a winding waterway called Conocoheague Creek. In local Indian, that means "it is indeed a long way."

"AND IT'S BEEN QUITE a long way for us," says Bill. "We had a pleasant house near Chambersburg and weren't really thinking of moving. Then a six-lane highway was built behind us, and we began to look for some peace and quiet."

"WE WERE LOOKING FOR A COUNTRY PROPERTY," continues Dorothy, "and actually had the chance to buy Irwinton twice. The first time we were still debating the pros and cons of buying an old house when we learned it had been sold to someone else. About a year later it became available again, and that time we didn't hesitate. We've been delighted ever since."

"THE MAIN HOUSE was built in 1768," says Bill, "but plumbing and wiring weren't added until the 1950's. This was an advantage because we didn't have to redo a lot of rusty iron pipes and frayed wires from the Victorian era."

"ON THE OTHER HAND," exclaims Dorothy, "the place had been rented to tenant farmers for a couple of decades, so it needed a complete going over."

"WE CHECKED it from top to bottom," adds Bill, "especially the stone walls. We soon realized how well built such an old house can be, and that gave us confidence to complete all the work we wanted to do."

THE HOUSE WAS BUILT to face south so that the sunlight can fill the front rooms during winter. The narrow west end, which faces the cold wind, has no windows except for two small openings in the attic gable.

LIMESTONE from the surrounding fields was used to build the chimneys and two-ft.-thick walls. "From the beginning this place was a notch above average," declares Bill. "Each storey is 12 ft. high; much more like a Virginia plantation house than a Pennsylvania farm of the day."

THE MAIN PART of the house measures 36 ft. x 33 ft. and features the expected central hall/four room plan. On the main floor are two

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The narrow west end of this house, built in 1768, faces the cold wind and has no windows except for two small openings in the attic gable.

parlors, an "office" and a smaller room now converted to a bath.

"ORIGINALLY, the walls must have been left unadorned," explains Bill, "but the house was still a showplace." Most doors are "double panelled" with detailed mouldings front and rear, and almost all have HL hinges. Most of the massive brass door lock assemblies have survived the past two hundred years as well.

"WHEN WE FIRST bought Irwinton, we planned to use it for summers and retirement," Bill continues. "But each time we stayed here we grew more and more attached to it. It wasn't long before we wanted to live here permanently."

"OF COURSE THERE WAS A LOT of hard work before that happy day," adds Dorothy. "I remember when the old plaster and wallpaper was ankle deep in the hallway and we wondered if restoration was the right thing to do. But as each part regained its personality, we could see that the results were well worth our energy and frustrations."

"DOING A PROPER JOB means no short-cuts or make-do," says Bill seriously, and the door to the "office" is proof of his dedication. "I started to strip it," he explains, "but found the top layers of paint extremely hard. Then I discovered that for some reason the original paint did not bond to the newer layers, and a blunt putty knife could chip the top coats off much faster."

"I FINALLY GOT the 'new' paint off and found that the door was originally grained to imitate mahogany. I had to mix new paint to match up both the base coat and the 'plume' of the graining because several spots on the door had been worn clean from the thousands of times it was open and shut as customers came and went from the mill."

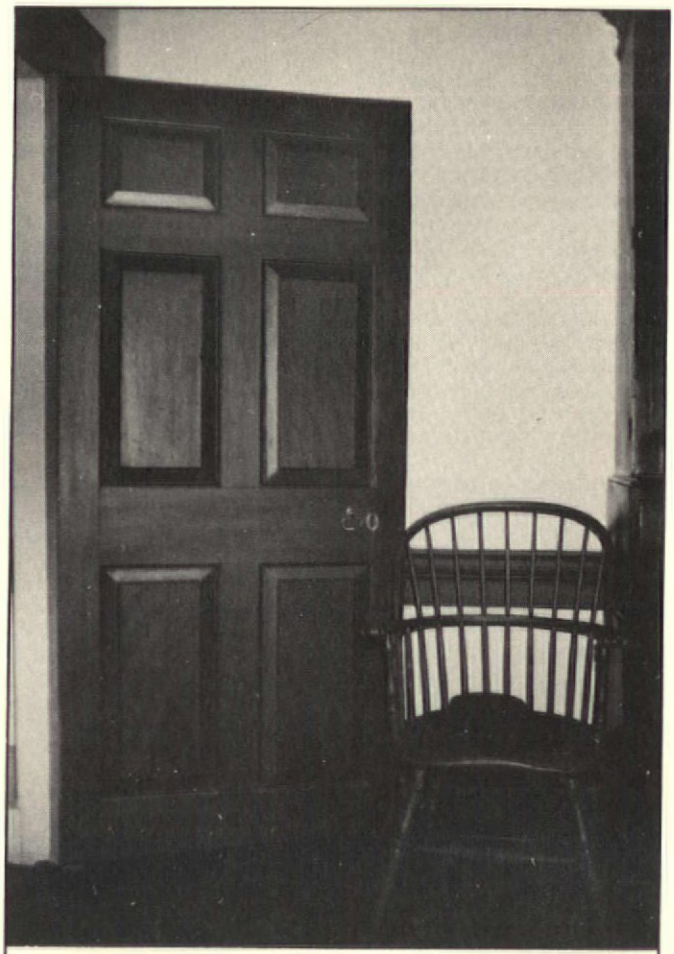
"IT WAS TWO WEEKS before both sides of that door were refinished," concludes Bill with a smile. "With all that time, the brass lock assembly, and those HL hinges, I call it my $1000 door."

IN EACH PART OF THE HOUSE the Bowers stripped a bit of woodwork to determine the original paint color, then mixed new paint to match. "I prefer water-based vinyl paint," Bill explains, because it dries quickly and keeps the same color it had when wet."

THE SECOND STOREY FLOORS at Irwinton were replaced in the 1870's and had been painted battleship grey when the Bowers bought the house. "We had to sand them down," explains Bill, and then it was impossible to imitate the dark patina which would really be the proper 'finish' from so many generations of wear."

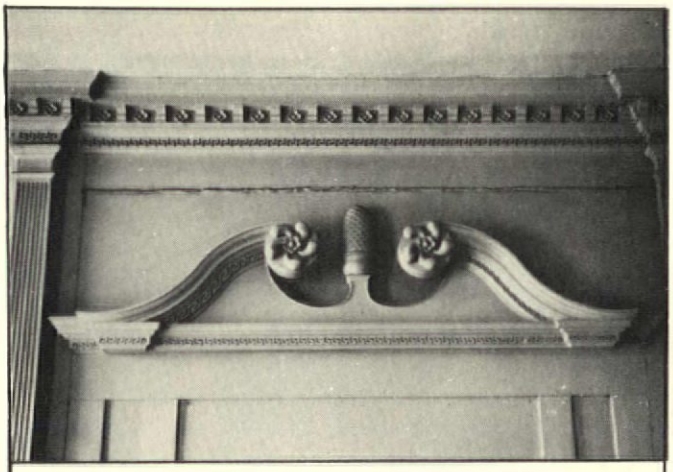
"REFINISHING COLONIAL FLOORS to a light and shiny color is a modern misconception," declares Bill, "so we opted to paint them a dark brown, which we feel is an honest compromise."

THE ATTIC FLOOR does contain some of the original 18 in. wide floor planks, dark from thousands of heavily shod footsteps. Up there under the rafters, which are joined with half-dovetail tie-beams, one also notes the absence of a ridge board at the roof peak. Just heavy timbers held together with a lap joint and wooden peg.



Bill Bowers' "$1000 door"--with its mahogany graining restored and a new brass lock assembly.

The "best" parlor is the highlight of the house with its beautiful fireplace wall.



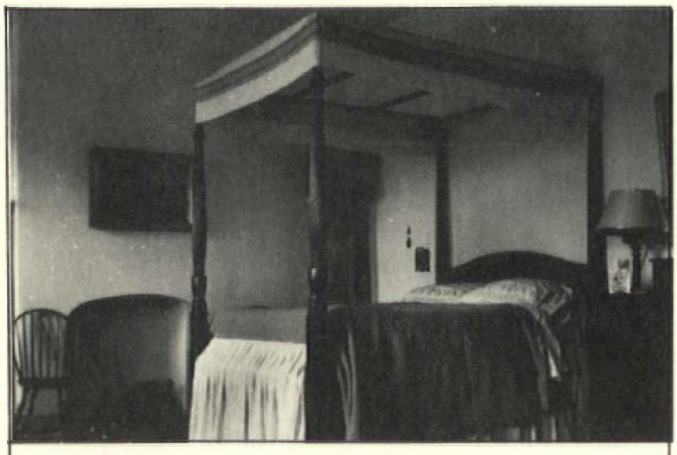
Detail of the scrolled pediment with two magnolia buds and a pine cone in center.

AT EACH GABLE END the two stone fireplace flues rise from the floors below like legs of a giant "A" and merge into the single chimneys which emerge from each end of the roof.

BACK DOWNSTAIRS the woodwork in the parlors can only be described as spectacular. "It's most unusual to find such quality in what was basically a working man's house," explains Bill.

THE FIREPLACE WALL in the "best" parlor is the highlight of the house, and is equal to what one finds in Georgian homes built for the wealthy. Bill has a vast library, and it was exciting to find what must have been the carpenter's reference on Plate XXVI of "Palladio Londinensis," a 1734 pattern book by William Salmon.

"THE SCROLLED PEDIMENT and carved magnolia bud are the work of a master builder," says Bill. "Quite possibly it is the work of John Aris who built the great houses of Locust Hill and Harewood in Virginia."

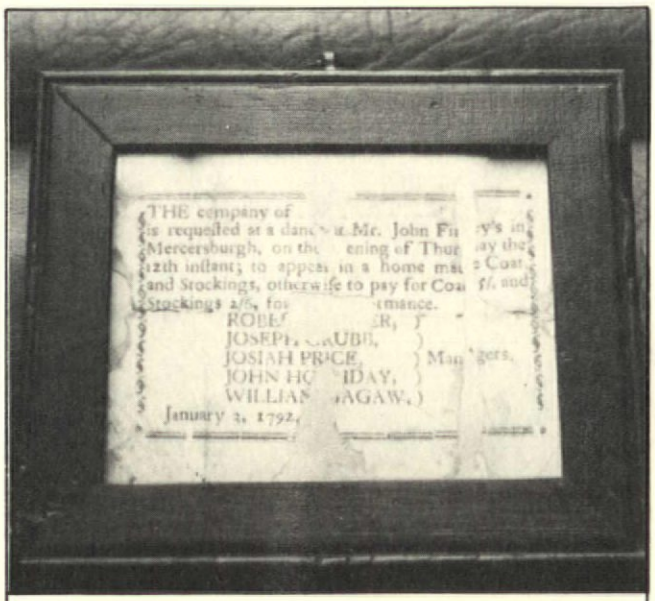


An upstairs bed chamber--note the lack of architectural decoration on walls. Clock in corner is probably an original furnishing of the Irwin family.

"LUCKILY," adds Dorothy, "there have been few coats of paint to blur the detail since it was installed for the first wedding here on December 25, 1792.

DOROTHY KNOWS THAT HISTORICAL detail because she became so caught up with the lives lived at Irwinton that she published a book detailing the whole fascinating history of that pioneering family.

"TRACING THE GENEALOGY of the Irwins helped us tremendously," exclaims Dorothy. "For example, when Bill was stripping the woodwork in the office, he uncovered the signature of Elizabeth Irwin, under the mantel. Knowing that in 1780 she would have been just old enough to have good handwriting--yet young enough to do such an impish thing--gave us excellent evidence that the elaborate woodwork was added in time for the first wedding." ■■



Dance invitation addressed to the original owners, dated January 3, 1792.

Floor Refinishing — A Radical Alternative

By Daniel J. Mehn

I AM GOING TO MAKE a statement that many readers will challenge: I believe that using paint & varnish remover on old floors is easier, less messy and usually less expensive than machine sanding or hand scraping methods. Further, when one adds up all the time involved, I'm certain that the paint remover method takes less time—and as a bonus puts less strain on the family unit than the sanding/scraping way. And the end result looks better.

NOW, YOU SAY, how can this character make such sweeping claims for a method that isn't given any serious consideration by any of the standard "how-to" manuals? The answer is easy: I've tried both ways. I'll never sand again.

I INCLUDE IN MY SWEEPING statement all types of floors: Hardwood, softwood, wide and narrow, toe-nailed and face-nailed, painted and varnished/waxed floors. It can also assist those facing the "gunk" of old linoleum and tile paste.

WHEN I BOUGHT my first old house, I faced all the typical problems: Too many coats of paint on what had been beautiful woodwork; too many layers of wallpaper in every room (except where there were too many coats of paint on top of too much wallpaper)... and floors that had been waxed weekly for too long, with (maybe) an occasional cleaning and re-varnishing.

AFTER COPING WITH the ceilings, walls and woodwork, it came time to face the floors. Having some previous experience (helping my father lay floors) plus the usual assortment of "how-to" books, I set out to do the conventional sanding job. I obtained the usual assortment of sanders: A walking belt sander for the large open areas; a small belt hand sander for the edges and (because I was wary of disk sanders) both orbital and disk sanders for the corners—plus the usual collection of large and small hand scrapers for small corners, door saddles, etc.

NUMEROUS COATS OF WAX and varnish gummed up many sanding belts, but the job got done.

	Sanding	Chemical Stripping
Pro	No wet mess "New floor" look Major unevenness fixed Gets it all done at once	Containable wet mess "Old floor" look, including both patina and natural bumps No loss of thickness
Con	Potential fire hazard from sanding dust Inhalation of dust Dust everywhere for long time Loss of patina and character Nailheads need resetting Loss of thickness (a major problem with old parquet floors) Unevenness at sides and corners	Potential fire hazard (if flammable remover is used) Wet mess Inhalation of vapors More cleanup stuff required (steel wool, scraper, rags, etc.) Possible disposal problem

FINANCIAL & OTHER FACTORS		
	Sanding	**Chemical Stripping**
Pro	Can contract out; larger the job, the lower the price per unit If do-it-yourself, sanding machines can be rented. Only belts need be purchased	Most amenable to do-it-yourself a piece at a time
Con	Should be done all at once, both for best price and to contain the sanding dust to a single occurrence	Lots of expendable "use-it-up" items Not likely to be contractable Requires bent-over diligence & perseverance; uncomfortable

Ultimately, I obtained a job that I could take pleasure (but not pride) in. Friends thought I had a new floor. (They didn't see the pits and gouges along the edges and in the corners.) Besides, does one want a new floor in an old house? And, they didn't live with the weeks and months of sanding dust slowly settling down, again...and again...

The Happy Accident

MARRIAGE AND A FAMILY brought me to another (and, I hope, final) old house, with precisely the same set of problems I had encountered before. And it was on this set of floors that I learned...a better way!

THE HOUSE HAD strip pine flooring. Underneath the wax and discolored varnish was what appeared to be a fine patina from years of sunlight streaming in through the windows. The floor fairly shouted at us that it needed to be refinished, and I vowed to do it...as soon as the other projects were completed.

AND THEN...the great accident occurred. While working with paint remover on the wainscotting, some paint remover fell on the floor. In scooping up the gunk, I found that it picked up all the wax and varnish from the floor. One thing led to another, and after some experimentation I concluded that stripping a floor with paint remover was superior to sanding. The pros and cons of each method are summed up in the chart above and on the preceding page.

LOSS OF THICKNESS can be especially troublesome on thin parquet floors. I know of at least one case where a parquet floor was totally destroyed by sanding; it simply curled up at every corner and exposed edge. The moisture content was severely disturbed by the loss of the surface coating and the outer compressed and surface-coating-impregnated wood cells.

Hints On Stripping

HERE ARE SOME SPECIFIC tips for stripping floors with paint remover (subtitled: "Don't be stupid like I was!). Some of these hints are also applicable if you are sanding floors in the conventional way.

1. SCHEDULE the project carefully. Allow more time than you think necessary. I can now do a 15 ft. x 15 ft. floor in 6-8 hr., but it took more than twice as long the first time.

2. MOVE ALL THE FURNITURE out of the room and then live that way until the floor is completed. Though the speed of the job will be affected by such things as the weather and your physical endurance, allow about a week for the complete stripping and refinishing job.

3. DECIDE IN ADVANCE what you want to do about connecting surfaces, such as baseboards, shoe mouldings, door saddles, floor registers and the floor area leading to the next room, etc. Here are my suggestions for these areas:

a. REMOVE THE FLOOR REGISTERS. Put a plastic wastebasket into the void so that people don't step into the hole.

b. STRIP THE FLOOR about one foot into the adjoining room (unless it has already been done). Later, finish that part maybe six inches into the room, leaving a not-done area for catching up with when the next room is done.

c. IF THE BASEBOARDS are going to be stripped, now is the best time to do them. The mess from each helps the other. This also means that you won't have to remove the shoe mouldings...avoiding all the problems of possible splitting, replacement, etc.

d. If THE BASEBOARDS aren't to be stripped, then you'd best remove the shoe mouldings. If the baseboard is painted, run a sharp knife between the shoe and the baseboard to cut the paint film so it doesn't chip or flake.

e. AREAS AROUND PAINTED DOOR FRAMES that you don't want to have to repaint require careful stripping. Strip an area about 2 in. wide, using a ½-in. brush and very clean wiped spatulas first. Then, clean a wider area to about a 6 in. distance with a wider brush--before progressing to the floor itself. This way, you've cleaned the critical areas first—before fatigue and the temptation to rush sets in.

Non-Flammable Remover

BE SURE TO USE a non-flammable remover to eliminate any danger from an accidental spark or flame. And be sure to ensure adequate ventilation. (See The Journal May 1976, p. 9, for a discussion of potential hazards of paint remover fumes and safety procedures to follow.)

PLAN YOUR MOVEMENT through the room, not only in terms of avoiding painting (or, rather, stripping) yourself into a corner, but also in terms of supply or materials, removal of gunk, rest area, etc.

HAVE MORE CLEANUP MATERIAL than you think you'll need. This includes newspapers, plastic or cardboard buckets or cans (to wipe tools with and to contain the scraped-off gunk), lots of #3 (coarse) steel wool, extra rubber gloves, and lots of rags (old towels or wash cloths are ideal).

DO CORNERS FIRST, and then the edges. If there are any other unique or problem areas, get them done first—cleaning around them to a width of 6-12 in.

IN DOING THE CENTRAL FLOOR area, I'd suggest a space about 18 in. wide (a width you can easily reach across) by 4-5 ft. long—running with the flooring—as a basic working unit. Coat the first unit with remover, then go on to coat a second unit. By then, the first unit should be ready for scraping with a wide-bladed spatula. If necessary, wait a little longer until the remover has soaked all the way through. Let the remover do the work.

Use the spatula to get the wax and floor coatings off, sweeping the gunk to the second unit. Then, coat the first unit a second time, coat a third unit, and scrape the second unit. I find I can work three units at a time this way —but never more than three!

Back And Forth

WHEN YOU COME BACK TO THE first unit (having scraped the second, coated a third and recoated the second), get a good fistful of steel wool in your gloved hand, and, with a circular motion, stir the residue in the area. The object at this point is not to pick up the gunk, but rather to use the cutting edge of the wool to cut through the more stubborn spots. Now, go on to the second unit and do the same circular swirling stirring up.

COME BACK TO THE FIRST UNIT, and with a "picking up" motion of the wool, try to wipe up much of the gunk. (If the finish is very thick, you may need some more stirring. But I've done most floors with just two coats, using this technique.) Once you've used the steel wool to wipe up—always in the direction of the next unit—as much sludge as you can, use a piece of absorbent rag to wipe up the residue, working with the grain of the wood.

YOU SHOULD SEE FLOOR, cleaned, at this point. Use a clean rag to wipe hard again to really clean the area. Then go on to the next unit for the steel wool and rag pickup. The floor that is cleaned, but still slightly damp from the remover, will look the way the floor will ultimately appear after the final finish is applied.

AS YOU CONTINUE, you may see a spot or two that still has finish remaining. Unlike sanding, this is easily remedied by going back with a bit more remover, steel wool and rags.

REMEMBER, as you progress, to overlap units slightly to ensure that no lap marks show up. When you start to work across the floor, the new units should overlap the completed ones by the width of one floorboard.

Finishing Touches

ONCE YOU'VE finished the entire room, the temptation is to relax. Don't! Go over the entire floor again with a careful eye. With a sharp scraper in one hand, and a terry cloth rag wet with remover in the other, hit any of the minor spots that need further work. The reason for not waiting is that any finish remaining will still be internally soft from the big job. They are much easier to remove while in that softened condition than when they've had a chance to dry. A thin-bladed, rounded-edge screwdriver often is an asset at this point in clearing grooves and cracks between boards. A nutpick is also helpful.

IF THE FLOOR HAD BEEN STAINED, you should find that much of the color came off with the original coat of remover. But if you still want more of the stain up, use another medium coat of remover. Leave it on until it has almost dried out, then attack the surface again with medium or fine steel wool and the terry cloth rags for pickup. It's fairly easy—since the remover is doing all the work—but it does take more time.

IF THE FLOOR HAS SLIVERS or board edges that must be reattached, wait a couple of days for the remover to evaporate fully. Then, in stockinged feet, go over and lift the sliver edges. With whatever tool works best, get the dirt, sludge and wax off both surfaces. Then glue the splinter back down. I've had good luck with epoxy; but if you don't get the surfaces thoroughly clean, the epoxy won't hold. Keep whatever glue you use off the surface of the floor. The glue will seal the pores of the wood and will keep any stain or finish from sinking in.

FINALLY, reset any nailheads that showed up during the stripping operation. Now you are ready to apply the final finish.

The Best Floor Finish

EVERYONE HAS his or her favorite floor finish. Several articles on this have appeared in previous issues of The Journal. I'll pass along my experiences which may be of benefit to some.

I AM TOTALLY DISENCHANTED with polyurethane varnishes. Scratches and nicks seem to be magnified by the slight crazing of the plastic coating around the scratch or nick. As these nicks and scratches accumulate, the floor looks worn beyond its years.

NOR AM I PLEASED with the "gym" floor finishes. Not only is the coating too evident for my tastes, but the drying times touted on the can can only be considered an optimistic estimate for a very dry day. Never have I had the drying time less than three days. Once I waited five days to recoat. You can imagine the problems of dust control while waiting for the tackiness to go away.

I PREFER a satin finish for a floor rather than a high-gloss appearance. I find I get best results with a penetrating oil finish... specifically Watco Danish Oil Finish. It is manufactured by Watco-Dennis Corp., 1756 22nd St., Santa Monica, CA 90404. It's the only finish I'll ever use on my own floors again.

BESIDES THE SOFT SATIN appearance the penetrating oil gives, it has several other advantages that I like:

- It's easy to touch up a heavily worn area by simply applying more of the penetrating oil (after surface cleaning). No need for sanding or stripping.

- You can refinish one floor and then go on to strip and refinish an adjacent room. When the two refinished floors are joined, there are never any overlap marks where the new and old work meet.

THE ONE DRAWBACK of the penetrating oil is that it is not the easiest finish in the world to apply. You flood the surface with penetrating liquid, reflood after 30 min., and then rub the excess off after another 30-60 min. If you don't rub the excess off in time, the surface residue gets tacky, and has to be "dissolved" with more liquid. No big deal, but it is easy to let your belief in your own rubbing ability get the best of you and cause you to coat a bigger area than you can rub in the alloted time.

Floor Maintenance

LIKE MANY PEOPLE, I'm lazy, and frequently my intentions are better than my follow-through. Floors with a penetrating oil finish should be waxed. And I have used a paste wax (Trewax) on some of my floors—hand applied and buffed. But there are other rooms where I just haven't gotten around to waxing. With the single exception of the entry area (where the traffic is the greatest) the unwaxed floors have held up fine.

ON THE WORN AREAS of both the waxed and unwaxed floors, I've successfully come back a year or two later and touched up the bare spots with more Watco. I just let it soak in, then buff off the excess. The surface looked as good as new, with no "patched look."

WAXING TWICE A YEAR is a good idea for rooms that get heavy use. In lighter wear areas it's not really necessary—as long as you touch up the bare spots once a year or so. ■■

Daniel J. Mehn is an application development analyst for a large computer maker. A native New Orleanian, he now lives in an old house that is only 10 blocks from the house he grew up in. Dan also refinishes and builds furniture (with champagne taste and a beer budget, he says).

How To Hide An Air Conditioner

WE WANTED to add air conditioning to the main parlor of our restored Federal-era home...but the idea of a big machine sitting in our beautiful windows was more than we could bear. Central air conditioning was out of the question because we didn't have the ductwork. And we weren't about to cut a hole in the side of the house just to accommodate the electric monster.

THE SOLUTION, when it occurred to us, seemed strange—but it worked fine: Install the air conditioner in the fireplace! An air conditioner is essentially a heat pump. It absorbs heat from the air in the room and transfers it to the outside air. So why couldn't the machine pump hot air up the chimney, we asked.

I MOUNTED THE MACHINE by placing it on a sturdy wooden box on the bottom of the firebox. I then cut a plywood panel that would mask off the rest of the fireplace opening. Cracks around the edge of the panel were plugged with putty-like rope caulk that's sold for sealing drafty windows. The panel was painted black suggest an open fireplace.

IT ONLY TAKES a couple of minutes to undo this setup in the fall when we want to use the fireplace.

D. J. Brown
Richmond, Va.

(Shingles--Cont'd from page 85)

build up on shaded portions of a roof and in time will force the shingles apart, allowing moisture to enter. Dirt and debris can accumulate on a poorly maintained roof surface, slowing the run-off of water and allowing the shingles to absorb moisture, inviting fungus attack. Even the most decay-resistant woods will show signs of rot if they are allowed to stay damp over extended periods of time.

WHEN SHINGLES become pulpy and soft from rot, weather extremes to which they were immune when sound will help accelerate deterioration. The roof will become especially susceptible to driven rain and wind.

Reroofing

WHEN THE DECISION is made to reroof a house with wood, the choice of whether or not to roof over the existing surface must be faced. Many roofers seem to be of the opinion that there really is no choice, that the old roof must come off--it isn't so!

SUCCESSFUL OVERROOFINGS HAVE BEEN going on for years. The prejudice against the maneuver seems to lie in the fact that the result tends to look lumpy at times. Rather than taking the time to explain why the rocky roof job wasn't his fault, most roofers would rather avoid them altogether. There are numerous advantages to leaving the old roof intact.

OVERROOFING provides a double roof with extra insulation value and storm protection. The interior is safe from the weather during the application period. Eliminated is the mess in the yard along with the corresponding clean-up; and one is saved the misery of stripping the old roof off.

THERE ARE DISADVANTAGES AS WELL. It may be very difficult to find a sound surface in which to nail. As mentioned previously, overroofing onto a badly disintegrated roof may cause the finished surface to appear very irregular. Any roof sheathing which proves to be rotten must be replaced; this procedure isn't possible without removing the roof over it, so any roof with a preponderance of bad sheathing might as well be stripped completely. One last remark on stripping off old roofs: many areas of the country have building codes which limit the total number of roofs on a structure; three is common.

Overroofing

WHERE OLD ROOFING is to remain, a six-in.-wide strip of the existing shingles must be removed from all eaves and gable edges around the perimeter of the roof. Onto this stripped-back area new boards of one in. thickness (1x6) should be applied.

THESE BOARDS PROVIDE a sturdy base at the edges of the roof and conceal the old roof from view, eliminating the "Dagwood sandwich" look one so often sees at the eaves of an overroofed house.

NEXT, THE EXISTING RIDGE covering must be taken off and replaced with a strip of bevel siding on either side, with the butt edges overlapping at the peak. This step precludes the formation of a mound of roofing material at the ridge where roofing is applied in extra layers. (See figure 1)

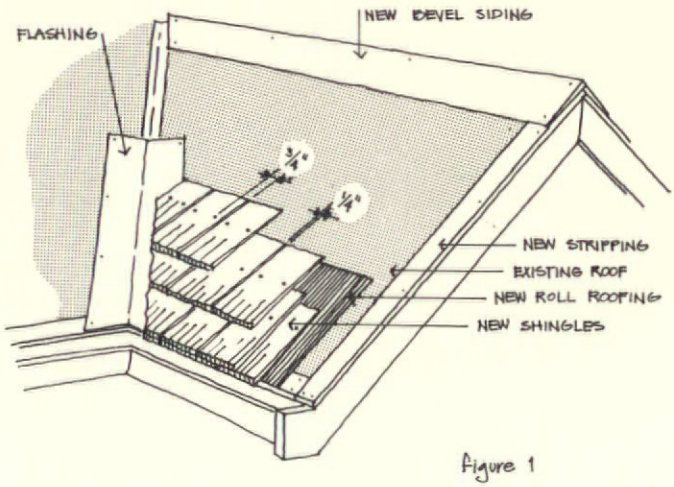


Figure 1

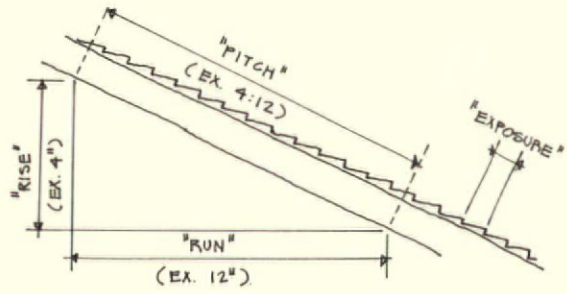
NAILING OF THE SHINGLES is extremely important. Use nails that are able to penetrate at least one-half in. into the roof sheathing underneath the old roof. In most cases this would be either 5 penny (1-3/4 in. long), or 6 penny (2 in. long) nails. Be sure to use rust-resistant nails. Aluminum nails will do, but there is nothing like a hot-dipped zinc-coated nail for holding power. Ordinary galvanized nails, like aluminum ones, are rust resistant but smooth.

TRY TO ASSURE THAT any flashing used is of the same material as the nails. Don't mix aluminum flashing with galvanized or vice-versa. The dissimilar metals will react with each other. Don't use bright or blued steel nails as they are not rust resistant.

