

# THE OLD-HOUSE JOURNAL

Vol.V No.2  
February 1977

\$1.00



Renovation And Maintenance Ideas For The Antique House

## Landscaping The Pre-1840 House

### In This Issue

<a href="#">Basic Timber Framing.....</a>	<a href="#">15</a>
<a href="#">Final Finishes On Wood.....</a>	<a href="#">22</a>
<a href="#">Helpful Publications.....</a>	<a href="#">23</a>
<a href="#">Fireplace Damper.....</a>	<a href="#">14</a>
<a href="#">Early American Plants.....</a>	<a href="#">20</a>

### Coming Next Month

THE TUDOR HOUSE

By Donna Jeanloz

**G**ARDEN 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

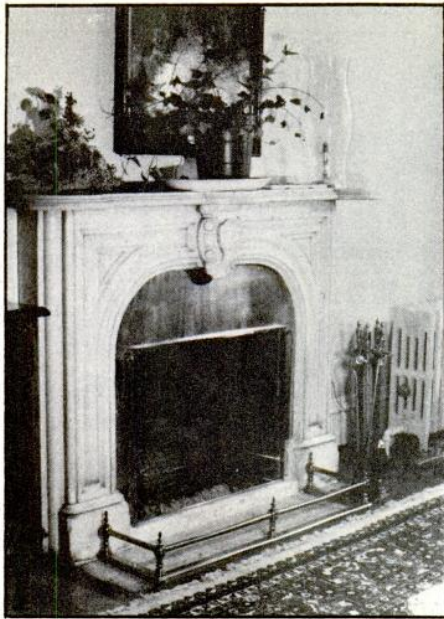


these useful plants, for the health and survival of the household depended on their availability: Rue, dill, feverfew, wormwood, and other medicinal plants for various home remedies for common complaints; soapwort, teasel, madder, and woad, for processing and dyeing wool; flax, for linen and linseed 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.

**V**ERY 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

[\(Continued on Page 18\)](#)



## 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

## THE OLD-HOUSE JOURNAL®

Published Monthly For People Who Love Old Houses

Editor ..... R. A. Clem Labine  
Decorative Arts Editor ..... Carolyn Flaherty  
Circulation Director ..... Paul T. McLoughlin  
Circulation Assistants ..... Joan O'Reilly  
Peggy Scaglione  
Midwest Editor ..... Tom H. Gerhardt  
West Coast Representative ..... Carol A. Barrette  
European Editor ..... H. Weber Wilson  
Staff Photography ..... Jim Kalett  
Contributing Editors ..... Claire Wood Labine  
James R. McGrath  
R. A. Labine, Sr.  
Advertising Representative ..... Curtis Dewees

Published by The Old-House Journal Corporation, 199 Berkeley Pl., Brooklyn, N.Y. 11217. Tel. (212) 636-4514. Subscriptions \$12/yr. in U.S. and Canada; \$20/yr. elsewhere. Printed at Royal Offset Co., 34 W. 15th St., NYC 10011. Contents of the Old-House Journal® are fully protected by copyright and must not be reproduced in any manner whatsoever without specific permission in writing from The Editor.

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.

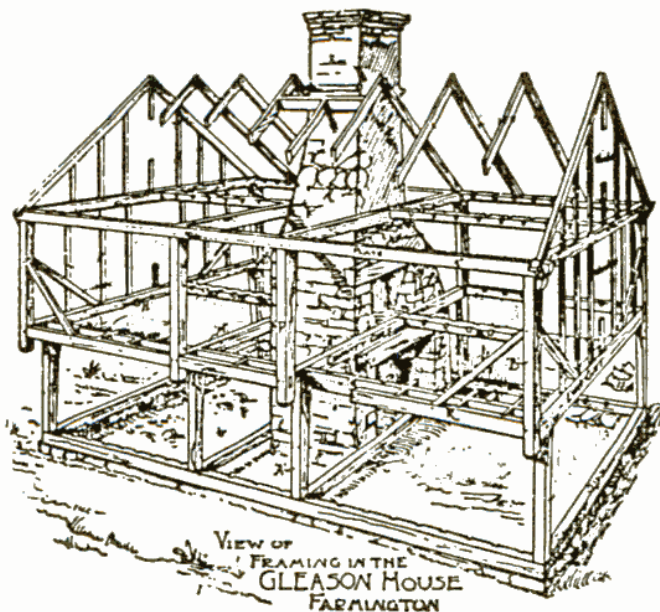
I HAVE READ ABOUT epoxy paints that can be used to resurface porcelain. And I've heard about re-porcelainizing services. Before I invest a lot of time and money in this project, I'd like to know if any of your readers have successfully revived old bathroom fixtures. Thank you.

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

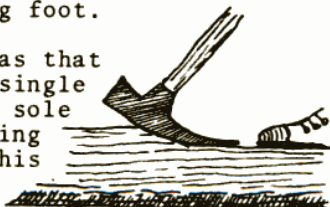
of building a house was radically different from the techniques used today.

