



The Old-House Journal

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Restoration and Maintenance Techniques For The Antique House

→ The Italian Style ←

By Katharine Conley

ITALIANATE HOUSES make up one of the most common old house styles in this country. And yet the word "Italianate" means only "having the characteristic of" the Italian style. While there are many Italianate houses, they only comprise one of three basic categories of what I will call the Italian style: The villa, Renaissance Revival and Italianate styles. Together they should be called Italian because the villa and Renaissance Revival styles are much closer copies of the old Renaissance farmhouses, villas and palaces than most Italianate houses attempt to be.

THE VILLA STYLE, of which there are two types--Italian and Tuscan--derives from farmhouses and villas built in Italy during the Renaissance. Although they are mostly found on hills there, they were pronounced suitable for flatter terrains by the American architect, Samuel Sloan. Italian and Tuscan villas were first built in this country in the 1840's and continued to be popular until the late 19th century.

THE RENAISSANCE REVIVAL style also subdivides into

two types, the Northern Italian and Tuscan modes. This style derives from palaces built during the Renaissance in the north-eastern region of Venetia, and the south-western region of Tuscany. The Renaissance Revival style was used for mansions and townhouses as well as for commercial and institutional buildings.

THE ITALIANATE STYLE refers to any house or commercial building that combines Italian style shapes and details, although often in an exaggerated fashion. Renaissance Revival details were applied to picturesque villa shapes, for example.

Italianate houses were first built after the villa styles were already established, and continued to be popular until the "high Victorian", late 19th century era.



The Romance of Italy

THE ITALIANATE in this country did not result from studies of Renaissance architecture in Italy. It was based on the Italian style in England. The English Italian style was only the latest version of

(Continued on p. 14)



All You Need Is Sensitivity

By Clem Labine

"I just bought an old house.

"IT WASN'T DESIGNED by a famous architect. No one famous ever lived there. Nothing famous ever happened there. It's just an ordinary old house.

"NOW, what the heck should I do with it?"

THIS LAMENT echoes across the land every day. And with good reason. The growing popularity of recycling old buildings has put the jargon of preservation and restoration into everyday use. But many of the procedures and ideas in the restoration lexicon were developed by professionals for museum houses. These concepts and procedures aren't always relevant for the old-house owner working on a budget.

THE CONFUSION in nomenclature can set up a lot of needless guilt feelings in well-meaning old-house owners. If you feel that you are "restoring" your house, then you should use "restoration" procedures. Seems logical enough. Then you read an article about restoration written by a preservation professional who has a museum house in mind. And you begin to feel inadequate and guilty because you aren't using paint microanalysis and the documentary research that the author is advocating.

MOST OF THE PEOPLE fixing up old houses are not working with museum-grade structures. They have "ordinary" old houses such as that possessed by the anonymous homeowner at the beginning of this article. They are not "restoring" in the

sense of "historic restoration" that most of the professionals talk about (see definitions on page 6). Rather, most old-house owners are doing something between a sensitive rehabilitation and an interpretive restoration. And that is precisely the right thing to do.

SOME OF THE PROCEDURES of historic restoration are helpful in rehabilitation. Others are not. And that's what this series is all about. We're going to sort through the tool kit of the professional historic preservationist and extract those concepts that are helpful to those of us who are fixing up "ordinary" old houses.

ABOUT THIS SERIES

WITH THIS first issue of 1981, we're beginning Vol. IX of The Old-House Journal. So why, after 1,100 pages, are we starting a series called "Restoration Basics"?

FIRST, with the numbers of first-time rehabbers growing steadily, we feel it's important to review the basics—both of concepts and techniques. This series should be helpful whether or not you've just started work on your first old house. Even seasoned veterans will want to get some fresh perspectives on what they've done—and the work that lies ahead.

SECOND, now that recycling of old buildings has become accepted—and profitable—it's increasingly apparent that a building can't be declared "saved" just because it has been rescued from the wrecker's ball. We have seen much needless mutilation resulting from fast-buck renovation. Sometimes the mutilation is caused by commercial rehabbers who don't care that their gutting and remodeling robs the building of the very characteristics that made it worth saving. But at other times, the damage is caused by well-meaning people who just haven't taken the time to learn the correct procedures—The Basics, in other words.

IRONICALLY, doing things the right way is usually no more expensive initially (and always cheaper in the long run) than the fast-buck approach. Our objective in this series is to outline practical and economical steps that will result in the sensitive rehabilitation of old buildings. So herewith, The Basics....

—The Editors

Most Important

OF ALL FACTORS, the most important when you approach an old building is your ATTITUDE. Which is why the words you use are so important—because words are the implements we use to express attitudes and ideas.

DEFINITIONS ARE A BORE. So I don't expect that anyone besides the OHJ editors will study the definitions on page 6 closely. But those words are the ones that are commonly used in discussing old buildings. They tend to be used interchangeably--which causes confusion for everyone. If the words we use are imprecise, our ideas will be fuzzy. And if our ideas are fuzzy, our work will reflect that confusion.

IF I HAD TO select one word to sum up the proper attitude in working on an old building, it would be SENSITIVITY. When you have that, everything else falls into place. On the following page



Test Your S.Q.

Once a handsome Second-Empire Mansard style house, this building has been remodelled by someone with a low S.Q. (Sensitivity Quotient). The house appears weathertight—and thus its structural integrity is protected. But the work is so insensi-

tive that the house is robbed of much of the architectural character that made it worth saving. How many specific mistakes can you find? We've counted 9—and there are probably more. Our answers are below.

you'll find a quick test of your Sensitivity Quotient (above). The house in the photo has had a fair amount of money spent on it. But the results are a visual disaster. The market value has been lowered because it has lost much of its original detailing. Without spending more money, someone who is sensitive to old architecture could have maintained a weather-tight exterior...and retained the building's character at the same time.

Beware Packaged Solutions

SENSITIVITY implies an attitude of respect toward the good work of others (see Golden Rule #1). When an owner doesn't have a sensitive attitude, he or she regards an old building merely as a pile of sticks and bricks...to be altered as whim dictates.

AN INSENSITIVE ATTITUDE ignores the obvious fact that ugly work on a building detracts from the beauty of the streetscape. And there is a negative impact on everyone who daily has to confront ugliness rather than beauty.

THE SENSITIVE OWNER of an old building is es-

pecially suspicious of package solutions to building problems--the "one-size-fits-all" approach that so many home-improvement contractors favor. The house above was victimized by just such a packaged approach.

Make A Precise Plan

LET'S GO BACK TO the question posed at the beginning of this article: You've just bought an old house. Now, what the heck should you do first? After making sure that (a) you have a sensitive attitude and (b) have taken the two Golden Rules to heart, the next

The 9 mistakes we found were: (1) Aluminum siding; (2) Top of tower totally "remuddled"; (3) Corner boards too narrow; (4) Trim from tower window was removed; (5) Mansard roof has been stripped of half its slate; (6) Corner flashing on Mansard is poorly installed; (7) Raw aluminum storm windows in dormers; (8) Inappropriate raw aluminum storm doors; (9) Downspouts are too conspicuous. (We're not counting correctable problems like the TV antenna or air conditioner.)

ANSWERS TO Test Your S.Q.

step is to develop a plan...a specific, detailed, written PLAN. Keeping the page 6 definitions in mind, your plan should take into account the way various parts of the structure will be treated.

IT'S ESPECIALLY IMPORTANT to make clear distinctions between the way you'll handle: (1) The exterior of the structure; (2) The interior structure; (3) The decoration and furnishing of interior spaces. Many people feel they aren't doing a restoration because they don't plan to decorate the interior spaces in a period fashion. Yet they are in fact restoring the structure when they retain original architectural elements and replace missing features.

THE GOLDEN RULES suggest that you should restore as much of the physical structure as budget will allow. But as far as the decoration and furnishing of rooms, you're on your own. When you move, the furnishings will move out with you. And wallpapers and paint colors are easy to change. You will have left behind a home that is architecturally intact...and succeeding owners can use the interior for period spaces, or can treat them in a contemporary fashion.

THE BASICS

1. WEATHERPROOFING—*Roofing, flashing, gutters & leaders, siding, windows, caulking and drainage should be carefully checked.*
2. ELECTRICAL & HEATING SYSTEMS—*Safe operation of these two are vital to personal safety. Make sure they are up to code.*
3. PLUMBING—*Plumbing repairs and changes create an awful mess. Figure out plumbing needs before decorative work starts. Before sealing up walls, ceilings and floors, make sure there are no pipes ready to let go.*
4. ROT AND FOUNDATION PROBLEMS—*Any damage to the basic structure must be corrected before any finishing work is done.*

Specifics In Your Plan

VOUR MASTER PLAN has to take two sets of needs into account: (1) The living needs of you and your family; (2) The need to treat the structure in a sensitive manner. And all this has to be done within a realistic budget of money and time. Often, the two sets of needs conflict. All you can do in these circumstances is work out the best possible compromise...keeping in mind that the structure will be around a lot longer than you.

IN ASSEMBLING YOUR PLAN, having some sort of organized system is vital. Some people like file folders. Others find that 3-ring binders are most convenient. The particular method is not important...just so long as you use some definite system. If you rely on random sheets of paper stacked on your desk, sooner or later you're going to lose some vital notes.

MOST PEOPLE build their records according to specific areas of the house; e.g., North Facade, Front Parlor, Back Bathroom, etc. Start your file by making a careful physical

The Two Golden Rules

1. THOU SHALT NOT DESTROY GOOD OLD WORK.

Interpretation: You can alter or tear down anything you have built yourself. But you should approach with caution and respect the good work that someone else lavished time, money and energy on. It is part of our common heritage.

A building is a collection of individual details. Every time you replace a detail, it changes the character of the building. It is better to repair, rather than replace, original elements and material whenever possible. And when replacement is called for, the replacement should resemble the original as closely as practical with respect to proportion, texture and material.

Well-meaning restorers can cause more damage to an old building in two weeks than two decades of neglect. The damage occurs when too much original material is ripped out because it is deemed "unsalvageable." Contractors, especially, are often too eager to pronounce old materials "beyond repair."

After a series of seemingly minor replacements, significant changes in the building's appearance can result. Ironically, these alterations rob the building of the antique character that attracted the buyer to it in the first place. In addition, modern replacements often are not of the same quality materials and workmanship as the older elements.

Value judgments are involved when deciding what constitutes good old work. In general, work can be called "good" if it meets these three criteria: (1) It is fabricated from good quality materials; (2) The workmanship is good; (3) The design typifies a particular style or works in harmony with the rest of the structure.

These criteria for judging good old work can also apply to accretions that are not original to the house. In general, it is best to leave these additions if: (1) They pass the test for good work; and (2) They don't interfere with the operation of the structure as you intend to use it.

2. TO THINE OWN STYLE BE TRUE.

Interpretation: Your house (or building) represents a specific architectural style. Be proud of it. Learn everything you can about that particular style—and then let your rehabilitation or restoration bring out the character and flavor of that style.

Don't try to make your house over into something it never was—especially by attempting to "antique" it. A few years ago, a common mistake was to try to make a Victorian house look "colonial" by adding fake shutters, pedimented doorways and the like. Today, we're equally likely to see someone take a turn-of-century house and try to "Victorianize" it with stencilling and inappropriate 19th century hardware.

Every house or commercial building had an original design concept. This is true whether it was designed by a famous architect or constructed by an anonymous carpenter-builder. Your work should enhance and clarify this original design concept. Or, at the very least, it should not detract from it.

5 TOUGH QUESTIONS TO PUT TO A CONTRACTOR

When you are having a contractor do major work for you, it's more difficult to maintain control over all aspects of the work and to see that the two Golden Rules are observed. Here are 5 questions to which you should get detailed answers:

1. **WHAT EVIDENCE IS THERE THAT ANY "NEW, IMPROVED" MATERIALS WILL PERFORM AS ADVERTISED?** Contractors, like anyone else, can be swayed by fad products. But an old house should not be used as an experimental laboratory for new, untried materials. If the material doesn't have a provable track record, don't use it!
2. **IS THE WORK MERELY CONCEALING DETERIORATION, OR WILL IT SOLVE FUNDAMENTAL PROBLEMS?** Covering problems with vinyl siding or phoney panelling is not the answer.
3. **IS EVERY EFFORT BEING MADE REPAIR AND RETAIN ORIGINAL PARTS OF THE HOUSE?** Insist upon knowing what would be involved in repairing material that the contractor declares is "beyond salvaging."
4. **WHEN CLEANING MASONRY OR STRIPPING PAINT FROM THE EXTERIOR, IS THE GENTLEST METHOD BEING USED?** Never allow sandblasting or any other type of abrasive cleaning (see page 2).
5. **HOW WILL THE APPEARANCE OF THE BUILDING BE ALTERED?** Be particularly inquisitive about any material that will be ripped out and thrown away, and the compatibility and appropriateness of replacement parts. Special danger areas include: Windows and doors, roofing, siding, and interior woodwork.

inventory of the structure, noting any special problems: Structural cracks, missing elements, signs of deterioration, etc. Any historical information you develop about the house can also be added to the file, such as original paint colors and finishes, and other scraps of original material that you uncover.

AS YOU GENERATE information for the plan, you gradually develop a total picture of what has to be done to get the end result you want. Attend to the basics first, as outlined on the previous page. This requires more hard thinking than is apparent at first. For example, you have to map out in detail all changes that must be made in the heating plant, plumbing, wiring, air conditioning and security systems. A common mistake, for example, is not anticipating all of the electrical outlets and boxes for lighting fixtures that will be needed. It's easy enough to add them while the electrical contractor is working on the place. But it's a major headache to add an outlet or a wall switch after all the walls are plastered and painted.

EVEN IF you are going to have an architect supervise the formal planning and execution of the work, it is extremely valuable to go through this detailed planning step yourself. It helps clarify your own goals and will save time working with the architect since you will have already narrowed the range of options.

WITH DETAILED PLANNING that is sensitive to the needs of your particular structure, you'll wind up with a building that is a visual asset to the community...and a financial asset to you! 🏠

NEXT MONTH: The Basics Of Weatherproofing

Getting The Words Right

There are many similar-sounding words that are used in dealing with old buildings. Here's how we are defining these words in conjunction with this series on Restoration Basics:

ADAPTIVE RE-USE—Recycling an old building for a use other than that for which it was originally constructed. Adaptive re-use can involve a sensitive rehabilitation that retains much of a building's original character, or it can involve extensive remodelling.