TO BEGIN THE SHINGLE COURSING, first determine the exposure required on the roof. The exposure is the amount of each shingle exposed to the weather. Red cedar shingles come in three lengths: 16, 18, and 24 inches. To determine the exposure, see the accompanying chart. Shingles are not recommended for a rise of under 3 in. in 12 in. of "run." (See chart on next page.)

NEXT, BEGIN with a double thickness of shingles at the bottom edge (eave) of the roof, applied over the new 1x6 strip board. In very cold climates it is recommended that a strip of smooth-surface 45-lb. roll roofing be laid under the shingles at the eaves to act as a waterstop for any moisture backed up by ice dams formed during cold spells. Ice dams often build up on the overhang of roofs and in gutters causing melting snow water to back up under shingles. Damage to ceilings inside and to paint outside results. Lay the roofing over the eaves extending it upward well above the inside line of the wall.

LET THE SHINGLES PROTRUDE over the eave edge to assure the proper drip into the gutter.



SHINGLE EXPOSURE CHART*

ROOF PITCH	SHINGLE LENGTH 16"	18"	24"
EQUAL TO OR MORE THAN 4:12	5"	5½"	7½"
LESS THAN 4:12	3¾"	4¼"	5¾"
LESS THAN 3:12	SHINGLES NOT RECOMMENDED		

*as recommended by the Red Cedar Shingle and Handsplit Shake Bureau.

About two in. would normally be sufficient. After the first course is laid at the eave, tack a long, straight board onto the shingles five in. or more up from the edge, depending upon the exposure desired. The board will act as a straight edge to line up the next rows of shingles. Start the next row against this guide and nail each shingle down using the proper length and type of nail, two to a shingle only. Now matter how wide the shingle, use only two nails.

PLACE THE NAILS NO FURTHER than 3/4 in. from the side of the shingle and make sure that the next row above will cover the nails by about one in. Drive the nails until the heads meet the shingle surface, but not further, as nails have less holding power when driven with the heads into the shingle surface. (Especially if they cause the shingles to split.)

SPACE SHINGLES 1/4 in. apart, allowing the individual shingles to expand and prevent possible warping. Joints between the shingles should be offset at least 1-1/2 in. from the joints between shingles in the course below. Joints in succeeding courses should be spaced so that they do not directly line up with joints in the second course below.

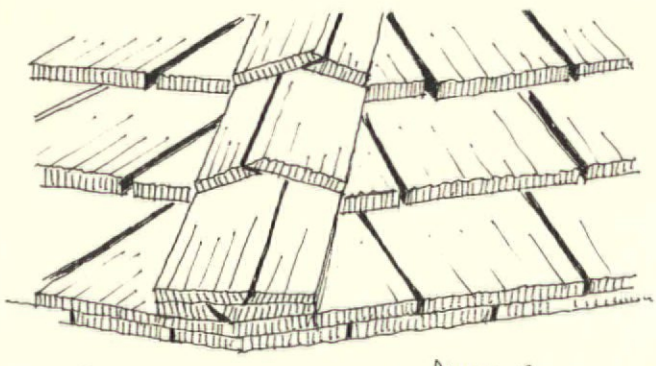


figure 2

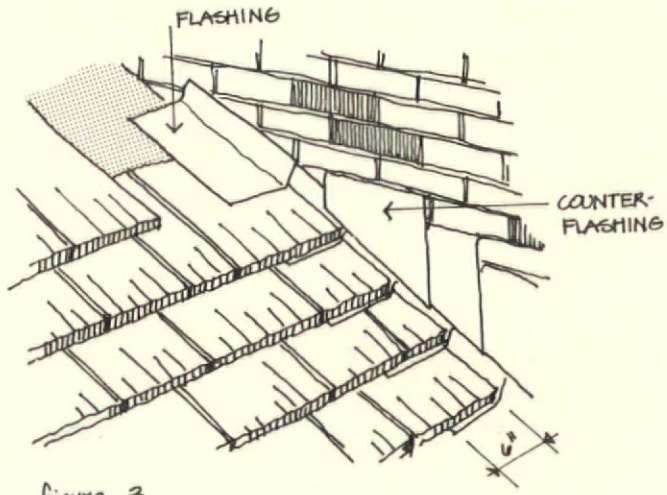


figure 3

WHEN THE RIDGE is reached at last, choose shingles of uniform width, 3 to 5 in. Cut back the edges on a bevel and alternate overlap. A great deal of time and effort can be saved here if factory assembled hip and ridge units are available. (See figure 2)

VALLEYS CAN BE ESPECIALLY troublesome. Most roof leaks occur at points where water joins to run off the roof, or where the roof abuts a vertical surface. In these potential problem areas use metal valleys and flashings to maintain a watertight roof. Extend valley flashings beneath shingles at least ten in. on either side of the valley center if the roof pitch is less than 12 in. in 12 in.

FOR STEEPER ROOFS, the valley sheets should extend at least seven in. up either side. As the roof shingles are laid, those which adjoin valleys should be trimmed parallel with the valleys to form a six in. wide gutter. Be sure that the grain of the shingles is the same as it is in the main body of the roof to maintain a pleasing appearance. Keep nails as far from the valley center as possible. If you pre-cut shingles to be used in the valleys from wide shingles found in the bundles, you will have a good supply of the proper size. Furthermore, the sections cut off can often be used on the other side of the roof hips.

ANYTHING WHICH PROTRUDES through the roof or abuts it should be flashed and counter-flashed to prevent water leakage. Flashing should extend at least 6 in. under the shingles and should be covered by counter-flashing. (See figure 3)

VENT PIPE FLASHING can cause problems if not applied in the proper manner. Allow the flashing to show on the down-slope side of the vent. The inexperienced person trying for a neat appearance will often try to cut the shingles out all around the vent. This will have the effect of forming a dam on the downhill side, creating a place for debris to collect and subsequently backing up runoff water. By leaving the down-slope side of the flashing showing, debris will wash away. One should

also allow about one in. clearance around the vent pipe on the other three sides to assure that no debris will hang up a these points.

A COUPLE OF MORE POINTS. To avoid leaks, wood shingle roofs should not be subjected to unusual strains. If it is essential to walk over a roof for any reason, wear soft soled shoes and tread lightly. When applying the roof, the same rule pertains; never wear spiked footwear. And finally, when the roof is completed, keep it clean. Assure that no leaves and twigs are lodging behind the chimney or vent pipes. With proper care, the wood shingle roof you have applied should give years of durable service. A good source of additional information is: The Red Cedar Shingle and Handsplit Shake Bureau, Suite 275, 515 116th Ave. N.E., Bellevue, WA 98004.

C. R. Meyer is a member of Seattle's Historic Preservation and Development Authority, a public corporation created for the preservation and enhancement of Seattle's historic heritage. He is presently involved with the restoration of the Stimson-Green house on a professional basis, and of his own 1911 house on Queen Anne Hill.

Helpful Publications

Storefront Rehabilitation

A VERY HELPFUL leaflet is available for those involved in storefront rehabilitation. The aim of the leaflet is to help store owners improve their storefronts so that the result is both architecturally and commercially attractive, and it contains step-by-step guide to developing a rehabilitation scheme, including architectural investigation, cleaning and painting, and choosing effective signs. Copies of "A Practical Guide to Storefront Rehabilitation" are available for $1.00 postpaid, from the Preservation League of New York State, 13 Northern Boulevard, Albany, New York 12210. Special rates are available for large quantity orders.

Slate Roofs

THE VERMONT STRUCTURAL SLATE COMPANY has reprinted a 1926 book, "Slate Roofs." It is a manual for the proper design and installation of slate roofs, including architect's specifications as well as information on repairing a slate roof. The book is written for the professional, but the homeowner who has a slate roof can benefit from the design and repair information. Send $5.25 (includes postage) to the Vermont Structural Slate Co., Inc., Fair Haven, Vermont 05743.

Caring For Old Photographs

OLD PHOTOGRAPHS are an important tool in restoration. Historical societies and individual home owners are collecting photographs. These people will find a wealth of information in "Collection, Use, and Care of Historical Photographs," by Robert A. Weinstein and Larry Booth. This book is the first guide for amateurs to cover both the technical and the philosophical aspects of collection. It is intended not only for hobbyists but also for archivists, librarians, curators, and others who encounter historical photographs in their work. This harcover book, 222 pages, contains 83 historical photographs as well as a bibliography, appendix, and index. To order, send $16.00, postpaid, for each copy of "Collection, Use, and Care of Historical Photographs," to: American Association for State and Local History, 1400 Eighth Avenue South, Nashville, Tennessee 37203.

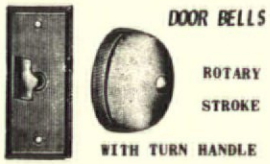
Furniture Refinishing

WHILE REFINISHING FURNITURE may not always be much fun, a new book by George Grotz can make the chore far more pleasant. Written in an entertaining style, it is also full of information on how to fix and refinish over 50 styles of furniture--from Queen Anne to Eastlake. Grotz discusses the characteristics of woods and the way to repair, stain and refinish. There is also specific instructions for individual problems from Armoires to Zatlins. "The Fun of Refinishing Furniture" is $4.95, plus 50¢ postage, from The Pequot Press, Dept. J, Chester, Connecticut 06412.

Antique Doorknobs

MAUD EASTWOOD has perhaps the largest collection of antique doorknobs in the country. She has put her knowledge gained in the collecting process and, in over 350 photos, a good deal of her collection into an informative little book, "The Antique Doorknob." Facets of the collection include: history, dates, design sources, patents, advertising, schools of ornament. The readers gains a good deal of knowlege about American design and manufacturing as well as door hardware in general. A doorknob will never again be unnoticed and she also provides display ideas for those who get the collecting bug. To order, send $5.95 to: The Antique Doorknob, 3900 Latimer Road North, Tallamook, Oregon 97141.

Products For The Old House



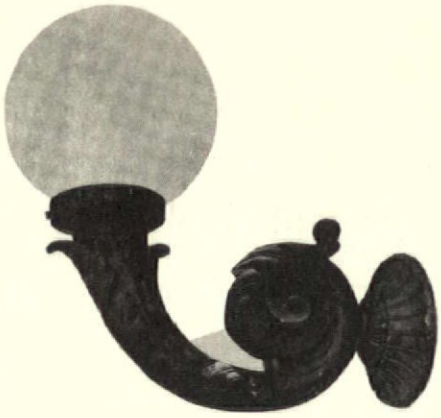
"Back To Basics" Housewares

PRIMARILY a supplier of tools and utensils for working farms, Cumberland General Store is a delight for anyone setting up a "back to basics" kitchen. If you remember a well-made common sense utensil from your mother's kitchen that everyone assures you "they don't make anymore," chances are you'll find it in this catalog.

AMONG THE ITEMS: Cast iron cookware, heavy tin pieplates, coffee mills, fruit presses, large pots & kettles, iron fireplace grates, kerosene lamps, replacement glass lamp chimneys, wash boards, hand water pumps, woodstoves galore (including an exquisite Victorian style English "Tortoise" stove).

BESIDES THE PROSAIC kitchen and farm tools, the company also carries many items that could be considered exotic, such as: Brass cuspidors, porch swings, surrey with fringe on top, dulcimers and—enamel chamber pots.

CATALOG #277 can be ordered for $3.00 from: Cumberland General Store, Dept. O, Route 3, Crossville, TN 38555. It's delightful for browsing—even if you never order a thing.



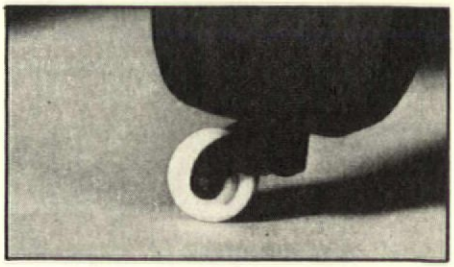
Exterior Lanterns

BACK IN NOVEMBER 1975, Stanley Levine of MarLe Co. asked us if we thought there was a market for turn-of-the-century exterior lanterns.

WE TOLD STANLEY we'd ask the readers—and published a sketch of the proposed lantern in the November issue. The response was quite encouraging —so he went ahead and had molds made for the lantern you see illustrated above.

IN ADDITION to this Edwardian design, MarLe also offers 19 Early American lantern styles and a Victorian carriage lamp. The lanterns are all hand-made of extra heavy pure brass by experienced craftsmen.

MARLE NORMALLY charges $2 for its catalog. But Stanley Levine says he'll send one free to fellow Journal subscribers. Write to him at: MarLe Co., 170 Summer St., Stamford, CT 06901. Tel. (203) 348-2645.



White Porcelain Casters

ANTIQUE style white porcelain casters are now available new. The wheel is ½ in. wide and 1-1/8 in. dia. Die cast housing has a black finish. Caution: If you have an old piece of furniture, the shank on these casters might be different from the holes in your piece. You might have to re-engineer the openings.

CASTERS come in sets of four and cost $7.98 per set, postpaid. Order from: Minnesota Woodworkers Supply Co., Dept. OJ, 21801 Industrial Blvd., Rogers, MN 55374.

THE OLD-HOUSE JOURNAL

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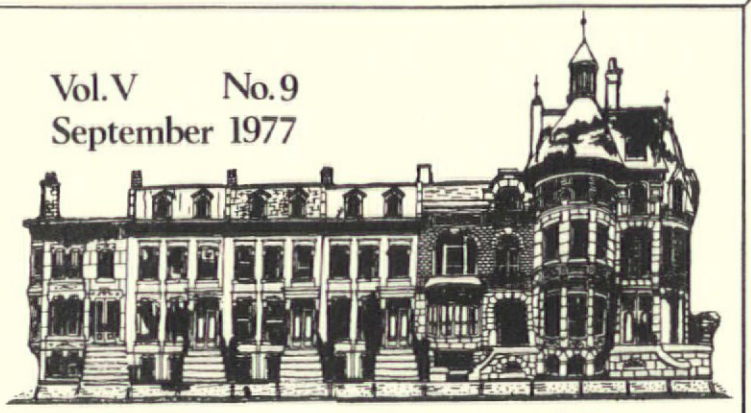
September 1977



Renovation And Maintenance Ideas For The Antique House

The Energy-Efficient Old House

In This Issue

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Coming Next Month

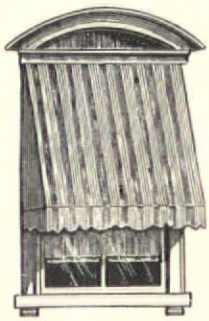
WOOD STOVE KNOW-HOW

By Clem Labine

WHILE IT IS IMPORTANT for old-house owners to pay attention to energy conservation, it's equally important that we not rush in thoughtlessly and tack on every gimmick that's being hustled by fast-buck salesmen. Much of energy conservation is common sense. Significant savings can be made by changing habits—without ever touching the house.

AS AN EXAMPLE OF the pitfalls that await the unwary, we recently saw an 1815 Greek Revival farmhouse that had an 1895 addition. The 1815 section had been insulated two years ago with loose fill blown into the side walls. Today, all the paint is peeling from the clapboards on the insulated walls. The 1895 section, which wasn't insulated, has its paint still intact.

OWNERS OF HISTORIC HOUSES, especially, should beware of taking steps in the name of energy conservation that will either alter the architectural character of the house or else harm the fabric of the structure. There are often less drastic methods that can achieve comparable results. For instance, re-examine the way you operate the house. These pointers seem self-evident, yet most of us have developed profligate habits that are a carry-over from the era of cheap energy.



Changing Habits

HERE ARE JUST a few checkpoints against which you can measure your own energy-consciousness:

(1) In winter, set thermostats at lowest possible settings. Insulate yourself with sweaters (that's easier and cheaper than insulating the house).

(2) In summer, utilize natural cooling as much as possible before turning on the air conditioner (more on this later).

(3) Don't heat (or cool) rooms that aren't in use. Close off areas of the house that aren't being occupied.

(4) Reduce levels of illumination. (Contemporary interiors are over-lit by historical standards, anyway.) Besides the power consumed by lighting, heat from the lights adds to the cooling load in summer. If you are using an air conditioner, it puts you in the position of using electricity to make heat (in the lights) and electricity (in the air conditioner) to remove the very same heat.

(5) Heating plant should be cleaned regularly for maximum fuel efficiency. If you can't do this yourself, have a

(Continued on page 105)

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Removing Paint From Brick Fireplaces

EDITOR'S NOTE: In the July 1977 issue, reader Jean Watson posed the question of the best way to remove paint from a brick fireplace. The responses we received indicated that there isn't any super-easy procedure (at least that we've been able to discover). Two representative replies appear below.—CL

To The Editor:

IN RESPONSE to the question from Jean Watson, I had the same difficulty with a brick kitchen fireplace. Eleven previous coats of paint stoutly resisted chemical removers.

I FOUND that a hand-held propane torch and a scraper are the most effective. Start in a remote corner to judge the heat and time required to bubble the paint. With time and patience you'll have a clean surface. Good ventilation should be provided in case any of the paint being torched has lead pigments.

IT IS VERY DIFFICULT, however, to use the torch in areas where chemical removers have been tried. The torch works best when you can remove thick layers in a single pass.

Joseph S. Lada
Bridgehampton, N.Y.

To The Editor:

WE MANAGED TO CLEAN PAINT from my huge floor-to-ceiling fireplace by renting a sandblaster. I realize that sandblasting exterior bricks can have adverse effects on their weather resistance, but this is not a problem facing interior brickwork.

A BRAVE FRIEND and I rented a huge compressor (the kind on a trailer), the sandblaster, and all the protective gear from a rental tool company for $40. We had it from about 3 p.m. on a Saturday until Monday morning.

PREPARATION WAS THE SECRET. We taped plastic over every doorway, removed everything we could from the living room, then used masking tape and plastic to form a huge floor-to-ceiling "bag" in front of the fireplace to work in. The entrance was an overlap of about 4 ft. in the plastic. We also found a floor fan useful to blow in the entrance—to blow some of the dust up the chimney (it doesn't settle).

I REMOVED THE WOODEN TRIM from the fireplace, and protected the adjacent plaster walls with fiberboard sheets. The only damage that occurred was a narrow groove cut into the plaster where it joined the brick. This was easily repaired.

THE SANDBLASTING ITSELF was not difficult, as it resembled handling a garden hose. The stream of sand did exert more force than water, however, and I would have tired quickly had there not been a second worker. The only caution is that the sand cleans extremely quickly and will abrade any surface it touches. This means using a light touch and protecting all surrounding materials.

TOTAL TIME to clean the 8-ft.-wide fireplace was 3 hours—and most of that was time spent waiting for the dust to settle. Immediate cleanup is imperative, as the brick dust generated by the sandblasting is extremely fine.

THE FIREPLACE came out beautifully and required no repointing or repair. I understand that smaller sandblasting units are available...and these would probably be fine for smaller areas.

Candace Plato
Chevy Chase, Md.

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Back To The City Conference: October 28-30

THE FOURTH ANNUAL "Back To The City" Conference will be held this year in San Antonio, Texas, Oct. 28-30. Like its predecessors, the meeting will focus on problems and techniques of urban revival and urban preservation.

SESSIONS WILL cover such topics as: Organizing neighborhoods; planning for renovation, waterfront districts, new construction in old districts, and paint techniques for old houses. In addition to the sessions, all who attend will be dinner guests one evening in a restored San Antonio home.

FOR DETAILS on program and registration, write: Conrad True, San Antonio Conservation Society, 107 King William St., San Antonio, Tex. 78204. Telephone (512) 224-6163.

The Bungalow Style

By Renee Kahn

THE PEOPLE NEXT DOOR live in a bungalow. They were quite surprised to hear this, having assumed that their modest cabin just grew, without any aesthetic rhyme or or reason.

THEY WERE EVEN MORE SURPRISED when I explained that their humble bungalow was far more than a winterized cottage, and that its heritage was a combination of Japanese, Spanish, Bengali, and Swiss architecture, to say nothing of our native barns, log cabin, stick, and shingle style. As if this wasn't impressive enough, I threw in Frank Lloyd Wright and the Prairie style. "A variation of Bungalow," I explained.

THE TERM ITSELF comes from the Hindustani word "Bangla" (literally--from Bengal) and signifies a low house surrounded by porches. These houses were not typical native dwellings, but were the "rest houses" built by the English government in India for the use of foreign travellers. Rambling one storey structures, they were designed to withstand the heat of the Indian climate, and had wide overhanging eaves, stone floors, and long, breeze-filled corridors. Deep verandahs (another Indian word) provided additional shade. The word "bungalow" was brought back to England by retiring civil servants, and eventually came to describe any modest, low-slung residence of picturesque lines.

IN THE UNITED STATES, the term "bungalow" supplanted the word "cottage" and was popular because of its euphonious sound and exotic connotations. During its heyday, prior to World War I, thousands of bungalows were built.

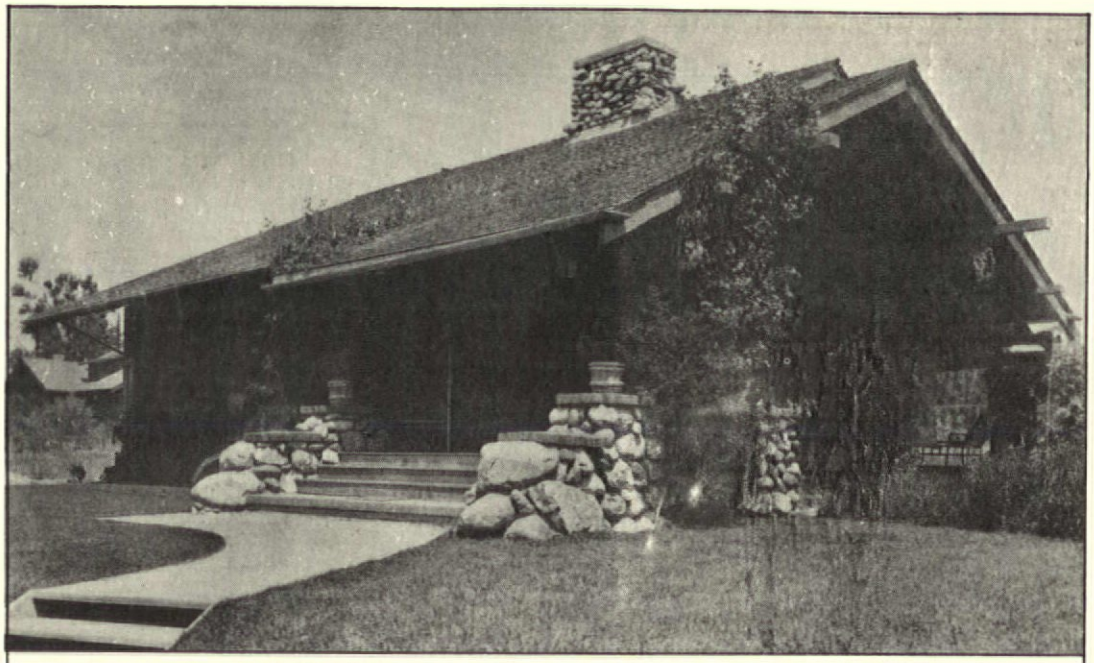
SOME WERE EXTRAORDINARY examples of fine craftsmanship, such as those built by Greene & Greene in California, while most were hastily slapped together from $5.00 mail order plans.

DESPITE WIDE VARIATIONS in style, cost and location, the bungalow had certain, almost universal characteristics. Its lines were low and simple, with wide, projecting roofs. It had no second storey (or at most a modest one), large porches (verandahs), and was made of informal materials. It was primarily for use as a summer, or resort house, except in the warm California climate, where it was easily adapted to all year roun use.

CONSTRUCTION MATERIALS emphasized the humbl and the unostentatious. One wit defined the bungalow as "a house that looks as if had been built for less money than it actu ally cost." Another famous remark was "the least house for the most money." Although lo cost materials such as rough boards, and fiel stone were emphasized, the bungalow was not a inexpensive house to build. With all, or mos of the rooms on one floor, there was a need for more of the costly wall and roof area tha in a two storey house of comparable size. In addition, more land was needed to accomodate this spread out plan. Despite these cost fac tors, the one story house, without stairs for the housewife to climb, was enormously popula and was eventually transformed into the ranch house of today.

PORCHES WERE an essential part of the Bungalov style, but unfortunately, they were designed for sunnier climates, and darkened the interic of the house. This was often overcome by constructing the porch with an open roof, like a trellis, which could be covered by vines or an awning. Porch roofs frequently echoed the gable of the house, but were placed off to one

And advertisement for bungalows that appeared in "House Beautiful" in May 1908.



Greene and Greene designed this bungalow in Pasadena, California in 1905. Although the large overhanging eaves are designed for a sunny clime, this feature was copied in the north and east in many bungalows inspired by this design. Photo from the Greene and Greene Library appears in the book, "Greene & Greene."

side. Posts were made of boulders, or covered with shingles, contributing to the desired "natural" look. This natural look also extended to the outside wood finish which was either left plain, or stained, sometimes with a lump of asphalt dissolved in hot turpentine.

WHILE THE NAME and original concept of the Bungalow style came from India, it was native Japanese, Spanish, and Swiss architecture which influenced it the most. There were other influences as well: Creole plantation architecture, and American Stick and Shingle styles. Even barn and log cabin construction played a part. In other words, the entire repertoire of international timber building styles.

IT MAY SEEM DIFFICULT to comprehend, but the Chicago World's Fair, the great Columbian Exposition of 1893, which plunged America further into a Classical revival, also encouraged the development of the Bungalow style.

THE ECONOMIC SETBACKS of the 1890's provided a need for simpler residences, and the Fair showed the public how these might be made to look. Much attention was focused on the Japanese buildings, as well as the Louisiana exhibit, styled after a Creole plantation house. In the decades following the exposition, Chicago's wealthy North Shore became dotted with bungalows, largely influenced by Louis Sullivan who had experimented with the form a few years earlier.

IT WAS CALIFORNIA, however, which became the hotbed of the bungalow. Here, the one storey cottage, planned more for comfort than elegance, became a symbol of the state. A number of factors were responsible. First of all, California was traditionally receptive to experiments and new ideas. The mild climate, and spacious terrain lent themselves to informal construction and casual living. There was also no conservative colonial tradition to return to, as there was in the East. Whatever tradition there was, was the Spanish hacienda style which was readily compatible with the bungalow.

THE PROXIMITY with the Orient also encouraged an interest in the Japanese house, and contemporary magazines referred to "Bungalows in the Japanese style" or "the Japanese Bungalow." These buildings were rambling and irregular in plan with much open timber work, lightweight siding, and deep eaves. Other Oriental touches were posts resting on sunken round stones, and turned-up eaves, pagoda style.

THE CALIFORNIA BUNGALOW reached its zenith in the turn of the century work of the brothers, Charles and Henry Greene. They were architects in the Craftsman style, not as famous as Frank Lloyd Wright, but arising out of the same tradition. They succeeded in creating a rambling, informal house which used natural materials, and was superbly integrated with the landscape. While Japanese, Swiss, and Spanish influences are evident, they managed to transform them into a uniquely Californian expression.

The "Ultimate Bungalow" Book

THE WORK of Charles and Henry Greene is best known for their beautiful "ultimate bungalows" built during the first decade of this century. Part of the Arts and Crafts Movement, their famous California buildings are shown in photos and drawings in a new book, "Greene & Greene." This comprehensive study not only explores the structures and their interiors, but is an excellent biography of the famous brothers as well. This large, hardcover book is $24.95 from: Peregrine Smith, Inc., 1877 East Gentile Street, Layton, Utah 84041.

AT THE OTHER END of the quality spectrum were the innumberable plan books which spread the California Bungalow style. "Direct from Bungalow land," they advertised. Henry L. Wilson, the "Bungalow Man," one of its most successful promoters, produced a book in 1910, partially entitled: "The Bungalow Book, A Short Sketch Of The Evolution Of The Bungalow From Its Primitive Crudeness To Its Present State Of Artistic Beauty And Cozy Convenience..." It cost a dollar, and in two and a half years time went into five editions. While Wilson claimed Oriental and Spanish Colonial influences, his most obvious source of ideas was the Swiss chalet.

IT WOULD BE ALMOST IMPOSSIBLE to list all the variations of the bungalow style. There were almost as many as there were bungalows. However, certain broad classifications do exist.

ONE OF THE MOST POPULAR would have to be Southern California type and its offshoot, the Patio bungalow. Next, was the Swiss chalet, which was easily adapted to the bungalow form, most because of its wide, overhanging eaves. These were frequently built on a hill, or mountainsides, and had quaint balconies with sawn board railings.

ANOTHER PROMINENT VARIETY was the Adirondack Lodge, or Catskill summer home, which was usually a glorified log cabin. They soon became a fad with wealthy city families, and provided an elaborate mountain retreat for entertainment purposes. Built out of horizontally laid logs, they came the closest to a native American style of construction.

ALSO COMMON IN THE EAST was the New England seacoast bungalow, which had a strong Colonial flavor. Long and narrow, it stretched out along along the dunes, capturing the view and the ocean breezes. In keeping with bungalow philosophy, the seacoast bungalow harmonized well with its surroundings. Low, horizontal lines repeated the rhythm of the dunes, and silvery shingles captured the reflections of the water.

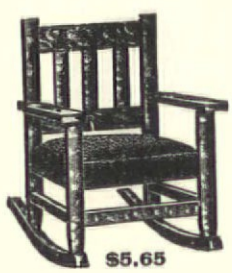
Ranch de Santa Fe, in California, circa 1924, combines the Spanish hacienda style with the popular bungalow.

THE IDEA OF HARMONIZING a house with its natural surroundings also lay behind much of the work of Frank Lloyd Wright. His versions of the Bungalow style were known as Prairie houses, and contributed significantly to the Bungalow vogue. Like the prairie, they emphasized gentle, horizontal lines. Their dormerless, wide-eaved roofs enhanced the feeling of closeness to the ground. While Wright was reluctant to acknowledge it, he was greatly influenced by Japanese architecture, especially in the strong relationship of his indoor and outdoor areas. Unlike the typical resort bungalow, Wright's houses were meant for all year round use, and were often two or more storeys high.