## The Basic Difference

**T**HESE 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.

**I**N 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.

**T**HE 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

**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.

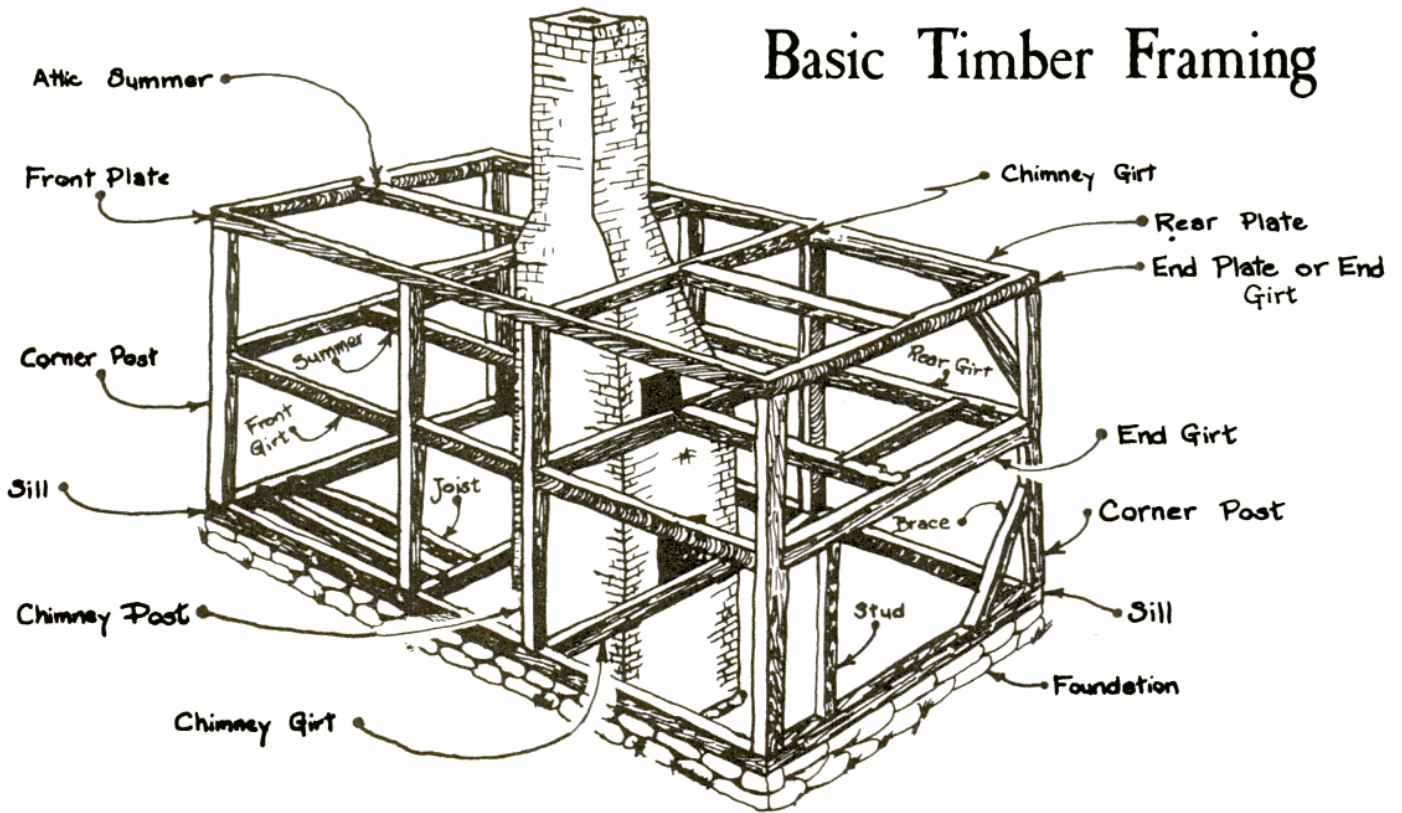
**FRAMING WITH MASSIVE TIMBERS** was a carry-over from medieval Europe. There, the in-fill material was often bricks and stucco inserted between the beams. Sometimes it was just "wattle-and-daub"—a straw and mud mixture that was applied over crude lath. This frame plus in-fill gave the characteristic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



**S**ETTLERS 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

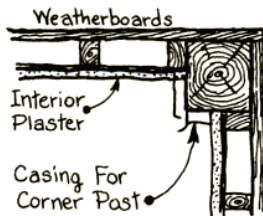


# Basic Timber Framing



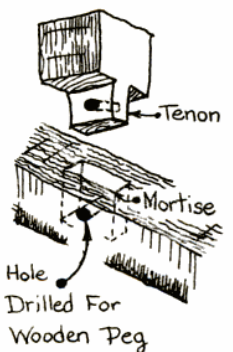
the old country. As a result, cracks tended to develop between the infill and the main framing timbers. The answer was to apply "weather boards" (we now call them clapboards) over the entire exterior to keep the wind and rain out.

**B**ECAUSE 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.



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.

**T**O GET THE TIMBERS ready for assembly required many hours of arm-aching work. All the mortise-and-tenon and dovetail 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.

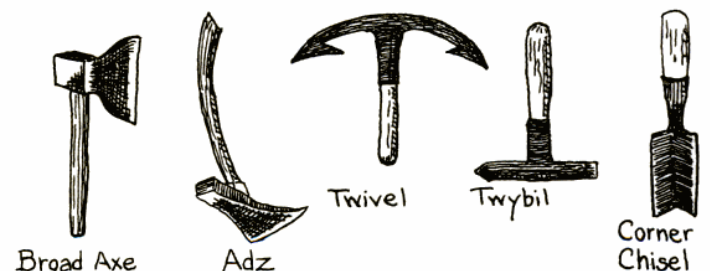


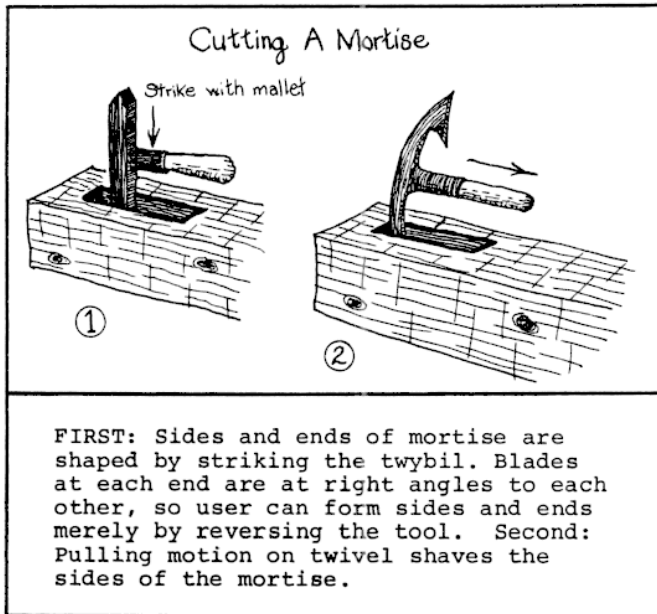
THE ADZ, as mentioned, was used to square off the tops of logs. Another tool for squaring logs was the broad axe—a wide-bladed, short-handled axe used by a man standing alongside the log to be shaped. Before broadaxing (with the grain), the log was scored with a felling axe perpendicular to

## Framing & Joining Methods

**I**N 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





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.