PRESERVATION—Keeping an existing building in its current state by a careful program of maintenance and repair.

RECONSTRUCTION—Re-creating an historic building that has been damaged or destroyed by erecting a new structure that resembles the original as closely as possible. A reconstruction may be built with new or recycled building materials.

RECYCLING—The process of restoring, rehabilitating, renovating, remodelling or adapting an old building so that it can be used by another generation.

REHABILITATION—To make a structure sound and usable again, without attempting to restore any particular period appearance. Rehabilitation respects the original architectural elements of a building and retains them whenever possible. Sometimes also called "Reconditioning."

RENOVATION—Similar to "Rehabilitation," except that in renovation work there is a greater proportion of new materials and elements introduced into the building.

REMODELLING—Changing the appearance and style of a structure, inside or out, by removing or covering over original details and substituting new materials and forms. Also called "Modernizing."

RESTORATION—Repairing or re-creating the original architectural elements in a building so that it closely resembles the appearance it had at some previous point in time. As compared with "Rehabilitation," "Restoration" implies a more active approach to reproducing architectural features that may have been removed.

"Historic Restoration" requires that the re-creation duplicate the appearance at some previous point in time as closely as current scholarship allows. This often means that the additions from later periods must be removed. "Historic Restoration" also usually couples a restoration of the structure with a restoration of the interior spaces—both decoration and furnishings. This rigorous approach is usually restricted to museum houses.

"Interpretive Restoration" is less scholarly than "Historic Restoration." It involves keeping all of the original architectural features intact, and reconstructing missing elements as faithfully as budget allows. Decoration and furnishing of interior spaces are appropriate to the style of the house—without attempting to duplicate what was in the house originally. Restored houses that function as homes are usually of the interpretive variety.

How To Deal With Sagging, Sloping, Squeaking Old Floors

By The Old-House Journal Technical Staff

WHILE ALL OLD HOUSES have floors that creak, sag, or slope, few of these conditions are caused by major structural faults. Wood shrinks and swells according to its moisture content, determined by changing temperature and humidity. Movement also results when someone walks across the floor. Foundations settle, wood-framed bearing walls shrink... An old wood floor can be expected to develop some springiness and squeaks. When the problems are caused by old age, conditions have probably stabilized. In other words, many floor problems won't get any worse while you are living in the house.

NEVERTHELESS, sagging or noisy, bouncing floors are sometimes the result of deterioration of a supporting element. The structure of a floor is relatively easy to understand and, while solutions may require messy poking around, a homeowner can fix many common problems.

LET'S CONSIDER the worst possible condition. If your floor structure is buckled and you find the joists falling out of their pockets in the bearing walls, these could be symptoms of foundation failure. (Or an earthquake.) There would be other determinants in a case like this--S-shaped walls, window frames so out-of-square that the sashes are all frozen in place, etc. So if your sagging floor is a symptom of gross structural failure, you'll have other clues as well.

MORE COMMON are structural problems that result from either deterioration or overloading of the joists or beams. Sags and creaks are just a clue that there's something not quite right in the supporting structure. In this article we'll look under the floor at the conditions that lead to sagging, sloping, and squeaking. How can you tell if your sagging floor is something to worry about, or just a charming characteristic of your old house? Unfortunately, in many cases it's impossible to tell without getting into the under-floor structure to take a peek.

THIS MAKES IT a lot easier to fix problems on the first floor level--over a basement or crawlspace--than on upper levels. The situation is simplified if you were planning to replace the ceiling under the affected floor anyway. Plaster can be torn down so you can see what the real trouble is in the floor above. If you don't have to replace the ceiling, and you suspect structural damage, you have no choice but to lift some floorboards.

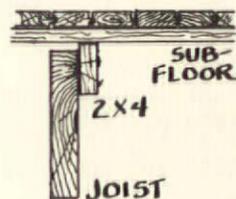
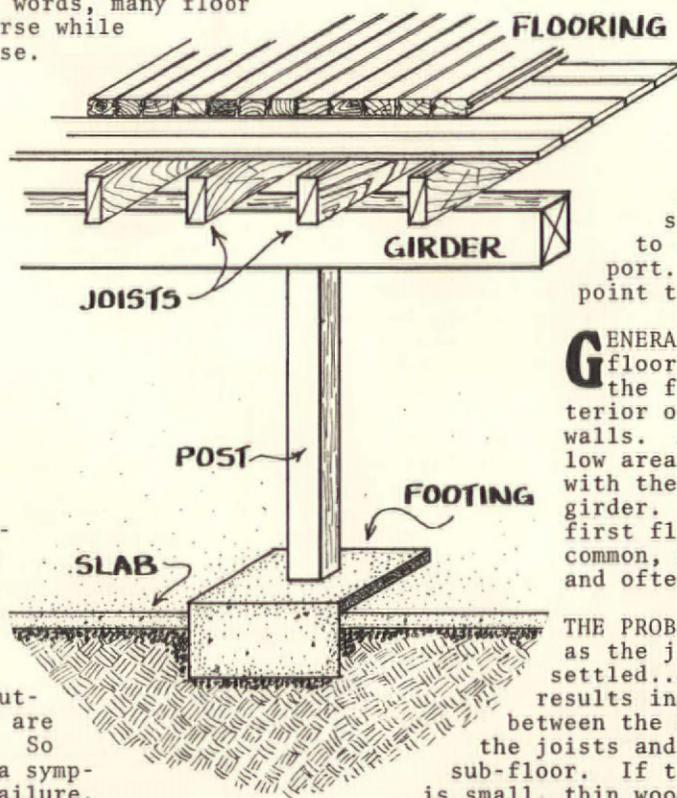
YOU ARE undoubtedly already aware of it if your floors are not level and rigid. Roll a marble or small ball across the floor to determine the direction and severity of any sags. Jump up and down to check for adequate support. Walk around to pinpoint the source of any creaks.

GENERALLY, a sloping (tilting) floor reflects settlement of the foundation and/or the interior or exterior load-bearing walls. A sagging floor (with a low area) reflects a problem with the supporting joists or girder. Floor problems on the first floor level are the most common, easiest to diagnose, and often the most fixable.

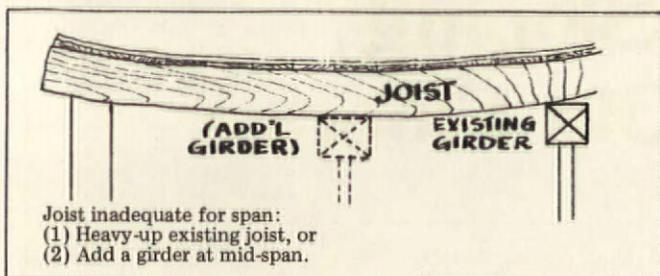
THE PROBLEM could be as simple as the joists having shrunk or settled...old age. This usually

results in a gap between the top of the joists and the sub-floor. If the gap is small, thin wooden shims can be inserted between joist and sub-floor. This will also eliminate bounce in the floor above. If the gap is larger and the joist is otherwise sound, a 2 x 4 can be nailed to the joist, snug up against the floorboards. Doing this should silence creaks.

TERMITES AND ROT cause deterioration of beams and joists, which leads to structural failure. Such a condition must be repaired. Wood members can be replaced by new wood or steel, or may be salvageable by various strengthening or consolidating techniques. In the April



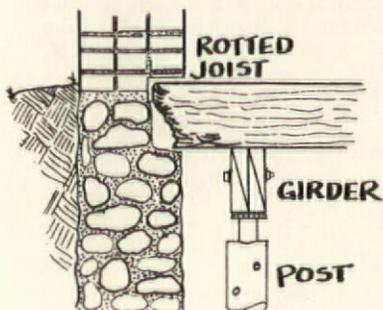
1980 issue of OHJ, Restoration Design File #2 illustrates the use of "sisters", scarf and lap joints for the reinforcement of wood members.



above, may be beyond the load capacity originally designed for. Original joists or girders may have been too small, too few, or both. Sometimes a slightly under-sized sub-structure is not serious, and one of the simpler measures outlined below will reduce bouncing and creaks.

IF THE FLOOR isn't sagging, but bounces and vibrates excessively, the joists may be under-sized or inadequately bridged. Bridging stiffens a floor by transmitting loads to adjacent joists. It's very tricky to install crossed (X) wooden bridging once the floor is in place, but you can toe-nail 2 x 6's between the joists and get the same stiffening effect.

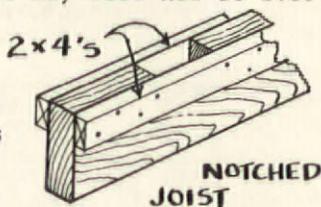
ROT ALSO OCCURS in old houses where joists were set in foundation masonry below ground level. Not surprisingly, water seeps into the foundation and eventually the ends of the joists rot away. This presents a dangerous situation. If you are not up to replacing the entire floor structure, you can arrange a new supporting system by adding a girder, made from two 2 x 10's bolted together, and supported by posts.



In this case the joists are no longer resting on the foundation at all. Of course, posts will take up additional room in the cellar.

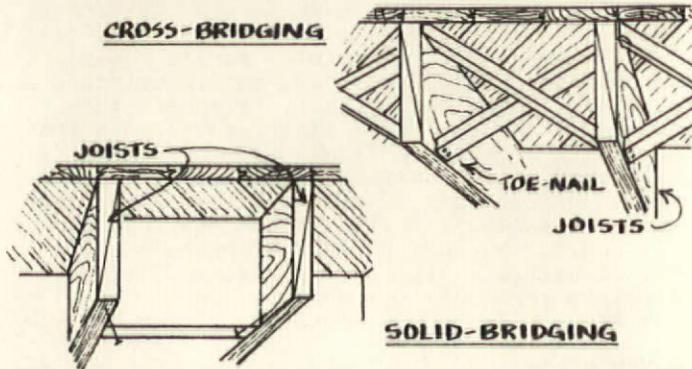
IT'S ALSO possible that the floor is sagging because the foundation has crumbled where ends of joists or girders rest. In this case, beams can be propped up temporarily with timbers or metal jacking posts while the damaged foundation is repaired.

IN OTHER CASES of bouncing or sagging floors, you may find that the joists have been damaged by cutting. Joists may have been weakened by plumbers hacking away to make room for pipes, and such weakened joists may also now be overloaded. This is especially likely around bathrooms, where not only has new plumbing been added, but there are also heavy fixtures (such as tubs full of water) that the joists weren't originally designed to bear. If a joist is sagging because of notching, it can be jacked or pushed into place and the notch bridged over with 2 x 4's; or it can be supported if necessary with permanent posts.

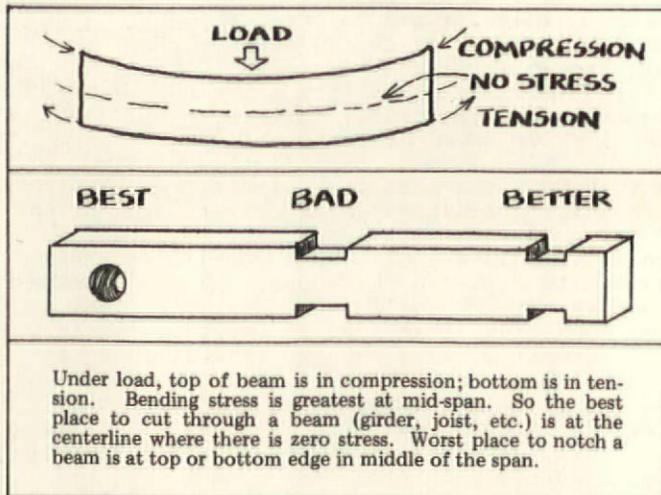
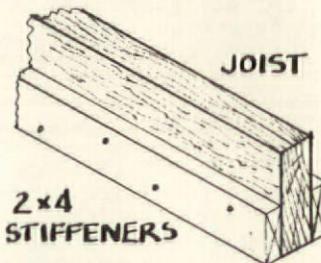


Inadequate Design

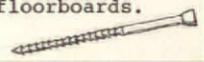
IN ADDITION, the original design may have been inadequate. This is not uncommon; it takes a trained architect or engineer to size load-bearing members, and many houses were carpenter- or owner-built. Lack of precise knowledge was often compensated for by "over building", but not always. Heavy things added later, such as a masonry fireplace or the bathroom mentioned



CREAKING, SPRINGY FLOORS might result if the joists were not large enough for the distance they span. Again, the floor might be safe enough (as long as you don't put a grand piano over the mid-point of the span), but the joists are subject to deflection. If you feel you must remedy such a situation, it may help to heavy-up the joists. Do this by bolting additional joists of similar size to the existing joists. (Push them up against the sub-floor to reduce sag in the floor above.) Sometimes you can just add 2 x 4 stiffeners to the bottom of existing joists. Cross bridging or solid bridging will also reduce deflection, torsion, and other movement from walking on the floor.



Diagnosing Your Floor

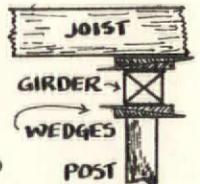
SYMPTOM	CAUSE	CURE
Floorboards squeak	Friction between boards or loose floorboards	Lubricate edges of rubbing boards with graphite or talc. Refasten loose floorboards. 
Sound floor creaks when weight is applied	Sagging, damaged, or inadequate joist	Mend or replace damaged joist. Nail a 2 x 4 to sagging joist up tight against sub-flooring.
Floor is springy when walked over	(1) Floor not making contact with supporting joist, or (2) Joist weakened or cracked allowing obvious movement of joist when weight applied, or (3) Joist is undersized or inadequately bridged	(1) Nail a 2 x 4 to joist, up tight against sub-flooring. (2) Reinforce, mend, or replace damaged joist. (3) Add cross or solid bridging to spread load to adjoining joists.
Floor sags or has a low spot	Insufficient support at the point of sag--because joist is damaged, inadequate, or shrunken away from sub-floor; or because post support is damaged, missing, or inadequate.	(1) Reinforce damaged joist. (2) Add joists or girder. (3) Jack up low spot with additional post support. (4) If shrinkage has stabilized and support is adequate, live with it or drive wedges between joist and sub-floor.
Floor slopes toward center of house	(1) Differential settlement: Exterior masonry walls stayed rigid while prop wall shrunk and/or settled, or (2) Insufficient support of prop (interior) wall	(1) Live with it or re-lay a level floor. (2) Check post support of girders. May need replacement, additional support, new footing.
Floor slopes toward exterior bearing walls	(1) Foundation settlement, or (2) Damage to exterior load-bearing walls	Live with a stabilized condition. Have expert check foundation and footings.
Floor buckled upward	(1) Extensive damage to an exterior load-bearing wall or foundation footing, or (2) Too much upward pressure exerted in a jacking operation	(1) Call in the experts. (2) If nothing cracked, let the weight back down very slowly.

