Tinplate & Terneplate Roofing 
Preservation And Repair

By John G. Waite

BY FAR the most common use of tin in building is as a protective coating on iron or mild steel plates. The plates are called "tinplate" or "bright tin" if the coating is pure tin, and "terneplate" or "leaded tin" if it is a mixture of lead (75-90%) and tin (10-25%). Both types are commonly called "tinplate" or just "tin." Tinplate and terneplate were most often used in sheets 10 inches by 14 inches or in multiples thereof (14 x 20, 20 x 28, etc.) for roofing and wall cladding.

PURE TIN is soft, ductile, malleable, bluish-white in color, nonmagnetic, and fairly resistant to corrosion.

Causes Of Deterioration

WHEN PURE TIN is heated at low temperatures for long periods of time, it deteriorates by disintegrating and crumbling to a nonmetallic gray powder. Called "tin pest" or "tin plague," this kind of deterioration is usually not a problem with tinplate sheets used for architectural purposes.

TIN BY ITSELF is mechanically weak and is, therefore, used for coating stronger base materials. The tin and terne platings on iron sheets are stable coatings that resist corrosion by oxygen, moisture, sulfur dioxide, and hydrogen sulfide.

WHEN EXPOSED to the atmosphere, tin readily develops a thin film of stannic oxide, which helps resist corrosion. Although pure tin is mildly corroded by exposure to acids, marine atmospheres, and certain alkalis, tinplate roofing is generally very durable as long as the tin or terne coating maintains its integrity. Once the plating has been broken and the iron or steel is exposed to oxygen, the deterioration begins and is accelerated by the galvanic action between the tin and the iron. (The tin then acts as a cathode to the iron, which increases the corrosion of the iron at the break in the tin coating.)

TIN AND TERNPLATE roofing and flashing will deteriorate when in contact with copper--in gutters, for instance. Also, they can be corroded by asphaltic and bituminous roofing compounds and building papers, as well as by paints containing acids, bitumen, asphalt, or aluminum. Tinplate roofing can corrode on the underside from water vapor condensation if the tin is not protected by a coating of paint and/or a nonacidic vapor barrier.

Methods Of Repair

TECHNIQUES FOR REPAIR range from small localized patches to wholesale material replacement. If a joint in the tinplate roofing opens up, or a nail head pops up and punctures the tinplate, it should be repaired by cleaning and resoldering using...
Speaking Of Pigeons--

This isn’t about how to poison pigeons, but rather how pigeons may poison you. First, a letter about the unesthetic problem of bird droppings....

DEAR EDITOR:

MY PROBLEM IS PIGEONS. Not simply pigeons walking on an overhang or defacing a window ledge with their residue but pigeons roosting in my attic. The soffits on my old house have gone to disrepair and innumerable large openings allow pigeons access to the attic. It will be some time before repairs are made. Meanwhile I must find some method of controlling my unwelcome guests. I have tried capturing them and even shooting them with BBs to discourage them—all to no avail.

AS IS THE CASE with all house problems I encounter, my first resort was to the OHL. In the April 1975 issue I found reference to two products: "Roost-No-More" and "No-Pidge." I wrote to Middle States Oil seeking to find a source for their "No-Pidge." My letter was returned stamped "addressee unknown." Please tell me where I can get these or similar repellants.

R. Paul Smith
The Mayer Hirsch House
Alexandria, Louisiana

CHEMICAL BIRD REPELLENTS have really let us down. As Mr. Smith discovered, they are not readily available; what’s more, they’re ineffective after one season and leave stubborn, ugly stains on the building. The firm that produced "Roost-No-More" sold the formula to a major Chicago-area company who won’t sell to individuals, leading us to believe that the stuff has a controlled toxin in it. These chemical preparations do work on application (therefore the happy letters from subscribers in 1975), but after a year they’ve lost potency. Not because they wear off the building, however...quite the contrary. They are greasy and tenacious and continue to pick up air-borne particles, pollution, dirt, and grime.

OLD STAND-BY SOLUTIONS include (1) putting wire mesh or screening over the usual roosts in cornices etc. (sometimes sloppy-looking), and (2) driving spikes into a piece of wood which is placed where the pigeons stand (be sure to anchor it!). I’ve heard apparently serious people say that rubber snakes and dummy owls discourage birds—we haven’t tried it yet. On my block there seems to be a no-problem area; my soffits on my old house have gone to disrepair and innumerable large openings allow pigeons access to the attic. I don’t think it’s working. Nothing scares a Brooklyn-born pigeon.