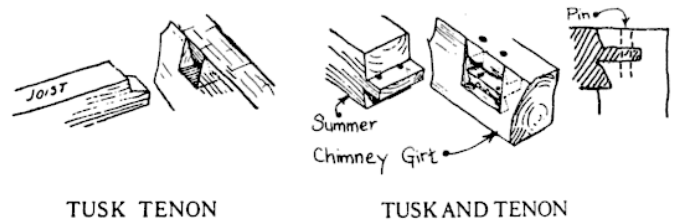
THE TWYBIL was actually two chisels at each end of a single piece of metal, with a handle in the middle. The blades were at right angles to one another...which enabled the joiner to cut both the ends and the sides of a mortise by merely reversing the ends of the tool. He didn't have to move.

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.

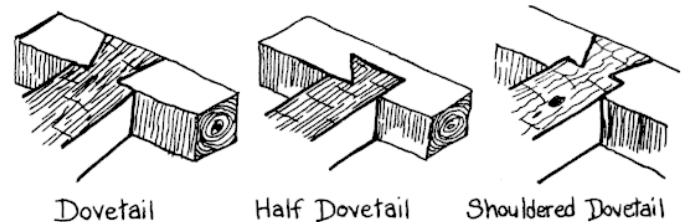
FASCINATING VARIATIONS in timber frame construction show up when you examine the ways that the posts and beams were actually connected. Individual housewrights would de-

velop their own special ways of making joints and connecting timbers. Frequently one finds ingenious combinations of mortises, tenons, dovetails and multiples thereof.



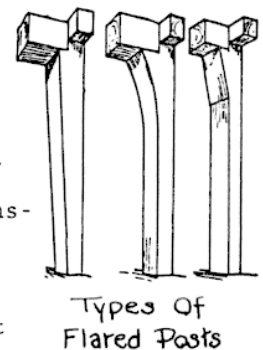
### Putting The Pieces Together

**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.



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

**O**RIGINALLY, 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.

**G**ARDEN 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.

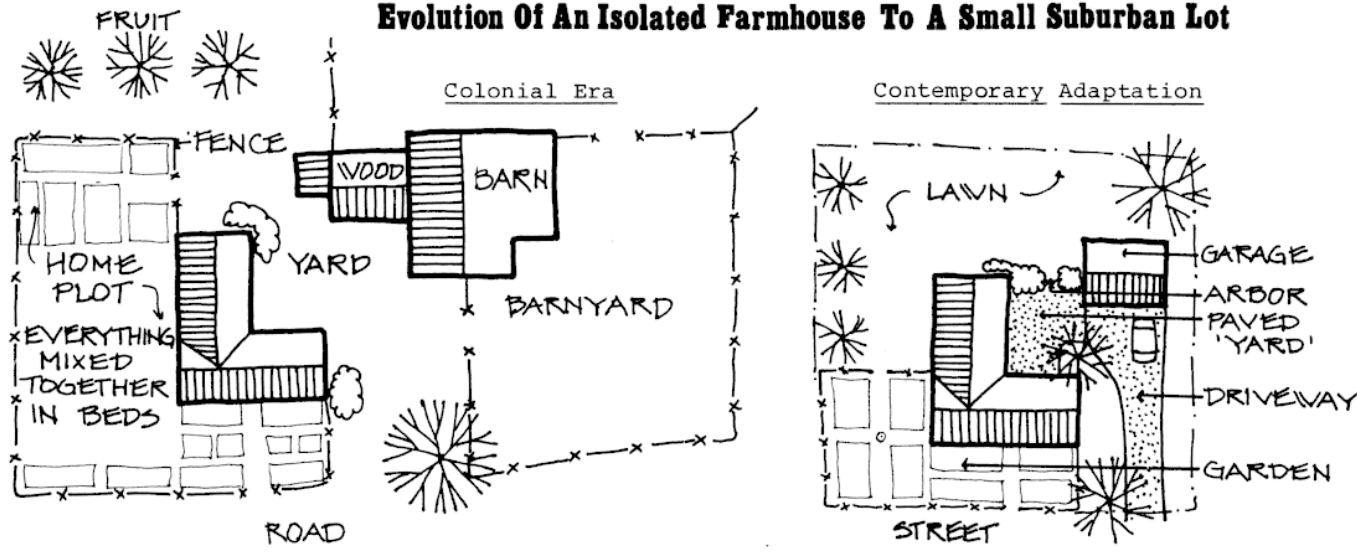
YARDS CAN BE EASILY SYMBOLICALLY represented by our modern equivalent, the lawn. To be historically more accurate, this space would be enclosed by a wooden fence, but fences are expensive and if there is no good reason for enclosing the yard a fence may even look foolish. If the yard is represented by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

**W**ORK 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



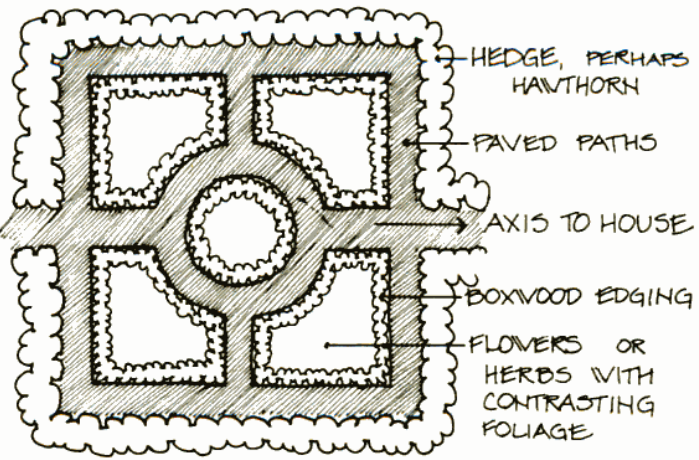
A FAR BETTER SOLUTION is crushed stone rolled or tamped into a temporarily sticky base, usually black road tar. There are also new systems on the market which utilize an epoxy resin for a binder and crushed stone as the aggregate. Exposed aggregate concrete is also good, especially with relatively large 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**

**S**INCE 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 it a humble farmhouse, reflecting the needs and uses of subsistence agriculture? Or was it the home of the most important man in a