MORE SERIOUS is a case where the joists themselves are not adequately supported. In some old houses, a sagging floor is caused by lack of a girder altogether. Although addition of a girder is a fairly major job and often goes to a contractor, it is possible for the competent do-it-yourselfer to handle uncomplicated jobs. Since the girder is a load-bearing element, you may want help sizing it from an architect or engineer. You can make a girder by bolting two 2 x 10's together. The girder is temporarily held in place by timbers, then metal jacking posts are installed every 6 to 8 feet. Be sure the footings for posts are adequate.

IF THE GIRDER has merely shrunk, but is capable of carrying the load, the cure might be as simple as driv-

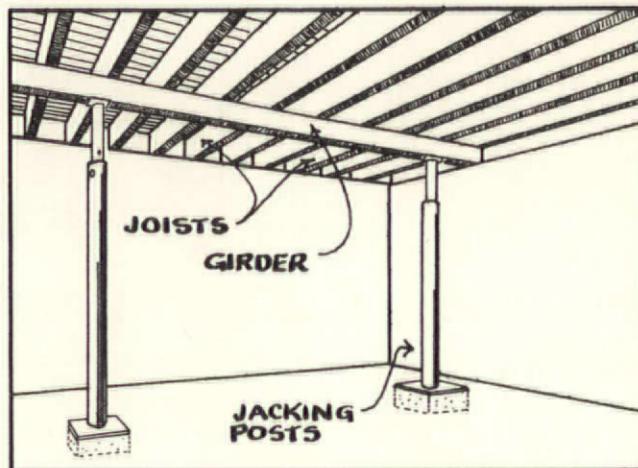
ing wooden shims in gaps between the girder and joists, and/or between the girder and the posts.

ANOTHER WAY to give additional support on upper floors is to install columns and then camou-



flage them with bookshelves, storage units, or a partition. Such a post, however, should not merely rest on the floor below--in all probability you'll just make that floor sag, too. The load must be transferred to a load-bearing surface, usually the foundation footings in the cellar, or the central girder beneath the ground floor.

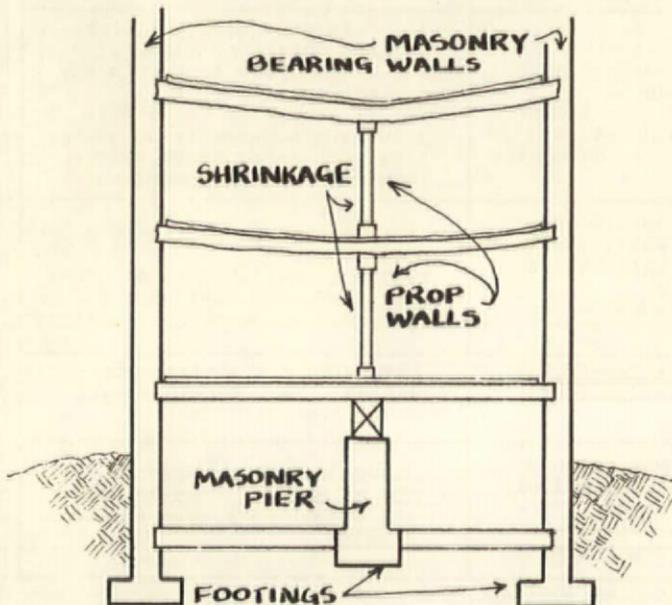
IT IS acceptable practice to line up columns vertically with intervening joists. The



joists will transmit the load from one column to those below, and through to the footing.

Differential Shrinkage

AN OLD MASONRY house with a wood-framed prop wall (interior load-bearing wall) will often develop a special inward slope. The exterior bearing walls, which are masonry, are quite stable. The interior wall, on the other hand, has shrunk and settled down. If this has happened in your house, telltale signs might be a large gap between walls and floor on the top storey, and a slant towards the interior that gets more pronounced the higher you go in the house.



THAT LAST CLUE is the key to determining the seriousness of the problem: If a slope becomes more apparent on upper stories, you're probably dealing with a benign internal settlement. If the slant is most noticeable on the first floor, however, it's due to inadequate support by girders or footings.

BEFORE MAKING this assumption, check that the interior bearing wall is properly supported throughout the house and down to the ground. For instance, wood posts in the basement may be deteriorated, or sitting on improper footings. And if someone has removed a bearing wall on the second storey, the middle of the third storey is no longer bearing on anything.



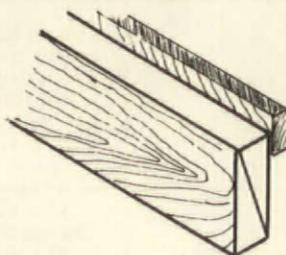
NEXT MONTH

Using A Jacking Post
Repairing Floorboards

Leveling A Floor

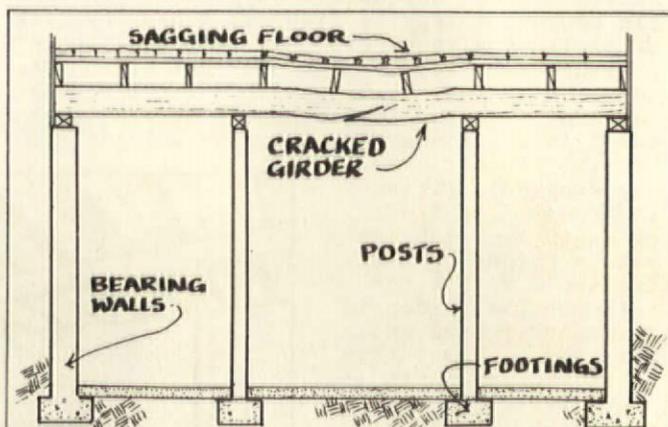
IF YOUR LESS-THAN-LEVEL FLOOR is the result of a stabilized condition, and all supports are sound or can be made sound, you may decide to just live with your sagging or tilting floor. But if you must level your floor, you'll need to create a level nailing surface and re-lay the floor.

THE BETTER WAY: Take up the old floor down to the joists, and create a level nailing surface for the new floor by nailing 2 x 4's to the sides of existing joists. (This method allows you to peek into the sub-structure of the floor, just in case there is a structural flaw.)



2x4's, NAILED SEPARATELY TO EXISTING JOISTS, ACT AS SHIMS TO PROVIDE A LEVEL SURFACE FOR NEW FLOORING

ANOTHER WAY: We mention this because it is often seen in home-repair manuals, but it can't generally be recommended. In this method you lay a new floor OVER the old one, leveling it by placing thin wooden shims between the old floor and the new. This requires a lot of trial-and-error cutting (of shims), and leaves you with a higher floor, resulting in doors that must be trimmed and baseboards that have to be moved up. Also, it doesn't let you look under the floor, where the real trouble may be lurking. If there's a damaged joist there, you've just added more weight to it!



READ YOUR BUILDING: If mid-point of a sag occurs between posts--not directly over one--problem is more likely with joists or girder. Investigation of the under-floor structure may reveal condition such as cracked girder above.

Updating A Kitchen ... Gently

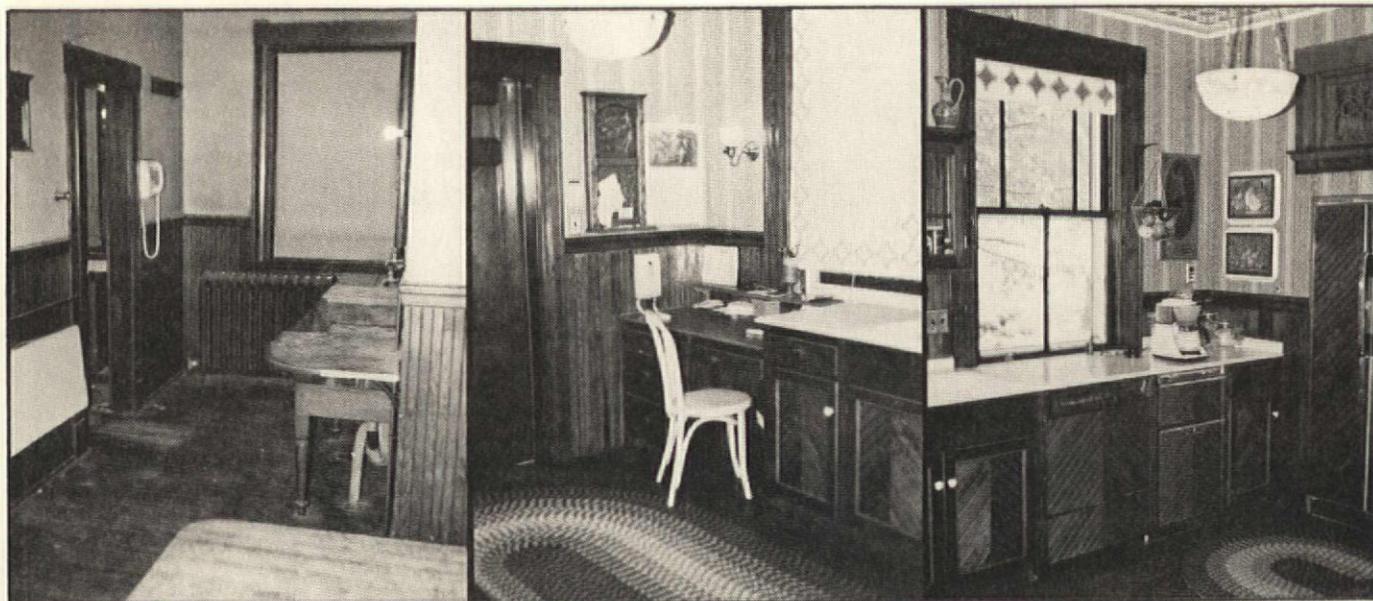
By Sharon Kasper, Wellesley, Mass.

MY HUSBAND AND I purchased our house about four years ago from the estate of the original owner. It is a large Colonial Revival house with a wrap-around porch. It was designed by an architect and built at the turn of the century for the previous owner. It was a carefully planned house, never "modernized", no doubt the reason we loved it.

IT WAS NOT, however, in the best of repair. It was very dirty, and overgrown plantings had rotted some of the porch. It had very antiquated wiring and plumbing, cracked ceilings (though sound), a leaking roof, no insulation, no storm windows, and no modern appliances. It needed a lot of work, in short. Architecturally, though, it was untouched--that is, floor plan, details, and so on. We felt fortunate to have the original blueprints which verified its original state. Our goal has been to bring it into the modern world as gently as possible, preserving its original features such as pantries, and wainscoting in the kitchen and baths. Thus we did little demolition and lots of recycling. The following is an account of how we proceeded in the kitchen, a difficult room to update sympathetically.

A "RIP OUT EVERYTHING and start over" approach to an old kitchen is no guarantee that the end result will be an efficient, well-organized space. There are planning principles which have been developed from time/efficiency studies; considerations include traffic patterns, counter space, work centers, and storage. Anyway, I'd like to show how we retained many of the original features of our 1900's kitchen and still designed a room that meets our modern needs. As in many older homes, our kitchen was a work space for servants and was not intended to be an eat-in room for the family; yet in updating it, we hoped to avoid an entire reorganization of the space. Since we started with a completely authentic turn-of-the-century kitchen, our project may provide useful background for those who are recreating some of the features of an antique kitchen.

FIRST, WE ANALYZED which features should be retained. There were two large pantries and a closet, so we had ample storage space. The room had lots of pine tongue-and-groove wainscoting. It had wide pine mouldings around all the doors and windows. (We didn't want to change windows because it would affect the outside appearance of the house.) It also had a



Left: The old kitchen--note metal sink. Ctr: Same corner after remodelling. Window shades

were stencilled to match ceiling. Right: A finished shade, and "wainscotted" appliances.

pine floor. In terms of cost alone, it made sense to utilize all the available wood and storage space in designing the new kitchen.

NEXT, WE ASKED OURSELVES what was missing. There were no counters. There were no appliances. The plumbing and wiring were antiquated and inadequate. The cracked and peeling ceiling needed attention. The space outside the pantries was inconveniently divided into two small "rooms"--a kitchen area and a laundry area.

SO WE FORMULATED an overall plan. We would take down the two walls around the laundry area and use the pine wainscoting from those walls, along with pine shelving from the pantries to construct new cabinetry.

The Overall Plan

THEN, I DREW a floor plan and designed new cabinets, in detail, inside and out. The large storage pantry was the starting point of the new design, forming the bottom of a U-shaped plan; the new counters are the legs of the U. The counters divide the kitchen into sections--the eating area and the food preparation area. Most of the exterior walls were left intact with all the original wainscoting in place. (Note: Our woodwork was all unpainted. If you encounter painted tongue-and-groove boards and prefer a natural finish, try taking the wainscoting off the wall and reversing it. Put it back with the unfinished side out.)

STILL IN THE PLANNING STAGE, we chose new appliances and the construction materials needed. All of the built-in, under-the-counter appliances and the refrigerator came with trim kits so that they could be faced with wood to match the cabinets. We chose white Corian for the countertops; since this is a solid rather than a laminated product, it is possible to rout the edges in an ogee cut, which we had the supplier do.