Interiors

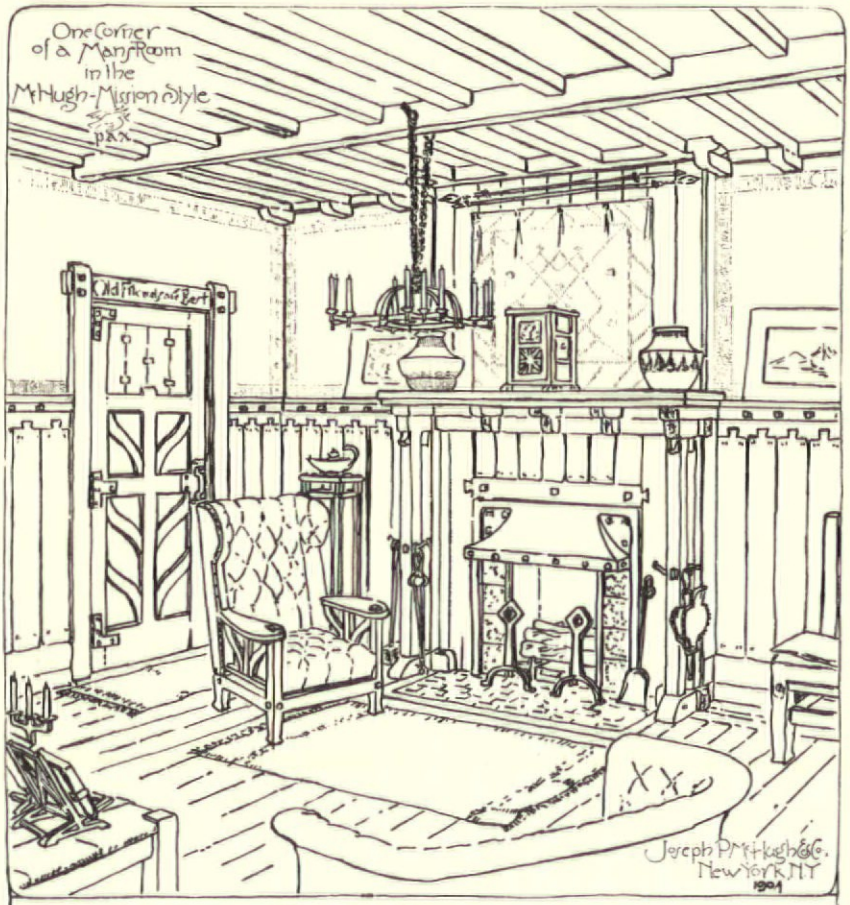
THE FLOOD OF LITERATURE after the turn of the century brought much advice on how to furnish the bungalow. Simplicity, and lack of pretension were the main goals. Gustav Stickley, the furniture maker, was also editor of the magazine "The Craftsman," and was one of the major promoters of the Bungalow style, which he referred to as "Craftsman Homes." In 1909 he wrote: "When luxury enters in, and a thousand artificial requirements come to be regarded as real needs, the nation is on the brink of degeneration."

STICKLEY, a disciple of William Morris, was also responsible for the sturdy oak furniture commonly known as "Mission." These comfortable, handcrafted pieces were considered appropriate for the bungalow, as were the plainer versions of wicker and rattan. Easy-to-care for leather or canvas covered the seats. No pretty bric-a-brac lay about, only sturdy Art pottery and brass or copper bowls. Matting and shag rugs were suggested for the floors; however, Orientals were "never out



$5.65

Described in the 1908 Sears, Roebuck catalog as a "strictly Mission rocker," this style of furniture was proclaimed by Sears to be "no longer an experiment but one of the most popular styles for all those who appreciate beauty and simplicity of design."



An Arts and Crafts interior--bungalows were meant to be furnished in a similar style. The predominately wood rooms were highlighted with touches of brass, copper, and lighting fixtures with colored glass or candles. Illustration from "The Forgotten Rebel," a monograph on Gustav Stickley by John Crosby Freeman, published by Century House.

STILL OTHER acceptable interior finishes were burlap, matting, or panelling made out of stock lumberyard doors nailed together. Ceilings were often beamed, especially in the living room.

FIREPLACES were a dominant feature of the bungalow, and one publication flatly stated that "a bungalow without a fireplace would be as strange as a garden without flowers." In deeping with the informality of the house, these were usually made of large, untrimmed rocks, and were without fancy mantels.

A FIREPLACE in the living room was an absolute necessity, but smaller ones could also be placed in other rooms. Generally speaking, "inconspicuous informality" was the goal.

The Style

IT SEEMS IRONIC that the bungalow originally had its greatest impact upon the intellectual upper middle class who valued it for its "honesty" and "practicality." Despite its lofty aspirations and exotic sources, the style ended up sloppily imitated in thousands of tacky boxes. It has come to represent both the best and the worst in American architecture from the turn of the century until the 1920's.

of place." Surfaces were simple, and covered with natural looking stains.

PLASTER WALLS WERE TO BE avoided unless the house was for all year round use. One possible wall treatment left the studding bare, another created a panelled effect with boards and battens placed at right angles to each other.

IT DID, HOWEVER, make positive contributions to the American home with its lack of pretentiousness, its use of natural materials, and its effort to integrate the house with its surroundings. Its direct descendant, the ranch house, a somewhat characterless version of the bungalow, remains today one of the most popular forms of domestic architecture.

STICKLEY SAW THEM as "...the kind of houses that children will rejoice all their lives to remember as 'home,' and that give a sense of peace and comfort to the tired men who go back to them when the day's work is done."

NO SMALL TASK.

Renee Kahn is a painter-printmaker, and teaches Art History and American Art at the University of Connecticut's Stamford Branch.

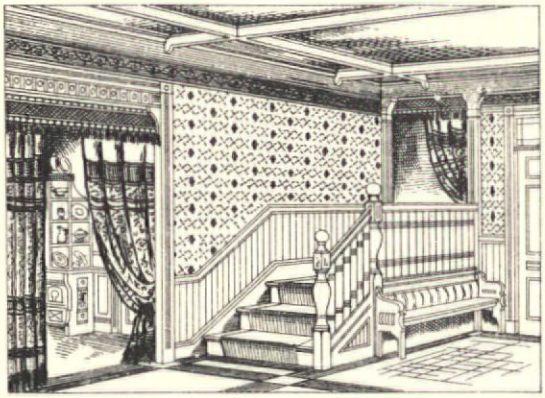
Electric and Gas—Ht. 19 in., fumed oak finish, 11 in. amber art glass shade, 9 in. skirt, square base and column. 1 in shipping carton, 10 lbs.

C3182—Electric...{ Each
C3183—Gas.....{ $3.25

10K6040 Beautiful Large Mission Style Hexagonal Electric Chandelier that hangs on

These wood and glass lighting devices were popular for the bungalow along with pierced metal lanterns.

Photo on page 99: Ann Carter



Portieres

A PORTIERE is a curtain or drape used over an arch or doorway. They were both decorative and functional and can serve the old-house owner for these two purposes today.

THE USE OF PORTIERES began in castles to keep the heat from the fireplace in a room and the drafts out. Colonial homes seldom required portieres as our first American houses were small and generally had doors between the rooms.

THE VICTORIAN HOUSE, with its high ceilings and generously proportioned rooms, brought back the portiere. Hanging an elegant drape in a doorway also fit in well with the Victorian's love of luxurious fabric and desire to leave no space undecorated. Often a portiere would be hung just for appearance and fastened to the doorframe so that it could not be drawn.

BUT IT IS THE FUNCTIONAL use of the portiere that is of interest in our present economy. By drawing a heavy velvet drape across a door of the room in use, and leaving the room not being used unheated, the big old house will require far less fuel. They can also keep heat in rooms and out of halls.

IN THE 19TH CENTURY portieres were almost always made with a cut or uncut velvet fabric. They were often made with a different color fabric on each side so that each room could have, in effect, a different drape on the same rod. Occasionally, in a richly furnished set of rooms, portieres would be hung on both sides of a door--usually the huge sliding doors between parlor and dining room.

FROM THE 1880's up to the turn of the century, maroon was the favored color. And maroon was most often combined with buff--maroon on one side, buff on the other. Also popular was maroon with crimson or olive. Deep browns and greens were the next most favored colors. Applique, embroidery and gimp were added for decorative interest.

THE HEAVY PORTIERES were generally taken down for the warm weather and lighter silk drapes were hung for strictly decorative effect. Because late Victorian houses had so much wood--walnut or oak--in the main rooms, the color, pattern and texture of the portiere was a desirable break in the austerity of the woodwork.

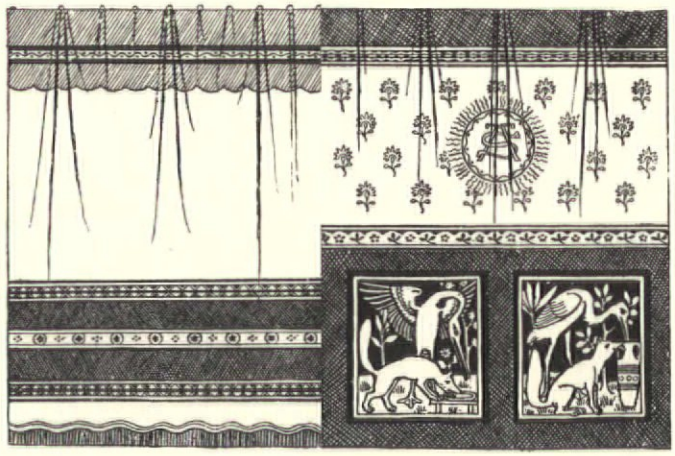
AS HOUSES BUILT after the turn of the century came under the influence of the Classical Revival and walls and wood became lighter, the portiere was made in lighter fabrics and in lighter colors--such as striped silk. But these were not much more functional than the beaded curtain that had a brief popularity in the 1890's. What we are concerned with here is the functional portiere.

Making Portieres

TO MAKE A PORTIERE it is necessary to have a good, heavy fabric. Velvets are available in mohair, cotton and silk. Brunschwig & Fils and Clarence House (see OHJ Buyers' Guide for addresses) can do embossing with 19th century rollers in many patterns. They also have the tassels and trim that were used for the most fashionable types of portieres. These firms deal only with the professional, however, and fabric and trim are quite expensive.

WASHABLE SYNTHETIC VELVETS are widely available and their appearance is very much the same. They are durable and far less expensive. The trimmings are not available but a little creativity can substitute. For instance, with a maroon velvet drape, stop about a foot from the floor and finish with a buff velvet. This would give the same proportion to the panel as it would have with trim. Horizontal bands of fabric in contrasting colors will also add to the period look and substitute for expensive gold trimmings.

FOR FULL INSULATION BENEFIT (also for soundproofing) the drapes should be lined. In



Two portiere designs from the popular decorating book, "Hints On Household Taste" by Charles L. Eastlake, 1878.

England, where portieres are commonplace, cotton flannel is used for a lining. Good results can also be obtained with a dacron filler normally used for making comforters.

INGRAIN CARPETS were often used for portieres. An ingrain carpet has double or triple woven cloth and is reversible. They were quite popular and relatively inexpensive. Usually woven in 36 in. widths, they required no more than adding rings on one end and to be hung on a rod. The Oriental rug was also used to make portieres, in particular, the type known as a "Turkey carpet."

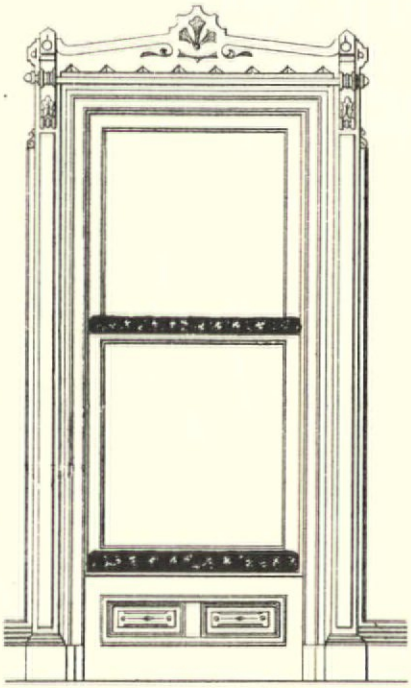
THE MOST COMMON WAY to hang portieres was on a wooden pole with wooden rings attached to the drapes. Poles were either set inside the door frame or hung on brackets attached to the face of the door casing. When attached to the casing, a deep valance was often used over the drapes.

A MORE UNUSUAL WAY OF HANGING the portiere was to drape the curtain over a rod and let a portion hang down to form a valance. Called a "Queen's Curtain," they were embroidered and appliqued and could be ordered through the mail from drapery firms. Since the part hanging down from the rod could be any length, and because they were meant to bunch up at the hem, it was truly a "one size fits all" item.

MOST PORTIERES were simply pulled to one side of the door when not in use, but some were fastened to the doorframe with a looped metal chain. Hardware stores sell a similar chain that is used for hanging lamps or plants. ■

Portiere made from a patterned fabric and edged with tassels are hung from brass rings on a pole painted white.

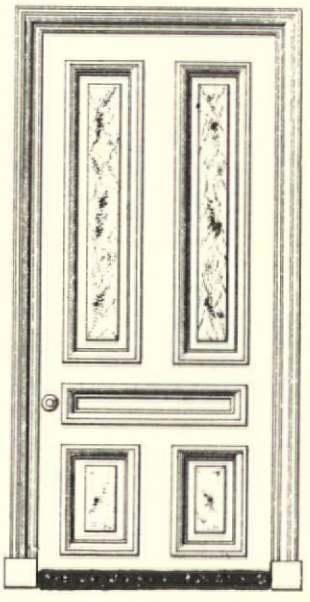
The Draft-Excluder

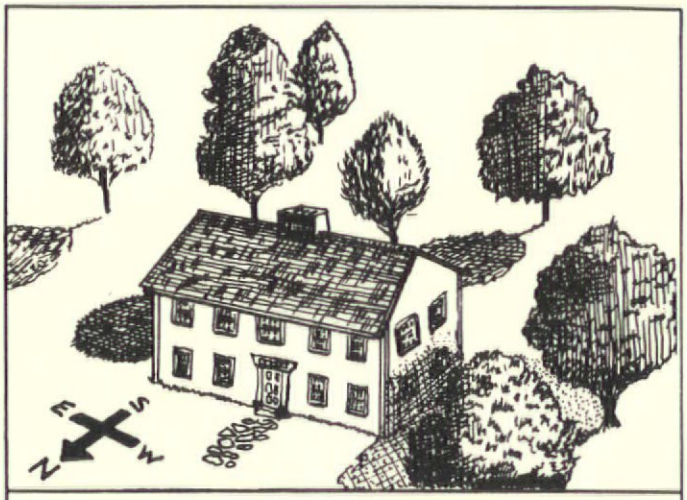


THE ENGLISH VICTORIAN homeowners had a clever but simple trick they used to keep drafts out of the house. A long, sausage-shaped object made of fabric and stuffed with sawdust, was placed along the joint between the upper and lower window sash or along the sill and on the floor in front of the doors.

TRADITIONALLY made of fabric that was red in color, the draft-excluder can be sewn from any remnant of material. When making a portiere, a yard or two of the same fabric could be used for a draft-excluder, giving this homely little object a touch of class.

IN LIEU OF not-so-readily available sawdust, any heaver filler--like beans--can be used. If there is a chance the draft-excluder might get wet--as one on the floor on a wet day might--it would be better to use a filler that would resist water. Aquarium gravel would be ideal.





Planting deciduous trees on south and west sides of a house is a traditional way to provide natural cooling.

Energy Efficiency—Cont'd. from pg. 97

service man to do it. The hot water tank should be flushed once a month to get rid of the sediment that accumulates at the bottom and which reduces heat transfer. If the furnace is an old coal boiler adapted to oil, consider replacing it with a new unit with higher fuel efficiency.

Operating The House Efficiently

IN ADDITION to the above, there are a series of "soft technology" operational steps that were common in the old days, but which fell into disuse in the era of cheap energy. These steps help you control the environment within the house without heavy capital expense or consumption of energy.

A LONG-TERM STEP is the planting of deciduous (leaf-shedding) trees on the south and west sides of the house. The leaves shield the house from the sun in summer—and provide additional cooling vapors trough transpiration. Evergreen trees planted on the side of the house facing prevailing winter winds can also act as a windbreak.

BEFORE PLANTING ANY TREES, however, consult an experienced nurseryman about proper placement of the young trees. Most people underestimate the size of adult trees—with the result that the house eventually has trouble with branches, fallen leaves in the gutters, etc. On the other hand, if trees are placed too far from the house, benefits are dissipated.

SHUTTERS, window shades, drapes and window awnings are old-fashioned—but effective—devices to control interior house climate. These devices are used to counter the fact that single-thickness window glass can allow an enormous amount of heat to enter—or escape from—a house.

IN THE SUMMER, the old-time householder would open up the house in the morning to let it fill with cool night air. Then as the sun began to heat things up, shutters and window shades would be drawn on the sunny side—and perhaps awnings let down also.

CONVERSELY, in winter, shutters and heavy drapes can be closed to prevent radiant heat losses to the cold side of the house. But on the sunny side, everything is pulled back from the windows to let the sun's warming rays stream in.

FIREPLACE DAMPERS are also an operational control. On warm days, the dampers can be opened to allow warm air to rise up the chimney, which promotes air circulation. On cold days, of course, the dampers should be closed to prevent heat from escaping.

FOR LATE 19th CENTURY and turn-of-century houses, portieres are an appropriate and attractive way to cut down on drafts within a house (see article on page 103).

OLD-FASHIONED CEILING FANS have suddenly taken on a very practical—as well as nostalgic—look. They consume only as much power as a large light bulb...and far less than an air conditioner. On all but the hottest days, the cooling provided by a ceiling fan is adequate. And there's another energy-saving aspect to ceiling fans: During the winter, a ceiling fan can help warm a high-ceilinged room. That's because hot air tends to rise and collect in a stratified layer at the top of a tall room. Running a ceiling fan at low speed recirculates the hot air back to the floor level—evening out the temperature in the room and lowering the fuel demand on the furnace.

Radiators

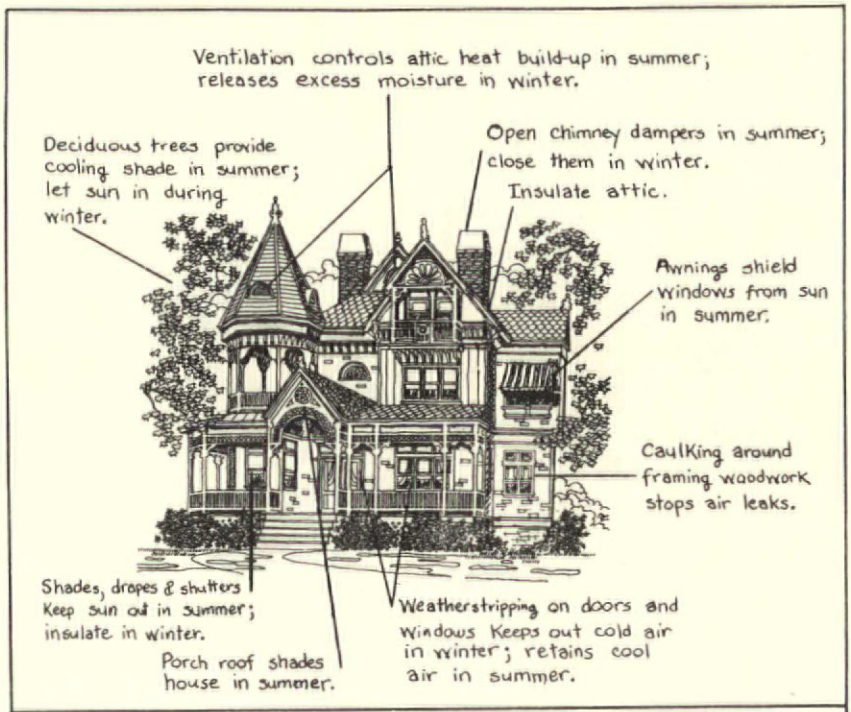
RADIATORS should get special attention; efficient transfer of heat from the radiator to surrounding air is critical to fuel conservation. Dust or clean radiators at least once a month during the heating season. Avoid painting radiators if possible; use radiator covers instead. If it is necessary to paint, use the special paint designed for this purpose. If an old radiator is crusted with paint, it would be a good idea to strip it. If you have a strong friend, the easiest way to strip a radiator is to remove it and take it to a shop that has a sandblasting rig.

YOU CAN INCREASE heat output from a radiator by placing a small fan on the floor and aiming it at the radiator.

Consider Color

EXTERIOR PAINT COLOR has an impact on energy efficiency. In southern areas where cooling is the primary consideration, light colors reflect more of the sun's heat, keeping the walls cooler. In northern areas, where heating is the primary consideration, darker colors will absorb more of the sun's

heat during the winter. Of course, paint color selection has to take into account aesthetics and historical precedent. But there are certain combinations that are both aesthetic and ecological disasters —such as a Victorian house in Buffalo, N.Y., that is painted white!



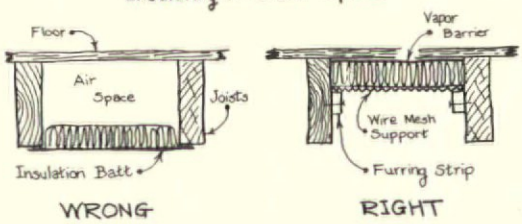
Simple energy-saving steps for an old house.

Insulation

BECAUSE HEATED AIR rises, much of the heat loss from a house is through the roof. Every old house will benefit from attic insulation. Technical problems are few because it usually is possible to get the proper vapor barriers installed. It is essential that any insulated attic have proper ventilation to prevent condensation of moisture. (See The Journal, Sept. 1976, p. 9.) Best way to insulate an attic is to put insulation between the attic floor joists with vapor barrier facing down. Worst place to install insulation is between the rafters directly against the roof boards. This doesn't allow for adequate ventilation under the roof.

INSULATION IN THE SIDE WALLS of an old house should be the LAST energy-saving step tried. Because of the difficulty of installing adequate vapor barriers, side wall insulation can cause serious paint peeling and rot problems. (The Sept. 1976 article discusses side wall insulation in greater detail.) Consider side wall insulation only after every other step in this article has been tried and the resulting energy savings evaluated.

Insulating A Crawl Space



UNHEATED CRAWL SPACES under a house can benefit from insulation. See diagram for proper installation.

Storm Windows

SINGLE-THICKNESS WINDOW GLASS plus gaps around old sash account for large heat losses. So storm windows are a logical energy-saving step. The only problem is finding windows that don't detract from the house's appearance. It is almost impossible to find wooden storm windows these days, so most of us have to come to terms with aluminum. Just avoid the raw aluminum look. Aluminum windows now come in a variety of pre-baked finishes. If you can't find a color that is compatible with your trim paint, buy white or the color that is closest to your desired color, and then paint them yourself.

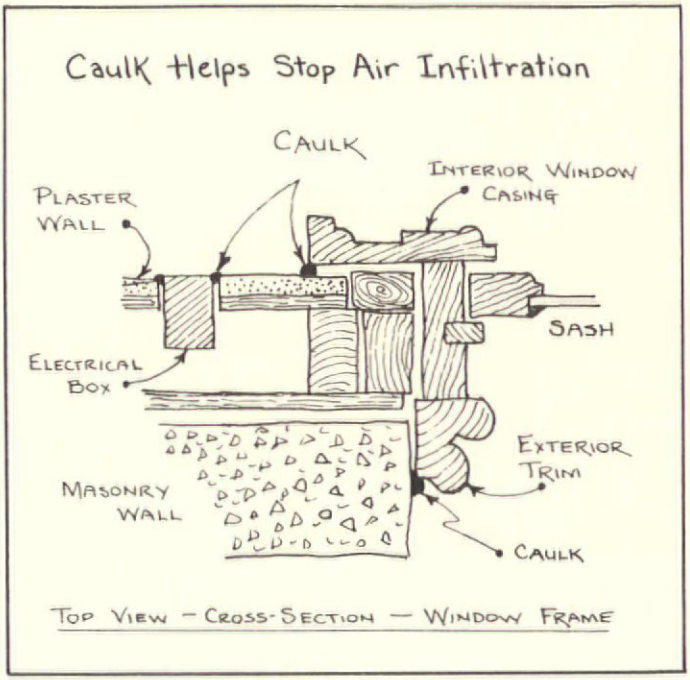
CONDENSATION is frequently a problem with storm windows on old houses. If the storm windows leak cold air, you may find condensation on the inside windows. Usual solution: Caulking thoroughly between the storm window and the exterior window frame.

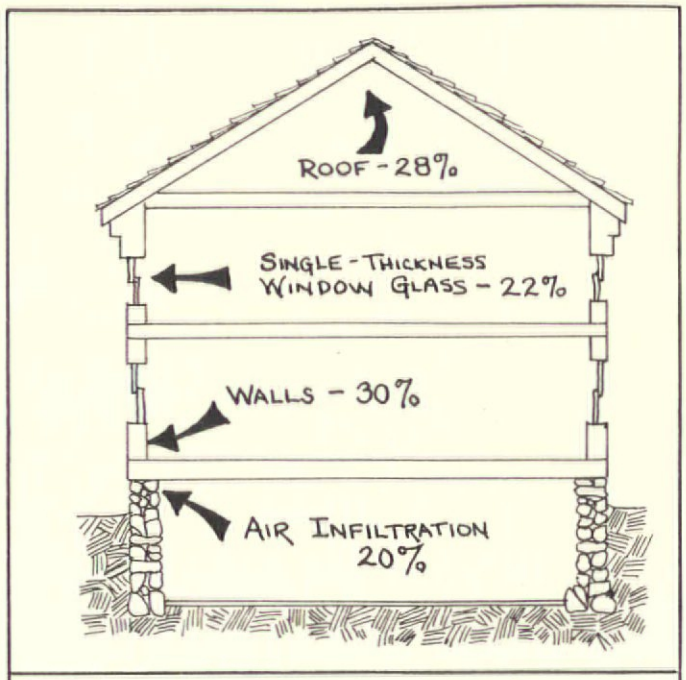
IF CONDENSATION OCCURS on the inside of the storm windows, it means that loose-fitting inside sash is leaking moisture-laden air into the space between the two windows. Usual solution: Using rope-type caulk to seal around the inside sash.

Air Infiltration

AIR LEAKING THROUGH small cracks and holes in a building's exterior is a major source of heat loss (as well as heat gain in summer). If you add together all the small apertures on the typical old

Two sources of storm window condensation.





Relative importance of sources of heat loss in the typical old house without insulation or storm windows. Heating, air conditioning and water heaters account for the bulk of energy consumed in the average household. This is where the greatest savings can be made.

house (including cracks around doors and windows) you'd have a hole 5 ft. x 5 ft. or more. When you imagine all the heat that would escape on a cold winter day through an open 5 x 5 window, you see what a major problem air infiltration can be.

BECAUSE THE OPENINGS ARE SMALL, stopping them all up isn't as easy closing a single 5 x 5 opening. Reducing air infiltration involves a methodical series of steps:

- On wood structures, make sure that the exterior paint film is in good condition.

- On masonry structures, make sure that the mortar is sound. Repoint if necessary. Avoid, however, application of masonry sealers—except in highly unusual circumstances. Sealers can trap moisture in masonry walls and cause accelerated deterioration.

- Caulk all construction joints with a high-quality acrylic or butyl caulk. Fill all holes in exterior wood with putty or glazing compound.

- Caulk gaps in interior woodwork—especially where it butts plaster surfaces—and around electrical outlet boxes where necessary. You can tell which interior gaps need filling by passing your hand along the woodwork on a cold winter day. Chances are you'll be amazed by the amount of cold air you feel squirting into the room.

- Insert strips of felt between wide gaps in floorboards that allow cold drafts. Felt is better than any solid filler because it can expand and contract with the boards.

- Weatherstrip around doors and windows. This is especially important where there are no storm windows to cut down on drafts. (See "Sealing Leaky Windows," The Journal, Oct. 1973 page 5.)

- On very old houses, check for gaps where the roof rafters meet the side walls. They may be big enough that you'll have to stop them up with fitted blocks of wood.

DON'T WORRY if you don't stop 100% of the air infiltration—a house has to take in some fresh air to replace oxygen used by respiration and combustion.

The Alternate Fuel Fallacy

SOME PEOPLE SEEM TO FEEL that all they have to do to solve the energy crisis is to switch to burning wood in a fireplace or stove. Besides the fact that a fireplace is the least efficient of all home heating systems, there is an additional fallacy in the switch-to-wood syndrome.

YOU CAN ONLY FEEL ENERGY-VIRTUOUS if: (1) You are burning only fallen wood; or (2) You are managing your own woodlot and are growing as much wood as you are burning.

TREES, although renewable, are not an infinite resource. There are many countries—including China—that have been stripped virtually bare of trees by wood-burning householders.

REGARDLESS OF THE SOURCE of the energy, the old-house owner's first priority should be to make your house consume LESS. If no one has ever fitted up your home for maximum energy savings, you should be able to save at least 25-40% of your annual energy consumption by following the steps outlined in this article.

Products For The Old House

Ceiling Medallions

RELATIVELY FLAT ceiling medallions made from a papier mache material (called "Anaglypta") used to be produced in England. That source of supply has dried up—but similar patterns are now being made in styrene.

THE STYLES available (6 of them) are basically Georgian and Adamesque in design. They would look best in Georgian, Federal, Greek Revival and Colonial Revival houses. They can be attached easily to the ceiling with contact cement.

MEDALLIONS are inexpensive, ranging in price from $5.50 to $10.80. Literature is free. Write to: James B. Weaver, Jr., W.T. Weaver & Sons, 1208 Wisconsin Ave., Washington, D.C. 20007. Tel. (202) 333-4200.

Brass Beds

BRASS BEDS lend an attractive period accent to almost any old-house bedroom ranging from 1865 to 1920. An exceptionally well-crafted line of brass beds is produced by Joao Isabel, Inc. All parts are solid brass—with handcrafted joints for maximum durability.

14 DESIGNS are shown in a handsome 4-color catalog. But since each bed is hand-crafted, considerable customizing is possible. For example, they can make any special size. They also make brass tables, coat trees and accessories.