**An Elegant Pleasure Garden**

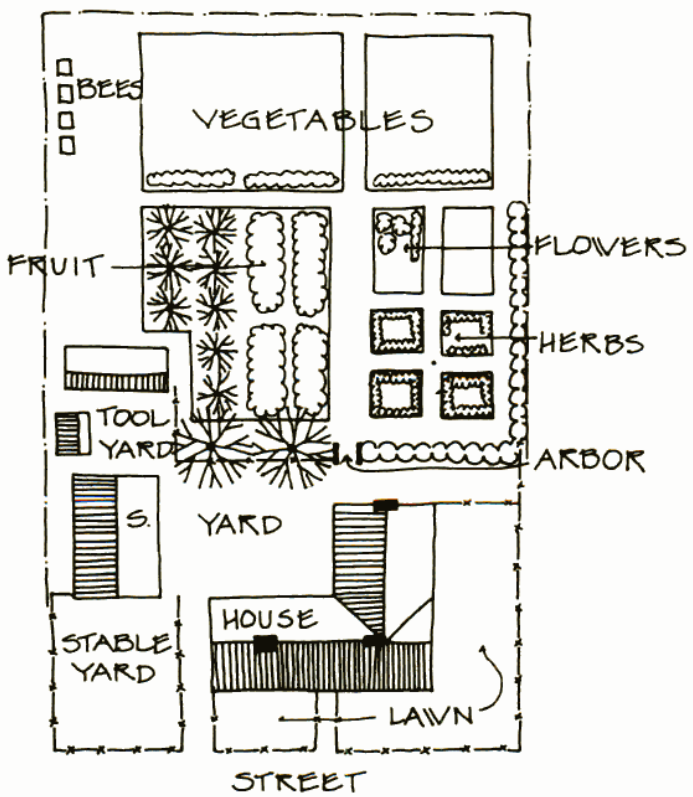


small town? Or the Georgian townhouse of a professional man or merchant? Or the country estate of a gentleman? Try to imagine how dependent the household would have been on its garden, and how many hands would have been available to tend it.

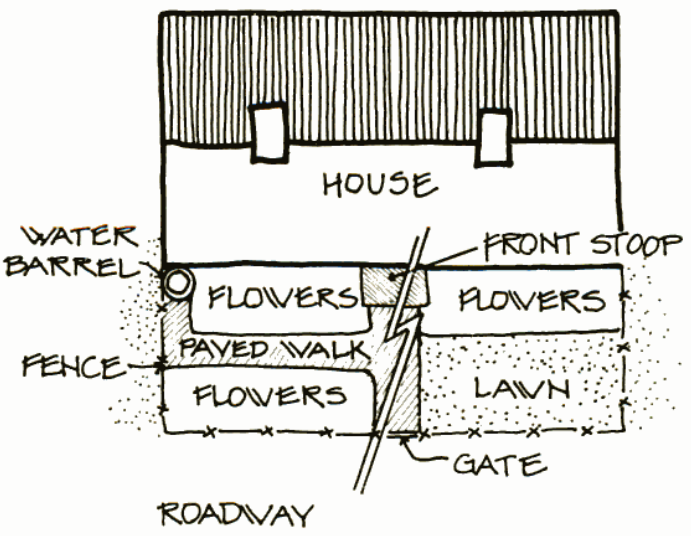
**T**HE SIMPLEST GARDENS, in terms of form and layout, would accompany isolated farmsteads and humble dwellings. These gardens would be very close to the house and composed of groups of garden beds, roughly rectangular or square, with narrow paths running between them. The beds would be small, probably 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**





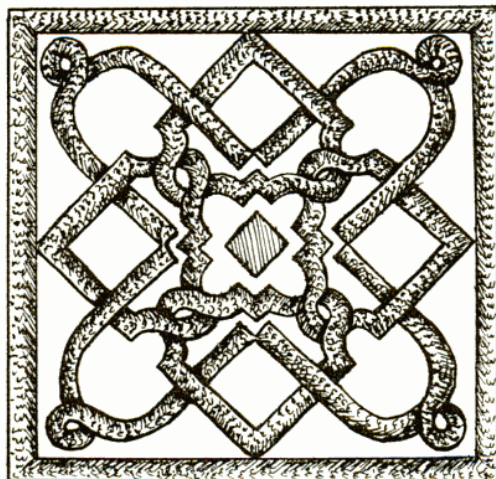
VEGETABLES, HERBS, AND FLOWERS would be grown in patches in the bed according to where they would thrive best. Tall and short, coarse and fine, vegetable and flower would all be mingled together. Most of our colorful annuals were developed after this time, so consult a listing of period plants before 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	Garden Parsley
Chive	Anise
Dill	Rosemary
Camomile	Garden Sage
Tarragon	Summer Savory
Caraway	Winter Savory
Lavender	Tansy
Sweet Marjoram	Thyme
Catnip	Common Rue
Sweet Basil	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.

**I**N 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.

**I**N 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.

**T**HE 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

**F**OUNDATION 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.

**I**NDIVIDUAL 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.

# 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.

**T**HE 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

**T**HE 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

## 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.

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.

**S**OME DISADVANTAGES of these finishes are: They are water resistant, but not water-proof. 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

**B**OILED 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

## 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 paneling, 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.

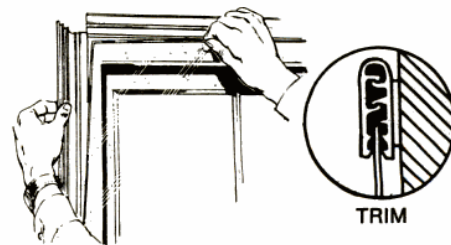
There is an excellent 8-page booklet on the subject that discusses: Identifying the problem, various joint types and bondings, materials, and a bibliography for further reading. Ask for "Preservation Brief No. 2--Repointing Mortar Joints in Historic Brick Buildings"—free from Interagency Historic Architectural 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

For Wood Finishing," free, from H. Behlen & Bros. Inc., P. O. Box 698, Amsterdam, New York 12010.



## 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

## 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.

## 1977 Buyers' Guide

- Catalog of sources for 4,286 hard-to-find items and services for the old house;
- 383 Companies listed;
- 171 of these sources are new—did not appear in the 1976 Buyers' Guide;
- An invaluable reference

Single copies: \$5.50  
(\$3.50 to subscribers).

Order from:

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

## Subscriptions: The Old-House Journal

Enclosed is my \$12 for a one-year subscription to The Old-House Journal.