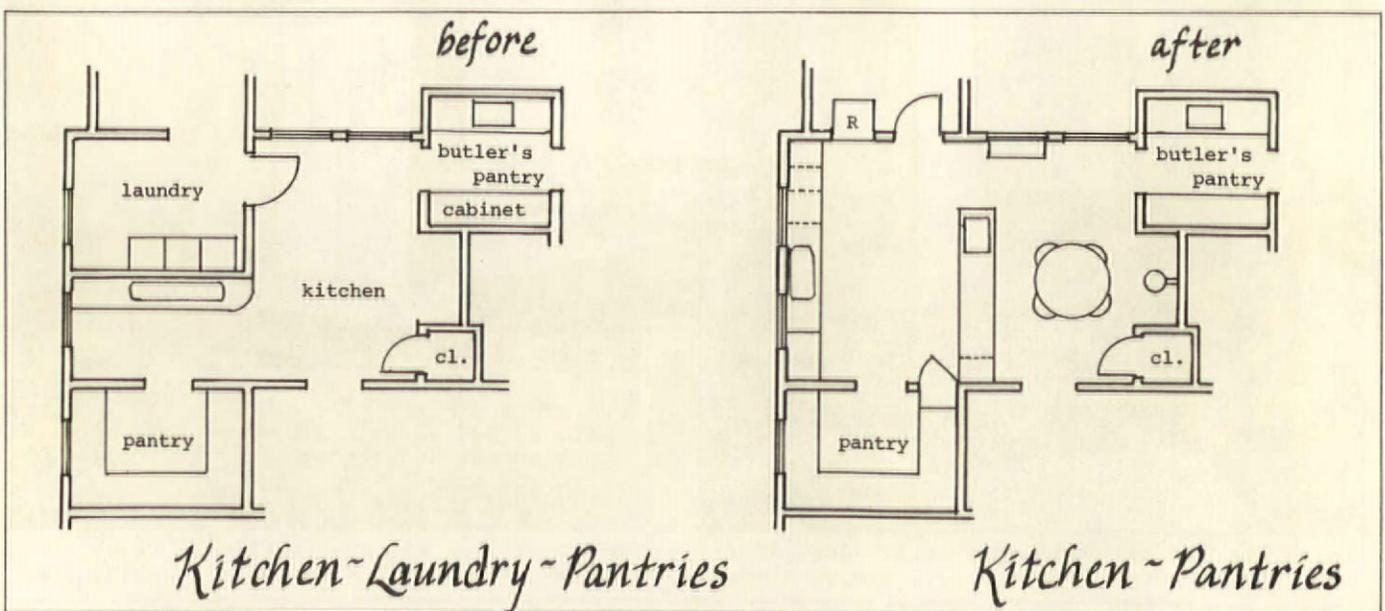
PLANNING, BIDDING and finally completing the job took many months. As a preliminary project to the actual kitchen, we did some work on the butler's pantry so that it could serve as our kitchen in the interim. We removed the ugly, rusted metal sink, and had a new wooden base cabinet made to match an existing built-in cabinet. The wood for the exterior parts came from within the house (recycled). We found a piece of used butcher block for the counter-top. Then we had a new sink and disposer put in. Also, the dishwasher purchased for the new kitchen was temporarily installed in the butler's pantry. With a fry pan and microwave oven we operated several months with the pantry as our kitchen.

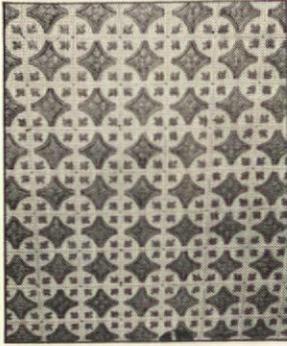
WHEN IT CAME TIME to move into the kitchen, we replaced the dishwasher in the pantry with an under-the-counter refrigerator. The butler's pantry now serves its original design purpose: It is a wetbar, and provides storage and clean-up facilities for formal entertaining in the dining room. (I don't put my best china or silver in the dishwasher.)

Finishes & Furnishings

DURING THE REMODELLING, my husband and I cleaned all the pine woodwork. We used a product called Howard's Restor-R-Finish, which we're quite pleased with. [Ed.'s note: Finish revivers clean and renew old varnish by dissolving a very thin outer layer of it. They are easy to use, do a good job where it would be overkill to strip unpainted woodwork, and save the patina of old wood. The Hope Co. and Easy-Time are just two of the companies that make such a product--see OHJ 1981 Catalog. Be sure to ask for finish reviver, not stripper.]

WE CHOSE PRESSED METAL to cover the ceiling. Before it was put up, I painted it in white, apricot, gold and green to emphasize its design. The final finish was a brown glaze which was brushed on, then wiped, to further heighten the depth of the design. Including





the pantries we had 400 square feet of area to cover, so it was quite a project. (My son, though, knows how to flatter his mother. He recently told me the two things he misses most about being away from home are his friends and the kitchen ceiling.)

OUR CARPENTERS were not wild about putting up the tin--it was installed before the JOURNAL article in March '79--but they did it successfully. I overheard one of them commenting toward the end, "If it doesn't grow in a forest, I'm not working with it again."

I LIKE RUGS on wood floors, so in the food preparation area and traffic ways we used braided ones. They fit in with the period look, are relatively inexpensive, and can be made to order for the size of the area. They are also reversible and once both sides are dirty, they can be picked up and sent out for cleaning (about once a year in the kitchen). In the eating area, we have a Karastan Oriental design rug--wonderful for not showing dirt.

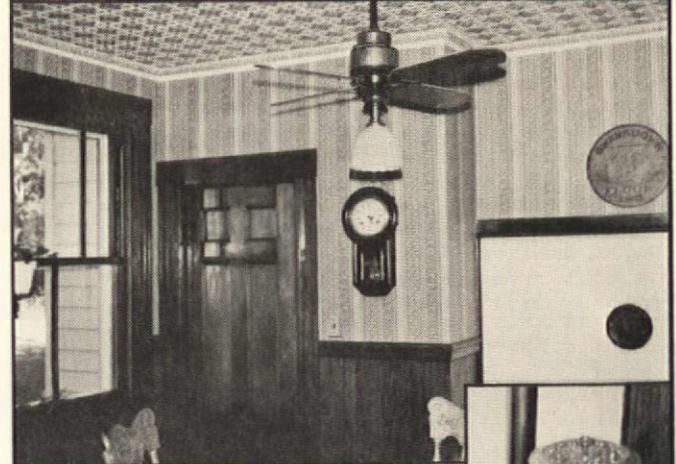
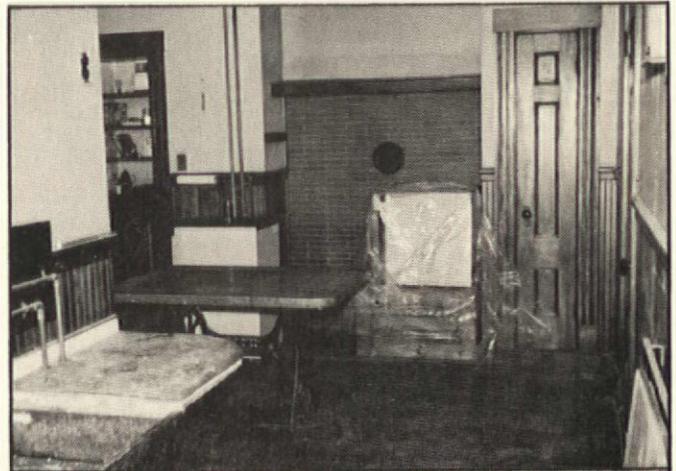
THE LAST ADDITION to the kitchen was a small parlor stove, a Petit Godin, in the spot once occupied by the wood-burning cookstove. We actually have an old cookstove which we tried putting in that space first. Under present fire codes, however, it was too close to the wainscoting and we felt it extended too far into the room. The box for the servant call system still hangs on the wall of the kitchen and we hope to hook the system back up some day. An additional original touch is the speaking tube which runs from the kitchen to a second-floor bathroom and then to the third-floor hallway. This system is fully useable

and there are times when we do communicate with someone upstairs through it. At the very least, these special gadgets carefully retained from the original kitchen are conversation pieces.

BESIDES THE KITCHEN remodelling, other big projects included three bathrooms and installing a laundry on the bedroom floor. In addition, of course, there were ceilings to patch, floors to refinish, a porch to restore.... We still have projects in mind for the future, but the majority of the work we set out to do is finished. Is one ever done?



Thanks to DAVID TIMMONS, our electrician, and to DANNY O'NEIL and ED ROTH, our carpenters, who brought skill and ingenuity to their work.



Before and after: The old kitchen had no counters, no appliances, and outdated plumbing and wiring. New additions include the fan, the fancy-painted metal ceiling, and the French parlor stove.



This is the butler's pantry.

Italian Villa

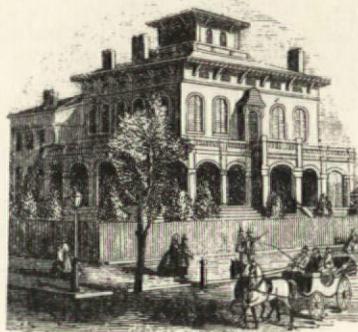


Look for a bracketed cornice on Italian villas. The roofs usually have a low pitch and are often sheet metal. Look for round-topped or pedimented windows. Some have heavy architraves. Hoods or awnings over upper story windows as well as balustraded balconies are common. Although a loggia (over the front door in the illustration above) is a feature, it has often been removed. Notice the arcaded verandahs.

You can recognize an Italian villa by its asymmetrical, picturesque massing and its campanile or tower. Doors are tall and narrow, often with round-topped panels that soften the vertical lines. Many villas have quoins (ashlar or rusticated) along the corners.

DETACHED HOUSES

Tuscan Villa



On Tuscan villas look for a heavily bracketed roof or cornice. Windows are round topped or have heavy architraves. The top floor has smaller windows. There is often a verandah across the front (see illustration above) and often one of the chimneys is large.

You can recognize a Tuscan villa by its symmetrical, box shape with a flat roof and a belvedere centered on top.

DETACHED HOUSES

Tuscan Renaissance Revival



On Tuscan Renaissance Revival buildings look for superimposed orders consisting of a different entablature at each level. Notice there are not many windows, but that they are formally ornamented with pediments, rounded pediments, and heavy architraves. The windows are smaller at the basement level and occasionally on the top floor (not illustrated above). Sometimes there are keystone arches over the windows. The cornice often features modillions and a dentil moulding.

Rowhouses feature a stair or stoop to the piano nobile (the main or second floor). The basement level is rusticated. Wall surfaces are usually smooth, with the major ornament being quoins. The entrance door is often heavily hooded.

You can recognize a Tuscan, Renaissance Revival building by its formal, symmetrical shape and heavy cornice. Occasionally blind windows are added to maintain the building's symmetry. The façade is usually astylar.

DETACHED HOUSES
COMMERCIAL
INSTITUTIONAL
ROW HOUSES

a style popular in England since Shakespeare's time, that of classical Rome. It was revived in the early 19th century not in its pure form, but as it was translated by the Italian Renaissance. And it increased in popularity partly as a result of the growing popularity of the Romantic Movement in literature and art. Italian style houses as we think of them were built in England in the 1830's and 40's, and these are the houses that most influenced American architecture.

THE NOTORIOUS POETS Byron and Shelley lived in Italy before 1820 and recorded the scenery, particularly the picturesque ruins, in their poetry. Seventeenth century European painters, Claude Lorraine and Nicolas Poussin, who painted Italian landscapes in the classical style, were rediscovered by 19th century American landscape painters, such as Thomas Cole. Their paintings contributed to a fashion for land-

scape painting in this country that evolved into the particularly American style of painting called Luminist, just prior to the Civil War. These early, influential paintings often combined romanticized, picturesque scenes with classical ruins in the background.

EDMUND BURKE PUBLISHED "A Philosophical Enquiry Into the Origins of Our Ideas of The Sublime and Beautiful" in 1757. His examination of the beneficial aspects of the "picturesque" on human nature influenced writers and painters in this country. One result of that influence was A. J. Downing's The Architecture of Country Houses. Downing was a major advocate of the picturesque in landscaping and architecture in the United States. His book included several designs for Italian style villas as well as decorative advice for interior treatments in the new style.

Northern Italian Renaissance Revival



On Northern Italian Renaissance Revival buildings look for full entablatures on each level, divided by architrave mouldings. Notice that there are many windows, and that the decoration around them is often in cast iron. Blind arcades frequently touch down with engaged columns or pilasters, between each window.

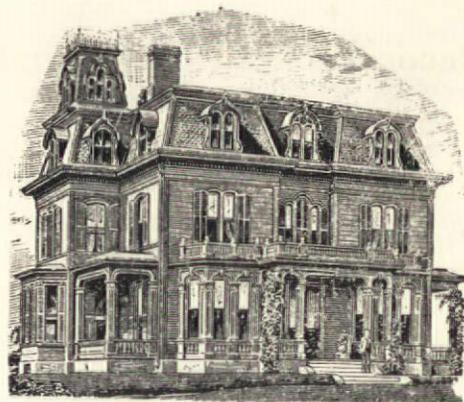
The windows are often framed with columns and a keystone arch. Even if there are no columns, the windows are always arched. Window openings are frequently balustraded, especially on the piano nobile, or main floor. Sometimes there is a balustrade on the roof.

You can recognize a Northern Italian mode building by its large symmetrical shape, and the many windows that emphasize its verticality. The first one or two floors are usually arcaded which makes the style well suited for commercial use, though the upper floors may be residential.

COMMERCIAL

COMMERCIAL & RESIDENTIAL

Italianate



On Italianate houses look for tall windows, often characterized by the arches on p. 17. Bay windows are a common feature on houses and rowhouses. Look for overscaled brackets that are often in pairs. The commercial buildings usually have many windows and rusticated foundations, as in the Renaissance Revival modes.

The roofs are mostly flat, but vary with geography and climate. Mansard roofs like the one illustrated above were often added to Italianate houses because they were fashionable. Vernacular Italianate houses are often plain, recognizable by their bracketed roofs and porches, with an occasional belvedere on top.

You can recognize an Italianate house by its tall windows whether in a symmetrical or asymmetrical shape. These buildings often have quoins at the corners, and share a lot of detailing with French styles, particularly the Second Empire style. Rowhouses often feature rinceau ornament in the form of cut stone detailing around windows and doors.

DETACHED HOUSES
COMMERCIAL
INSTITUTIONAL
ROW HOUSES

THE ROMANCE OF ITALY captured America's imagination and remained a popular idea partly because the growing prosperity of the American middle class allowed more and more Americans the luxury of travel. The "grand European tour", of which Roman ruins were a highlight, was a necessity for any cultured person.

EVEN THOSE WHO COULD not afford trips to Italy could read about the countryside in popular novels such as Charles Dickens' *Little Dorrit* and Edith Wharton's *The House of Mirth*. Wharton's *Hudson River Bracketed*, a novel that takes place in a heavily bracketed Italianate house, provides an alternate name for Italianate houses built along the Hudson River. But another and longer lasting way to capture some of the romance for oneself, was to purchase an Italian villa in the country, or a Renaissance Revival

townhouse in the city, and bring that elusive romance home.

Building Materials

ITALIAN STYLE HOUSES were made of all available materials, from brownstone to wood. But all the materials were used in such a way as to simulate the stone of the Italian villa and palace models. One common method was to stucco over brick, often on a wooden frame, although plain brick was not uncommon.