PRICES for complete beds range from $445 to $2,900. Catalog available for $3 by writing to: Cal Donly, Joao Isabel, Inc., 120 East 32nd St., New York, NY 10016. Tel (212) 689-3307.

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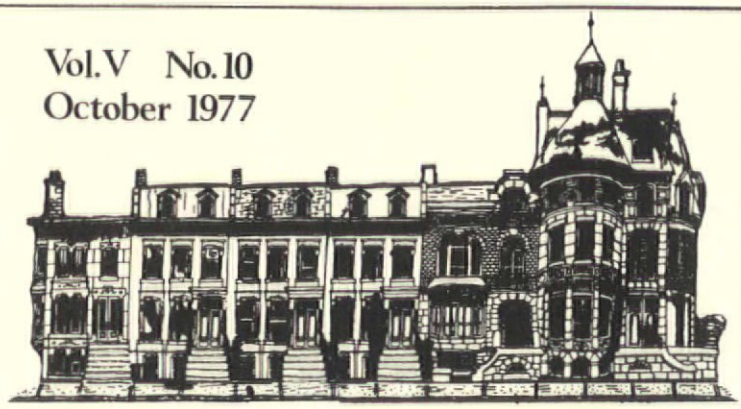

Restoration And Maintenance Techniques For The Antique House

Using Wood Stoves Safely

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Coming Next Month

ADDING STORAGE TO THE OLD HOUSE

By Lynn Diller

WE LIVE IN NORTHERN MICHIGAN where wood is readily available. As a result, we know more and more people who are turning to wood as a source of heat—either as a total home heating system, or as a supplement to other types of heat. Unfortunately, we also know of a rising frequency of house fires in our area caused by wood stoves. Wood heat can be very satisfying—but it can also be dangerous if you have no prior experience.

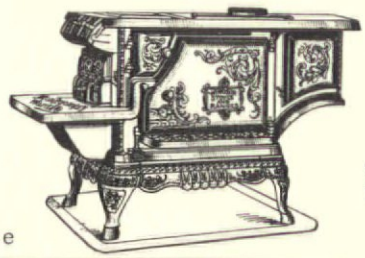
THERE IS A BROAD SPECTRUM of stoves available, but I will confine myself in this article to two main types: Box stoves (illustrated below) and Franklin fireplaces. I will also make no secret of my dislike of Franklin fireplaces. Although they were a great improvement over conventional fireplaces 200 years ago, they cannot compare in efficiency with box stoves. The reason: Air flow.

THE WAY TO CONTROL how a wood stove burns is by regulating the air flow. The more you can control the flow of air through the stove, the more heat you can get out of a given amount of wood. We learned a long time ago that there is a great deal of difference between burning wood and heating with wood.

OUR NEIGHBORS heat with a Franklin and we with a 40-year-old Ivy box stove. We can go over to their house and in an evening they will feed their fire 3 or 4 times. When we come home, our box stove is just ready for more wood.

FRANKLIN STOVES also require special safety precautions. I know of serious house fires started when logs rolled out of the doors of the stove. The doors have catches—but I guess people are reluctant to fiddle with them when they get hot. There's also a very real danger from sparks; I've seen many a rug with little black dots all over it from flying sparks. Never go away with the door to a Franklin stove left open!

BESIDES CONTROL of air flow, another important factor is the amount of cast iron. A general rule of thumb is: The more cast iron, the greater the heating capacity of the stove. An efficient stove will have cast iron chambers and baffles to absorb every bit of heat possible from a fire.



SOME NEW STOVES also have thermostatically controlled drafts. The cooler the room gets, the more the thermostat will open the draft to get a more vigorous fire. The only drawback to this system is that on a long cool night all the wood will be burned up while you sleep and you'll wake

(Continued on page 117)

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Rats vs. Restoration In Virginia

By Gail Niedernhofer

THIS IS A "coping" kind of article and "after" will be several years from now. There must be many of you somewhere in the middle of a restoration of a lovely, stubborn old house who will take comfort from knowing others have had to face problems as bad as yours.

MY HUSBAND, Dean, is an engineer with the Federal Government. We have spent the past two years looking for "our" house to restore near Washington, D. C. It was a natural progression for us, as Dean restores old cars and I restore old furniture. We had simply outgrown the space we had. It took only twenty minutes to determine we had found it when we finally saw it in June 1975.

PARK GATE dates to about 1750 and is a frame house whose style is common to Tidewater, Virginia, sometimes called "split-lean-to." It had no heat, two rooms with electricity and water to the kitchen sink. Typically, the kitchen was detached from this old Southern home. George Washington is said to have visited his niece, Matilda--the original owner--on occasions for tea.

IT TOOK FIVE MONTHS, five contracts and four cherry pies to convince the owner that we would be good for Park Gate and did mean to restore it and remain in it. We signed in October, settled on April for a transfer date, and were left with a winter for research and plans. We made many measurements and Dean enlarged these into drawings. We had to find room for an oil hot air furnace and its duct work as Virginia is warm enough in summer to warrant air conditioning. Dean sized the furnace and ducts after doing the necessary heat loss calculations. He also diagrammed the electrical loads.

OUR GREATEST ASSIST AND ENCOURAGEMENT from the beginning has come from Dean's brother, Bob, an architect, who with his wife, Pat, are currently restoring the oldest house in Alton, Illinois. Tapes and drawings were always in the mail for consultation. My Dad sent a sympathy card.

WE AGREED to let the owner have one year to move his 400 chickens in their three houses, provide water and electricity for his chicken houses during that time, give him the use of ten acres for growing corn for his chickens for three years, and keep our children quiet near the chicken houses and Park Gate was ours.

WE SADLY decided that the plaster was too badly detached to save. It all had to go. We spent all of our precious weekends before we moved in taking down 40 cubic yards of plaster and hauling it away with the help of four high school football players we hired. Our reward was seeing the incredible structure that was our house. The timbers were massive, hand-hewn, mortised, tenoned and wood-pegged. There were two beautiful scarf joints at center front and back. It was truly tempting not

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Gail is removing the last of the lath and plaster in the corner of the dining room.

to replace the plaster. It was apparent that we would never have gotten Park Gate wired, heated or plumbed with the cross braces and diagonal braces as long as the plaster was up.

IN ORDER NOT TO HAVE to build another chimney, our furnace was to be a horizonal oil furnace hung from the joists in the crawl space under the kitchen. It would use the old wood stove chimney in the kitchen as a flue. This necessitated covering all wooden structures within 18 in. such as joists and new uprights with metal and asbestos.

THE REAL BLOW came when we discovered the chimney was filled with concrete to a height of 5 ft. above the kitchen floor. This meant that to be safe and to pass fire codes, a fireproof chase must be built to house the flue until it could enter the chimney. The accompanying duct work would require 2 ft. of our kitchen space.

OUR LAST CHORE BEFORE MOVING in was to have an exterminator treat the entire house. He drilled around the foundation at regular intervals and pumped in chlordane. Above ground level he wet every board in the house and we remained out of the house for 24 hours.

FEELING WE NEEDED more time, we tried to postpone moving day. Two things deterred us. First, the mover threatened to sue us. Then our third notice of insurance cancellation arrived in the mail. Each policy had lasted long enough for the agent to drive by and see what they were insuring.

THE ONLY HOPE LEFT (and it turned out to be a good one) was a farm policy. But the building must be occupied. The policy was for far less than Park Gate was worth—but the agent agreed to a larger rider on our contents and one on the barn. He also agreed to increase the insurance in increments as significant portions of the work were completed.

AND SO WE MOVED. It was a day whose horrors were calculated to make us say NEVER AGAIN! We had contracted for a van and 4 men to move our packed unbreakables and heavy antique furniture. When I saw 3 very slightly built young men arrive, I could only think of the 600-lb. chopping block on the front porch! At 5 p.m., they were joined by 3 others and another van. At 1 a.m., we finally waved goodbye to them from the porch at Park Gate. Pack rats should never move!

AMONG THE HIGHLIGHTS of our unpacking was the discovery that all the bed slats had been carefully numbered—but didn't say to which bed they belonged.

OUR LIFE STYLE WAS PRIMITIVE for our utilities were minimal. We had a bathroom with an old sink, cold water only, a clawfoot bathtub with no plumbing and a flush toilet—which had been my present for Mother's Day. There were no walls which meant we had to staple black plastic around the necessary room.

THE FIRST TWO WEEKS we were at Park Gate were extremely hot. With no walls or ceilings, the heat quickly built up under the tin roof. Sleeping was easier with an old window fan in a hall window and several expanding screens in bedroom windows. On the first cool night we went off to sleep to country sounds without the fan.

WE AWOKE ABOUT MIDNIGHT to an incredible din that sounded like bowling in the kitchen. Investigations then and at 3:30 a.m. brought quiet, but we had obviously been invaded. In the morning it was obvious that the robbers had been bowling with a peck of new potatoes. They had lifted them out of a small paint bucket on a shelf and dropped them to the floor to roll out.

WE DISCOVERED OUR MARAUDERS that evening when we locked up the barn. A flashlight into the chicken house showed dozens of large forms lined up at the chickens' food trough. Park Gate was overrun with RATS!

Laura, John, Nancy and Gail tuckpointing fireplace in dining room. John is cleaning original bricks before replacing.

BECAUSE THE OWNER of the chickens liked to sleep late in the morning, he routinely left the troughs full of water and feed mash for the chickens to breakfast on, instead of clearing them out each evening.

WE HAD BEEN ABLE TO LAUGH our way through our previous crises, but this was no laughing matter. Our treatment had to be swift, practical and effective. We called the chickens' owner and told him of our finding and that he must empty the food and water each night. I called an exterminator and he set out ten bait boxes, two under each chicken house, two under the slave quarters and two high in the eaves of the cellar. We had the exterminator bill the owner of the chickens.

I WENT TO THE county extension agent for literature on rat control. There I discovered that rats prefer a varied diet and on that basis, I bought some of every available rat poison and distributed it in their runways. I called the commonwealth attorney's office and discovered that there are no statutes on rats as a nuisance, but we did get a lot help from the Environmental Health Office.

A SANITARIAN CAME OUT, inspected several large rat carcasses and their obvious access to all our buildings. He wrote a strong letter to the owner calling the situation an obvious health hazard. He reinforced our request for food and water to be taken up at night and for cleaning of the chicken houses. Dean purchased a .22 guage pistol and shot several dozen each evening.

WE CONSULTED WITH OUR ATTORNEY about the letter from the Environmental Health Office, more to warn him that we might do something drastic if the situation didn't clear quickly. We phoned the neighbors to warn them that the rats might spread out, looking for new homes.

WE SET HARD TO WORK mortaring up the many rat hole air spaces in the foundation. A moment to remember occurred when Laura and I were mortaring side by side. She said, "Some moms teach their daughters things like baking and sewing, but you teach us neat things like mixing cement and patching walls."

A DESPERATE CALL was made to a neighbor with a trailer. They graciously said we might borrow it for as long as we needed it. We went right after it and parked it in the yard for sleeping. We had the feeling that Park Gate was only ours during the daylight hours. The next day we got a kitten whom we promptly named "Killer." We had big plans for him.

THE FOOD AND WATER in the chicken houses still were not being taken in at night and our ideas ran the gamut from a bulldozer to arson. If the chickens hadn't been such tough old birds, we might have had a "chicken fry." We priced power equipment to move the chicken houses and even priced new, rat-proof chicken houses. We finally settled for giving the owner 30 days to remove the chickens.

THE TRAILER SUITED us very well. It slept 5 which matched our head count. During the days we continued mortaring the rat holes first from the exterior and then worked our way around the inside. The final step was to case the sill beam with tin flashing.

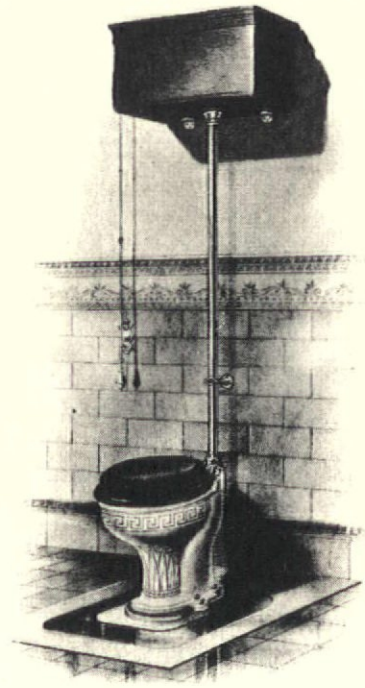
OBVIOUSLY THE RATS HAD FREE RUN for years because we found a large handmade door key, a clock key, a thimble and a glass stopper in the walls. There were also hundreds of peach, plum and cherry pits and bushels of black walnut shells. When the seige seemed over, three weeks later, we returned to the house to sleep. Nancy, age 7, told of nightmares for several nights, but John, age 9, offered to sit up with a club. Thankfully, there have been no more night noises and only one batch of mice, expertly handled by Killer.

WE ARE VERY HAPPY in our lovely, stubborn, old house. We love the work and the distractions from the work, such as friends and neighbors dropping by. We only wonder what we used to do in our spare time and look forward to taking "After" pictures someday.

Dean and Gail completing rough-in of upstairs bathroom in the master bedroom.

The children are putting the old glass from the rotten sash into the new sash.

Keeping High-Tank Toilets In Working Order



By Don Yule

I HAVE PREVIOUSLY WRITTEN for The Old-House Journal (Sept.-Oct. 1976) about the repair and use of the coal stoves in our 1879 Brooklyn brownstone. Besides the stoves, all other equipment in our house is also original —including the plumbing! While it is delightful to live in a house that is a working museum, it does take a little ingenuity to keep everything in working order. Here I will describe our Victorian-era toilets and the repairs that I have had to make.

BELIEVE IT OR NOT, the inventor of the reservoir tank flush toilet was named Thomas Crapper. He and his family operated a large factory in 19th century England that was devoted to the manufacture of plumbing fixtures. Mr. Crapper was a respected member of the English industrial establishment.

AN EARLY VERSION of one of Mr. Crapper's inventions is placed in a closet-sized room on the top floor of our house, in between the two bedrooms. Open the frosted-glass-panelled door and—voila!—the ceramic "throne" mounted on its slate base. The seat and lid are golden oak—as is the flush box which sits on iron brackets seven feet above the floor. A brass pipe leads from the flush box down to the bowl, and a chain with a wooden handle on the end hangs down from the left side of the box.

ALTHOUGH THE FUNCTIONING of this type of toilet is similar to the modern variety, there is a fundamental difference in the operating principle. Whereas in a modern toilet the water descends from the box into the bowl by gravity flow, in the earlier high-tank toilets the water is siphoned down.

FIGURE 1 SHOWS THE FLUSH BOX in the full position. The float valve (A) is held closed by the high position of the float ball (B), buoyed up by the water level. In operation, the chain (F) is pulled down, raising the valve sleeve (D) and the outer cannister (S). Water starts rushing through the perforated tube (G). The water rushing down through the pipe to the bowl creates a partial vacuum inside the valve sleeve. When the chain is released, a water-tight seal is

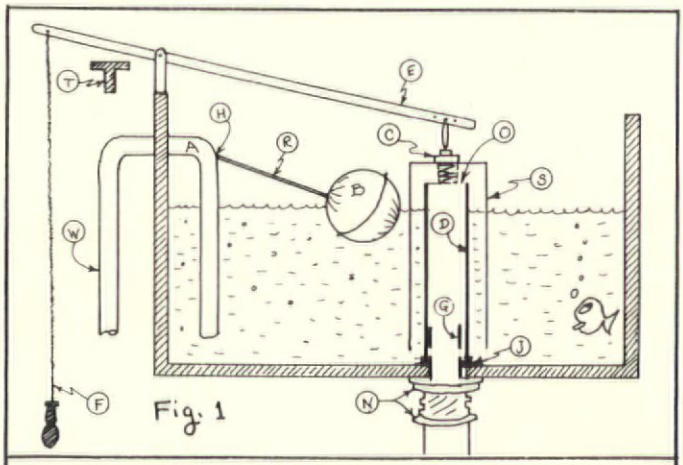


Fig. 1

Critical elements are the valve sleeve (D), the valve gasket (J) and the outer valve cannister (S).

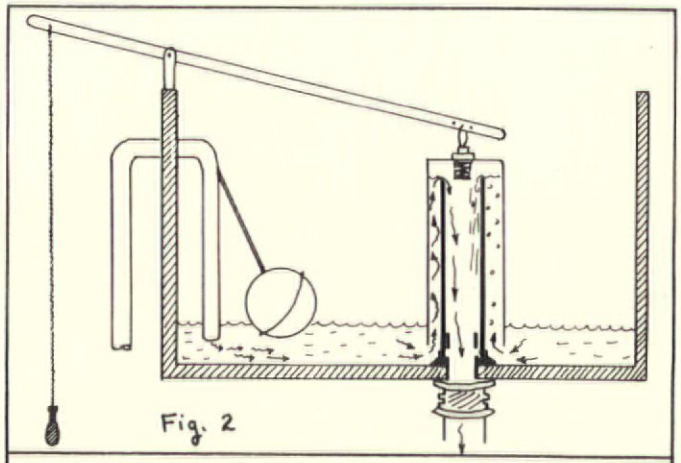


Fig. 2

When valve (D) is lifted, water rushes into pipe (G), setting up a siphon that draws rest of water through (O).

again formed at (J) when the valve sleeve (D) drops. However, the vacuum inside the valve causes the water to rise between the cannister (S) and the outside of the valve sleeve (D) until it reaches the overflow hole (O) at the top of the valve sleeve. A siphoning action is thus started, and the rest of the water in the flush box is drawn out through the overflow until the water level reaches a hole in the bottom of the cannister (S) and the siphon is broken.

AS IN A MODERN TOILET, the float falls with the descending water level, opening inlet valve (A) and admitting water to refill the tank. This type of flush box is inherently more durable and trouble-free than the modern type, but after a century of use, naturally some repairs were required. If you have a similar toilet, you may have encountered some of the following problems, for which I offer my solutions.

A Perpetual Drip

IF YOU HAVE THE FAMILIAR situation of a perpetual drip from the flush box into the toilet bowl, the flush valve gasket (J) may need replacing. This is a collar of rubber or leather that fits under the flush valve unit. To reach it, unfasten the flush valve cylinder (S-D) from the lifting arm and remove it from the tank. (I am assuming that you have first turned off the water supply to the flush box!)

THE GASKET WILL BE FOUND fitting snugly around a perforated pipe (G) that sticks up a short distance into the tank. If this gasket is old, it may be very hard and you may have to cut it with a blade to get it off. Try to keep it in one piece, however, as it will be very handy when trying to find a new one. The rubber "dripless" kind can be found at most large plumbing supply stores (in Brooklyn, at least). But they come in many shapes and sizes—which is why it is handy to have the old one with you. To install the new one easily, oil it first, then slip it down over the perforated pipe and press it down evenly all over.

IF YOUR GASKET is the flat leather variety, you can make a new one yourself from single-ply leather...most easily obtained from the tongue of an old shoe. Just trace the outline of the old gasket with a pencil and cut it out with scissors.

Faulty Gaskets

TWO OTHER GASKETS that may cause problems are located where the flush tube exits from the tank. If either leaks, first try tightening the collar nuts (N). If this doesn't work, you can remove either gasket and make a new one from leather or rubber. For double leak insurance, coat the new gaskets with Permatex gasket cement before installing.

Tighten the collar nuts only snugly, as the gasket might bunch up or be squeezed out to the side if the nut is turned too tight.

ANOTHER CAUSE OF DRIP is if the float valve is incorrectly adjusted, allowing water to run out the overflow (O). This is remedied by bending the rod (R) downward so that the float is lower—achieving a correspondingly lower water level in the flush box.

SOMETIMES THERE IS A GASKET under a collar nut that connects the float valve to the water supply line (W). I find that a ½-in. faucet washer works perfectly here. Another cause of valve malfunction can be a worn screw (H) that acts as the hinge for the float rod and ball. Be sure to replace with a brass screw, as steel would rust quickly.

ALSO, THERE IS A RUBBER SEAT inside this valve that might need replacing if the water cannot be completely stopped by lifting up the float ball. The float valve may be unscrewed in half to reach this rubber seat. Clean off all corrosion with brass polish while the valve is apart.

Mending Copper

THE FLUSH BOX normallyhas a lining made of copper. Mine had several pinhole leaks caused by corrosion and by the float ball rubbing against the inside of the tank as it rose and fell. The seams of this liner can be re-soldered—as can any holes—but I found plastic steel also works well for this repair.

ONE PROBLEM PECULIAR to siphon-type flush boxes is a leak in the copper shell (S) that surrounds the flush valve (D). If there is a major air leak here, the siphon action will not work and you will be obliged to hold the chain down to get all the water in the box to drain down into the bowl.

THESE COPPER SHELLS are held in place by a nut (C) on the center rod of the flush valve unit. This nut may be loose, or the gasket under it may need replacing. An open seam or other hole in the shell may be soldered or repaired with plastic steel. If the shell is too far gone, you may be able to obtain a new one at the plumbing supply store. Or you can fashion your own from an appropriately sized plastic bottle. Just cut the top off so that you have the same length as the original shell, punch the correctly sized hole in the bottom, and you'll have a unit that will work as well as the original item.

I HAD ONE FINAL PROBLEM with out flush box. When the chain was pulled too vigorously, the flush valve would pop up farther than its normal distance of travel and get hung up on the valve guide. To operate properly, the flush valve needs be raised only about ¼ in.

TO GUARD AGAINST this malfunction, I fashioned a stop out of a metal ell brace (T) and screwed it to the wall in back of the tank so that the lifting rod would bump against it when it had travelled far enough to open the valve. I glued a piece of rubber to the brace where the rod strikes it for silent operation.

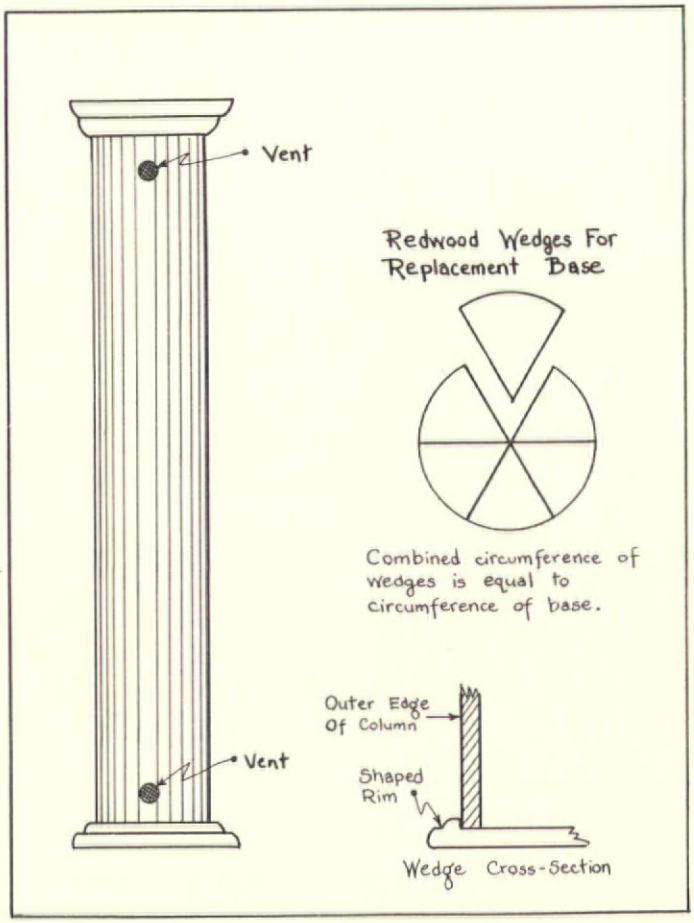
NOW THE VALVE WILL only open the correct distance, no matter how vigorously my five-year-old son yanks the chain! ■■

Preserving Wooden Columns

By Betsey Creekmore

WOODEN COLUMNS, especially those which have been moved from the structure to which they were originally attached to another dwelling, require close monitoring on a regular basis to ensure that condensation formed within has not caused deterioration of the wood at the base of the columns. Fluted columns are particularly susceptible to condensation formation.

CONDENSATION INSIDE the column occurs even when the columns have been properly stripped and treated with a wood preservative, then sealed at top and bottom and regularly and properly painted. The outward sign of wood deterioration due to internal condensation is paint peeling wetly off the base of the column. Confirmation of serious deterioration is made by peeling off approximately two in. of the paint from the base at one of the base seams and prying out a small piece of the base. If the wood has deteriorated, a piece is easily pried out and will be thoroughly waterlogged. By reaching inside the column through this hole, surrounding base wood and flute braces will feel much like a stiff wet sponge.



PREVENTIVE PRESERVATION should be practiced by column-owners to avoid wood deterioration. In order to prevent condensation from causing deterioration, each column must be properly vented. This venting process is accomplished by drilling a hole the width of one flute or, if the columns are not fluted, approximately two in. in diameter, about five in. up from the base of the column. At least one additional vent should be located approximately five in. down from the column capital.

THE OPTIMUM LOCATION and size of the vent holes vary with the height and girth of the columns and their exposure. An architect, engineer, or general contractor should be consulted to determine optimum placement, size, and number of vents for the particular column.

THE VENT HOLES MUST remain unclogged, but it is necessary to cover them with fine mesh screening (painted the color of the column), or a commercially available vent plug. The covering both conceals the holes and prevents wasps and birds from building nests in the column. Care must be taken when painting the columns not to clog the vent holes.

VENT HOLES ARE REQUIRED for pilasters, as well as for columns, and should also be placed in the space between the porch roof and ceiling to provide cross-ventilation. If the pilasters are not vented, their bases may deteriorate in the same manner as the columns. An unvented space between porch roof and ceiling will also collect condensation and deteriorate, a sign of which is the appearance of rust spots through the paint around the nails on the ceiling boards.

IF THE PAINT DOES PEEL OFF the bottom of a column base and a test indicates deterioration, the bases will have to be replaced. At this point, although the first step must be to vent the columns properly, the deterioration will have resulted in weakening the bearing-strength of the base and, over time, the column will settle through the base, resulting in its being pulled loose from the column capital and, eventually, falling.

WHEN THE COLUMNS HAVE BEEN VENTED, replacement of the base should be undertaken. To replace the base, cured and treated redwood should be acquired, approximately 1/4 in. thicker than the base. Pie-shaped wedges should be cut from the redwood boards, with the outer edges of each piece rounded, or shaped, with a router so that the contour of the original base is preserved. All pie-shaped wedges should be cut, shaped and fitted together to insure that the circumference of the circle formed by combining the wedges is the same as that of the base of the column. Each column must be measured, since there will probably be minor variances in circumference among columns.

WHEN THE PIE-SHAPED WEDGES have been cut and shaped, beginning at the test hole (located at a base seam) remove enough of the deteriorated wooden base to allow placing of the first wedge. The wedges must fit tightly, so the first wedge should be used as a model for the other wedges. The wedge should be planed from the point toward the edge to the point that it is to fit under the column. A rim, with the same contour as the original base should be left at the outer edge.

AFTER THE FIRST WEDGE is in place, the process is repeated with the other wedges, until the old base has been completely replaced. Cracks between wedges should be sealed (marine caulking compounds designed to repair boat hulls are excellent) and smoothed. When the sealant has cured thoroughly, the base may be painted.

THE PROCESS FOR VENTING and replacing the bases of pilasters is the same as for columns, except that rectangular wedges rather than pie-shaped wedges should be used in base replacement. When columns, pilasters, and porch roof have been vented, an annual termite check should be made.

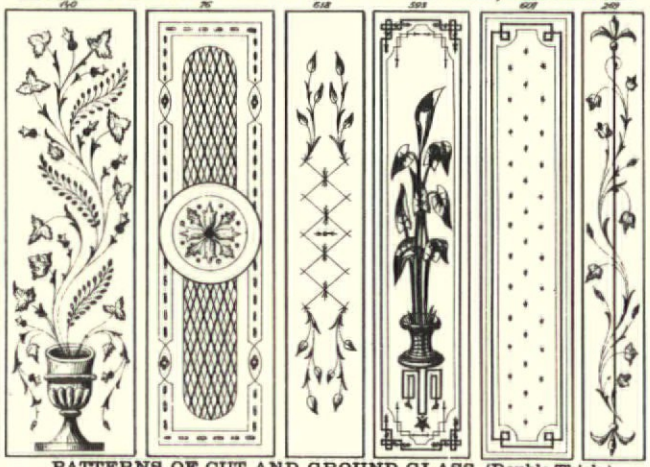
Getting Cut Glass Reproduced

OUR HOUSE ORIGINALLY had cut and ground glass panels in the front door and in the sliding doors between the front and back parlors. The latter had been broken when a former owner built partitions to convert the house into apartments. We undertook an exhaustive search to have replacements made for us; what we discovered may help other old-house owners facing a similar dilemma.

FIRST THING WE FOUND OUT was what this art is called by its practitioners today. It is usually called "floral etching," "mitre cutting" or "floral engraving." When shops refer to "carved" glass, they usually mean etching by sand-blasting. Not understanding this distinction sent us on several wild goose chases.

NEXT, WE FOUND OUT how cut and ground glass is made. First, the glass is fogged by chemical etching or sand-blasting. Then the glass cutter—using a specially shaped grinding wheel—moves the glass over the grinder to make the mitre-shaped cuts that form the pattern. All the work we saw was done free-hand.

GEORGE O. STEVENS' ILLUSTRATED PRICE LIST, BALTIMORE.



PATTERNS OF CUT AND GROUND GLASS, (Double Thick.)
For Prices see page 80

THE GROOVES AND CUTS are then polished until they are clear. Because of the extensive handling required, today's craftsmen work with plate glass to avoid problems of breakage. This is usually thicker than the original and, in our case, required that we re-shape the mouldings in the door.

SINCE THE CRAFTSMAN must move the glass over a stationary wheel, many objected to the size of our panels—over 6 ft. long—because they lacked room to turn the glass. Some design elements were deemed impossible or too difficult. For example, a motif with a central 6-in. circle could not be done because it required rotating the panel in a full circle over the grinding wheel. In general, "bar glass" styles with diagonal lines or sunbursts of straight lines were cheapest. Designs with geometrically perfect circles and arcs were expensive or impossible.