ELECTRONIC BIRD REPELLENTS have the best chance of working without leaving a mess. These may be worth considering for large houses and public buildings with big pigeon problems. HAS ANYONE BEEN SUCCESSFUL GETTING RID OF PIGEONS?

MUCH MORE DISTURBING than the residue on the window ledge is the fact that the creatures have been inhabiting Mr. Smith’s attic. Please see the report in the box at right.

—Patricia Poore

Pigeon Poisoning

The following is from a fact sheet issued by the Center for Disease Control and the Heritage Conservation and Recreation Service.

PIGEON EXCREMENTS in old buildings can act as a medium for the development of the pathogenic fungi which cause cryptococcosis or histoplasmosis, both potentially fatal diseases of the lungs and central nervous system. These diseases can be latent, with symptoms developing years after contact. Symptoms of the respiratory diseases are flu-like, such as low-grade fever, mild cough, and possible expectoration of sputum. Symptoms of the disease attacking the nervous system (cryptococcal meningitis) include sudden excruciating headaches, vomiting and dizziness. Persons with a history of lung problems, diabetes, or other underlying diseases, or who are undergoing steroid therapy, may be more susceptible. If you have already entered a building containing significant accumulations of excrements, have your physician test you for these two diseases. They can be treated successfully if diagnosed at an early stage.

BECAUSE THE ORGANISMS that cause the diseases are air-borne, coveralls or other protective clothing and footwear which are either disposable or can be decontaminated separately should be worn when entering buildings containing accumulations of pigeon or other bird excrement. A breathing mask that can screen out particles one micron or greater should be used, and should be the last item removed after exit from the building.

ALTHOUGH THE DISEASES are not always present in accumulated excrements, health officials should conduct tests. For advice on having samples tested, contact your local health department. If your doctor or local health officials have questions, they may contact Robert K. Weeks at the Center for Disease Control, U.S. Public Health Service, Atlanta, Georgia 30333. Telephone (404) 329-3547.
Evaluating The Exterior

By Clem Labine

In previous installments, we have emphasized the importance of creating an over-all plan before plunging into the rehabilitation of an old building. And the first step in developing a plan is a thorough investigation of the physical condition of the structure. No sense in planning how to restore the beautiful plaster cornice in the front parlor if the chimney is about to come crashing down through the roof.

The services of a building inspector or architect/engineer can be invaluable at this stage. But a professional inspection should not be used as a substitute for a detailed evaluation by the owner. Going over the building inch by inch gives you a true understanding of what may be in an inspector's report. Poking close a rotted cornice that is caused by a failed gutter gives you a clear sense of the "what" and "how" that is going on with your building. And it gives you a sense of urgency about fixing the problems.

Last month we looked at the most important element of a building: The roof. In this article, we'll evaluate other exterior components in order to: (1) Pinpoint problems that require immediate repair; (2) Generate information for the over-all restoration program.

Start At The Top

Water damage in old buildings usually begins at the top. So that's where your exterior investigation should begin. The elements at the top of a building are the hardest to reach—and therefore are likely to be neglected. Thus, they are likely to be in the worst condition.

Chimneys should be inspected for unused flues that should be capped. (The simplest cap is a slab of slate cemented in position.) This will prevent needless moisture penetration of the chimney masonry. Normally, the loss of interior ventilation that results is of no consequence.

Other chimney problems: (1) Crumbled bricks that need replacing; (2) Mortar that needs repointing; (3) Broken flashing; (4) Dangerous tilting. This last condition may require taking the chimney down to the roofline and rebuilding it (see box).

After the chimney, check the cornice and other woodwork at the top of the house. Peeling paint is the first tip-off to moisture penetration and incipient rot. Other clues: (1) Rusting nail heads; (2) Brownish or bluish stains; (3) Raised nail heads resulting from expansion and contraction of wood. If the paint film is intact, but you suspect rot underneath, probe the wood with an icepick or the blade of a pen knife. If the wood is soft and spongy, rot fungi are at work.

The Leaning Chimney

Many people assume that chimneys lean as a result of wind pressure. But, as in most things, the reason is more complicated than that. It is true that chimneys usually lean away from the direction of the prevailing wind. But the reason is not wind pressure.

Tilting chimneys result from the reaction of SO2 with lime mortar. The SO2 usually comes from the combustion of sulfur-containing fuels, the SO2 seeps through unlined flues to react with the mortar. SO2 is also present in the atmosphere in areas with heavy air pollution. The reaction is accelerated by the presence of moisture—and that is why the side of the chimney that receives wind-driven rain reacts differently from the side that stays dryer. (SO2 is sulfur dioxide.)