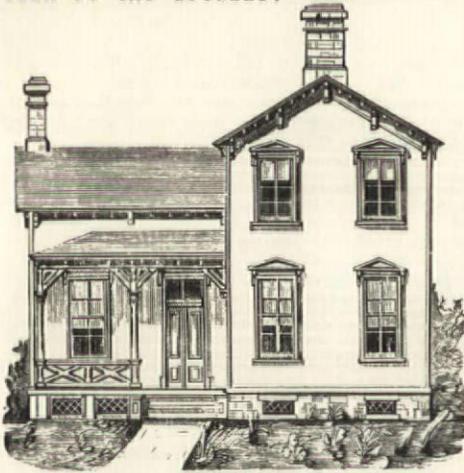
RENAISSANCE REVIVAL commercial buildings of the 1850's however were often decorated with a relatively new material, cast iron. The country villas were usually brick with wooden floors

and roofs, although many illustrations--a "Suburban Villa" in Godey's Ladies Book, for example--show sheet metal roofs. Slate roofs were also used on Italianate houses.

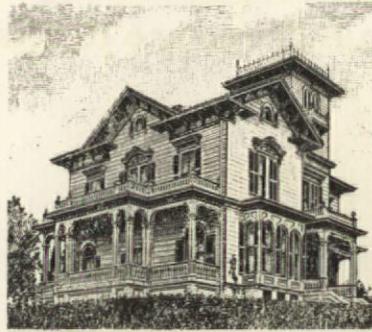
VILLAS WERE ALSO PAINTED. The desired effect was for the house to look like new or weathered stone. Pale greens, stone grays and creams were suitable colors to choose for the exterior of Italianate houses.

Recognition Through Details

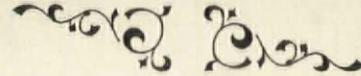
PRECISION IN DEFINING stylistic details of any Italianate house built in the United States in the 19th century, is almost impossible. Because it was such a popular style, built all along the East and West coasts and in the Midwest, and because it remained popular for such a long time, the Italian style manifests itself in many variations. The features of the villa and of the "palazzo" or palace are often so jumbled, that the only way to recognize an Italianate house is through recognition of the details.



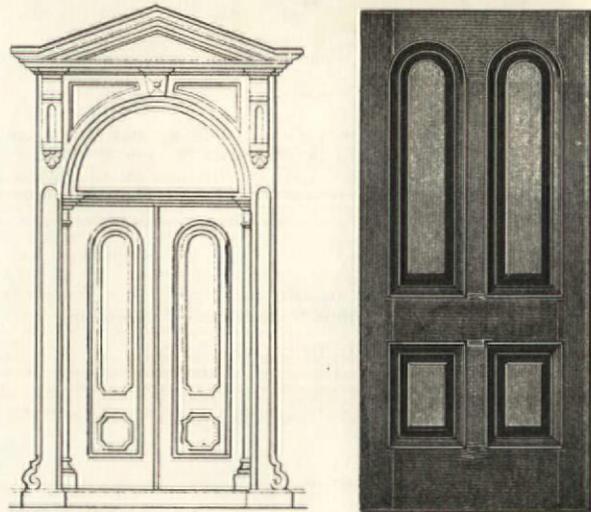
This 1883 Italianate is an example of how unadorned the style can be. The bracketed roof, pedimented windows, small porch, large chimney on the central portion, and partly rusticated foundation provide the recognizable details.



This 1886 Italianate has a bay window on the side, a campanile, arched verandahs and bracketed gables. The windows have plain and rounded hoods.

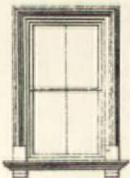


Doors

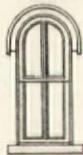


These are typical Italianate doors. The panels are rounded on top to soften the tall, narrow impression of the doors.

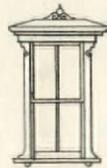
Windows



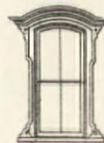
Heavy architraves



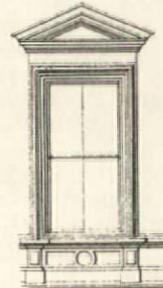
Round-topped



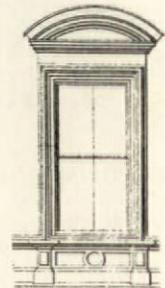
Hooded



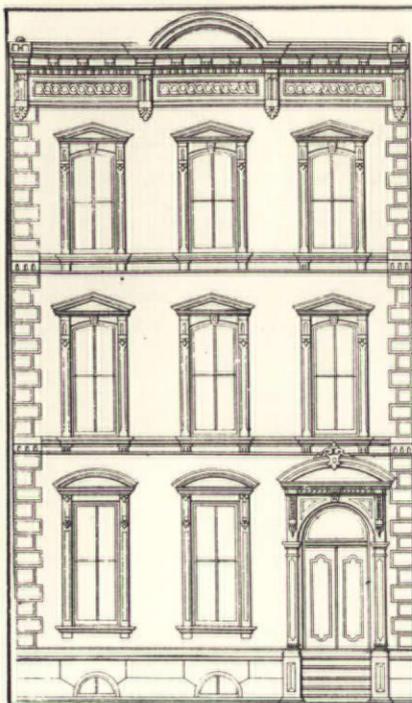
Rounded hood



Pediment



Rounded pediment



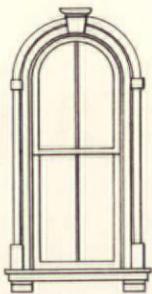
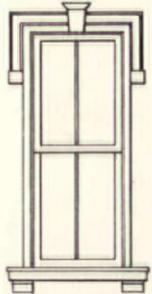
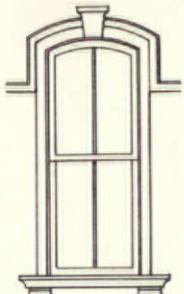
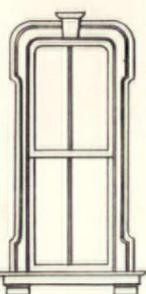
This Tuscan, Renaissance Revival row-house has the recognizable details of the superimposed orders (each story is separated by an architrave moulding), quoins, a rusticated foundation with the largest windows on the piano nobile, and a cornice featuring modillions, dentil moulding, brackets and a crowning, rounded pediment.

Who Built Italianates?

SEVERAL ARCHITECTS built Italian style houses, including John Notman, who designed the Tuscan Renaissance Revival style Philadelphia Athenaeum, and the Italian villa style Morse-Libby mansion in Portland, Maine. McKim, Mead and White also designed houses in the Tuscan Renaissance Revival style, the Villard Houses in New York City for example. Henry Austin, Richard Hunt, E. Townsend Mix, Samuel Sloan and Gervase Wheeler are just a few other architects to design in the Italian style.

BUT MOST ITALIAN style houses were not designed by architects. A. J. Downing's villas were built by builders according to his plans, and many other pattern books included Italianate designs. Builders might take a familiar shape and add Italianate details because they were

Arches

 Semi-circular	 Straight
 Straight-sided	 Flat-topped

Look for these 4 characteristic arches on windows, doors and porches. Notice they are all keystone, and that the semi-circular arch on the upper left springs from engaged columns.

Thanks to Wes Vail and John Burrows for their help, and to Marcus Whiffen for his American Architecture Since 1780. --KMC

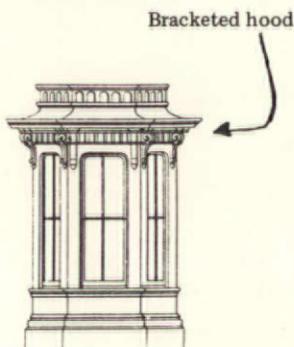
fashionable. The Italian style had such a broad architectural vocabulary that a builder could create a unique house that was still Italianate because all the details were recognizable from the Italian Renaissance. It was a style that encouraged diversity and self-expression. 🏠



Two-lighted



Two-lighted with oculus

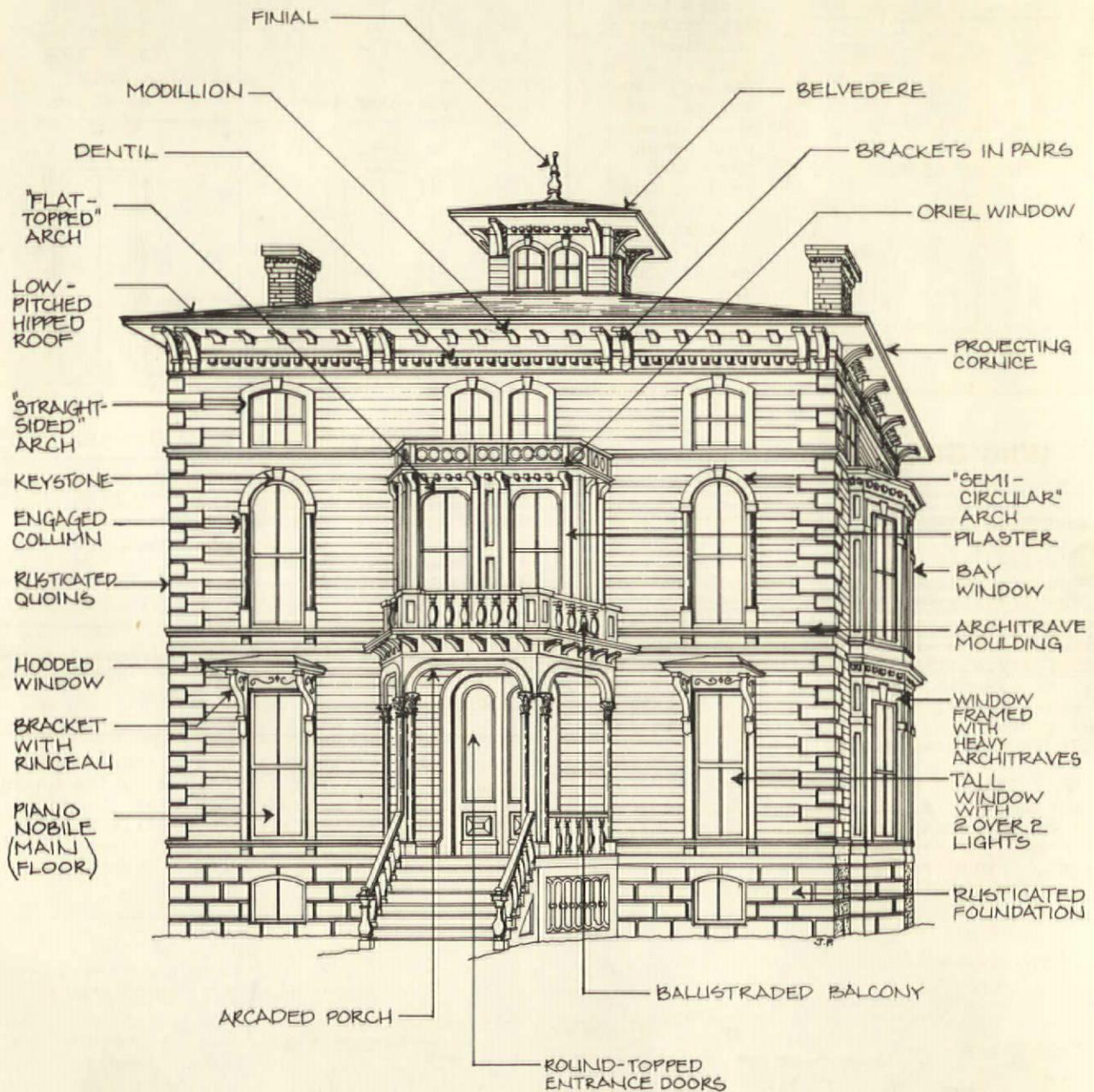


Bay



Oriel

An Italianate House

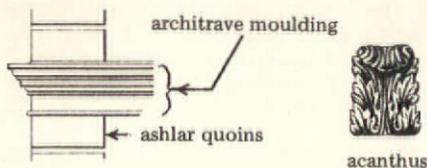


This Italianate has a Tuscan villa shape. The bay and oriel windows change the shape enough to signal the house's late 19th century date. Notice the tall, hooded windows on the piano nobile, and the

Corinthian capitals on the columns of the arcaded porch. All the upper windows have keystones. The overscaled brackets in pairs are evenly spaced between the modillions.

An Italianate

Glossary



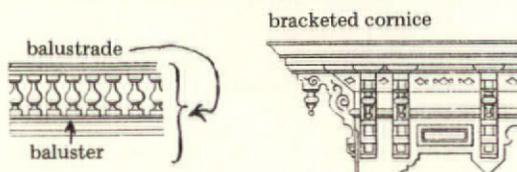
ACANTHUS LEAF: A motif in classical architecture based upon the leaf of a Mediterranean plant.

ARCADE: Arches with their supporting columns in a series.

ARCHITRAVE: The lowest part of a classical entablature. Sometimes it means the same as "lintel." When it is a moulding that spans the facade of a building, it is called an "architrave moulding." It also refers to the heavy moulding around a window or door.

ASHLAR: Smooth faced masonry with square edges, laid evenly.

ASTYLAR: A facade without columns or pilasters.



BALUSTRADE: A series of balusters or turned columns usually shaped like urns, supporting a rail and used for outer edges of balconies and "loggias."

BAY WINDOW: A window that projects out from the surface of an exterior wall, and extends to the ground.

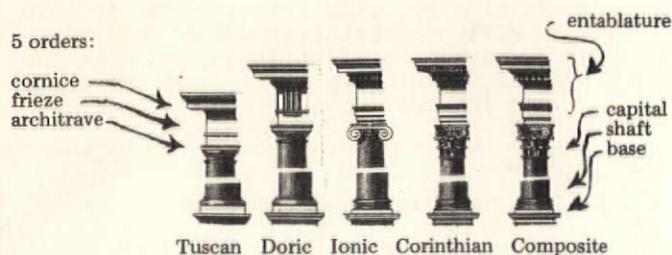
BELVEDERE: Projection from the top of a roof, usually square, large enough for two or more people to stand in. It has windows from which to see the "beautiful view." Also called "cupola."

BLIND ARCADE: A series of connected arches with engaged columns, attached to a building's facade.

BRACKET: A supporting member. When it upholds a cornice, the cornice is called a "bracketed cornice."