IT WOULD HAVE BEEN POSSIBLE to make a less expensive counterfeit via simple sand-blasting. In this method, the areas to remain clear are covered with some sort of contact stencil and the remainder of the glass is sand-blasted lightly to achieve the fogged background. In this process, the clear areas are slightly higher than the fogged area—exactly the reverse of the cut-glass effect. Too, the clear areas are not faceted, so the end product does not sparkle the way cut glass does.

WE OPTED FOR THE FULL cut-glass process. We provided the shop with a full-scale drawing of the agreed-upon pattern. We adapted a pattern from the George O. Stevens "Illustrated Price List." This is an 1879 catalog that is reprinted in "Architectural Elements" (Pyne Press, Princeton, N.J.). The cost was $400 for four panels 6 ft. x 8 in. wide. We are quite happy with the result, even though the craftsman's technique was not quite as fine as the original.

OUR PANELS were cut by Martin's Glass Art Studio, 422 E. 75th Street, New York, N.Y. 10021. Another shop we found that did cut glass work was Paul's Cut Glass, 29-10 36th Ave., Astoria, N.Y. 11106. Two shops that do sand-blasting of glass are: Carved Glass and Signs, 767 E. 132nd St., Bronx, NY 10454; and N.Y. Carved Arts Co., 115 Grand St., New York, N.Y. 10013.

Nancy Couturié
Hoboken, N.J.

(Stove Safety—Cont'd. from pg. 109)

up to a cold stove in the morning.

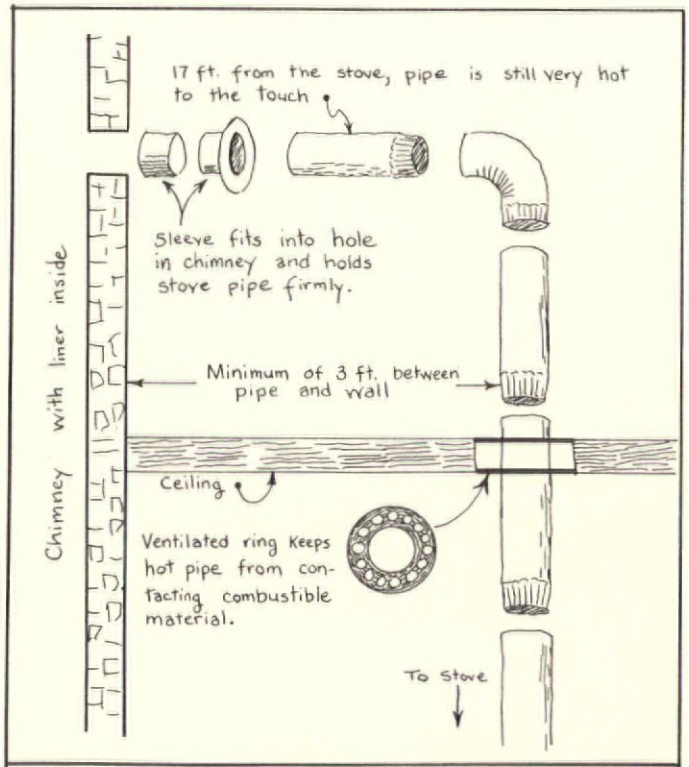
Chimney Hazards

MOST OF THE HOUSE FIRES caused by stoves result from faulty chimneys. All old chimneys (and some new ones) should be lined. You can buy metal chimney liners that go together in sections and which can then be slipped down into your chimney. (This procedure obviously won't work with chimneys that have bends and doglegs in them. These call for tile liners.)

WE FOUND IN LINING our old chimney that even "straight" flues aren't always that straight. We were finally able to wiggle the liner into position—but with much difficulty. We then wired it to the top of the chimney.

THERE IS A SLEEVE or "thimble" where the stove pipe enters the chimney wall. Make sure that the sleeve is tight and doesn't wiggle; all openings should be cemented tight.

MAKE SURE ALSO that the stove pipe has adequate ventilation around it wherever it passes through floors or walls. An old house will probably already have a "donut" or some kind of grate that holds the pipe safely as it passes through a partition. A hot stove pipe that contacts a partition directly can easily start a fire. The gases in our stove pipe travel 17 ft. before they enter the chimney—and the pipe is very hot to the touch at the chimney sleeve.



Stove pipe arrangement in author's house.

AS A GENERAL RULE, it is advisable to have the stove pipe travel as far as possible vertically before entering the chimney. This allows the gases to cool down somewhat—and gives you better control of the draft. A pipe that goes directly from the stove to the chimney through a wall (as it has to in a one-storey house) is a potential hazard.

Stove Pipe

STOVE PIPES come in different gauges of metal. Get the heaviest gauge possible. Light gauge pipe will be eaten away by the accumulation of crud inside. (Sheet metal stoves will also burn away in a couple of years!)

THE METAL-ASBESTOS PIPE is a great improvement over the old plain sheet metal pipe. This is a pipe with a layer of asbestos over it—with a cladding of metal on the outside. With metal-asbestos pipe, you can run a complete chimney almost anywhere you want it.

OUR NEIGHBORS had a chimney fire last winter, and it burned the paint off the outside of their metal-asbestos pipe all the way up to the upstairs ceiling. Had this been ordinary stove pipe, they probably would have lost their house. Metal-asbestos pipe is fairly expensive (about $35 per yard), but isn't your house worth it?

METAL-ASBESTOS PIPE can be run right up through the roof if you don't have a chimney to connect to. But one caution: Some of these chimney kits have metal rain caps for the top that are supposed to be safe for use with wood stoves. But our firechief told us that some of them have screens that can trap soot and cause chimney fires. ALL WOOD-BURNING STOVE SYSTEMS SHOULD BE CHECKED OUT BY A HOME HEATING EXPERT, FIRE MARSHAL, OR OTHER QUALIFIED PERSON!

Cleaning Stove Pipe

AS A PRECAUTIONARY MEASURE, you should clean out the stove pipe periodically. Ash will collect in an elbow and should be scraped out every few weeks to maintain a good draft. Tap your pipe every few days, and if you hear pieces of soot falling it means that the pipe is ripe for cleanout.

FOR CLEANING, you have to let your fire die completely out. Even a warm stove pipe will smoke...so be prepared for a period without heat while the apparatus gets cool enough to work with.

STOVE PIPE is fitted together with just friction; the crimped end being shoved into the open end. So it's fairly easy to jiggle them apart for cleaning. Any accumulations in elbows can be scraped out. For longer sections, take an old burlap bag and stuff it with rags or newspaper to give it bulk and shape. Tie the bag to a rope and pull it through the pipe to scrape the soot off the inside. You can also buy contraptions that will do this job. When the heating season is

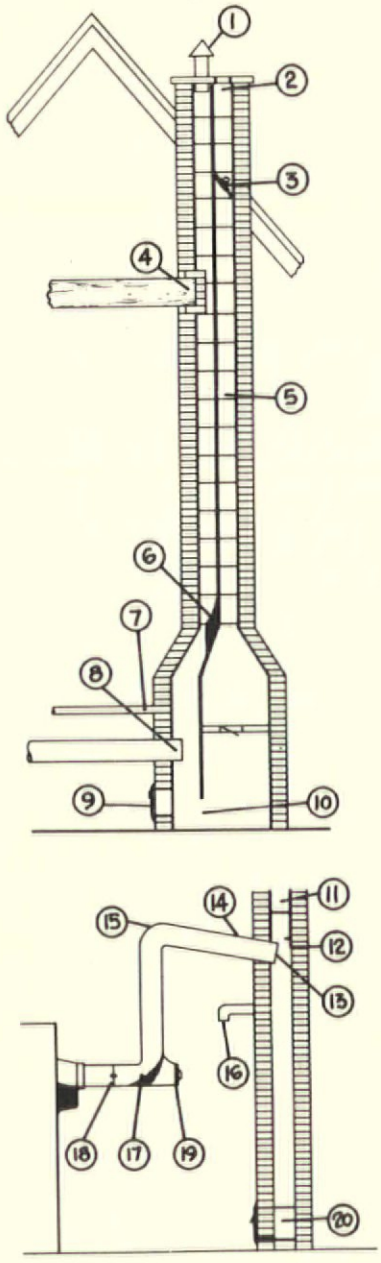
over, you can take all the pipes down and have them cleaned at the carwash.

THIS MESSY PROCEDURE is quite necessary to prevent combustibles from building up inside the pipe. If the buildup goes on unabated, it is quite likely that you'll get a roaring fire inside the stove pipe...which is very dangerous!

AFTER YOU HAVE GONE THROUGH the awful job of cleaning a stove pipe once, you'll ask: "Isn't there any way to avoid this?" There is...or at least ways to increase the intervals between cleanings. Burning only dry, seasoned wood will cut down on the need for cleanings. You can also buy soot destroyers. You throw the soot destroyer into the fire every few days. After using it for several days, the soot will detach itself from the pipe and fall back into the firebox. You will still have flyash settling in elbows and flat spots, but the creosote and soot problems are greatly diminished. If you can't find soot destroyer locally, you can buy it by mail from Cumberland General Store (see box).

ANOTHER SAFETY NOTE: Always be very careful if you use a vacuum cleaner to clean ashes and soot from the inside of your stove. The air rushing into the bag will fan even a very small spark and set the inside of your cleaner on fire.

Twenty causes of chimney troubles and their cures.



No. Fault	Examination	Correction
1. Pipe extension not of same area as chimney opening, and extension below opening of cap. Chimney below gable of roof.	This is ascertained by measurement.	Pipe to be extended and opening to be same as chimney opening.
2. Chimney opening smaller than inside dimension.	Determined by actual observation. Ascertained by measurement.	Extend chimney above gable of roof. Widen opening to same dimension as chimney area.
3. Obstructions in chimney.	Found by lowering weight on a line.	Use weight to break and dislodge.
4. Projection into the chimney.	Lower a weight or light on extension cord.	Must be handled by brick contractor.
5. Break in Chimney linings.	Build smudge fire blocking off other chimney opening, watching for smoke escape.	Must be handled by competent brick contractor.
6. Collection of soot at narrow space in the opening.	Lower light on long extension cord.	Clean out with weighted brush or bag of loose gravel on end of line.
7. Two or more openings into same chimney.	This is found by inspection from basement.	The least important opening must be closed, using some other chimney flue.
8. Smoke pipe projects into flue but beyond surface of the wall.	Measurement of the pipe from within or observation of pipe by means of lowered light.	Length of pipe must be reduced to allow end of pipe to be flush with wall.
9. Air leak at base of clean-out door.	Build small fire, watching for smoke or flame through the cracks.	Cement up all cracks around the base.
10. Failure to extend the length of flue partition down to floor level.	This is found by inspection.	Extend partition to floor level.
11. Broken clay tiles.	Can be found by light and mirror reflecting condition of walls.	All breaks should be patched with cement.
12. Clay lining fails to come below opening of smoke pipe.	Found by observation through flue opening into chimney.	Clay tiling should be extended below flue opening.
13. Partial projection of smoke pipe into flue area.	Found by measurement after pipe is withdrawn or by sight from chimney opening, using light on a cord.	Projection must be eliminated.
14. Loose seated pipe in flue opening.	Air leaks can be determined by smoke test or examination of chimney while fire burns below location.	Leaks should be eliminated by cementing all pipe openings.
15. Smoke pipe enters chimney in declining position.	This is observed by measurement.	Correct the pipe to permit smoke to enter in an ascending pipe.
16. Second flue opening below that for smoke pipe.	This is found by observation from within basement.	Change to allow only one opening in each chimney.
17. Accumulation of soot narrows cross sectional area of pipe.	Examine pipe from clean-out opening.	Remove soot.
18. Hand damper in a full closed position.	If handle does not give true position of plate remove section of pipe to ascertain position.	Allow sufficient opening of plate for needed escape of gases.
19. Clean-out opening on pipe leaks air.	Flames visible when furnace is under fire.	Tighten or cement to eliminate leak.
20. Clean-out pan not tightly seated in base of chimney.	This air leak can be determined by watching action of small fire built in bottom of chimney shaft.	Cement to eliminate all leaks.

Reprinted from Washington Stove Works' "Parlor Stove Installation Manual."

Additional Resources

STOVE SUPPLIES—Just about anything you'd need for stove operation is available from The Cumberland General Store: Stove polish, soot destroyer, stove pipe and fittings, flue adapters, tin plates for covering old flues, shovels and pokers, etc. Their fascinating 250-page catalog is available for $3.00 from: Cumberland General Store, Dept. O, Route 3, Crossville, TN 38555.

PARLOR STOVE INSTALLATION MANUAL—The checklist on the opposite page was reprinted from a helpful 8-page brochure on proper installation of parlor stoves. Also shown are 5 models of authentic old-fashioned cast iron parlor stoves that are very well made. You can get the manual by sending 75¢ to: Maggie Stout, Washington Stove Works, P.O. Box 687, Everett, WA 98206.

CONSUMER GUIDE TO WOOD STOVES—An excellent 10-page booklet containing useful purchasing guidelines for wood stoves is available from RAIN Magazine. Compares 6 brands of box heaters and 8 models of automatic wood circulators. Also has tips on installation and repair plus reviews of 8 books and periodicals dealing with wood burning. Send $1 and ask for Rain Paper #1 to: RAIN Magazine, 2270 N.W. Irving, Portland, OR 97210.

BEST BOOK—"Woodburning Stoves" is the most detailed and practical review of heating and cooking with wood. (See The Journal, Feb. 1977 p. 23.) Many easy-to-follow diagrams and illustrations. 143 pages; hardcover. $10 + $1 postage and handling from: Overlook Press, Dept. O, P.O. Box 58, Woodstock, NY 12498.

Keep Your Distance

STOVES AND PIPES should always be placed a good distance from walls and furniture. The dry radiant heat from the stove will crack furniture and loosen veneer. A good rule of thumb: Keep stoves and stove pipes at least 3 ft. from walls; keep furniture at least 10 ft. from stoves.

IF IT IS NECESSARY to place stoves closer than 3 ft. from a wall, you can buy asbestos sheets or special reflective panels to protect the wall. For example, a strong light panel with ceramic tile pattern on it is available from: Frank Rafferty Distributors, 89 High St., P.O. Box H, Belfast ME 04915.

IT IS ALSO NECESSARY to have something under the stove to protect the floor. Some people use bricks or slate under the stove. I prefer the metal-covered asbestos pads made especially for this purpose. You should select one that sticks out at least a foot on all sides of the stove. They are good for catching falling ashes and coals—and a good place to lay hot stove pokers and shovels.

IT'S A GOOD IDEA to keep two inches or so of sand in the bottom of your stove. This will protect the bottom from warping and cracking—and keep a lot of heat from being radiated towards the floor.

Burning Wood

ONE MAJOR FACTOR determining how well your stove will work is the fuel you use. Soft woods such as pine, spruce and poplar burn more quickly and give less heat than hard woods such as maple, oak or beech. Pine and spruce also have a lot of sap which means a lot of creosote up your chimney. This goo coats the inside of your chimney and a stray spark can easily set it afire. If you are lucky, the fire will be contained in the chimney—but some people are not so lucky. Hence the need for the chimney cleaning mentioned earlier.

THE GREENER THE WOOD, the greater the creosote problem. We know of a fellow who was boasting that he had gotten a really good deal on some "freshly cut, slow-burning pine." It would have been funny if it hadn't been so serious. If he could get the wood to burn at all, his chimney would have enough soot inside to catch fire in a couple of weeks. It wasn't such a good bargain for him!

SOME PEOPLE consider dry oak the next best fuel to coal. But green oak, unlike the well-seasoned material, will gum up a chimney after a while...just as soft woods will. All firewood should be allowed to dry a year before burning. (If you leave it to dry too much longer than that, it will start to rot and be full of ants and other creepy-crawlies when you bring it into the house.)

A LITTLE BIT of rotten wood is good for starting fires and quick heat in the morning. Small pieces of wood give you a quick, hot fire. Larger pieces will burn longer and are good for nighttime when you can't feed the fire so often.

YOUR BOX STOVE can also be used as an auxiliary kitchen range. We leave a water kettle on the stove at all times. It helps to combat winter dryness—and it provides us with a steady source of hot water for coffee or hot chocolate. We rinse the kettle out every day and put fresh water in. Otherwise, deposits will build up and the water tastes funny. Too, don't let a pot on the stove boil dry; the bottom will burn out.

LYNN DILLER lives with her husband in an 1892 house in Lewiston, Mich. They were lucky, they say, because the house hadn't been badly neglected—and hadn't been modernized, either. They presently heat half with wood and half with oil. This winter they hope to use wood completely and just keep the oil as a backup system.

Products For The Old House

Stair Parts

ONE OF THE JOURNAL's subscribers runs an interesting business in Memphis, Tenn. Gang Wood Products makes architectural millwork—specializing in staircases and staircase parts. He'll make anything from a single baluster to fabricating and installing a complete circular wooden staircase.

IN ADDITION to the staircase parts, they can make all types of custom millwork: Gingerbread trim, mantels, casings for doors and windows, built-up porch columns, etc. They will also custom-match any moulding in hardwood or softwood.

TO MATCH A MOULDING, they need a sample or else a full-scale cross section of the piece to be copied. There's a $50 set-up charge to grind the cutters needed for a special moulding.

FOR QUOTES ON more complex custom work such as mantels and door casings, they'd need a detailed set of plans.

GANG WOOD PRODUCTS primarily serves the Tennessee-Mississippi-Arkansas market, but they can ship all over the country. They have a four-page folder that illustrates some of the types of circular stairs and parts they supply (stamped, self-addressed envelope, please). For other custom work, send details to: Gregory Gang, Gang Wood Products, 1184 Lamar Ave., Memphis, TN 38104. Tel. (901) 725-7472.

Waterproofing Basements

HOMEOWNERS PLAGUED with wet basement walls will get some useful tips in a new 16-pg. booklet called "How to Waterproof Masonry Walls." The illustrated step-by-step guide explains the common causes of water seepage and offers ideas on techniques and products to cure the problem.

THE BOOKLET comes from United Gilsonite Laboratories, which makes Drylok—a waterproofing paint for interior and exterior walls. Drylok contains portland cement and a synthetic rubber binder.

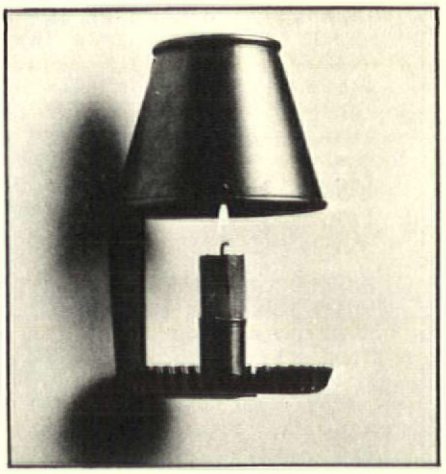
TO OBTAIN A COPY of "How to Waterproof Masonry Walls," send 25¢ to: United Gilsonite Laboratories, Dept. 1048, Box 70, Scranton, PA 18501.

Colonial Tinware

A WIDE RANGE of utilitarian items are handmade by Christopher Nordloh, proprietor of Colonial Tin Craft. Reproductions of early Colonial and 18th Century lighting fixtures are made from tin and wood and range from six-arm chandeliers to sconces and hooded candlesticks.

SOLID COPPER LANTERNS are antiqued to resemble naturally aged copper, and there are tin pie safes as well as a few contemporary adaptations.

THE COLONIAL TIN CRAFT Catalog is $2.00. Write to: Colonial Tin Craft, Dept. OHJ, 7805 Railroad Ave., Cincinnati, Ohio 45243.



About Those Brass Beds...

IN THE SEPTEMBER ISSUE, we described an attractive line of brass beds made by Joao Isabel. But there was, unfortunately, a typographical error in the address we gave. The correct address is: Cal Donly, Joao Isabel, Inc., 120 East 32nd Street, New York, NY 10016. Their 4-color catalog is available for $3.

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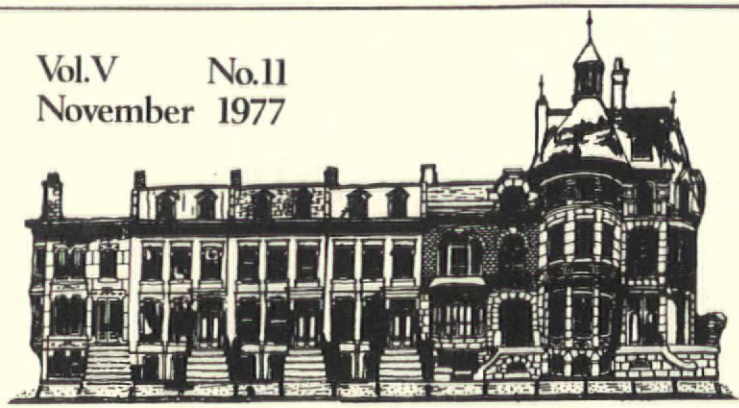

Restoration And Maintenance Techniques For The Antique House

A Guide To Reproduction Fabrics

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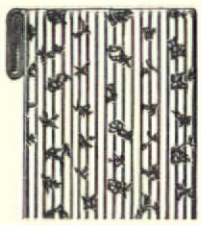
Coming Next Month

THE CO-INSURANCE TRAP

SELECTING FABRIC for curtains, bedspreads and upholstery is an important part of incorporating authentic period details in the furnishing of the old house. There is a wide variety of reproduction 18th and 19th century fabric available today. It is necessary, however, to have an acquaintance with the kinds of fabric used in the United States up to 1900 in order to choose an appropriate reproduction. A very helpful new book, "Fabrics For Historic Buildings" has recently been published by The National Trust For Historic Preservation. With their kind permission, we have excerpted some of the historical information as well as a glossary of old terms. These brief discussions of the kinds of fabric used in various periods will help the old-house owner to select fabric with an eye to quality and appropriateness. Full details on how to order the book will follow this article.--C.F.

The 18th Century

IMPORTED FABRICS seem to have been preferred for furnishing American buildings in the 18th century. English fabrics, protected by the high taxes that the mother country imposed on goods imported into the colonies from other countries, predominated.



THE 18TH CENTURY saw the beginnings of industrialization in textile manufacture in England. Throughout the period designs were handprinted from woodblocks, but in the middle of the century the introduction of mechanical processes and engraved copper plates for printing on cotton or linen expanded production and made possible fine linear designs with much larger repeats that were especially well adapted for furnishing use. The colors were primarily deep indigo blues and the rich purples, reds and sepias that are derived from madder. Typical English designs included large-scale flowers and birds, chinoiseries, pastoral landscapes and special commemorative designs.

DOCUMENTARY EVIDENCE makes it clear that few houses were embellished with elaborate window hangings in the colonial period. For those who could afford domestic luxury, the most lavish use of fabrics was in the covering and hanging of the best bed. In many estate inventories, the value of beds with hangings far exceeds that of any other piece of furniture in the entire house. Bed hangings of green harrateen or cheyney were common, with crimson or scarlet the second most popular color.

IF THERE WERE ANY WINDOW HANGINGS at all, they would have been hung in the parlor chamber, the room over the parlor

(Continued on page 129)

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Old-House Living...

Reviving The Stenciller's Art In Indiana

By Mrs. Richard V. Mikesell, Richmond, Ind.

THE RESTORATION of the Agnes and Abram Gaar home--why, where and how did it start? Unoccupied and neglected after the death of my mother in 1962, the roof developed leaks, the furnishings collected dust, the radiators rusted, an all but forgotten home badly in need of repair or demolition. My husband forced me to make a decision.

I COULDN'T STAND the thought of a hundred-year old Victorian ancestral landmark being torn down. So the first step was new roofing over all the house, done during the summer of 1974. This experience almost caused me to stop before we really got started.

DURING A WORK STOPPAGE over the Fourth of July weekend, the roof only had a felt covering and some very heavy rains caused further damage to the interior, such as half the ceiling of one bedroom falling and water dripping in the dining room beneath, causing damage to the table and mildewing the carpet. The roofing company's insurance partially paid for the damages.

A TREE HAD BLOWN DOWN NEAR THE front entrance and a limb had broken and bent the aluminum awning over the porch. Repair or remove? Twenty years ago my parents had removed the original front porch and replaced it with a larger, screened one where they could enjoy the view and fresh summer breezes without bugs. Fortunately, they stored some of the old material in one of the barns. Knowing it was there behind the bales of hay, we hauled it out to see if there was enough to reconstruct it.

HAVING THE ARCHITECT'S ORIGINAL plans on linen has been invaluable during the restoration. This gave us the exact dimensions to go by in replacing the missing parts. We found the side rails and spindles, the ceiling and top-trim, and the two half-columns that were against the house. We did not find the six columns, three being grouped at each corner toward the front, nor the rails or spindles that formed the balcony over the porch roof. We had enough to go by to have these missing parts reproduced.

IN REMOVING THE NEW PORCH we found side stone foundations of the original, still in place; unfortunately the thick stone steps had been broken up and used for filler under the new. But this didn't stop us. When the Palladium bought property on North A Street for its new building they allowed us to remove some stone slabs and the museum had stored the steps on their property and gave us what we needed, so all but the coping has been restored. Credit must be given to Paul Albert and his assistant, Ed Masters, for reconstructing the front porch, and to Elmer Turner of Acme Patterns for reproducing the caps and trim for the columns and Commons Lumber Company for turning the spindles and other parts.

WHAT TO DO WITH THE INTERIOR? On the third floor there are four bedchambers, as they were noted on the plans, a bathroom, large storage room with cedar-lined closet, and a small room to the front with a winding stairway to the

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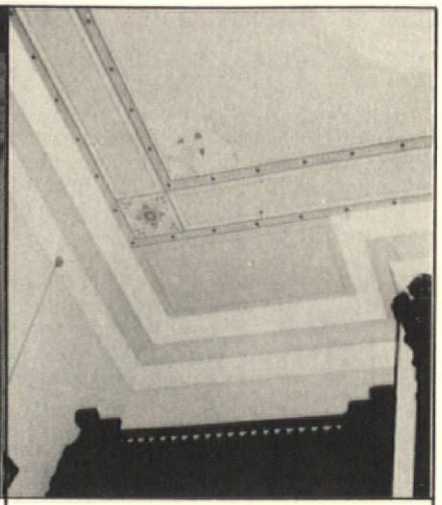
tower which has a lovely view to the south overlooking the farm and the city. There are four bedchambers on the second floor and on the main floor the hallway extends the full length of the house. Off the sitting room is the conservatory added by my parents.

WE REMOVED FURNITURE and things not of the period, stored china, glassware, lamps, pictures, etc. so that some painting and cleaning could be done. Our daughters were able to use some of the extra furniture and the Salvation Army took the rest. I almost gave them an original chair. One of the men was carrying it out the back hall when I suddenly realized that the wood trim on the arms and legs was Victorian!

Original stencilling on library ceiling is uncovered.



The ceiling now, with its stencil designs restored.

THE DECISION WAS MADE to start on the top floor and work down. Moisture-stained and loose wall paper had to be removed--who would do it! Through the Hohenstein's Suburban Tool Rental we located a steamer and a young man to operate it. During the course of this work he informed me that he had had experience in painting and cleaning and that he and his friend would appreciate the opportunity to continue the work. They are David McConkey and Donald Bridgford, the two men who have done an expert, diligent and excellent job on the restoration of the ceilings, walls, woodwork, hardware and floors of the entire house. In fact, they have formed a partnership known as the 1776 Interiors and Decorators.

THE THIRD FLOOR ROOMS and tower have been plaster-patched and painted, the inside shutters refinished, the painted woodwork hand-grained, and the natural woodwork cleaned and polished, and the floors painted.

NOW FOR THE REALLY EXCITING PART--uncovering the original! In the 1950's my parents converted the library and parlor into two bedrooms because of their failing health and fear of not being able to escape in case of fire. In removing a closet and powder room from the parlor we discovered a wide painted band of ceiling design, also the original soft green of the walls and darker green stencilled frieze below the cornice. Incidentally, the cornice had to be remolded and restored in the corners where the closet, etc. were. This was done by one of Ralph Whisenhunt's expert plasterers. After finding the ceiling and wall trim we could hardly wait to remove the wallpaper from the second floor and other areas. Thankfully, wallcovering had been put on instead of paint--or all would have been lost forever!

EVERY ROOM, even the front hall, stairway, and the back hall and stairs are all a different design. The men either made stencils or tracings of all the designs and took color photos to get the correct colors. In order to learn from an expert what kind of paints to use, how to mix and apply them, they made a special trip to Cleveland, Ohio to consult with Mr. Roman Celleghin who was born in Italy and is now in his eighties. As a young boy of 12 he began painting murals in wet plaster in his home town of Providence di Padova, some of them can still be seen today.

Dining room, showing restored triangular ceiling design in gold leaf. Furniture and accessories are original. Dining room table has 7 leaves and 12 chairs.

WHEN THE PARLOR AND LIBRARY were converted to bedrooms, the lower sashes of the windows were removed and replaced with the crank type. We found the old ones in the basement and other things were uncovered in some of the outbuildings--the fretwork that was in the arched door between the parlor and library, the backsplash for the wash bowl and some of the wooden and brass curtain rods with brass rings and wall holders.

THE THREE-SHELVED DUMB WAITER was at the basement level and used for storage of paint cans, etc. We found a few of the outside shutters. Unfortunately, not enough, but at least a pattern if we decide to replace them.

DAVE AND DON found an article in the library from the April 20, 1877 edition of the Richmond Telegram, telling about the architect, carpenter, and the companies that furnished the lighting and plumbing fixtures and hardware to the Abram Gaar house. The article, which details the heating and water systems, how the nailheads were hidden in the woodwork, and the finish on the basement floor, is one of the most valuable documents we have.

In the parlor only the original border was found. The rest had been newly plastered. The decorators took the design from the original parlor table, (at right) which had been on exhibition at the Philadelphia Centennial in 1876, blew it up to scale and put it on the ceiling. Horses and chariot in center of the table are on the ceiling in the bay window area. Gas and electric chandelier is original.