Subscription is: Gift  Personal

Name \_\_\_\_\_

Address \_\_\_\_\_

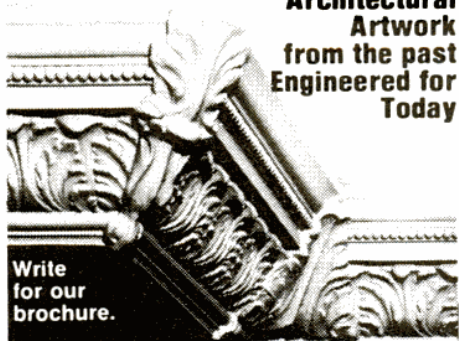
City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Donor's Name \_\_\_\_\_

Mail to: The Old-House Journal, Dept. 7,  
199 Berkeley Place, Brooklyn, N.Y. 11217

Architectural  
Artwork  
from the past  
Engineered for  
Today



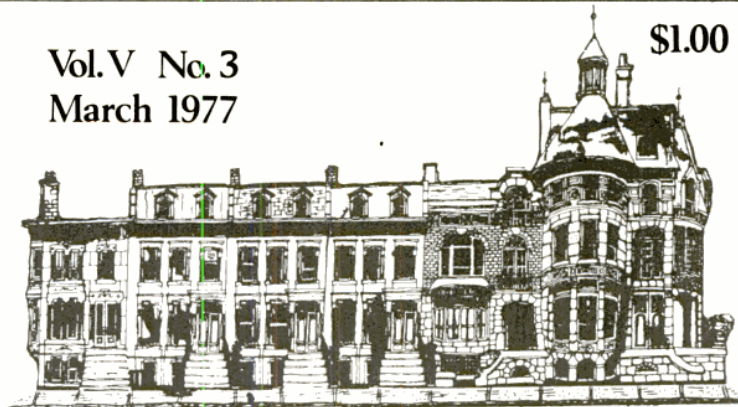
Write  
for our  
brochure.

FOCAL POINT INC.  
3760 Lower Roswell Road  
Marietta, Georgia 30060 404/971-7172

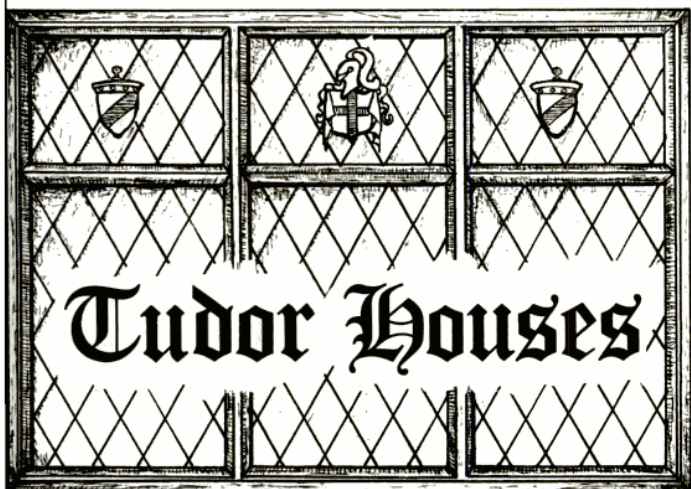
# THE OLD-HOUSE JOURNAL

Vol. V No. 3  
March 1977

\$1.00



Renovation And Maintenance Ideas For The Antique House



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



## In This Issue

Why I Swear By Tung Oil.....	27
Unsticking A Balky Sliding Door.....	28
Gaslights Are Charming, But.....	26
Wood Burning Furnace.....	36
Plugging Cracks Between Floorboards.....	26

## Coming Next Month

EARLY AMERICAN ROOF FRAMING

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.

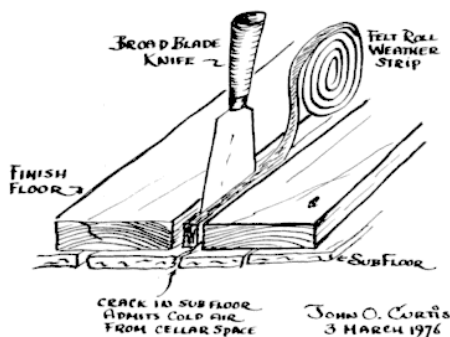
SHAKESPEARE'S PLAYS and the many Elizabethan fairy tales we grew up with have kept this "Merrie Old England" alive in our memories and perhaps explains the emotional

(Cont'd on page 32)

## 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.

## 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 OLD-HOUSE JOURNAL®

Published Monthly For People Who Love Old Houses

Editor .....	R. A. Clem Labine
Decorative Arts Editor .....	Carolyn Flaherty
Circulation Director .....	Paul T. McLoughlin
Circulation Assistants .....	Joan O'Reilly
	Peggy Scaglione
Midwest Editor .....	Tom H. Gerhardt
West Coast Representative .....	Carol A. Barrette
Staff Photography .....	Jim Kalett
Contributing Editors .....	Claire Wood Labine
	James R. McGrath
	R. A. Labine, Sr.
	H. Weber Wilson

Published by The Old-House Journal Corporation, 199 Berkeley Pl., Brooklyn, N.Y. 11217. Tel. (212) 636-4514. Subscriptions \$12/yr. in U.S. and Canada; \$20/yr. elsewhere. Printed at Royal Offset Co., 34 W. 15th St., NYC 10011. Contents of the Old-House Journal® are fully protected by copyright and must not be reproduced in any manner whatsoever without specific permission in writing from The Editor.

- 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.

## 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.

**O**IL 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.

**I**N 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

**T**UNG 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 lightly. Small pieces such as brass furniture pulls can be placed on a tray and warmed

### 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.

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.

**T**HIS 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

**T**UNG 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 surprisingly, 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.

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.