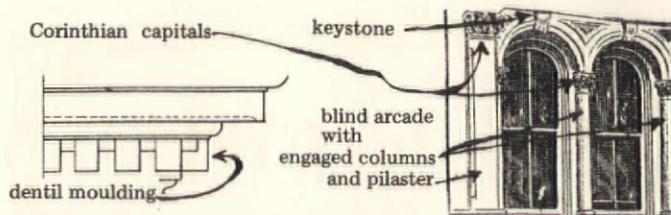
CAMPANILE: A tower, originally a belltower. In Italianate architecture, a square tower that projects from the central part of a villa.

CHAMFERED: Beveled or angled corners of stones. In Italianate architecture, to make them appear rough hewn, or "rusticated."



CLASSICAL ORDERS: Include the base, shaft and capital of columns with the entablatures they support. There are 5 modes: Tuscan, Doric, Ionic, Corinthian and Composite.

CORINTHIAN: One of the original orders. The capital features acanthus leaves with four small volutes on top.



DENTIL MOULDING: A series of small blocks used in classical cornices, most common on Tuscan mode Italianate buildings.

ENGAGED COLUMNS: Columns that are partially attached to a wall. Sometimes called "half-columns."

ENTABLATURE: The upper portion of a classical order, consisting of the architrave, frieze and cornice.

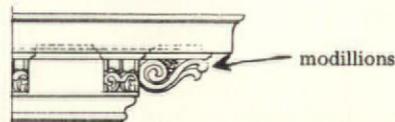
FRIEZE: In classical architecture, the central band of the entablature, sometimes sculpted or painted.

IONIC: A classical order characterized by a volute or scroll on the capital.

KEYSTONE: The small stone sometimes placed at the peak of an arch.

LINTEL: A strong piece of wood or stone that spans the top of a window, and supports the weight above it.

LOGGIA: An arcaded gallery. In Italianate architecture, one that is open on one or more sides, on the outside of a house.



MODILLIONS: Small horizontal brackets that run evenly along a Corinthian or Composite entablature, often above a dentil moulding and beneath the cornice. In Italianate architecture, most common on Tuscan buildings.

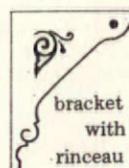
ORIEL: A window that projects out from the exterior surface of a wall, but that does not extend to the ground.

PEDIMENT: A triangularly shaped crowning ornament, usually over doors or windows.

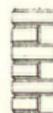
PIANO NOBILE: The main, or second floor of Renaissance palaces, and Renaissance Revival buildings, usually reached by a staircase. This floor has the tallest, most ornate windows.

PIAZZA: Originally an open courtyard in the center of a house or villa. In 19th century architecture, it was often used interchangeably with "porch."

PILASTER: An engaged column with a flat face.



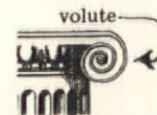
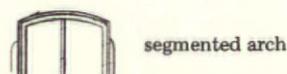
rusticated quoins with chamfered edges



QUOINS: Bricks or stones laid at the corners of buildings, in ashlar or rusticated fashion. Wood was also used and cut to resemble stone.

RINCEAU: Scroll or ornament cut into stone. The scroll motifs in Italianate architecture derive from Byzantium by way of Venetian Renaissance palaces.

RUSTICATED: Stonework with chamfered edges, to give a hand hewn look. Sometimes the entire face is roughly cut. In Italianate architecture, a device used on quoins, and on the first floor or foundation.



SEGMENTED ARCHES: Arches that do not form a complete semi-circle.

VERANDAH: An arcaded porch on the outside of a house.

VOLUTE: A scroll shape, most notable on Ionic capitals.



Ask OHJ

Using The Heat Gun

To The Editors:

I WOULD LIKE to know if the heat gun works well on cast-iron radiators that have many layers of paint. My house, built in 1896, has radiators with deep, detailed scrollwork.

Robert Schnabel
College Park, MD

Answer:

HEAT GUNS WORK well on iron radiators. The problem you may encounter is finding the right tool to get the paint out of the scrollwork. At the JOURNAL we have used a crevice tool, sold at hardware stores.

Tung Oil On Floors

To The Editors:

TUNG OIL has been recommended several times in the JOURNAL, but can it be used on floors? Will it cause the wood to darken with age?

J. B. Heyther
Brooklyn, NY

Answer:

IF YOU WANT to use a penetrating oil finish, tung oil is your best bet. But it will need the same waxing and occasional touching-up of any oil finish--and it won't give the surface protection of varnish. Some people use tung oil as a sealer, and apply varnish over it. Tung oil will not darken as much as linseed oil with age.

Painting Storm Windows

To The Editors:

MY HOUSE'S previous owner installed new aluminum storm windows that are black. I want to repaint them a pale color. Will it be difficult to repaint them without the black showing through?

Eleanor Casey
Chicago, IL

Answer:

THE COLORED ENAMEL coating on the storm windows lasts a long time with little maintenance. Once you have painted them, of course, they will need periodic repainting just like any other house trim. If black is unacceptable however, and you choose to paint them, you needn't worry about new paint sticking.

First give the glossy surface some "tooth" (for the new paint to bond to) by rubbing gently with fine sandpaper or steel wool. Use an exterior enamel (oil/alkyd preferred). It's true that over black, you may need to apply two coats.

Canvas Under Plaster

To The Editors:

MY HOUSE, built in the early twenties, has plaster problems which I now feel I can repair. I have a question about a material that is over the plastered ceiling and walls, which looks like canvas or heavy wallpaper.

MOISTURE FROM LEAKAGE has caused this material to pull loose and form an egg-shell type ridge running down like a crack. The ridge is from one and a half to three inches wide in spots.

I AM THINKING about cutting out this area of cloth, then filling it in with spackling paste and repainting. Does this sound like an acceptable approach?

Les Wilson
Wichita Falls, TX

Answer:

THE CLOTH IS PROBABLY a canvas underlayment which was commonly used years ago under high-quality paint jobs. The canvas minimized problems in the surface finish caused by those inevitable hairline cracks in the plaster. The cloth was applied with a heavy wallpaper paste. The only problem with this system--as you've discovered--is that the paste is water soluble. So if you do get leaks, the canvas will come loose.

THERE ARE SEVERAL approaches to this problem. Cutting out the loose area and resurfacing it with spackling compound is one solution. You might use joint compound (the material used for gypsum wallboard joints) for this, since it handles and sands so easily. A drawback to this approach is that the patch will have a different texture. Canvas has a soft, pebbly texture, whereas your patch would have a smooth, glassy finish. Therefore, the patch would be noticeable.

BEFORE CUTTING OUT the entire bubbled area, try slicing the bubble with a razor and see what you can do with heavy wallpaper paste to make the various flaps stick back down. You may need to do some minor resurfacing to seal the razor slices, but this will be less noticeable by far than a three-inch wide band.

Do You Have Questions for OHJ?

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

The Joy Of Arc Welding

By Ron Pilling, Baltimore, MD

ODDS ARE GOOD that in your basement shop you have a radial arm saw, a band saw, or perhaps a jointer. Any of these may have set you back well over a hundred dollars. There's one power tool which is as versatile as any of the above, costs less than some, is easy to operate--yet it is in the arsenal of few restorationists.

I'M TALKING about an electric arc welder. Welding may seem like an alien occupation--hooded operators trained at GI-approved technical schools, with crackling power flashing at their fingertips. Granted, if you intend to weld diving bells, space ships, or truck frames, you'll need some heavy training. The homeowner, however, can learn to weld up iron fences and gates, structural iron brackets, and so on with little in the way of special training.

WELDING PROVIDES an exceptionally strong joint between pieces of metal. In a weld, the base metal itself is melted and fused, unlike soldering and brazing, which rely only on a filler metal to provide adhesion. There are two different types of welding kits available for the home workshop. Gas welders burn a mixture of acetylene gas and oxygen; electric arc welders use the heat from an electric spark. In this article, I'll concentrate on A/C electric arc welders, which are relatively cheap and safe, and are adaptable to a variety of home projects.

THE PRINCIPLE behind electric arc welding is simple: As electricity passes across a gap from one conductor to another, an intense heat is created--over 7000° F. The extreme heat melts the metal to be welded. Filler metal in the form of a consumable electrode, or welding rod, is added to the joint in the process.

OF WHAT possible use would a welder be to the old-house owner? I've used mine to repair old wrought

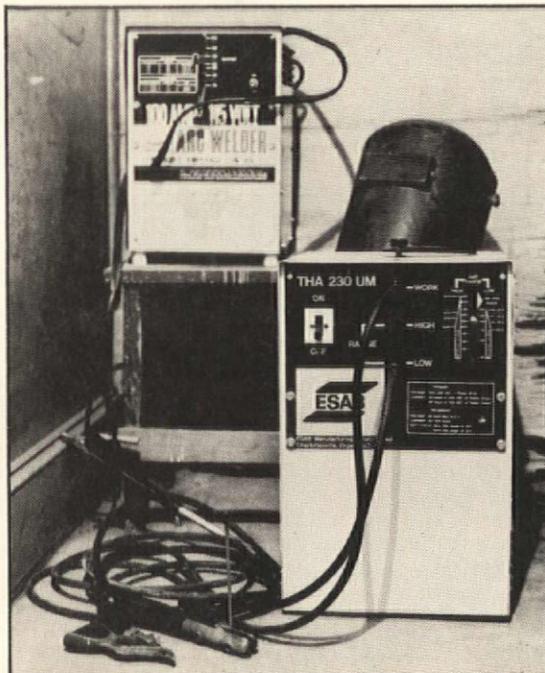
iron fencing and to reproduce new fencing. (I was able to weld up my own fence, including the initial price of the welding kit, for what it would have cost me to purchase reproduction fencing.) The welder comes in handy for fabricating all sorts of brackets for supporting beams or for hanging fireplace mantels. A welding kit enables you to join, bend, or cut many types of metal, from heavy bars to sheet metal.

Buying The Machine

THERE ARE MANY transformer-type A/C arc welders available to the homeowner. You must base your purchase on the type of work you intend to do. Welding power is measured in amperes, and machines will carry ratings, for example, from fifty to 295 amps. Input is measured in volts (110 or 220) and in the ampere size of the circuit required.

LET'S BEGIN at the bottom of the scale with the 110 volt units which will operate on any thirty ampere household circuit. These start at a maximum of fifty amps output and go as high as 100 amps. Such a welding ensemble will cost less than a hundred dollars. But don't expect to do much work with a 110 volt machine. It will handle sheet metal, but will weld steel only up to about three-eighths of an inch.

PROFESSIONAL welding shops use 220 volt welders, requiring a circuit like that for an electric dryer. Their output goes to about 295 amps, giving you plenty of juice to weld and cut heavy steel bars. Machines like this are still available for well under \$200.00, complete with leads, clamps, and helmet. With wheels added they are portable. The homeowner would be well advised to skip the 110 volt units and go for the power and versatility of a large machine, no matter how small his or her intended welding jobs are initially. If your electrical system



Two home shop-sized A/C electric arc welders. On the left, a 110 volt machine (100 ampere output). Right, a 220 volt, 230 ampere unit.

has been modernized, you will have enough current.

MOST OF the other tools you'll need are common shop items. A good bench vise is a must.



You'll also want a selection of spring clamps and screw clamps to hold your work together as you weld.

A wire brush is handy for cleaning up your work.

You might look for a combination wire brush and chipping hammer to ease the job of removing slag. A power bench grinder or a grinding attachment for your drill will remove excess steel or welding spatters. And you need a flat masonry, fire-brick, or metal surface to work on.

Is It Safe?

IT'S UNLIKELY that you'd ever get a shock from your welder. Transformers inside A/C units transform house current into low voltage electricity. The real hazards--molten metal and the intensity of the arc light--are not a problem if you use the proper equipment and follow common-sense precautions. Obviously, with molten metal and slag flying around, you want to be well covered. Wear gauntlet-type leather welding gloves, heavy pants and a long-sleeved shirt, and heavy high-topped shoes. To be on the safe side, you might invest in a leather apron.

WEAR THE PROPER welding helmet. Gas-welding goggles are not adequate. NEVER attempt to weld, or watch someone else weld, without this eye protection. This cannot be stressed enough. Even a momentary flash of the arc can cause an eye "burn" which is dreadfully painful and could result in permanent damage.

BESIDES DONNING protective clothing, be sure you work in a well-ventilated area (welding produces noxious gases). Don't weld near flammables--watch out for solvent or paint fumes--or while standing on a damp floor.

How To Weld

ARC WELDING uses two cables, or output leads, to carry current through a complete circuit. One cable is attached to the electrode clamp, which holds the electrode during the welding operation. The second cable goes to the ground clamp, which is attached directly to the object to be welded. The arc is produced by touching the electrode to the work piece. This runs high amperage through the work piece, on to the ground clamp, and back to the transformer, completing an electrical circuit.

THE CONSUMABLE ELECTRODE, or welding rod, is a thin metal rod coated with a chemical flux. It supports the arc, and provides filler metal to the weld. In addition, the flux melts under high temperatures and cleans oxides from the base metal; it also acts as insulation which slows the cooling of the joint, thus relieving



Ground clamp (left) is attached to the work. Electrode clamp holds the electrode, or welding rod.

the internal stress from sudden temperature changes involved in the welding operation. At a dollar a pound, you probably won't spend more than \$10.00 per year on rods.

THE THICKNESS of the base metal to be joined will determine the size (diameter) of the rod, and the output amp setting. (See the chart below.) Most of your work will be with mild steel, which is readily available.

SUGGESTED OUTPUT SETTINGS AND ELECTRODE DIAMETERS FOR AC ARC WELDING OF MILD STEEL

Electrode Diameter	Metal Thickness (Approximate) Single Pass*	Current Setting (Amps)	
		Min.	Max.
1/16"	1/16"	20	40
3/32"	3/32"	30	80
1/8"	1/8 - 1/4"	50	120
5/32"	1/8 - 1/4"	75	170
3/16"	1/4 - 5/16"	100	210
1/4"	3/8 - 1/2"	160	230

*Heavier steels can be welded by making more than one pass along the welded seam.

YOU CAN'T produce a good weld unless the metal is clean of all rust, scale, and impurities. Position and clamp the clean pieces of metal to be welded. Insert the proper size electrode into its clamp, and adjust the amps to the suggested setting. The heat of the arc depends on the amount of current (in amperes) used, so set the machine at the middle range recommended for that size electrode. Then experiment, running a few trial beads, raising or lowering the amp setting until you get a satisfactory weld--that is, one which doesn't burn through the metal but does give adequate penetration.