ANOTHER VALUABLE DOCUMENT is the invoice for the furniture, dated May 1877, from the Mitchell and Rammelsberg Company of Cincinnati. It lists the Brussels lace curtains, 3 pairs, $225, hall rack with inlaid blue tile at $260, and the walnut Eastlake extension table with 7 leaves at $75.

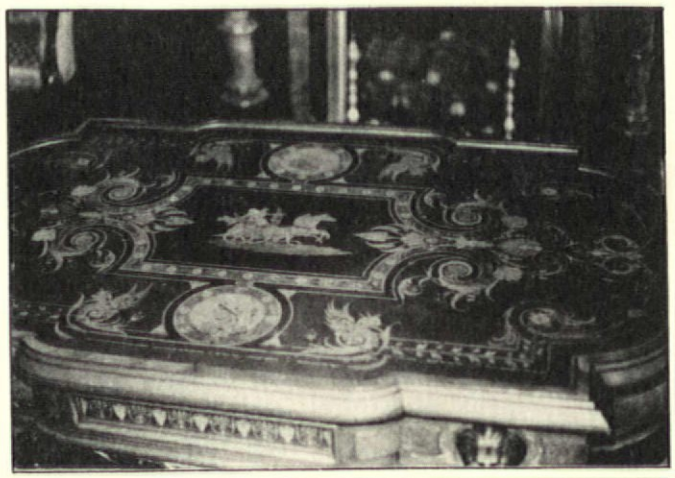
SEVERAL OF THE ORIGINAL LIGHT FIXTURES on the first floor are intact, the crystal chandeliers in the front entry, sitting room, parlor and library and the Scottish Knight in burnished armor on the newel post. The crystal chandeliers are a combination of gas for emergency purposes. The fixtures on the second floor I have puchased at sales, antique shops and elsewhere. They have been cleaned, rewired and fitted with interesting bulbs by Donald Hopkins of the Lamplighter Shop.

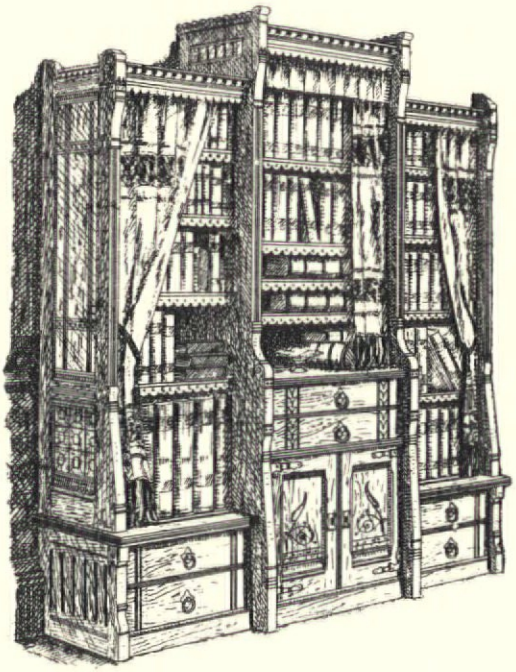
THE ORIGINAL BATHROOM on the second floor created a real challenge, the old tub and watercloset (toilet) had been discarded for modern equipment, some of the wainscotting behind the tub had been replaced with tile, and of course, linoleum on the floor. Fortunately, the wash basin remained and there again the backsplash was found in a barn.

THE CARPENTERS thought I had lost my mind when I had them remove the ceramic tile and replace it with wainscotting. Dave and Don nearly lost theirs when they had the horrible task of removing the linoleum and glue from the floor to uncover a beautiful oak floor with inlaid border. Temporarily, we are using a turn-of-the-century toilet seat and wooden tank with lead lining and hope to find one of correct vintage. The tub with claw feet was purchased and the matching foot-tub.

THE HOME AND FARM are now on the National Register of Historic Places and I appreciate very much the bronze plaque on the front door. It reads, "Agnes and Abram Gaar Home, Built 1876, architect John Hasecoster, presented by the Heritage Club, 1976."

HOPEFULLY, I have not failed to give credit where it is due. The restoration is not complete--it has been fascinating, time consuming, costly, very rewarding, and a real labor of love--indeed, a monument to the memory of Agnes and Abram Gaar. ■■





Part I

Adding Storage To The Old House

By Stephen MacDonald

STORAGE IS ONE OF THE MORE vexatious problems besetting the owner of an old house. We have so many possessions these days—many of which hadn't even been invented when the house was built. Even articles that had been invented—like books—weren't owned in the abundance that they are today. This means that today's old-house owner will either have to throw away some of his or her possessions (which might not be a bad idea at that) or add some storage space to the house.

LET'S BEGIN WITH THE UNDERSTANDING that in adding storage facilities to your house you are adding an anachronism—however necessary it may be. If you don't want it to LOOK like an anachronism, the unit will have to be custom-made to suit your particular house. Fortunately, many kinds of storage units are reasonably easy do-it-yourself projects.

SHELVES FOR BOOKS, records and the like are a good place to begin, because they are easy enough to build so that a novice carpenter can have a confidence-building success. And the experience introduces skills that can be expanded into more ambitious cabinet-making projects later on.

Design Factors

SHELF-BUILDING PROJECTS involve two basic steps: (1) Construction of the basic unit, which is pretty much the same for everyone; (2) Adding the finishing touches (mouldings, etc.), which have to be tailored to you specific house. The following instructions will guide you through the carpentry of the basic construction and then give you some ideas on tailoring the result so that it looks as though it were built with the house.

THE FIRST STEP IN DESIGNING the bookcase (we'll call it that, even though the unit could be used to accommodate other things) is to plan out such functional matters as how much capacity you require and where the unit will stand. Then you have to add aesthetic factors such as what dimensions will give you the desired capacity in a shape that makes sense in the room you have selected. You might want to build tall cases that reach to the ceiling... or door height...or wainscot height. In these considerations you'll do well to consult books that have photos of houses of similar vintage to yours, and visit neighbors who own old houses.

HOW FAR APART should shelves be? It's possible to make them adjustable, of course, and some people think this is the safest course. On the other hand, most people don't adjust their adjustable shelves very often (if ever) after they are in place. And fixed shelves are both stronger and better looking than the adjustable kind. Usually, good advance planning can eliminate the need for adjustable shelves.

FINAL PROCEDURE in this first part of the design is to draw up a detailed plan of the basic structure and include all dimensions.

Special Trim

NEXT STEP IS TO CONSIDER what special touches will make the basic shelf unit look as if it had been in your house forever. Many old bookcases tended to be ornate, with such features as elaborate carvings and bevel-glass doors. If you have the woodworking skill to bring off this kind of thing, by all means go right ahead. But it isn't necessary. A simpler but quite satisfactory effect can be achieved by selecting an architectural detail that's part of the room where the bookcase will be and incorporating it in the design. For example, copy the room baseboard and extend it around the bottom of your unit. Select a crown moulding for the top that is similar to your cornice moulding or framing woodwork in the room. Perhaps you'll also want to add strips of decorative moulding to the fronts of the uprights.

ANY WELL-STOCKED LUMBERYARD carries a variety of ready-made mouldings in softwood that can be stained or grained to match hardwood. It's

almost always possible to combine two or three stock mouldings in a way that comes close to matching old mouldings.

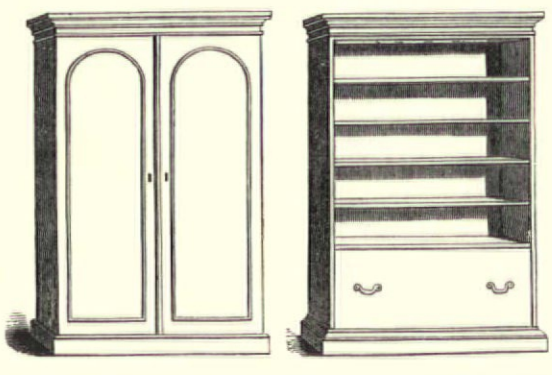
Selecting Wood

WHAT MATERIALS should you use? If the unit is to be painted or grained, possibly even stained, softwood lumber will be the logical choice because it's the cheapest —although lumber prices have gone so high in recent years that nothing can be considered cheap. For the genuine hardwood look you'll have to use either solid hardwood or else a plywood veneer. Solid hardwood is available in some lumber yards in some cities—but it's always expensive. Veneered hardwood plywood is an excellent substitute—and it's somewhat cheaper and easier to find. You can find plywood faced in almost every kind of wood.

EDGES OF PLYWOOD VENEER can be covered with a strip of veneer (sold in hardware stores and lumber yards) attached with contact cement. Even better is to face the edges with moulding strips of the appropriate hardwood—if you are fortunate enough to locate some.

PERHAPS A WORD IS IN ORDER on lumber grades, which can confuse even an experienced handyperson. Softwood boards are sold in two broad grades—Select and Common—but there are several sub-grades in each category. Few yards stock the full range of grades, so mostly you'll be choosing between the Select and Common that your yard carries. Select costs roughly twice as much as Common, so it's worth considering whether you can make Common do the job. Sometimes you can cut several good pieces out of a Common board; other times you can fill and seal knots. But when you need a long piece of clear wood, you'll have to pay for Select.

IT IS VITALLY IMPORTANT that your lumber be dry. Wet wood is hard to cut, it dulls blades, and shrinks and warps as it dries to the humidity level of your house. The best wood is kiln dried.



Simple storage unit (which can be used with or without doors) from Downing's 1850 edition of "The Architecture of Country Houses."

HARDWOOD IS GRADED DIFFERENTLY. The top quality is known as FAS—meaning Firsts and Seconds—followed by Select and Number 1 Common. FAS has few defects, Select has a few more (especially on the back face), and Common is usually unsuitable for large pieces such as bookshelf units.

AS FOR PLYWOOD, the softwood variety is frankly not recommended for quality work—even if the plan calls for painting. Its interior plys are soft and loose. Hardwood plywood is available in several grades. The highest, Premium, is probably not worth the extra expense unless you need matched graining. The grades known as 1 or 2 are adequate. Many yards term their plywood "G2S" (meaning Good on 2 Sides), or "G1S," (Good on 1 Side).

PLYWOOD IS SOLD IN PANELS, usually 4 ft. x 8 ft., in 1/8, 1/4, 3/8, 1/2, 5/8, 3/4 and 1 in. thicknesses. Boards are sold in "nominal" dimensions—which means the size before finishing and drying. Thus a board nominally 1 in. thick actually measures about 3/4 in. A nominal 5/4 (called "five quarter) measures a little over an inch thick. These are the two most likely thicknesses for shelves. Board widths are nominally 4 in., 6 in., 8 in. and up, increasing by twos. Board lengths are actual dimensions, beginning at 8 ft. and increasing by 2-ft. increments.

BACKING FOR SHELVES can be made of Masonite (if it is to be painted or grained), or else 1/4-in. hardwood plywood.

Mystique Of The Lumberyard

WHAT ALL THIS MEANS is that you must get to know your way around the lumberyard if if you expect to do much woodworking. First step is to know exactly what you want. Using your plan of the bookcase, make a rough sketch of each component with its dimensions (you won't be able to do this until you have read the following sections on joinery).

USE YOUR COMPONENT DRAWINGS to work out a cutting plan. Try to figure out on paper the minimum amount of lumber you need to buy and how to cut it. Use your cutting plan to derive the lumber list—which is the shopping list you take to the yard. Take along your component sketches and cutting plan, too. You may be planning to buy four pieces of 8 ft. 1x10, but if the yard is out of 8 ft. lengths you'll need to recalculate in a hurry!

LUMBER YARDS HAVE A MYSTIQUE for many people, but they're really quite straightforward when you get to know them. The typical operation has an office and a yard. You place your order in the office, and then take your receipt to the yard to get the order filled.

THE MOST IMPORTANT PERSON in the place, as far as you're concerned, is the yard man (or the yard foreman in a large yard). He is the one who is going to select your wood—or better yet, allow you to select it. Yards vary in their attitude about do-it-yourself lumber selection. Some insist that if you are buying three boards in a size then you must take the

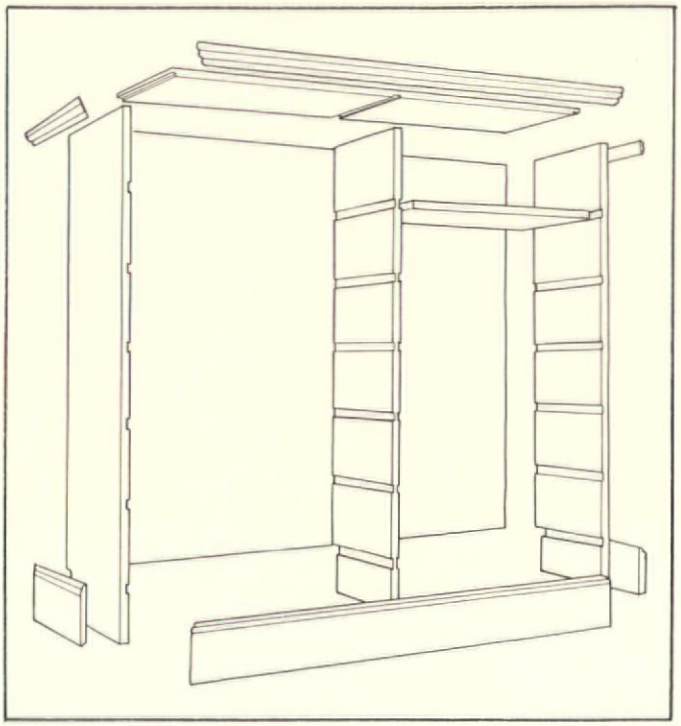
top three on the pile. Others let you pick through till you find the three you want.

STILL OTHER YARDS fall somewhere in the middle; they'll allow you to reject an occasional board but not grope through an entire pile. Whatever the yard policy, it's important that you be on hand, if for no other reason than to let the yard people know you are concerned about the quality of the lumber. This is especially true if you are trying to build with Common lumber, where there may be great variations in boards that cost the same.

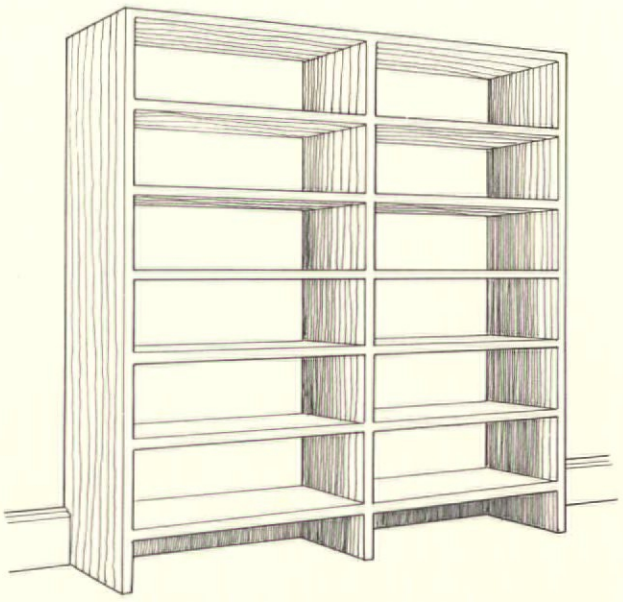
DO NOT—unless your brother is the yard man—phone in an order for delivery. You are likely to get the dregs that everyone else has rejected. If the yard man is helpful, it's not a bad idea to tip him a dollar or two. That way he'll remember you the next time you come in.

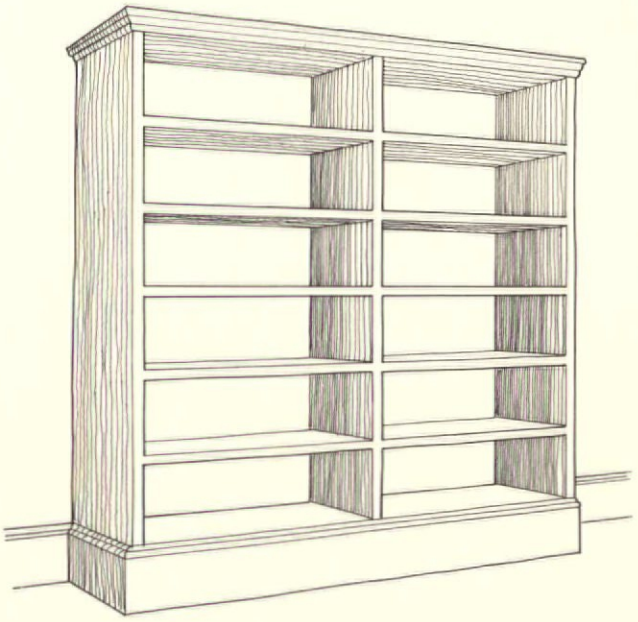
Cutting And Fitting

BACK HOME at your shop, you begin by squaring an end of each board, crosscutting it in the appropriate lengths, following your cutting plan. If you're using plywood, you'll begin by ripping the sheets into boards, then crosscutting to length. In this and in all cabinet work and other ambitious carpentry, it is essential that all cuts be square and accurate to 1/16 in. or better. The way to assure this is by measuring carefully ("Measure twice, cut once," as the saying goes), keeping your blades sharp and being sure that your saw—especially if it is a radial-arm saw—is in perfect alignment. A radial-arm saw is one of the most versatile and useful of home shop tools, but it gets out of alignment notoriously easily. A dull blade that drags through the wood will pull it out of adjustment in just a few passes.

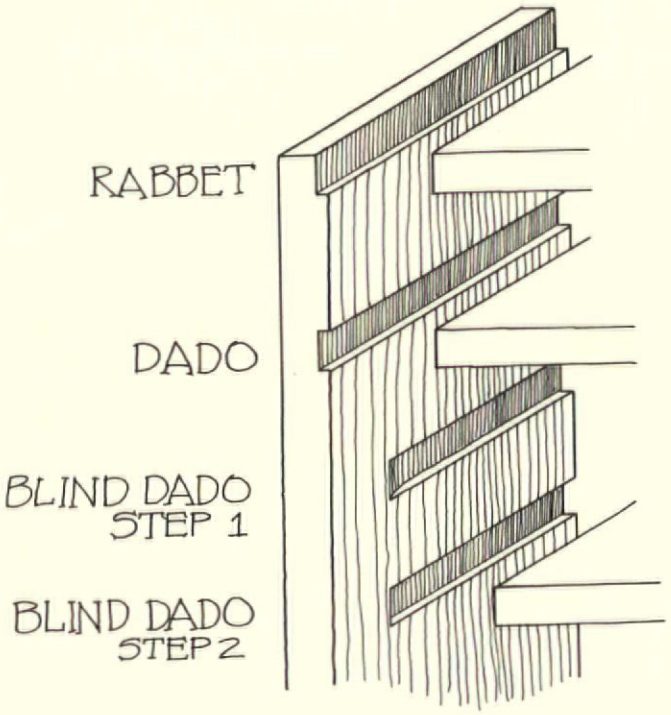


NEXT, cut the dadoes and rabbets. These are basic wood joinery cuts, used in almost all cabinet work. A dado is simply a channel in a piece of wood where another piece joins it (in this case where a shelf fits into the





The addition of an appropriate crown moulding and baseboard bring a simple box shelf unit into harmony with the rest of the room.



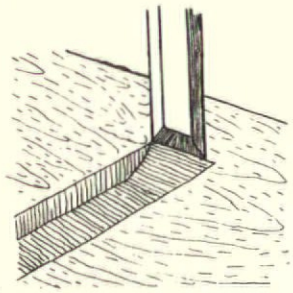
sides). A rabbet is like a dado, but along an edge. Bookcase sides are often rabbeted along the inside back edge to accept the back, and across the inside top to accept the top shelf.

THESE CUTS are easy to make with special blade sets. Dado sets for radial-arm and table saws include two cutters that look much like regular blades, several chippers and some small shims. You make up a sandwich of the cutters, putting as many chippers and shims between them as are needed to make a dado the width you want. Dadoes and rabbets can also be cut with a router or, if you prefer the old-time hand skills, with special planes. In any case, the position, width and depth of the cuts are critical, and great care must be taken.

Special Cuts

DADOES MUST BE just wide enough for the shelves to fit snugly. Too narrow and the shelf won't fit without an unholy struggle; too wide and it will be sloppy—leaving a gap. It's a good idea to sand the shelves before measuring them for the dadoes, because sanding makes them slightly thinner. Dado depth should be about 1/4 in. for bookcases made of nominal 1-in. stock or 3/4-in. plywood. At the outset, you should make a few trial dadoes in scrap wood before cutting "for real."

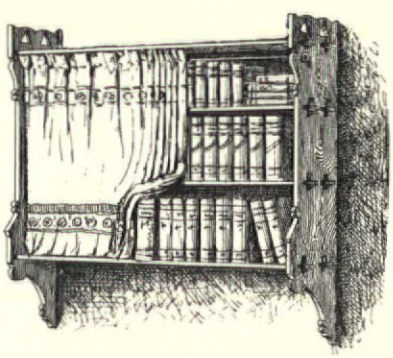
SOMETIMES YOU'LL WANT to use a "blind dado," as for instance when the shelves don't extend to the front of the sides. To do this, cut with the dado blade to the point where the shelves will stop, then use a very sharp chisel to square out the channel.



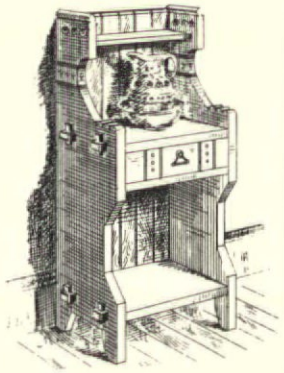
AFTER CUTTING AND DADOING, put veneer or moulding strips on any plywood edges that will show, then sand and dust all pieces.

If the finished unit will be too large to conveniently carry through a doorway, move the components to the room where the bookcase will stand. If there is a baseboard on the wall, cut out the rear bottoms of the uprights with a sabre saw. If the bottom shelf is at baseboard height, you'll have to make it less deep than the others. And the back must also stop above the baseboard.

LAY OUT AND ASSEMBLE the bookcase according to your design. Use good quality yellow (not white!) cabinetmakers' glue and finishing nails in all joints. (Franklin's "Titebond" glue is a good high-strength, long-lasting adhesive.) Shelves can be face-nailed from the outside of the uprights, but the nail holes will be less obvious if you toenail them from the inside—a more difficult job. The nails should be sunk with a nailset and the holes filled with wood putty. If the wood will be finished naturally, the best filler is linseed-oil glazing putty colored with pigments to match the finished wood. This filler should be added after the natural oil finish has been applied to the wood.



Hanging Shelves.



ONCE THE SHELVES, sides and tops are in place, attach the back and hoist the unit into position. Then you can install the mouldings and other trim that will give your basic bookcase its special character. You may want to tack small strips of moulding over the front edges to cover the dadoes.

IF THE BOOKCASE is tall, it may be necessary to anchor it to keep it from toppling. The simplest way to do this from the top—if there is room to work between the top shelf and the ceiling. First, find a stud in the wall, then screw an angle bracket to the wall and the top of the bookcase. If there's no room on top, use the top of a high shelf. ■■

NEXT MONTH: Further ideas on using mouldings to dress up your shelving units.

Stephen MacDonald is a product designer by profession—and a finish carpenter by inclination. He's had ample opportunity to hone both skills during the renovation of his Brooklyn brownstone.

(Fabric--Cont'd from page 121)

where the best bed was located. Usually the fabric and color of the curtains matched that of the bed hangings. Any upholstered furniture or window-seat cushions in the room were usually covered in the same material or in leather of the same color. Slipcovers or cases of printed or checked cotton or linen were frequently used to protect the upholstery. If a family had curtains in more than one room, the second set would be in the parlor.

THERE ARE MANY excellent reproductions of 18th century silks, linens and printed cottons, but limited evidence to support their use in American buildings. Wool, by far the most commonly used material, is scarcely represented among modern reproduction fabrics.

1790-1815

TOWARD THE END of the 18th century and in the early years of the 19th century, the mechanized textile production that came with the Industrial Revolution lowered costs and brought furnishing fabrics, especially printed cottons, within the economic reach of many persons for the first time. Inevitably, fashion followed, and furnishing fabrics began to be used more widely and in greater abundance than they had before. Most fabrics were still imported from England, which had the most advanced textile technology, but merchants also imported French, Indian and Chinese fabrics into the United States. The infant American textile industry was not yet a factor in providing fabrics for home furnishings.

ALTHOUGH WOOL bed hangings continued to be used during these years, chintz was now regarded as more stylish and had the added advantage of being easily washable. Bed valances were wider than they had been in the 18th century, ranging up to 20 inches, sometimes with added netting or fringes. The most elaborate designs for bed hangings included many additional pieces--extra valances, short curtains, swags and rosettes. Window hangings also evidenced the growing fashion for fabrics. Chintz was favored in parlors and drawing rooms and wools in dining rooms and libraries. Silk continued to be used in wealthier houses. Windows were hung in the French style with straight curtains under valances or swags and festoons. The parlor replaced the bedroom as the location of the most elaborate drapery treatments.

WOOL, durable haircloth and leather were used for upholstery. It was also fashionable to cover chair cushions separately in silk or chintz to match window curtains, but silks were never used in more than a few best rooms, even in the most wealthy houses.

IN THE MID-20TH CENTURY it was common to regard pale colors as characteristic of this period. More recent research has shown instead a marked preference for dramatic printed designs and strong, almost glaring colors: rich yellow, orange, scarlet and blue, often arranged in bold combinations. The range of reproduction fabrics available for this period is large, reflecting current interest in the early printed designs.

1815-1840

DURING THE YEARS 1815-40, the development of power looms, the perfection of roller printing and improvements in dye technology greatly changed the textile industry in Europe and the United States and influenced textile fashions as well. Colorful, relatively inexpensive cotton prints were everywhere available for use as bed and window coverings and as slipcovers. Because of the quality of design and printing, even the simplest curtain designs with these furniture chintzes could be regarded as stylish. The use of metal cylinders for printing meant that repeats were smaller and details often very finely wrought. Popular designs included monochromatic landscapes, combinations of block and roller printing, floral stripes and elaborately foliated pillar prints.

IN WEALTHIER HOUSES, European designs for draperies and valances in silk, wool and chintz were often adapted from English and French publications. Sheer undercurtains were sometimes added to window treatments as part of a growing taste for layers of contrasting fabrics. In more modest houses, elaborate designs were copied in less expensive fabrics. Curtains continued to be regarded as functional despite the increasing complexity of the designs. They were opened and closed daily to admit or exclude light or air. As late as 1840 the windows of many kitchens and lesser bedrooms were without fabric hangings.

THE USE OF BED HANGINGS during this period was a matter of individual choice that reflected patterns of fashion as well as philosophies of hygiene. Throughout the 1830's and 40s controversy raged over the healthfulness of hangings that enclosed the bed. In 1839 the editor of Godey's Lady's Book wrote, "Bed hangings are unhealthy. They confine the air about us while we sleep." At the same time designers and decorators were publishing new designs for hangings and they were being manufactured in large quantities. It was not until the mid-19th century that bed hangings were relegated to strictly decorative display on the posts and tester frame.

"Bromelia" resist, a large-scale cotton print, c. 1765. A faithful reproduction by Brunschwig & Fils, Inc.

1840-1870

In the middle years of the 19th century the use of textiles to decorate American houses was lavish, reflecting the great availability of fabrics and the interest women took in the appearance of their domestic environment.

Fashionable fabrics included silk, velvet, damask, plain satin and figured chintz. Women often made their own curtains and bed hangings, although professional upholsterers continued to supply the wealthy. Popular manuals and magazines published designs and patterns and offered suggestions for creating decorative effects inexpensively.

As in the past, designs for window hangings were inspired by historical styles, but during this period different styles were often mixed in the same house. A basic formula for window hangings was sheer undercurtains, heavy side draperies and a valance that might be distinctively Greek, Gothic or Jacobean. Frequently two or three or more fabrics of different color and texture would be combined in a single design with braids, fringe, cords and tassels adding to the rich effects. Similar effects can be achieved today by using silks, wools or velvets in period colors with appropriate braids, fringes and trimmings. Although there are few documentary reproductions available, plain fabrics similar to the originals of the period can be found in the standard textile market.

1870-1900

During the years 1870-1900 rich and varied combinations of textures, colors and patterns characterized fabric furnishings. The photographs in William Seale's book The Tasteful Interlude records the lavish use of fabrics that extended to upholstered footstools, pillows, portieres and the draping of pianos, tables and chairs. The prominent display of crocheted doilies and elaborate embroideries evidenced a taste for handwork that was promoted by women's magazines and manuals as well as by the values of the English Arts and Crafts movement. Drapery design was exceedingly complex, often utilizing embroidered or lace undercurtains and elaborate fringes, tassels and tiebacks. Plush, sateen, brocatelle, twilled wool, velvets and silks were among the popular fabrics.

During this period the design and use of furnishing fabrics reflected several new influences. From England came the distinctive flat patterned fabrics and wallpapers designed by William Morris' Arts and Crafts firm, as well as an attention to materials and fine craftsmanship. At the same time, stimulated by the United States centennial, there was a revival of American colonial and Federal period motifs, including early reproductions of 18th-century fabrics. For this reason some of the reproductions of 18th-century fabrics that are available today, especially those of French copperplate prints, are as appropriate for late 19th-century interiors as they are for 18th-century ones. A third influence on interior decoration and fabric design that should be noted, although currently it is not represented among reproduction fabrics, was the interest in exotic Japanese and Turkish motifs.

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La Pagode Toile, reproduction by Brunschwig & Fils of a French copperplate print on cotton, c. 1786.

Book About Fabric

"FABRICS FOR HISTORIC BUILDINGS" is an indispensable guide and catalog reference to reproduction fabrics appropriate for use in either historic buildings or old houses.

AUTHOR JANE C. NYLANDER, curator of textiles and ceramics at Old Sturbridge Village, Mass., has written an excellent general introduction to aid persons with limited fabric experience in selecting and ordering fabric. Discussed in this section are historical and practical considerations, and basic pointers in ordering custom reproduction work.