**W**HEN APPLYING TUNG OIL to large areas such as panelling and wainscoting, 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

**T**HERE 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.

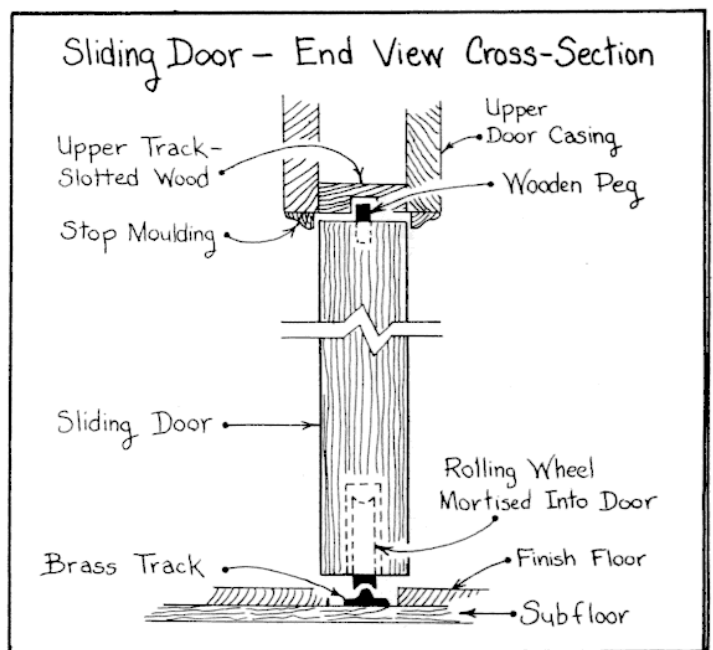
WHEN A SLIDING DOOR WON'T SLIDE, the first instinct is to think that it needs new rollers. In fact, new rollers are usually that LAST things that are needed. In most cases, the problems are more complex. A sliding door is a more delicately balanced mechanism than most people realize; there are at least 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.

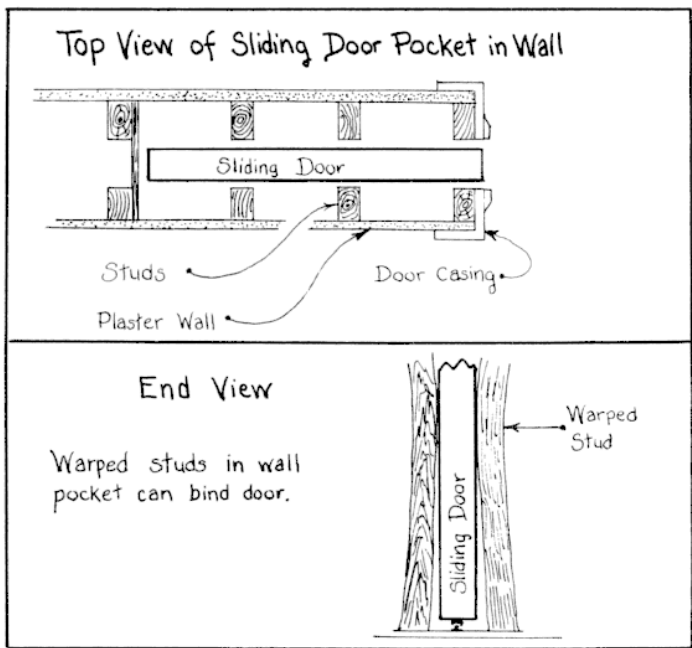
### How It Should Work

**I**N 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  $\frac{1}{2}$  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

**A**LIGNMENT 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  $\frac{1}{4}$  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.

**W**HEN 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.

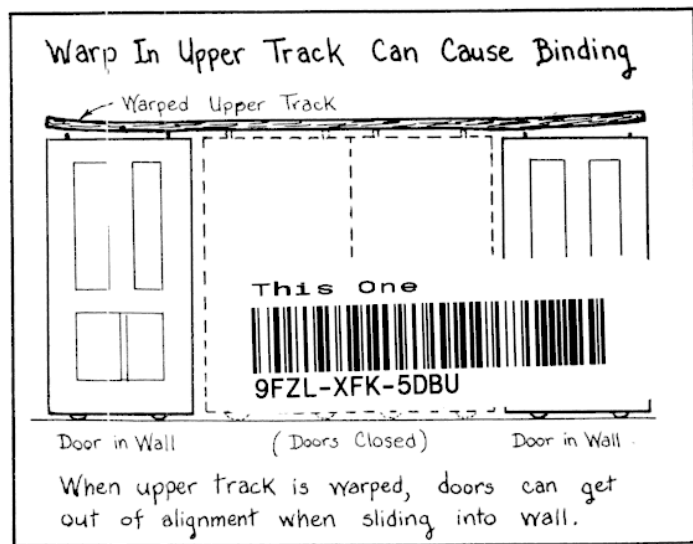
IF YOU CAN'T get a hammer far enough into to totally reposition the drifting track, the only option is to break open the plaster wall opposite the end of the track. Then nail the track firmly in place in the precise middle of the wall pocket.

## Floating Top Track

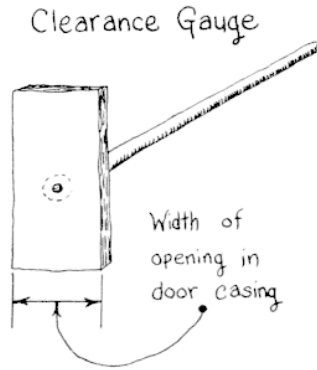
**I**F THE DOOR IS BINDING inside the wall—and you have determined the bottom track isn't the culprit—the next thing to investigate is the top wooden track. Frequently, the top track is not fastened in any way inside the wall; it just sort of floats. Thus it can—and often does—warp in any of four directions. 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.



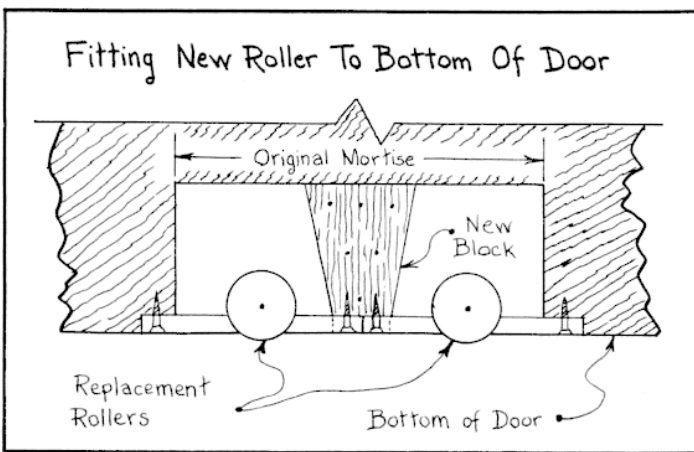
IF THE AMOUNT OF BULGE is small—less than 1/8 in.—and located in the first set of studs, you may be able to remove a sufficient amount of material with a drum rasp attachment on a power drill. But if you can't reach the trouble spot, more drastic remedies may be required. In special cases where the problem 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

**S**OMETIMES 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.

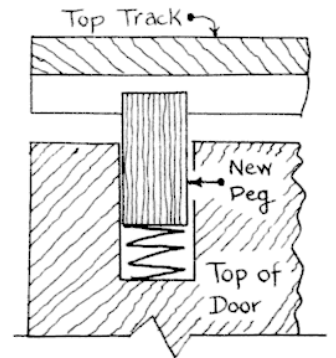
BECAUSE THE OLD ROLLER WHEELS were larger than the ones you can buy today, the old mortise will have to be adapted. The best idea is to get as many rollers as possible into



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.