PUT ON YOUR HELMET, but for the time being tilt it back on your head. The glass in the viewing screen is almost opaque, so you won't be able to see a thing until the arc is struck. The light produced by the arc is so bright that you will be able to see the weld with the helmet down. Turn off the machine and position yourself next to your work. Poise the electrode an inch or so above the point where your weld will begin, and now lower the helmet.

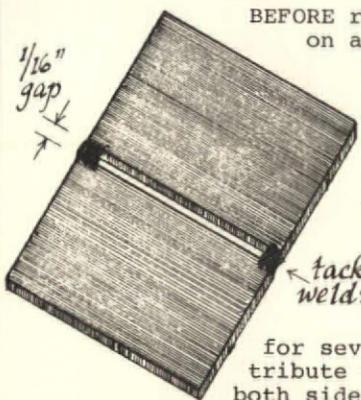
TO STRIKE AN ARC, the electrode must quickly touch the area to be welded and then be slightly withdrawn to the proper arc length. Try a motion akin to striking a match. On the first attempt, the electrode may "freeze", or weld itself to the work. If this happens, break it off with a twist of your wrist and try to speed up your motion a bit. Pulling away too fast and too far will break the arc, and you'll have to strike again. If you can't seem to hold an arc, perhaps you are jerking the electrode up too swiftly.

IF THE ARC breaks continually, the ampere setting may be too low. If the electrode spatters noisily or sticks constantly on the strike, the setting is probably too high. This takes some practice, so lay in a good supply of scrap steel before you start. You'll find it easiest to strike an arc with a short electrode or a hot electrode, but in any case it's not a difficult skill to learn.



A typical hairpin style fence, welded up by the author from new steel and old cast-iron fence parts.

Tack Weld



BEFORE running a long bead on a butt joint, tack-weld the ends to prevent distortion from expansion/contraction. Place the two pieces to be joined with a 1/16-in. gap between (1/8-in. if heavy plate). Strike an arc at each end and hold for several seconds. Distribute the weld evenly on both sides of the gap.

ONCE YOU HAVE AN ARC you'll have to do something with it or you'll have a large puddle of molten metal. The welder now begins to "run a bead." The coated electrode you are using requires a constant gap of 1/16-3/16 in. When the arc is the proper length there will be a distinct hissing sound, with no popping or uneven crackling.

IF YOU ARE right-handed, you should start at the left and work right (lefties do the opposite). Hold the electrode about 20° from ver-

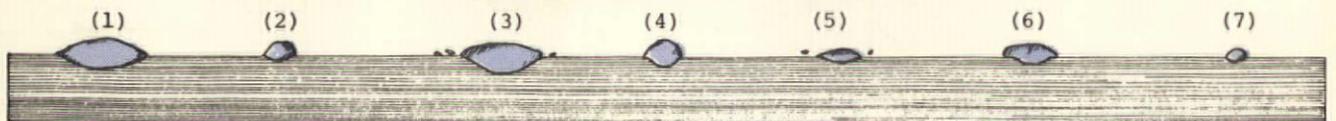
tical in the direction of travel. Move the electrode along the seam you are welding with a steady motion. A puddle will appear at the end of the electrode. Go along at a speed that ensures melting of the metal on both sides of the joint while keeping an unbroken puddle of metal. If you move too fast, you'll create a weak weld; too slow, and you may burn through the metal.

GENERALLY, you won't need to move the electrode in anything but a straight line at an even pace. A weaving motion will be necessary for wide, bevelled joints only.

THE IDEA is to "lay a good bead", even, solid, and straight. Watch the puddle, not the spark, because only by adjusting the size of the puddle can you keep the weld uniform. Your speed is important; the ridge (which is where the molten metal solidifies) should be about 3/8 of an inch behind the electrode as you move along. You must succeed in getting good penetration for your weld to be secure. The finished bead should have evenly-spaced ridges across its width. Your work should be free from spatters: Tiny dots of flying electrode probably mean your amp setting was too high.

MUCH OF YOUR WORK may be spot welding, especially in fence construction. You'll still need careful preparation of the parts and good penetration, but it won't be necessary to worry about laying a long, even bead.

Judging Your Bead



- (1) Proper amp setting and speed. Penetration = surface rise of bead; no spatters.
- (2) Current (amp setting) too low: Shallow penetration and poor fusion.
- (3) Current too high. Bead is wide, inconsistent, and spattered.
- (4) Arc length too short.
- (5) Arc length too long: Bead too shallow; spatters.
- (6) Electrode moved too slowly: Bead floods surface.
- (7) Electrode moved too fast.

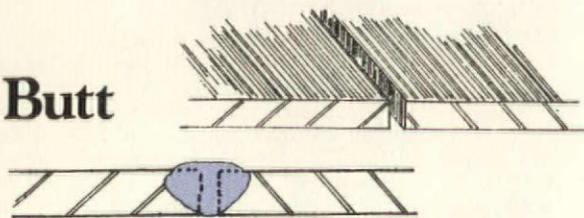
IN ADDITION to welding steel, you may also want to use your welder to bend and cut. Another attachment is required: The carbon arc torch. This is a separate holder, much like the electrode clamp, except that it holds two carbon electrodes. Their tips are positioned closely together, one wired to the electrode jack and the other to the ground. When the welder is turned on, the arc is created between the carbons, and, unlike the filler electrodes, the carbons are not consumed.

ALTHOUGH THE CARBON ARC TORCH is unnecessary for most household tasks, you can use it to heat steel bars too thick to bend cold, and to cut steel by burning through it. It's an accessory that can always be purchased later on as your needs change. Having a carbon arc torch will also enable you to weld non-ferrous metals such as aluminum, copper, and brass. 

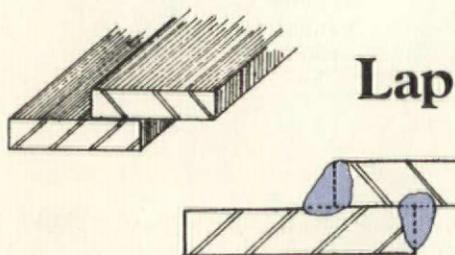
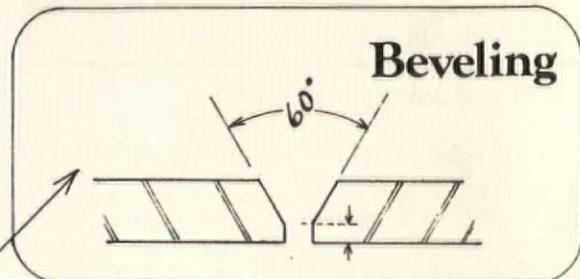
COMING NEXT MONTH: Home welding techniques for fabricating old-fashioned iron fences.

Basic Welding Joints

Butt

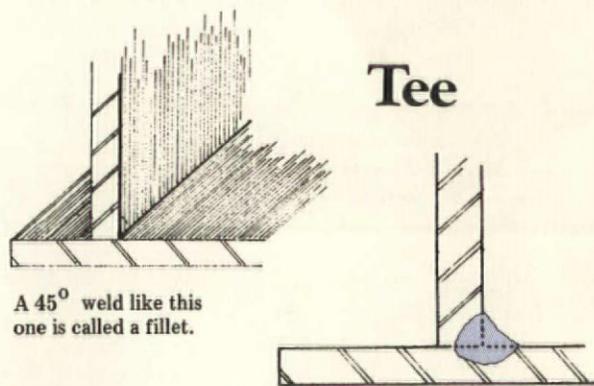


For metals up to 1/8-in. thick, weld from one side. Up to 3/8-in., weld from both sides. Heavier plate must be beveled before welding.



Lap

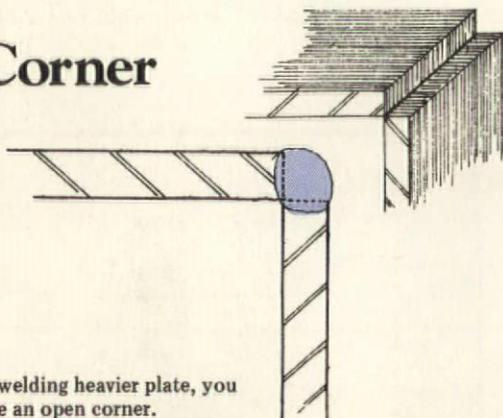
Pieces of metal must fit tightly together. Weld must be made on a flat surface. Support the lapped piece.



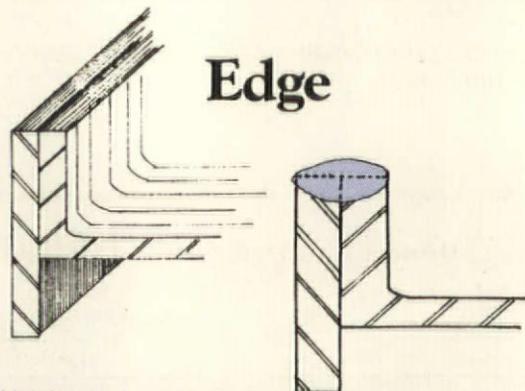
Tee

A 45° weld like this one is called a fillet.

Corner



When welding heavier plate, you can use an open corner.



Edge

In this joint, the base metal provides enough molten metal. It's not necessary to use a filler rod—use instead a non-consumable electrode like that used in cutting.

180 Pages Of OHJ Know-How No Longer Exist. Except In The Compendium.

The first 15 issues of The Old-House Journal (Oct. 1973 through December 1974) are now out of print. That means that those first 180 pages of know-how and old-house common sense are no longer available...except to those people who buy "The Old-House Journal Compendium."

When the folks at Overlook Press heard that inventory problems were forcing us to discontinue those 1973-74 issues, they urged us to include that information in a collection of OHJ material that they proposed to bring out in book form. That's how "The Old-House Journal Compendium" came into being. It includes all of the significant how-to articles from October 1973 through December 1977.

In addition, there's 40 pages of new introductory material by Clem Labine, Editor of The Old-House Journal. The new articles cover a lot of the restoration basics, including: Selecting The House That's Right For You; Determining Your House's Style; Appraising The Structure; Avoiding Remuddling Mistakes; Constructing A Master Plan; When To Hire An Architect; Selecting A General Contractor; Remodel Or Restore?; The Interpretive Restoration.

The Compendium is a great gift...either as a housewarming present for a friend, or as a treat for yourself. If you like the monthly Old-House Journal, you'll love the Compendium!

THE OLD-HOUSE JOURNAL COMPENDIUM
390 pages; Hardbound
Published by Overlook Press; Distributed by Viking
\$19.95

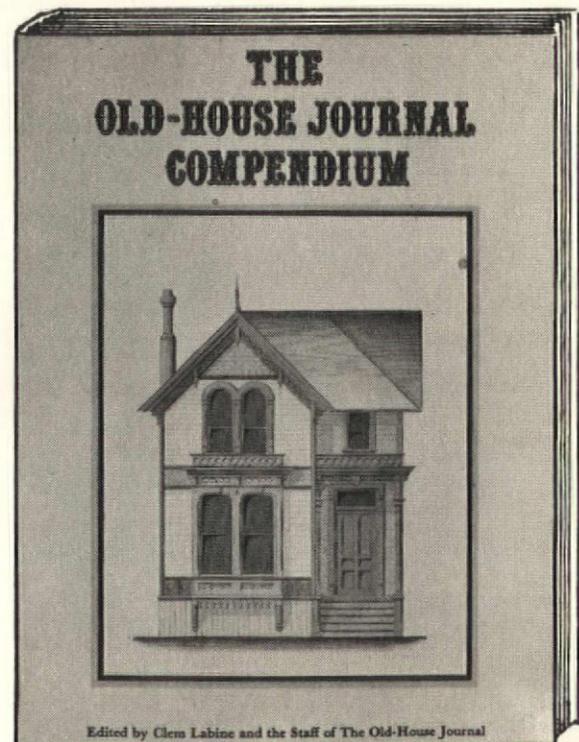


HOW TO ORDER

"The Old-House Journal Compendium" is available at all quality booksellers. If they don't have it in stock, they can order it for you from Viking Press.

CONTENTS

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The Old-House EMPORIUM

FREE ADS FOR SUBSCRIBER/MEMBERS

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

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

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

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

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

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

BOOKS AND PUBLICATIONS

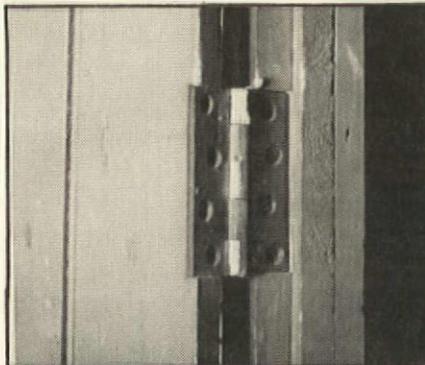
A PICKET FENCE will give your old house that "extra" charm! A Do-it-yourself, 21 page detailed construction guide with 22 full-sized patterns, tips & variations. Send \$5. to COLONIAL CHARM, P.O. Box A-1111 Dept. OH, Findlay, OH 45840.

EUTAW: The Builders and Architecture of an Anti-Bellum Southern Town, by Clay Lancaster. Predominantly Greek Revival with some Gothic Revival architecture. 140 illustrations. Deluxe Edition, \$20., Standard Edition, \$15. Greene County Historical Society, Box 746, Eutaw, AL 35462.

1981 HISTORIC PRESERVATION TRUST Calendar features Lancaster's architecture. \$5. plus \$.50 postage. Historic Preservation Trust of Lancaster County, 11 North Duke Street, Lancaster, PA 17602.

THE BUILDER'S DICTIONARY, a 2 volume work originally published in 1734 was well known in the English colonies with documented use by gentlemen architects and craftsmen. To order send \$27.50 to The Foundation For Preservation Technology, 1511 K St., N.W., Suite 1005, Washington D.C. 20005.

WANTED



BUTT HINGE, cast iron, 4-1/8 in. x 2-7/8 in. needed for restoration. Antique or reproduction. Identifiable markings: Front face—'B 8', 'James', 'Patent'; Rear face—'4 IN', 'B 32'. Alberta Culture, Old St. Stephen's College, 8820-112 Street, Edmonton, Alberta, Canada T6G 2P8. (403) 427-2022.

PUSH BUTTON LIGHT SWITCHES in good working order. Monty Townsend, 1909 Albert St., Alexandria, LA 71301.