THE MAJOR FEATURE of the book is a catalog listing 225 commercially available reproductions of fabrics used in the United States between the 18th century and 1900. This information includes: Manufacturer's catalog name for fabric, place, date and method of manufacture of original, content and width-length of one pattern repeat, organization or museum for which the fabric was reproduced, manufacturer's name for the document color.

ALSO IN THIS BOOK is a list of manufacturers and their addresses, a glossary of fabric terms and a bibliography.

"FABRICS FOR HISTORIC BUILDINGS" is a softbound book, 64 pages, with black and white photos. To order, send $5.00 to: Preservation Bookshop, National Trust for Historic Preservation, 740 Jackson Place, N.W., Washington, D.C. 20006.

Glossary Of Historic Fabric Terms

BAIZE. Woven woolen cloth having a long nap. Frequently used to cover desk and card table surfaces, either glued down or as a loose cover. Green appears to have been the most common color.

BATISTE. Fine light cotton or linen, usually cotton; from the French word for cambric.

BOURETTE. Silk fabric with a dull finish characterized by random black specks that are actually portions of the silk cocoon.

BROCADE. A figured fabric in which the design is woven in wefts that float on the fabric back or are cut away. These threads appear on the surface only in areas required by the design.

BROCATELLE. A special form of lampas with a pattern in one weave on a contrasting ground. Often heavy silk or linen is used for the ground wefts, which do not appear on the surface of the fabric.

CALAMANCO. A glazed worsted fabric, either plain or woven with a figured design in colors resembling silk brocades.

CALICO. Cotton cloth with patterns printed in one or more colors. In the 18th and early 19th centuries referred to printed cloth imported from India; now usually cotton prints with small stylized patterns.

CAMBRIC. Fine bleached linen.

CAMLET. Unglazed worsted fabric of plain weave. Descriptive of a group of 18th century materials including harrateen, moreen and china (cheyney).

CHINTZ. Glazed cotton cloth, in the 18th century always printed. First manufactured in India, but then imitated elsewhere. Printed designs usually have at least five colors and are frequently large-scale floral patterns.

CRETONNE. A stout unglazed cotton cloth printed on one or both sides, late 19th century in origin. It was used for window curtains and chair covers. At the present time it is unavailable in the U.S.

DAMASK. A reversible woven design of contrasting faces. Can be wool, silk or linen.

DIMITY. Cotton cloth with woven ribs forming a pattern of either stripes or checks.

DOCUMENTARY COLORWAY. A modern manufacturers' term used to indicate that the colors of the reproduction fabric are those of the original document. A colorway is a particular printed combination of colors.

DOUBLE WOVEN. Two ply, or made with two layers that are interwoven at regular intervals.

DROP REPEAT. A design that matches motifs in an alternating, zig-zag pattern when joined lengthwise; it requires additional yardage.

FAILLE. A ribbed fabric formed with heavier weft than warp yarns.

FURNITURE. A term commonly used in the 18th century to denote the full equipment of something. A "bed and furniture" meant the mattress, bolster, pillows, sheets, pillowcases and hangings; a "tea table and furniture" referred to a tea table with its accompanying objects for the service of tea. In the case of "window curtain and furniture," furniture referred to the rods, hooks, etc., as well as the cloth.

FURNITURE CHECK. A kind of checked linen or cotton used for slipcovers, window curtains and bed hangings, 18th century to the present.

GAUFRAGE. An embossing technique in which a heated metal cylinder having a raised design on it is pressed against the pile of plain fabric, such as velvet, thereby transferring the pattern.

GLAZED. Having a smooth and lustrous surface coating on the exposed side only.

HARRATEEN. In 18th century England and colonial America, a wool moire.

HOLLAND. An 18th and early 19th century term for closely woven linens, first manufactured in Holland but later throughout the British Isles.

LAMPAS. A figured fabric using additional wefts and warps to form a design in one texture on the ground of another. These additional fibers are woven into the back of the fabric, but it is not reversible.

MARSEILLES. A heavy cotton fabric with a pattern woven in the goods. Usually white, it was primarily used for bed coverings. Marseilles quilts were used from the late 18th century to the early 20th.

MATELASSE. A double-woven cloth that simulated quilting by interlocking in some areas to produce a puckered effect.

MOIRE. Fabric, often taffeta, having a surface that appears wavy or watery.

MOREEN. A stout woolen or cotton-wool blend, often embossed with a figured design. Commonly used for upholstery.

MUSLIN. A fine cotton cloth with a downy nap on its surface. Generally plain but sometimes decorated with a downy nap on its surface. Generally plain but sometimes decorated with openwork or embroidery. The finer grades were often called *mull.*

OSNABURG. A kind of coarse linen originally made in Osnabruck, Germany, but later imitated in England and elsewhere. Sometimes spelled "Ozenbriggs."

PALAMPORE. A cotton bed covering from India, usually printed or painted with beautiful designs.

PLUSH. A fabric with an even pile, shorter and less dense than that of velvet. Used for upholstery in the mid to late 19th century.

REPEAT. One complete pattern motif.

RESIST DIE. A method of indigo printing in the 18th century in which a resist paste inhibited the dye.

RUSSELL. Ribbed or corded fabric, usually with a cotton warp and wool weft.

SATIN. A shiny fabric created by a special weave leaving floats of numerous warp yarns on the surface. Usually silk, also wool and linen.

SATEEN. A smooth satin weave cloth usually in cotton. Used for window hangings, bed covers and occasionally as a ground for embroidery in the 19th and 20th centuries.

SELVEDGE. The lengthwise edges of a piece of cloth, often of heavier threads and sometimes a different weave intended to prevent raveling.

SLUBS. Lumps on thread, formed by careless spinning. Deliberate use of slubs to give an antique effect to finished cloth is inappropriate for restoration purposes.

STUFF. Commonly a thin woolen cloth.

TAFFETA. A closely woven, firm fabric of even weight and tension, known by its glossy surface. Usually silk but can be linen.

TAMBOUR. Embroidery worked on fine cloth with a small hook forming a chain stitch on the upper surface of the cloth.

TOBACCO CLOTH. Unbleached white cotton cloth used for protecting certain tobacco plants from direct sunlight, thus producing "Shadegrown Tobacco." Resembles the texture and weight of pure cotton muslin.

TOILE. From *toile imprimee,* meaning printed cotton. Now generally refers to copperplate-printed fabrics, either cotton or linen, more correctly those of French origin.

VELVET. A pile fabric created by the use of an extra warp over rods or wires in loops. It can be plain (left as woven) or the loops can be cut. If the pattern is created by alternating areas of cut and uncut loops, the fabric is called *cisele velvet.* If the pattern is woven leaving some areas without pile, it is called *voided velvet.* Usually wool, silk or cotton.

WARP. The threads that are stretched lengthwise on the loom, usually spun more tightly than the weft.

WEFT. The threads that are interwoven with the warp, thereby running crosswise in the goods, from selvedge to selvedge.

WORSTED. Fabric made of long staple wool that has been combed to make the fibers lie parallel to each other when spun.

Products For The Old House

Period Furniture

THE CROWN OF FAIRHOPE Company used to be known mainly for their clock kits. But they are now making late Victorian and turn-of-the-century furniture reproductions (along with Early American) that should be quite popular.

ONE OF THE most useful reproductions is an oak sculptured back chair with a cane seat. Probably a kitchen chair originally, it is appropriate for kitchen, dining room or parlor. Like most pieces, it is available finished or unfinished.

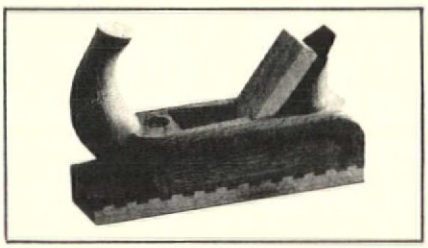
MANY REPRODUCTIONS also come in kit form at a considerable saving. There are hall trees, handsome collector's coffee tables (with glass case tops), a pie safe with perforated tin panels and an oval mirror with oak frame. These come in either oak, mahogany or pine.

THERE ARE ALSO a few tables in black walnut, described as Early American in the catalog, that look very much like Eastlake furniture.

AN ILLUSTRATED CATALOG is $1.00. Write to: Crown of Fairhope, Dept. OHJ, P. O. Drawer G, 759 Nichols Ave., Fairhope, Alabama 36532.

Woodworking Tool Catalog

ANYONE WHO IS a woodworking enthusiast should have the Woodcraft catalog. They have an extensive array of the finest quality tools that you won't find at the neighborhood hardware store. There are wood moulding planes, every sort of marking gauge, marquetry and veneering tools, and an incredible variety of chisels.

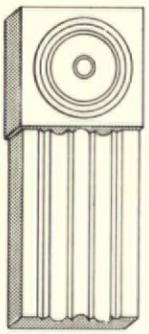


GERMAN GENT'S PLANE

ACCESSORIES include glue pots, glues, brushes, dowels and pegs. The catalog is also an excellent source for cabinetmaking books.

ALTHOUGH Woodcraft usually asks 50¢ for their catalog, they will send it free to Old-House Journal readers. Write to: Woodcraft Supply Corp., Dept. OHJ, 313 Montvale Avenue, Woburn, MA 01801.

A Polyurethane Bullseye



FYPON, makers of high density polyurethane molded millwork, has a new brochure that features several new products.

THE BULLSEYE moulding (pictured at right) is motif that was widely used in many styles of old house. Replacements are often needed. Fypon has now added bullseye moulding to its line. It comes in 7 ft. 8 in. lengths.

THE BROCHURE also features a mantel roof, dormer head and a rake moulding. Free from: Fypon, Inc., Dept. OHJ, 108 Hill Street, Stewartstown, Pennsylvania 17363.

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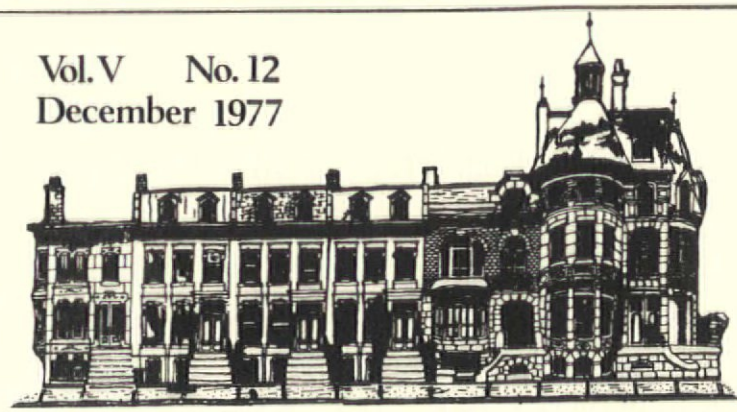

Restoration And Maintenance Techniques For The Antique House

The Co-Insurance Trap

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Coming Next Month

THE COLONIAL REVIVAL HOUSE

By Ronald W. Pilling, Baltimore, Md.

WHEN A POWERFUL WIND tore the roof from their 1857 townhouse and destroyed the third floor, the Schmidts figured that the physical restoration of the damaged area would be the biggest hassle. Money was no problem--they had homeowner's insurance.

NOTED AUTHOR Philip Wylie thought the same following a fire that roared through his splendid 140-year old upstate New York home, gutting the kitchen and several other rooms. The damage amounted to nearly thirty thousand dollars.

BOTH WERE MISTAKEN. In the former case, insurance paperwork would cause a delay of weeks and the final payment would be far short of that needed to repair their meticulously restored home. Author Wylie would never recover enough to restore his fire-ravaged home to its former pastoral beauty. Neither understood the implications of the 80% co-insurance clause of their homeowner's policies until it was too late.

IN NON-LAWYERESE, this states simply that at the time of an insurable loss, the homeowner must be carrying insurance equal to at least 80% of the replacement cost of his home in order to be paid in full. For example, if, at today's prices, it would cost fifty thousand dollars to rebuild a house, its owners will need a minimum of forty thousand dollars of coverage to insure complete protection. If the insurance falls short of that amount, the adjustor has methods to determine what portion of the claim his company will pay. More will be said on this later. What is important to understand is that if your coverage fails to equal at least 80% of the replacement cost of your home it could mean a great expense should you suffer a loss. All policies share this feature.

FOR THE SUBURBANITE this clause will be of less urgency than for the in-town restorationist. The market value of a three bedroom rancher should be close to its replacement value, so if the owner carries enough insurance to repurchase a home like the one he has, it should be adequate. Many people do just this, believing that if the face value of their policy will buy an identical house they have plenty of insurance.

IN THE CITY, however, the market value of a home often bears no resemblance to its replacement cost. This is especially true in neighborhoods that have just begun the climb from slum to respectability, where large, well-appointed homes are still inexpensive. Whenever this exists--a cir-

(Continued on page 143)

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Removing Paint From Fireplace Brick

To The Editor:

REGARDING the question on removing paint from fireplace brick (Sept. 1977), I had great luck stripping two fireplaces by burning the paint off. Unlike stripping wood, you don't have to worry about scorching the brick.

YOU CAN USE a propane torch, or else an old-fashioned white-gas blowtorch such as painters use to strip paint. Keep the flame on an area until the paint is thoroughly charred. Then with a hand-held wire brush (bronze bristles are best) remove the ash. Works great!

Robert Atwood Meyer
Wallingford, Conn.

To The Editor:

THE PROCEDURE DESCRIBED for sandblasting an interior fireplace (Sept. 1977) involves a hazard that should be brought to the attention of your readers.

THE SILICON ABRASIVE used in most portable sandblasters is extremely toxic, especially when pulverized into dust. Industrial workers using this abrasive indoors often wear pressure-ventilated totally enclosed suits to protect them from its effects.

ANYONE INTENDING to use a sandblaster indoors should be sure to purchase a non-toxic abrasive. A call to the state labor department should result in a list of such substances and where they can be purchased.

John W. Kinney, Jr., AIA
Historic Sites Section,
North Carolina Dept. of
Cultural Resources

Getting Paint Out Of Wood Pores

To The Editor:

WHEN STRIPPING PAINT from open-grained woods like oak and mahogany, there usually are flecks of paint that stick in the pores. Here's a trick for removing this residue after you've gone through the conventional paint stripping steps:

1. Mix shellac half and half with alcohol and apply to the stripped surface. Allow to dry.

2. Reapply semi-paste paint remover. The shellac should have bonded to the paint in the pores, and much of it will come off along with the shellac.

IF YOU'RE AFTER A SUPER CLEAN JOB, you may want to repeat the process.

F. Eleanor Warner
Lexington, Mass.

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Care Of Urns

To The Editor:

I'D LIKE TO ADD a few comments to Tom Gerhardt's excellent article on Victorian urns. To prevent over-saturation of plant roots, most urns have a built-in drainage system. This is usually in the form of a pipe, or a tube formed by the casting. It goes from the bottom of the bowl section and exits inside the base.

IN MANY OLD URNS the drainage pipe has become blocked by debris or (more often) by rust. It is necessary to clear out the drain with a dowel or even a steel rod before plants can be successfully grown.

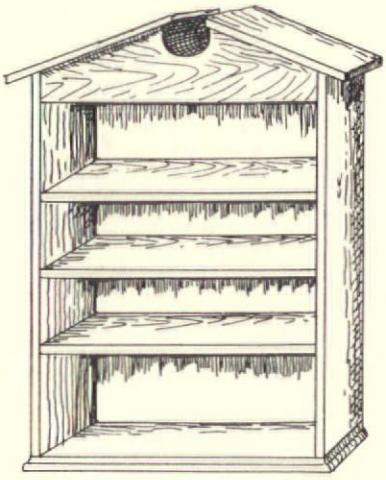
IT SHOULD ALSO BE POINTED OUT that neither this drain nor a drilled petcock are fully effective for winter protection. Successive layers of snow and ice can form a solid plug, which, during a hard freeze, can crack the urn.

MY SUGGESTION IS SIMPLY to cover the urns during winter months as did the old-time gardeners. Plastic sheeting works fine; if you use black or dark tones of grey or green the appearance is quite acceptable. The purist may wish to use the traditional canvas, but I would still suggest using plastic underneath as canvas can leak. Placing a piece of styrofoam or balsa wood in the urn would take up the expansion of the ice should leaking occur.

TO PRVENT THE COVER from sagging and collecting a pool of water, wooden supports can be placed underneath. I have found that an inverted flowerpot inside the urn also provides a good base for the covering. The covering material should be cut in a circle large enough to drape over the sides so that it can be tied securely beneath the lip.

Erik Anderson
Charlestown, Mass.

Part II



Adding Storage To The Old House

By Stephen MacDonald

Last month, the author reviewed the basic carpentry that goes into building shelf-type storage units—and pointed out that it's the detailing that turns a plain box into something compatible with your particular house. In this article, he illustrates some of the dramatic effects that can be achieved with stock mouldings.—Ed.

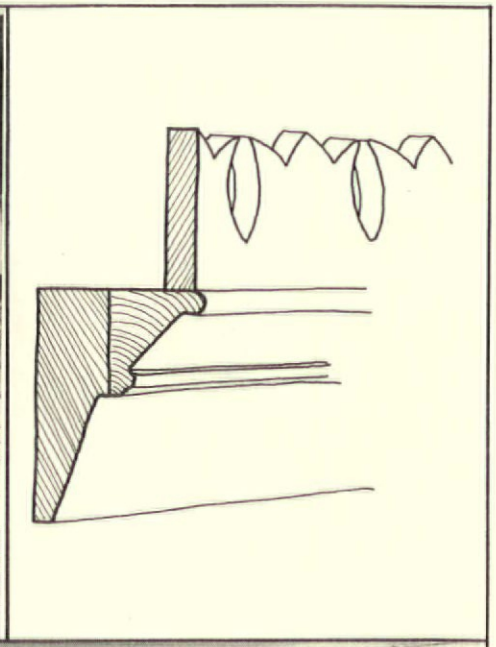
MY ARTICLE IN the November issue described in general terms how to add stock mouldings to a home-built bookcase or storage unit to give it a "period" feeling. In this article, I'll give some specific illustrations of how standard mouldings can be combined in built-up assemblies to closely approximate the dimensional richness of some of the old-time moulding trim.

THE EXAMPLES that will be shown here, of course, represent only a tiny fraction of possible combinations, and are not offered as a uniquely suitable solution for any particular house. Rather, these illustrations are intended as idea-starters to stimulate your own creativity. The best approach in designing decoration on your bookcase is to choose an existing moulding or decorative motif in the house and adapt it as closely as you can using available materials and skills.

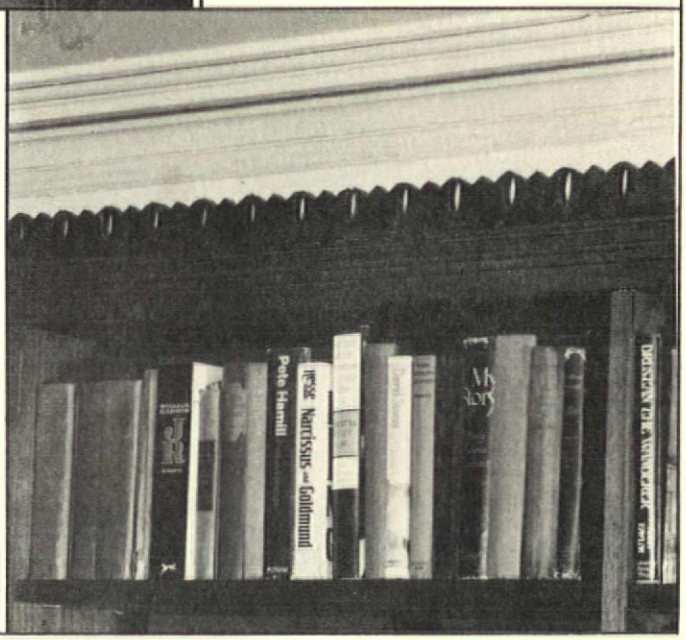
ALL OF THE MOULDINGS shown in the illustrations on the following pages come from a pattern catalog published by the Wood Moulding And Millwork Producers, an industry association. The numbers on the drawings correspond to the moulding numbers specified in the catalog, which shows many dozens of mouldings by style and size. The booklet is an invaluable reference because few lumber yards carry a complete selection of mouldings, and they would rather that you select only from what they have in stock. With the book in hand you can see the full range of profiles that is produced—and what a yard can order for you if it wants to be helpful.

TO GET A COPY of the booklet, send $1.50 to Wood Moulding And Millwork Producers,

Robert Potts, a newscaster for NBC's Channel 4 in New York, constructed this handsome and practical storage unit for his Brooklyn brownstone. Speakers for a hi-fi system are at either end of the bottom section, with storage in the middle. Unit was made from clear pine and then stained. A crown moulding and carved shell ornament (which Potts carved himself) pick up the theme of classical detailing that's found elsewhere in the home's interior.



Here's one way to create new "old" bookshelves. The room originally had walnut wainscotting—but no shelves. So the owners moved the wainscotting 10 in. out from the wall, attaching it to a frame of 2x3 lumber that was constructed and anchored to the wall. A section of the wainscotting was mitered at a 45° angle to provide a return where the shelves met existing door and window frames (see left in photo above). Conventional shelf units were then made from walnut boards and attached atop the new wainscot-fronted frame. To provide a decorative finish, the original chair rail from the top of the wainscotting was affixed to the top of the shelves (see right). A crown pattern was cut in a 3/8-in. walnut board with a sabre saw to match the trim over the original door and window frames in the room. The new shelves look like they had been built with the house.



P.O. Box 25278J, Portland, Ore. 97225. Ask for "WM Moulding Pattern Book."

Working With Mouldings

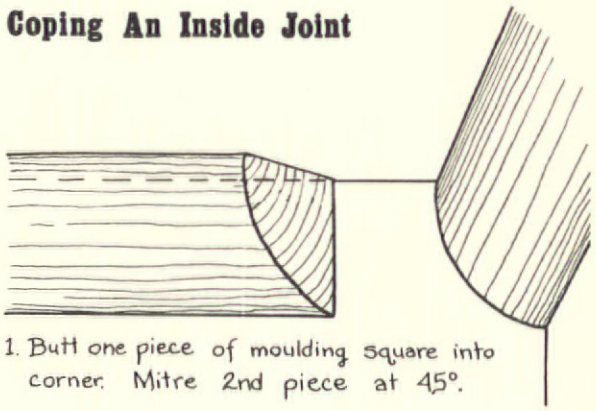
FOR BOOKSHELF-style storage units, a crown or cornice moulding along the top is usually the most prominent feature. It is possible, of course, to use a single piece of stock crown moulding. But a single moulding might not have the depth and profile that you need. Two or more mouldings can be combined to produce the added dimensions. Assembly of mouldings such as shown on the opposite page is quite simple: All you need is glue and some small brads. Any nailing holes can be easily filled.

WORKING WITH MOULDINGS is fairly simple. The basic tools needed are a coping saw, mitre box and backsaw (a rectangular saw designed for use in a mitre box, named for its stiffly reinforced top or "back"). The mitre box holds the saw in position for precise 45° or 90° cuts.

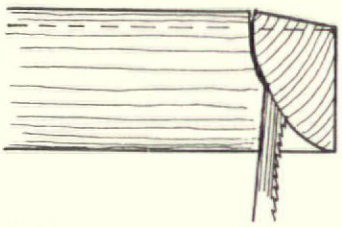
WHERE A MOULDING travels around the outside of a corner, mitre two pieces of moulding at opposite 45° angles and fit them together to form a tight right angle. When running around an inside corner, a better fit will result from a coped joint.

FOR A COPED JOINT, first cut a 90° end on one piece of moulding and butt it into the corner, fastening it in place with finishing nails. Cut a 45° mitre in the other piece to the correct length, then use a coping saw to follow the cut line made by the back saw on the first cut. Keep the blade on the waste side of the line, and cut at 90° to the direction in which

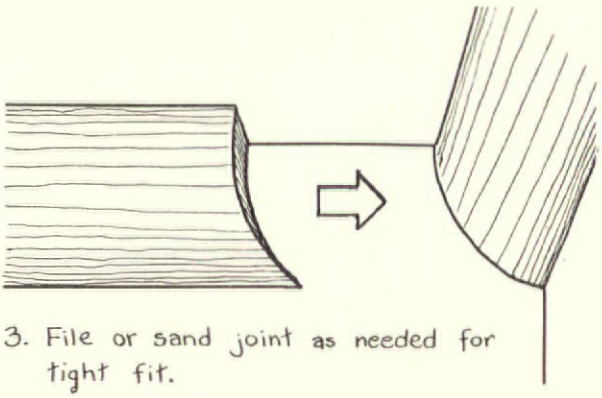
Coping An Inside Joint



1. Butt one piece of moulding square into corner. Mitre 2nd piece at 45°.



2. With coping saw, cut along mitre line at 90° to back of moulding. Keep saw on waste side of line.



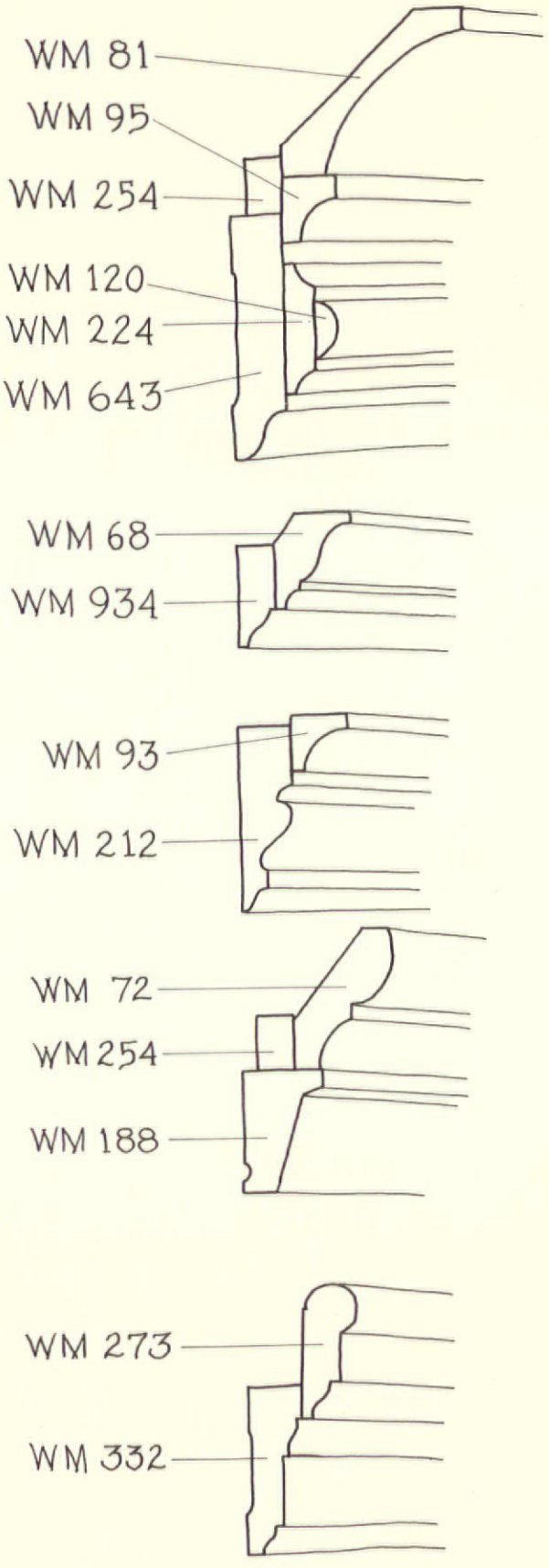
3. File or sand joint as needed for tight fit.

the moulding runs (see diagram above). Test the coped moulding against the piece already in place, and trim or file the coped piece as necessary for a tight joint.

WHEN NAILING MOULDINGS in place, it's a good idea to leave the heads protruding about a quarter of an inch until you're sure everything fits correctly. That makes them easier to remove in case adjustment is needed. When all is in alignment, set the nails about 1/16 in. below the surface and fill the holes.

THE ONLY PITFALLS in this kind of work are that you'll cut the mitre in the wrong direction, get the moulding in the mitre box upside down, etc. Taking correct measurements at corners can also be a little tricky at first. It's always wise to experiment a little before you begin assembling things for real. ■■

Typical Assemblies For Cornices



Simulating Lincrusta

By Tom H. Gerhardt

The following article describes another facet of the continuing restoration of The Glenn House by the Cape Girardeau (Mo.) Historical Association. Tom H. Gerhardt is First Vice President of the Association as well as our Midwest Editor.

IT JUST COULD NOT BE FOUND! The hallways at the Glenn House had an embossed wallcovering called "Lincrusta Walton" in the dado area at one time. Several scraps of this material were discovered behind the radiator. It was a heavily embossed linoleum-cardboard material that apparently in this case was several shades of brown, and was attached with glue and nails.

IT IS SAID that this material, widely used during the late 19th and early 20th centuries as a dirt-resistant, durable material that often looked like leather, was foreign made and often had to be soaked in water before it was flexible enough to be applied.

THE COLORS VARIED; sometimes gold foil was even worked into the background or foreground of this paper. It was also listed as a "leatherette" material in many cases. Regardless, the search for the material was fruitless; therefore, the problem of duplicating the look and feel of it as nearly as possible was at hand.

A SEARCH WAS BEGUN for regular embossed wallpaper. It was soon found, however, that embossed papers were also in short supply and almost always had a light background with a confusing color scheme that in no way reflected the solidity of the Lincrusta. We thought that the color of the paper should be deep enough to give the impression of weight and solidity, particularly since it was to be used in combination with green burlap and wallpaper borders above. Scraps of this burlap had been discovered behind the wall lighting fixtures.

ONE MANUFACTURER OF EMBOSSED papers indicated that they were vinyl coated and would cause paint to peel. Another company said that the paper should be stained. With a sample in hand, we decided to try the thinned brown paint that painters Elzy and Ron Ayers mix to use in graining the woodwork. The main concern was whether the paint would dry or not. According to how much was rubbed off with a cloth, it would dry in varying degrees of time; but it never took longer than the drying time for graining the woodwork.

The hallways of The Glenn House have simulated Lincrusta in the dado, green burlap in the fill portion of the walls, and a wallpaper border frieze. The German, Oriental-design carpets are from Dylan Carpet, Inc., 140 E. 55th St, NYC.