**R**EPLACING SLIDING DOOR ROLLERS calls for dismantling 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 1/2 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.

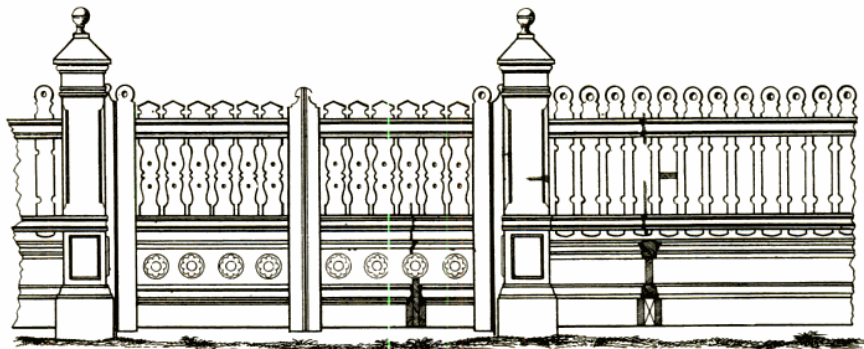
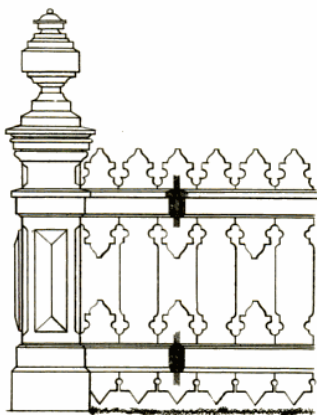
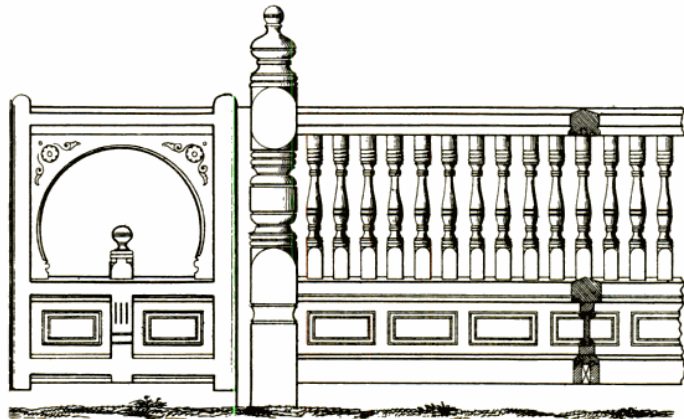
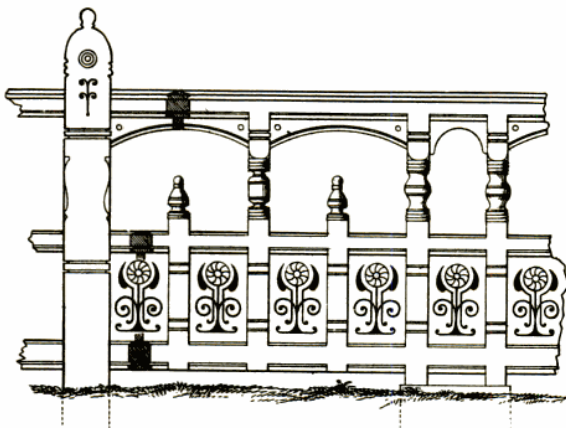
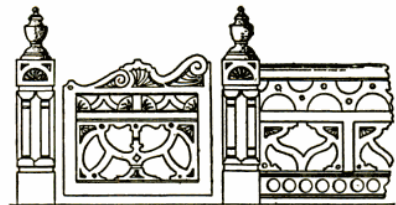
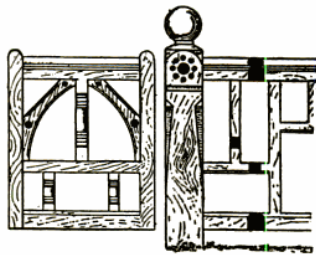
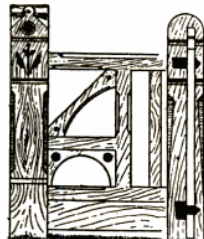
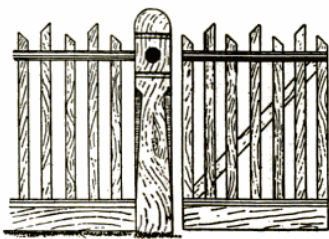
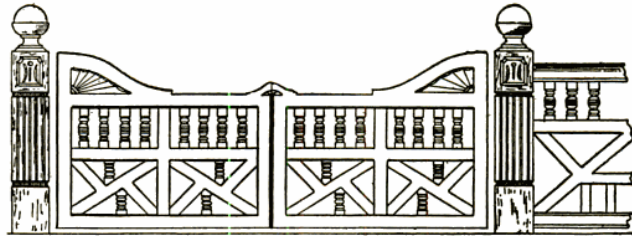
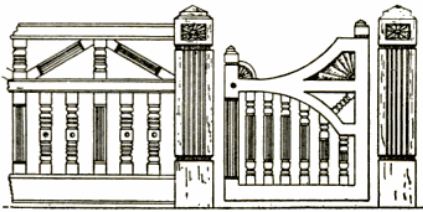
## Where To Buy Hardware

**I**F 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.



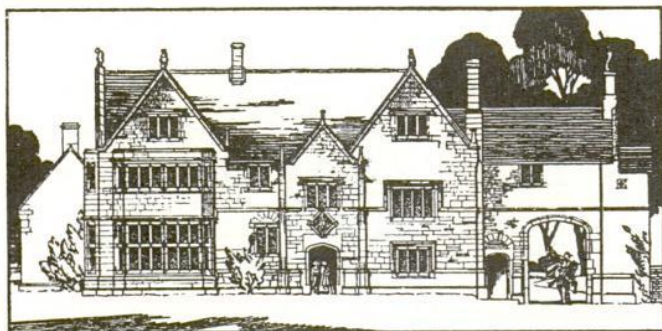
Not as commonly found in the American versions, this 1929 Pennsylvania Tudor has varying brick patterns in the "nogging" between the beams. These decorative brick patterns were often used in old English half-timbered houses.