3 ANTIQUE CEILING FANS similar to page 227 of THE TASTEFUL INTERLUDE. Bryan Hendrix, 1814 Park St., Beaumont, TX 77701.

PEOPLE OFFERING PRODUCTS or services in the Baltimore, Washington DC, Annapolis area for a local source book on old house restoration. Anne Sullivan, 1506 N. Nicholas, Arlington, VA 22205. (703) 536-5363; (703) 241-8297.

39 DUST PROTECTORS for steps—prefer brass. 4 mouthpieces for speaking tubes. Bill & Frances Gay, 1600 The Plaza, Charlotte, NC 28205. (704) 333-9395.

CRAFT-PERSONS: Names and addresses of qualified restoration and preservation minded craftpersons for inclusion in state-wide Pennsylvania Resource Directory. Addresses list is confidential, an application will be sent to apply for entry. Preservation Project, Department of Architecture, Engineering Unit C, University Park, PA 16802.

VARIETY OF MOLDS formerly used for casting ornamental plaster, stucco, compo, etc. Plaster and stucco screeds also needed. Molds do not have to be in usable condition. Wanted for educational purposes. Will buy if affordable. Write particulars. Send snapshot. F. Cloudt, Personal, 2005 Marietta Rd., N.W., Atlanta, GA 30318.

ORIGINAL PRINTS of which there are many reproductions: Of old Georgian Deep South plantation houses, just like the ones on the Mississippi River with column type white fronts. Robert J. Parker, 116C Lincoln Mill Rd., Mullica Hill, NJ 08062.

LIBRARY STAIRS: Sliding library stairs with railing. Bruce A. Epstein, 9005 Baywood Park, Seminole, FL 33543.

STAIR CARPET RODS & mounting hardware: Brass—suitable for 1872 Italianate country home. 20 stairs. Call collect: (412) 782-5255, evenings; (412) 391-5330, days.

SOLID BRASS SPRING HINGES suitable for use on a screen door. J. Stoneking, 720 Scenic Dr., Knoxville, TN 37919.

METAL SASH RIBBON, for window sash. Were used in 1876 mansion in lieu of sash cord. Ribbon was 3/16 in. wide steel tape wrapped with copper wire to form a flat ribbon that attached to sash and weights. Jim Rome, P.O. Box 3130, Corpus Christi, TX 78404 (512) 882-4251.

POSITION OFFERED

QUALIFIED CONSTRUCTION INSPECTORS for four major restoration/rehabilitation projects: Pieter Claesen Wyckoff House Restoration, Brooklyn, NY; Gay Street Commercial District Revitalization, West Chester, PA; Perry's Victory Memorial Restoration, Put-in-Bay, OH; Jersey City Railroad Terminal Restoration, Jersey City, NJ. All projects are full-time on-site with a minimum duration of one year. Successful applicants must have a minimum of 2-5 years related experience. Project assignment will depend on matching individual skills and experience with specific project requirements. Salary to be commensurate with experience. John Milner Associates, 309 North Matlack St., West Chester, PA 19380. (215) 436-9000.

FOR SALE

ARCHITECTURAL ANTIQUES and unusual decorator items bought and sold. Stained glass a specialty. Will travel to pick up or deliver. Contact H. Weber Wilson, Antiquarian, 9701 Liberty Rd, Frederick, MD 21701. (301) 898-9565.

NOTECARDS with drawings of New York City buildings of architectural interest. \$5. for set of 10 assorted cards. Other items available. East Village Enterprises, Box 361, Cooper Station, New York, NY 10276, Dept OHJ. NY residents, add sales tax. Free brochure.

RUNNING OUT OF SPACE, must part with three piece pine bedroom set, sleigh bed, commode, bureau. Victorian rocking horse, copper lined oak toilet, Mission oak rocker, fancy oak rocker plus assorted chairs, etc. stored in garage. All genuine antiques. Avery, West Haven Rd., Fair Haven, VT 05743. (802) 265-4492.

ANTIQUE ESTATE GATES—Massive iron gates are about 4 ft.-4 in. wide x 12 ft.-3 in. high x 3 in. thick. \$7500. or best offer. David. (613) 526-1818.

2 BEAUTIFUL ALL PORCELAIN pedestal sinks. A matched pair, both in perfect condition. The pedestal tops are 26 1/2 in. x 22 1/4 in. Also, 1 porcelain on cast iron pedestal sink and 1 porcelain on cast iron corner sink. B. Morrison, 1228 24th St., Sacramento, CA 95816.

TWO COMPANION OAK MANTELS, Victorian classic revival style; one with beveled mirror, pilasters, garlands, the other with garlands only. \$450 for both. Bruce Fogarty, Brooklyn, NY. (212) 833-7167.

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ANTIQU REPRODUCTIONS—Bronze, wood or marble finishes. Statues for home garden, braces for doorways, etc. For pictures and prices. Send SASE to P. Santa Maria, 263 Albany Ave., Kingston, NY 12401.

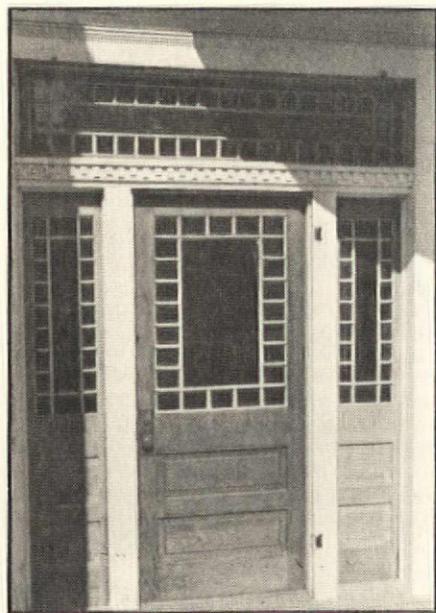
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1909 ENTRANCEWAY from National Register Property. Overall dimensions 89 in. x 112 in. Door 35 1/4 in. x 83 1/2 in. Sidelites 16 1/4 in. x 83 1/2 in. Transom 17 1/4 in. x 78 1/4 in. Solid cypress construction with original brass hardware. Recently stripped and refinished, \$850. R. Paul Smith, 1216 Jackson St., Alexandria, LA 71301.

VICTORIAN WHITE MARBLE fireplace and mantel. Approx. 50 in. wide by 45 in. tall. Complete and in good condition. \$350. plus crating and shipping. Dave Whitmore, RFD 2, Box 626, Underhill, VT 05489. (802) 899-3820.

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RESTORED FARMHOUSE on edge of village—on map of 1850—handhewn exposed beams. Cape style, 4 bedrooms, 2 bathrooms, 3 acres, more or less. East Corinth, VT. \$35,000. (212) 783-4703.

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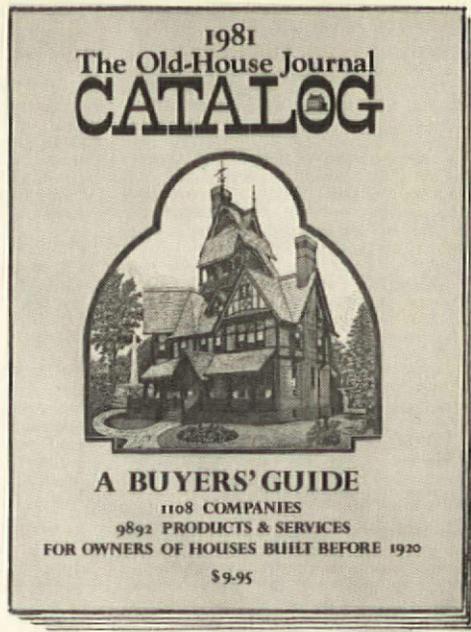
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- 53 companies were deleted because they have gone out of business, or because they didn't return the verifying questionnaire, or because they didn't live up to the editors' service standards;
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Use Order Form on pg. 25E. Or send \$7.95 (price to non-subscribers is \$9.95 + \$1 postage) to: The Old-House Journal, 69A Seventh Ave., Brooklyn, N.Y. 11217. Catalogs are shipped via United Parcel Service, so give street address--NOT a P.O. Box number. Allow 4-5 weeks for delivery.

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The electric heat gun softens paint in a uniform way so that it can be scraped off with a knife. Some clean-up with chemical remover is required, but the volume needed—and the mess—is vastly reduced.

Heat Gun is safer: It avoids the hazards of methylene chloride vapors present in paint removers. Operating temperature is

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The Master HG-501 Heat Gun is #1 in paint removing. More than 4,000 are in use by OHJ subscribers...and the testimonials to its effectiveness come in every day. It is a heavy-duty industrial tool operating at 500-700 F. and draws 14 amps at 120 volts. Rugged all-metal construction; no plastics!

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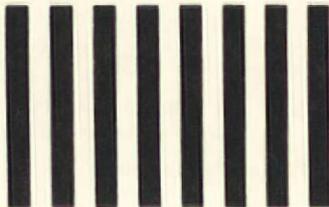


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Meet Us In Chicago

Come To The Show!

March 27-29

Make plans now to meet the staffs of The Old-House Journal and Restoration Products News in Chicago, March 27-29. We'll be at the City House Show at McCormick Place West (west of Lake Shore Dr. on 23rd St.). The OHJ will be among more than 300 exhibitors at the Show.

The City House Show is the only restoration show with national significance. Organized by The Commission on Chicago Historical and Architectural Landmarks, the Show screens exhibitors carefully to keep out non-appropriate products. So you don't see "remuddling" items (like vinyl siding) at City House. Rather, the exhibits are devoted to restoration and sensitive rehabilitation. Although many of the exhibitors are from the Chicago area, many other exhibitors (such as the OHJ) are companies that sell nationally.

The huge attendance (more than 40,000 came to the 1980 Show) makes City House the largest restoration and rehabilitation event in the country. In addition to the exhibits, concurrent with the Show are lectures on the practical how-to of restoration and rehabilitation.

TO EXHIBIT AT CITY HOUSE

If you'd like to join us as one of the exhibitors at CITY HOUSE, you can get all the details from: Julia A. Versau, Coordinator of Commercial Exhibits, CITY HOUSE, 320 N. Clark St., Chicago, IL 60610. Tel. (312) 744-3983.

If you are restoring an old house, a trip to McCormick Place West is bound to be worthwhile. Besides seeing new products and picking up money-saving ideas, it's fun to mingle with so many other old-house types.

So come see us at our booth. We'll be there to answer your questions...or to just say hello.

YOUR HOUSE CAN BE AT THE SHOW

Part of the OHJ exhibit at City House will be a slide show of our members' houses. And we would like your house to be part of the slide presentation. So send us 2 to 4 slides of your house—exterior and/or interior shots. And please include a brief paragraph that tells: City or town where house is located; Year of construction (or approximation if not known precisely); Major things you've done to the house; and any ways the OHJ has helped you.

Send slides to: Kate Conley, The Old-House Journal, 69A Seventh Avenue, Brooklyn, N.Y. 11217.

Note: Please only send slides that you don't need back. The volume will be such that we won't be able to return them.

These Coupons Are Worth \$6 At The Show

SAVE \$5 ON A HEAT GUN

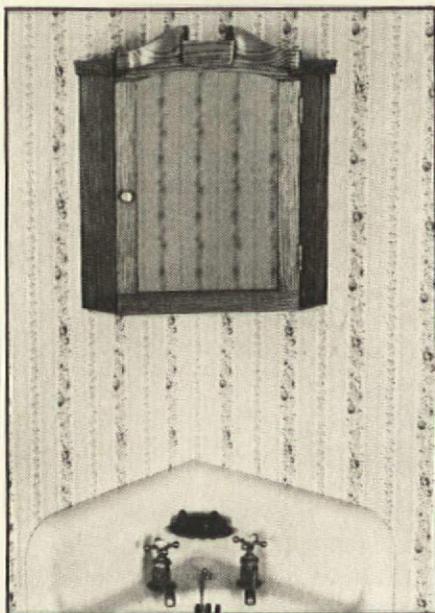
This coupon (or a Xerox copy of it) can save you \$5 on the price of the HG-501 paint-stripping Heat Gun when you purchase it at the OHJ booth at the CITY HOUSE Show. Mike Carew of the OHJ staff will be there at the Show—demonstrating the gun and answering your questions. Mike has stripped several rooms in his house with the gun, and has written an article for the OHJ on paint removal. He'll be happy to share his tips with you.

SAVE \$1 ON YOUR ADMISSION

Admission to the CITY HOUSE Show costs \$3. But as an OHJ subscriber/member, you can save \$1 on the price of admission by presenting this coupon at the door.

Just clip this coupon from the issue (there's no editorial material on the back). No Xerox copies accepted. One coupon per customer.

Products For The Old House



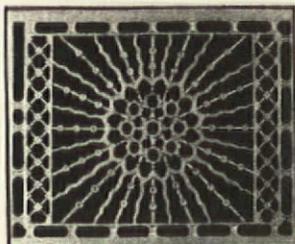
Corner Medicine Cabinets

WHEN GLENNA BOOTH and her husband were restoring their first old house, they were unable to find a suitable medicine cabinet to hang above a corner sink. They made their own...and thus a business was born--based on husband Larry's woodworking skills.

THEY NOW MAKE and market solid oak corner cabinets with deep-relief hand carving. Finish is either dark or golden oak. Cab-

inets feature solid brass hardware, ¼-in. plate glass mirror, and removable interior oak shelf. Surface mounted, the cabinet is 17½ in. high, 15½ in. wide and 10 in. deep.

CABINET IS regularly \$175 plus \$15 shipping. But OHJ subscribers can get one for \$145 plus shipping if purchased before March 31, 1981. Free brochure. Write: Corner Legacy, Dept. A, 17 Hilton St., Eureka Springs, AR 72632.



Hot Air Grates

WITH THE INTEREST in making old heating systems more energy-efficient, it's not surprising to find hot air grates and registers coming back into production. A-Ball Plumbing Supply is one source for cast aluminum reproduction grates.

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TURN-OF-CENTURY buildings with terra cotta ornament are now getting to an age when some of the terra cotta needs replacement. There is only one major source of architectural terra cotta left in the U.S.: Gladding, McBean & Co.

THE COMPANY's main business is ornament for new construction. But they can (and have) produced replacement pieces for restorations. If necessary, they will send a representative anywhere in the U.S. to draw up the specifications they require.

FOR DETAILS, contact: Tom Sawyer, Terra Cotta Div., Gladding, McBean & Co., P.O. Box 97, Dept. OHJ, Lincoln, CA 95648. Tel. (916) 645-3341.

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