WHEN THE AYERS were asked about the mixture of thinned paint, they talked like expert cooks who can give no recipe for a cake. They said that it was mainly the addition of paint thinner to the basic surface color that is desired. One further caution: If it is a painted background over which the thinned paint will be brushed, do not go heavy on the thinner as it will soften the original paint, even with adequate drying time.

AFTER THE WALLPAPER was hung and allowed to dry at least a week, a cardboard frame was used in spraying all of the cameos gold. Next, the Ayers brushed on the dark, thinned paint, rubbing it off with cloths in the cameos which produced a dark and light leather look. After drying for a couple of days, the wallpaper panels were then varnished with satin-finish varnish for durability and to add life to them. The panels behind the radiator were decorated before they were hung; this task can be performed by taping them to a wallspace to paint them.

A cardboard frame was used to apply the gold spray paint to the cameos.

The thinned paint was brushed over the paper, covering the cameos as well.

With a cloth, the paint was rubbed off of the cameos to the desired shade.

THE EMBOSSED PAPER had a pattern with cameos, was white and imported from France. (For information on the paper, write to: Mr. Aran Hampikian, Leroy International, P.O. Box 873, Norwalk, CT 06852.) The design was heavily embossed with pale colors printedon it. It is essential that a heavily embossed design be used because the design seems to draw down slightly when the paper is hung.

ENOUGH PAPER SHOULD BE ordered for experimentation with different colors, densities of paint, background treatments, and to test the amount of rubbing off of the paint.

Tom Gerhardt's solution to the problem of replacing Lincrusta seems to be an aesthetically pleasing one. This material was made in England and Belgium and was available in America until the last decade. Lincrusta-Walton was produced in various colors, particularly brown for dados and buff for fillings and ceilings. It was described as "flexible, practically indestructible... with designs so varied as to please every taste."

Anaglypta, which looks very much like Lincrusta, was often sold as a "Japanese Leather Paper." It was of later manufacture and less expensive. It was sold plain (probably beige in color) and it was recommended that it be "painted and decorated to harmonize with existing Furniture, Carpets, or Curtains." --C.F.

The embossed paper is in the lower part of the picture. Wooden rope mouldings and a paper border were added to separate the dado from the burlap above. Borders are from the Reed "Early American Homes" Collection (see July 1976 issue of The Journal.)

Adding A Plate Rail

By Marilyn Raffaele, Traverse City, Mich.

THE DICTIONARY defines a plate rail as a rail or narrow shelf placed along a wall to hold plates. However, as any lover of old houses knows, a plate rail is much more than that. Every one from the very elaborate to the very simple is decorative yet practical; and each one adds a unique touch, whether it be a formal dining room or a kitchen.

WHEN WE BEGAN WORK on the formal dining room of our 65 year old home, I realized it was now or never to have an old fashioned plate rail--something I had always loved to see in old houses but which, to my disappointment, had not been built into ours. Since we had a great deal of work yet in every room, and I knew virtually nothing about building a plate rail, we debated spending the time on it. However, it was a now or never thing so I began research on the making of an old fashioned plate rail.

THE ANTIQUE PLATE RAIL is a thing almost unknown to modern builders, building supply stores, catalogs, and anyone else you think should know about them. So after unsuccessfully searching these sources, I checked out every house book at the library, and all my own decorating and building magazines and books. These efforts also proved quite fruitless.

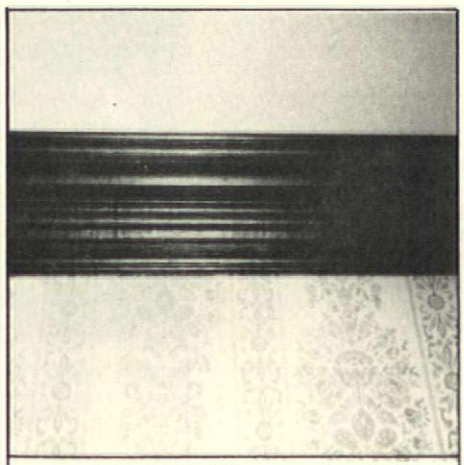
NEXT, I PAID A VISIT to a friend whose house I knew had a real antique plate rail. There I sketched it best I could from side and front views, and took the sketch to an older gentleman who ran a woodworking shop at home. He was interested and said that perhaps he could do a series of routings on a large board to get a similar effect. I opted to research the project a little longer and by this time an aunt who had a "bare board" plate rail (reluctantly put up by an uninterested carpenter) was questioning what could be done to change hers into a "real" plate rail.

IT WAS AT THIS POINT that I made a very basic but important discovery. Every plate rail I had ever seen on a wall or in a picture was different. They are all put together with various pieces of molding at the discretion of the particular carpenter building the house.

WHILE CONTEMPLATING the present day unavailability of nice molding, I remembered the old 3/4 in. x 2½ in. molding we had removed a year before (with permission) from a crumbling old farmhouse. It was still in various stages of paint and un-paint but I took a piece of it to a building supply lumber yard which did custom mill work. With the help of one of the actual mill workers, I selected 1 in. x 4 in. for the top "rail" board, and the back. Although they are called 1 in., they are actually 3/4 in. x 3½ in. However, this was sufficient for our needs. Because I would be staining this to match our existing woodwork, I selected knotless, first quality boards. However, anyone planning to paint their plate rail could just as easily use cheaper, less than first quality wood.

THE BACK BOARD was to be flat against the wall, its 3/4 in. edge becoming half the support for the rail board. The other 3/4 in. side had to be routed and tapered toward the wall. Next would come the old moulding, its 3/4 in. edge parallel with the back board so that the two of them made a 1½ in. shelf on which to place the actual plate rail board. This 1 in. x 4 in. was also to be routed on the overhanging edge to give it a finished look. Into this board was cut a 1/4 in. groove, 2 in. out from its flat

Friend's antique plate rail is placed fairly low on the wall.



The new plate rail in place, stained and given a coat of satin varnish.

This side view of the new plate rail shows how the moldings were assembled.

(wall) side. There is no set rule regarding the placement of the groove as long as there is sufficient "lean" between the plate and the wall. Many old plate rails have two grooves.

THIS ARRANGEMENT left 2½ in. of board protruding over the back board molding and it looked unfinished. To complete the rail, we chose a piece of stock cove molding, 5/8 x 7/8 in. By placing it with the long edge up against the rail board, the whole combination came together with just the right "old plate rail" look.

WHILE THIS MILL WORK was being done, I took the old molding to a commercial stripper and had it dipped, then sanded and filled the nail holes. I stained with a combination of Minwax sealer/stain colors, mixing stains to match the existing mahogany woodwork.

DECIDING EXACTLY where to place the plate rail was the next problem--I never did find any official information. My friend's plate rail is placed low, approximately 12-14 in. down the door frame. We opted to put ours where we like it best which turned out to be 22 in. from the bottom of the six inch cove on our new plaster ceiling. We have nine ft. ceilings. As old houses are famous for settling causing uneven walls and floors, we thought this cove would be the most even area to start.

MEASURING down 22 in., we marked a line across the three walls we planned to use. All four walls are usually used, but our fourth wall is all windows. This line was the guide for the back board and old moulding. The placement of the actual plate rail board itself would bring the whole thing up 3/4 in. from that line.

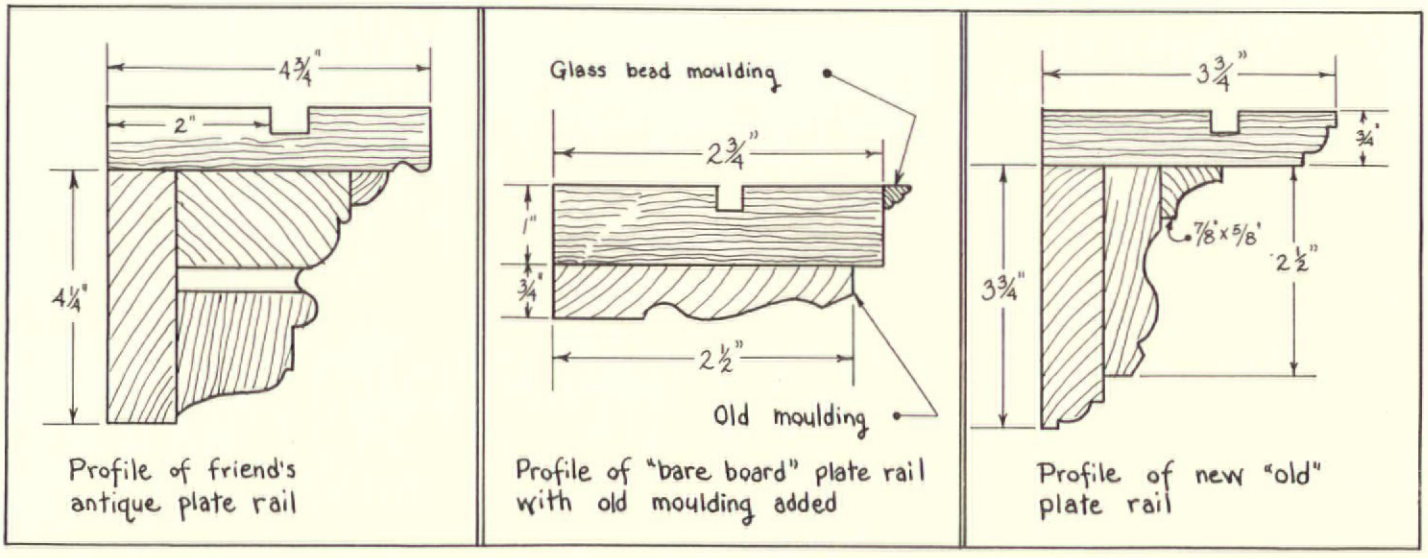
USING GOOD 2 in. nails and with the drawn line as a guide, we nailed up our back board. Next, using 2 in. finish nails came the old molding--flush against the back board and top 3/4 in. edge even with it. This formed the 1½ in. shelf for the rail board which was nailed down into the two supporting boards. The rail board required more work as it had to be cut in around several radiator pipes. Last but not least, came the 5/8 in. x 7/8 in. cove molding. On this we used a small finishing nail. All that was required to complete the job was to "touch up" stain the ends, fill nail holes, and apply two coats of satin varnish.

PLATE RAILS are usually mitered at the corners as is any molding, but it was not necessary in our case because our door openings are so close to each corner. We cut our ends straight and then butted up against the door frames. This is a personal choice. I have seen some which taper in as they approach a door or window frame and it gives a very nice "finished" look.

AFTER SATISFACTORILY completing the job I had confidence enough to see what could be done with my aunt's "bare board" plate rail. Hers is a much newer home with lower ceilings and the railing is in the kitchen, attached to the plaster drop between the ceiling and cupboards. There was only one inch of space under the railing so moving it higher would have left too short a distance to display anything. We decided to use some more of the old molding but this time, instead of extending it down from the rail, we laid it up under the rail with its larger (3/4 in.) edge against the wall and its tapered end out.

THE RAIL BOARD was 1/4 in. wider than the molding, leaving a 1/4 in. extension. We added stock "glass bead" molding to the outer edge of the rail board and painted the whole thing to match the plaster background. Even though it is much shorter than the average old fashioned plate rail, this one looks very nice in the newer home.

I KNOW FROM EXPERIENCE that it is difficult to find fancy moldings used for plate rails, other than salvage items. But the Driwood Molding Company (Old-House Journal Catalog) has a large, lovely selection. They have three goupings in their catalog especially for plate rail use. I am glad we included a plate rail in our dining room renovation. It was not an excessively expensive project and it creates a focal point from which to decorate—as well as a charm completely in character with the style of an old house. ■■

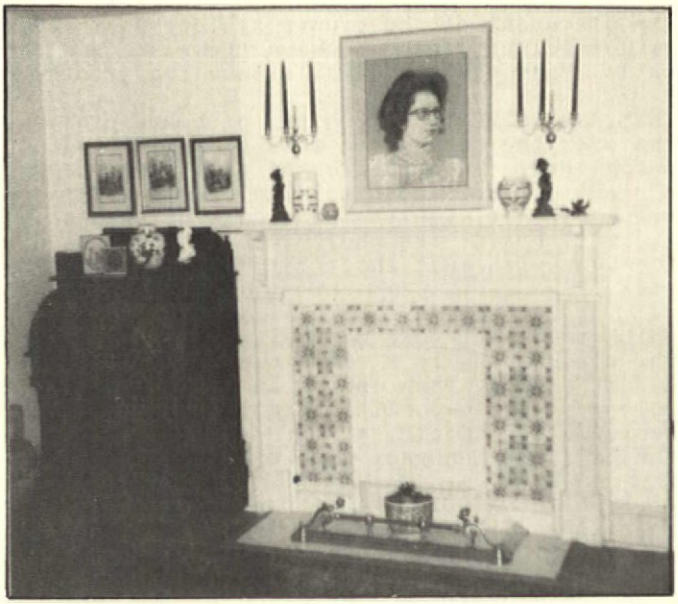


Profile of friend's antique plate rail

Profile of "bare board" plate rail with old moulding added

Profile of new "old" plate rail

Refurbishing An Unused Fireplace



By Dee Potter

IN THE EARLY FALL of 1969, my husband Clifton and I, sick and tired of apartment living and refusing to live in a subdivision, bought an old farmhouse, which was now in the heart of Lynchburg, Virginia, a city of nearly 100,000 people.

IT WAS LOVE at first sight; I was captivated by the hedge and trees that hid it from sight of the nearby hospital. He liked its simplicity and the fact that due to a shift in the road that once ran by the front lawn, we faced nowhere, only a neighbor's rose garden. It was as though the house chose to be secret, hidden from the world, in a bower of its own making.

BECAUSE PRE-CIVIL WAR records in this part of the country are often incomplete, we were unable to ascertain when the house was built. We only know that by 1846 there was a house and an outbuilding on the present property.

THE 1950's ushered in such modern conveniences as central heating and bathrooms. Until then, I believe the house had been left pretty much to itself, by its elderly owners. When we moved in, the first and most obvious thing that would have to be changed was the closed-up fireplace in the living room. It was hideous, a great blank, taped over with wallpaper, like a bandaged eye, or a dead television set.

ALAS FOR MY HOPES for a vintage fireplace. The former owner was only too happy to enlighten me, since she too had had the same intial reaction. When the central heating had been installed, the heating ducts had been run up the chimney, and the area bricked over. In the winter the space would be quite warm. We discovered it was almost hot on a very cold day.

REASON DICTATED that we be satisfied with the upstairs fireplace,which was undamaged, but the "white eye" offended me. I found myself standing in front of it at parties, and not to keep warm either! I had always wanted a tiled fireplace and for many months we hunted among the wrecking companies in the area for something that would give us a good idea. They were only too happy to sell us old windows, doorknobs, hinges and locks, but no one saved tiles. We were informed it was impossible to remove them intact.

IN DESPERATION we bought a cast-iron fireplace cover, but we were concerned about mounting such a heavy piece of equipment, and, in any case, it did not cover the entire space. We didn't want to pull loose the bricks and possibly damage the ductwork, so we left the whole business and went to England for Clifton's sabbatical year.

IT WAS IN A LONDON specialty shop that we found the tiles--only they weren't tiles. Of a special light material, they were intended to be used as hot mats; thus there would be no problem about the warmth of the wall. They came in several styles, and the one we chose was a replica of the Delft Dutch tiles of the 18th and 19th century. Our next door neighbor measured the space, so that we were able to buy the right number.

AFTER OUR RETURN HOME, Clifton built up the lower part of the space, using molding and part of the fireplace cover. The area not covered by the tiles was painted in a contrasting color, to match the woodwork, with decorative trim added. The effect is that of a fireplace, covered as they are in the summer, but without the weight.

HAVING FOUND THE MATERIALS, the actual labor was the easiest part of the job, since it mainly consisted of painting, and gluing the tiles and their accoutrements. The worst part of the whole thing was holding in place the little doorknob and the medallion of the sun until the glue dried, which took about fifteen min.

WITH DELFT ACCENT pieces to pick up the colors of the tiles, we have gone on to attempt to create a Victorian parlor, with the appropriate furniture, including a mammoth Edwardian desk, chairs, tables, and Godey prints and old daguerreotypes. The fire fender and door hardware are Art Noveau.

WE MAKE NO APOLOGIES for our "fake" fireplace. It would have been nice to have found a gem of a house, unloved and untouched, awaiting our restoration, but such was not the case. Those who can start from scratch are fortunate. The rest of us do the best we can. Some one cared enough about the house to install central heating; we love it enough to try to conceal what we can. The Victorians, with their interest in the "modern" and convenient, would, I hope, approve of both of us.

(Co-Insurance--Cont'd from page 133)

cumstance where the replacement cost far exceeds the market value--the homeowner must "over-insure" to guarantee that he will have complete protection in case of a loss.

A RETURN TO THE FIRST example will clarify this. The Schmidts purchased their twelve-room home for less than twenty thousand dollars in a downtown neighborhood still considered a pioneer area. Their home was insured for thirty thousand dollars--plenty, they reasoned, to buy another should theirs burn to the ground. They later increased the coverage to forty thousand as they made improvements and as prices in the area climbed. They still were of the opinion that they had plenty of insurance.

THE AFTERMATH of the tornado-like winds was an estimate of twenty thousand dollars to restore the lost roof structure and third floor rooms. The claims adjustor measured the entire house, while pouring forth sympathy, paying as much attention to the undamaged portion as to the lack of a substantial roof. With his measurements he computed a replacement cost of ninety-five thousand dollars, which demanded a minimum of seventy-six thousand dollars of coverage to guarantee payment in full. He was asking, in effect, that the Schmidts carry almost eighty thousand dollars of insurance on a house that could could be purchased for less than half that amount on the same block. The bottom line was a partial payment--only fifteen thousand dollars--and a large unexpected expense for the homeowners.

YOU HAVE GUESSED the moral of the above story: Be careful to have adequate coverage--adequate by the company's standards. It is seldom expensive. The additional forty thousand dollars of coverage would have cost less than a hundred dollars a year. You could estimate your home's replacement cost yourself if you had the adjustor's references. Here is how it was done for the Schmidts.

THE ADJUSTOR CARRIES a book with a worksheet for computing replacement cost. The method varies but slightly from company to company. He noted that the house was a masonry rowhouse, and that the materials, decorative trim, and workmanship were good-to-excellent (not unusual for an old home, even in an undesirable area.) His guide told him that it would cost $23.00 per square foot to rebuild a home of this type, not including the basement.

TO THIS HE ADDED AN OPEN PORCH (224 square ft. at $5.25 per square ft.), an unfinished basement (750 square ft. at $4.30 per square ft.), and four fireplaces at $2,150 each. For the Schmidts' 3200 square ft. house, the first total for replacement was $86,680. The representative then turns to the Locality Multiplier Page, and for Maryland he finds a multiplier of 1.1. This times the earlier total gives him a final replacement cost of $95,350.

THE LOCALITY MULTIPLIER represents the variance in building costs from place to place. For example, in North Carolina the multiplier is .9, while in New York City it is 1.4. All of the figures used above are current for 1977.

IF YOU WERE PRIVY to the adjustor's worksheet, you could do this for yourself. Most people do not have such access to a claims adjustor, however, and must rely on one of two sources. First, it is the responsibility of the agent to assist the homeowner in purchasing the proper coverage. One admitted that while it is rare for an agent to actually compute replacement cost, it is part of his job if asked. Normally the agent simply asks how much coverage you want, seldom if ever explaining the ramifications of the 80% co-insurance clause. Second, a homeowner can hire a professional appraiser to prepare a written appraisal of his home, for which he will pay a fee of at least fifty dollars. If you are unsure of the replacement cost, call your agent and ask that he put his estimate in writing. Attach it to your policy, and update your coverage periodically to reflect increasing building costs.

THE SCHMIDTS did not have sufficient coverage to insure that their claim would be paid in full. Two methods of determining the actual payment in cases like this are commonly used: The replacement cost method and the actual cash value method. With the former, the adjustor multiplies the total estimate of the claim by a fraction composed of the face value of the policy divided by the minimum amount of insurance required under the 80% clause. In this case, the computation would appear as follows: ($40,000/$77,000) x $20,000 = $10,390. The result is the amount paid on the claim. With the second method, the adjustor determines the amount paid on the claim. With the second method, the adjustor determines the amount the damaged structure has depreciated, applies that factor to the total amount of damage, and pays the result. The Schmidts' adjustor decided that the roof had depreciated 25%, and so paid three-quarters, or $15,000 of their $20,000 claim. The most favorable of the two methods is the one ultimately used to calculate the payment.

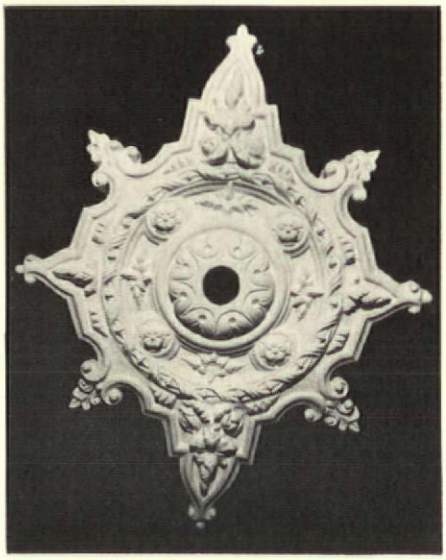
IF YOUR HOUSE has lots of decorative features, you can be sure the replacement cost will be high. Review your insurance policy for adequacy of coverage. If in doubt, call in your agent. A few dollars in annual premiums could save you thousands in event of loss. ■■

Special Old-House Insurance Policy

ONE INSURER, responding to the special needs of old-house owners, has developed a policy that eliminates the co-insurance trap. Instead, the plan substitutes an "agreed amount clause." The homeowner and the insurer agree in advance on a valuation for the house (which is usually close to the market value). As long as the homeowner carries the agreed value of insurance, he or she is fully covered in event of an insurable loss. The policy is currently available only in Massachusetts and New York states—but perhaps demand from old-house owners will cause the idea to spread. For more details on this special old-house plan, contact: The Brownstone Agency, 111 John St., New York, N.Y., 10038. Tel. (212) WO 2-5620.

Products For The Old House

Ornamental Plaster



GIANETTI STUDIOS is a decorative plastering firm serving the Washington, D.C. area. They make plaster ornament in classical style--from a Louis XV mantelpiece to egg and dart moulding. They make a variety of ceiling medallions, cornice mouldings, columns and pilasters; and produce and install stock items as well as custom designs.

THE MEDALLION shown above came from a circa 1830 house in which the medallion was added about 1900. The same pattern is seen in many houses in Washington and Maryland and was probably made by a local plaster contractor of the day.

GIANETTI is now making this plaster medallion available to purchase by mail. The price is $50. There is also a packing charge of $15.00 (packed in a wooden box). Allow four weeks for delivery.

FOR MORE INFORMATION about the services of Gianetti, or to order the medallion, write to: Gianetti Studios, 3806 38th Street, Brentwood, MD 20722.

Helpful Publications

Appropriate Technology Resources

AN UNUSUAL and very helpful catalog has just been published under the title "Rainbook." There is a group of economists, architects, consultants to state government, magazine editors, and teachers who publish "Rain" magazine, a journal of methods, projects, books and ideas from around the country and abroad that deal with decreasing wastefulness while improving the quality of life.

THEIR MESSAGE is positive--in cutting back our consumption we will find greater rewards and satisfactions from a less-encumbered lifestyle. Compiled by the "Rain" editors, this catalog has information on everything from community economics and health self-care to compost toilets, solar energy, waste recycling, and community building.

"RAINBOOK: Resources for Appropriate Technology" is a fully illustrated softcover book, 251 pages and includes a complete index. It is $7.95, plus 50¢ postage. Write to: Rainbook, 2270 N. W. Irving, Portland, Oregon 97210.

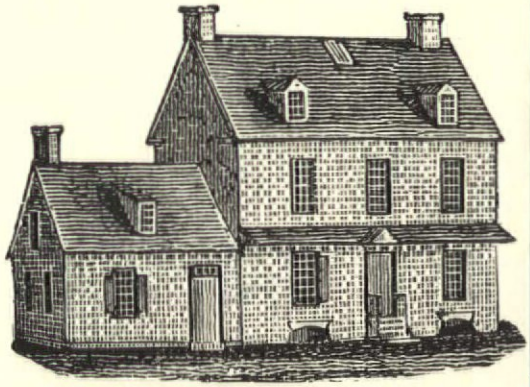
Historic Wallpapers Book

A NEW PUBLICATION, "Wallpapers in Historic Preservation" should be of great interest to anyone who would like to know more about how wallpaper was made and used in America in the 17th, 18th and 19th centuries.

WHILE THIS BOOK is written for administrators, architects and others involved with the maintenance of historic properties, the old-house owner will find much of it useful--particularly the discussion of hand-made and machine-made papers, and how borders, friezes and ceiling papers were used.

"WALLPAPERS in Historic Preservation" is a softcover book, illustrated with black and white photos, 56 pages. Also included is a list of wallpaper reference collections and firms manufacturing reproduction paper. To order, send $2.20, and ask for stock number 024-005-00685-1, to the Superintendant of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

If you love old houses, you should subscribe to The Old-House Journal!



THE OLD-HOUSE JOURNAL is the only publication devoted exclusively to the restoration, maintenance, and decoration of pre-1939 houses. Our plainly written articles show you practical and economical ways to turn that old house 'with a lot of potential' into the house of your dreams.

The Journal is written and edited by people who have restored old houses themselves. We've learned how to balance history with convenience, lasting quality with a budget. Our first-hand articles explain the do-it-yourself procedures that assure good workmanship while they save you money. You'll do the job at a reasonable cost, and avoid expenses and headaches in the long run. And even if you hire contractors to do the work, you'll know what they're up to — and learn to prevent costly mistakes.

The Journal is about *sensitive rehabilitation*. It's not about gut-and-strip remodelling — we call it REMUDDLING — that destroys forever the house's antique charm . . . and its tangible evidence of the past.

The Journal isn't *all* preservation nuts and bolts. We also feature articles about period interiors, landscaping, and the history of various house styles. Our unprecedented series on post-Victorian, early-20th-century house styles has received nationwide attention and spawned a soon-to-be-published book. And then there are **The Old-House Journal**'s regular features: free classified ads for current subscribers; *Ask OHJ* — our Q & A column; *Restorer's Notebook* — time-saving and money-saving hints from readers who've learned it the hard way; *Restoration Products* — our survey of the most recent and worthwhile products and services for your old-house needs. Over the years, our readership demand has actually been able to persuade manufacturers to reintroduce such long-neglected items as push-button light switches and Lincrusta-Walton wallcovering (a Victorian imitation of leather).

This Yearbook is only one volume of **The OHJ Restoration Encyclopedia**. And while the information collected from our back issues never goes out of date, we continue to break new ground. Preservation methods improve, new products are introduced. An ongoing subscription to **The Old-House Journal** newsletter is your best way to stay current. We think you'll be delighted and fascinated by our unique publication. For only $18, you can receive a one-year subscription — and become a part of **The Old-House Journal** Network!

The Old-House Journal

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The Old-House Journal CATALOG

The Ultimate Where-To-Find-It Guide

The Old-House Journal Catalog is the most comprehensive directory of products and services available to the old-house lover. The only thing "old" about the Catalog is the name . . . the rest is up-to-date, carefully screened information on over 1,250 companies.

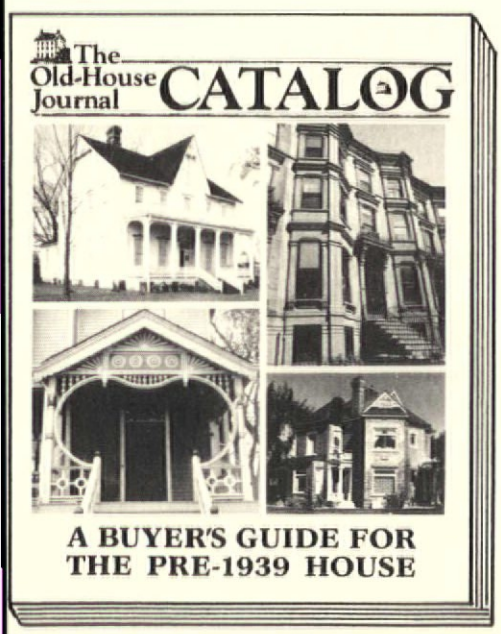
The OHJ Catalog has the latest information on America's manufacturers and craftspeople, all personally contacted and evaluated by the editors of The Old-House Journal. And our update system ensures that you have current information on the products and services listed.

The OHJ Catalog gives you addresses, phone numbers, and information on brochures, all in three easy-to-use sections: The Product & Service Directory
The Company Directory
The Alphabetical Index

And the Catalog is extensively cross-referenced, so you don't go crazy looking for "Rosettes" when that information is found under "Ceiling Medallions."

Don't believe the hardware store clerks who insist, "They don't make that anymore." The Old-House Journal Catalog makes your search for those special, hard-to-find products and services a lot easier . . . and a lot more pleasant!

Save $3 as a subscriber to The Old-House Journal. The Catalog ordinarily costs $13.95 postpaid, but as a member of the OHJ Network, you can order a Catalog for only $10.95, including fast shipping via United Parcel Service. Send your check or money order to The Old-House Journal Catalog, 69A Seventh Avenue, Brooklyn, NY 11217.



Here's a partial list of the products included in The OHJ Catalog:

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- Architectural Millwork
- Old-Style Roofing & Siding
- Ornamental Ironwork
- Reproduction Doors & Windows
- Flooring
- Fretwork
- Staircases & Parts
- Tin Ceilings
- Wainscotting
- Ornamental Plaster
- Furniture & Furnishings
- Columns & Capitals
- Replacement Balusters
- Glass—Stained, Etched, Bevelled
- Mantels
- Period Fabrics & Wallpapers
- Hinges, Knobs & Other Hardware
- Period Plumbing & Fixtures
- Lighting Fixtures & Parts
- Authentic Paints & Finishes
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Guide To Restoration Know-How

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