(Tudor--Cont'd from page 25)

attachment America has had to the old English house.

**I**N 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.

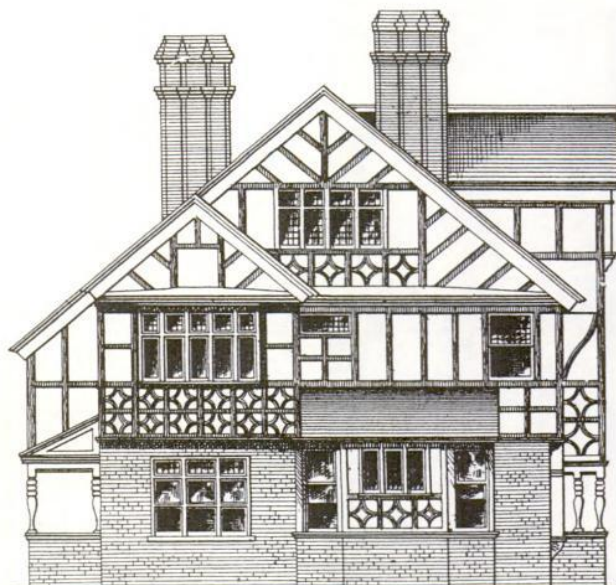
LEFT OUT IN this discussion are the many buildings of the Tudor period built in stone. These large masonry structures were generally manor houses and were ornamented with crenellations, sculptured finials, Tudor arched doorways and combined both Gothic and Italian Renaissance ornament. This style has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



## Tudor In America

**T**HE 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



## Original Tudor Interiors

**A**S 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.

**D**URING THE ELIZABETHAN AND EARLY JACOBEBAN 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.

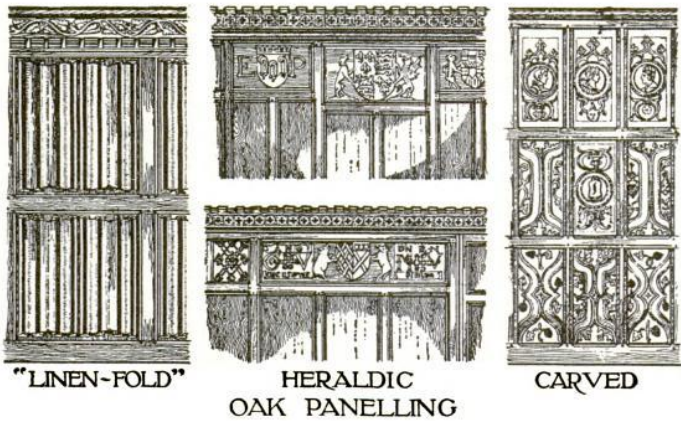
BEFORE THE TUDOR PERIOD houses were on the order of castles--with comfort and decoration taking a place far behind defense. Small windows protected against seige and interiors were fairly grim. Now, with peace and progress afoot, and the need to defend gone, the house builder could let in light and air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



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.

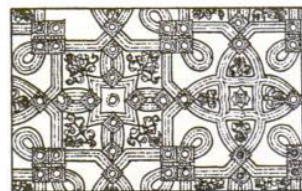
TUDOR WINDOWS, one of the most recognizable features, have been copied in all the later revivals. Palliser and Palliser, an architectural firm prominent in the 1880's, gave specific instruction for windows with "heraldic effect in art glass."



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

**T**HE 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

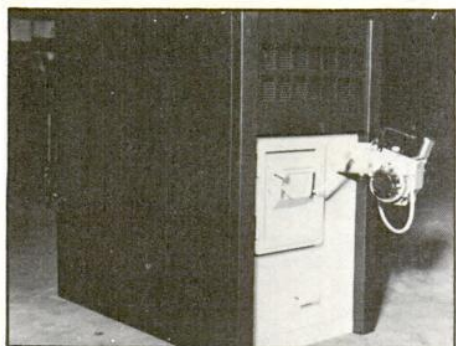
MIRRORS WERE IMPORTED during Elizabeth's reign and were rare and expensive. When used they had rich frames. Use mirrors sparingly and frame them elegantly. Holbein portraits were fashionable and a portrait or two will give a nice flavor.

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 expensive 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



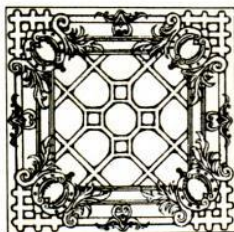
## Wood Or Wood/Oil Furnace

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 55744. Telephone: (218) 326-6786.



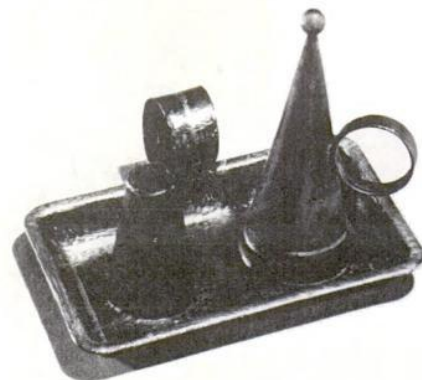
## Embossed Ceiling Panels

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.

**Architectural Artwork from the past Engineered for Today**

Write for our brochure.

**FOCAL POINT INC.**  
3760 Lower Roswell Road  
Marietta, Georgia 30060 404/971-7172

## 1977 Buyers' Guide

- Catalog of sources for 4,286 hard-to-find items and services for the old house;
- 383 Companies listed;
- 171 of these sources are new—did not appear in the 1976 Buyers' Guide;
- An invaluable reference

Single copies: \$5.50 (\$3.50 to subscribers).

Order from:

**The Old-House Journal**

199 Berkeley Place, Brooklyn, N.Y. 11217

## Subscriptions: The Old-House Journal

Enclosed is my \$12 for a one-year subscription to The Old-House Journal.

Subscription is: Gift  Personal

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Donor's Name \_\_\_\_\_

Mail to: The Old-House Journal, Dept. 7,  
199 Berkeley Place, Brooklyn, N. Y. 11217