In this reaction, calcium carbonate (CaCO3) in the lime mortar is converted to calcium sulfate (CaSO4). However, calcium sulfate occupies a greater volume than does calcium carbonate. So the mortar joints on the side of the prevailing wind bend. To relieve the stresses set up by this uneven expansion, the chimney starts to lean over—the short side of the chimney becoming concave.
Icicles provide dramatic evidence that water is leaking into the cornice of this old house. Gutter repair or rebuilding, as well as cornice repair, will be required.

A disastrous design, because the leaders will eventually leak—and dump water inside the structure. This situation requires a change in the way runoff water is handled, in addition to merely repairing the water damage.

Once the source of moisture has been dealt with, you can plan the wood repair. For minor damage, scraping and repainting may be all that’s required...perhaps with caulk or linseed oil putty to fill in small holes and cracks. Other minor damage can be handled with epoxy consolidants and patching compounds. These materials are expensive—and somewhat toxic—so their use is usually limited to hard-to-reproduce ornamental details. For more severe damage, the best solution is to cut out the damaged material and replace with new wood. Whenever possible, use pressure-treated wood and prime on all sides before installation.

Decay Of Wooden Elements

Besides the eaves and cornice, wooden trim and ornament are particularly vulnerable to decay. That’s because the way that ornament is fabricated often leaves the end-grain exposed to the weather. As soon as the paint film (if there is one) breaks down, the wood absorbs water through the end-grain.

Exposed End-grain

And when wood absorbs water, conditions are ripe for rot to begin.

Besides wooden ornament, other areas where end-grain is vulnerable to rot attack include: Window sills, joints between clapboards and cornerboards, ends of porch decking, bottoms of columns, junctions between masonry and wood, and framing around doors and windows.

Before repairing wood decay, make sure that the cause of moisture penetration has been corrected. For example, many old houses with box gutters had leaders and downspouts concealed within the porch columns—or even within the walls of the house itself. This is a disastrous design, because the leaders will eventually leak—and dump water inside the structure. This situation requires a change in the way runoff water is handled, in addition to merely repairing the water damage.

Once the source of moisture has been dealt with, you can plan the wood repair. For minor damage, scraping and repainting may be all that’s required...perhaps with caulk or linseed oil putty to fill in small holes and cracks. Other minor damage can be handled with epoxy consolidants and patching compounds. These materials are expensive—and somewhat toxic—so their use is usually limited to hard-to-reproduce ornamental details. For more severe damage, the best solution is to cut out the damaged material and replace with new wood. Whenever possible, use pressure-treated wood and prime on all sides before installation.

Areas subject to decay can also be flooded with wood preservative before repainting. The wood preservative helps repel water and thus retards decay. The most popular brands of wood preservative contain pentachlorophenol ("penta"). While very effective in retarding rot, there is growing evidence that the toxicity hazards associated with penta make it more trouble than it’s worth. If you are going to use a wood preservative, then use a brand—such as Cuprinol—that doesn’t contain penta. Proper design and maintenance techniques can eliminate the need for wood preservatives altogether.

Just as projections through the roof are likely sources of leaks, so attachments and openings in the walls are subject to leaks and decay. Because of the way framing around doors and windows is constructed, you are likely to have seams that permit water to reach the end-grain of wooden components. Small balconies and roofs over bay windows should be carefully inspected. Window sills, bottoms of posts and columns, and ends of railings are likely decay locations.
Program For Exterior Restoration

- Rebuild chimney to roofline; install new flashing
- Scrape and repaint
- Caulk seams between stucco and beams
- Patch stucco
- Replace rotten vergeboard
- Caulk around frame
- Re-nail loose shingles; replace missing shingles
- Re-nail loose boards
- Remove vegetation
- Change drainage
- Replace rotten board
- Caulk seam between clapboards and cornerboard
- Rebuild bulge area
- Replace crumbling brick
- Peeling paint indicates possible condensation problem
- Rebuild stairs
- Restore graining
- Install splashblocks
- Repoint mortar
- Replace rotten column base; replace missing balusters
- Replace lattice for ventilation
- Install compatible storm sash
- Reputty sash; caulk around frames
- Repair/replace rotted sills
- Repair gutter
- Weatherstrip
- Replace rotten decking
- Caulk at sill connection
- Repair gutter; replace leader
- Repair finial
- Replace flashing
- Replace missing brackets; re-nail loose trim; caulk joints
- Putty saai-around frames
- Rebuild/repair rotted sills

GENERAL: Scrape all loose paint; prime with oil-base primer; re-paint with historically appropriate colors

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BESIDES CAULKING joints in wooden framing, make sure that the elements are shedding water properly. For example, window and door framing is normally protected by flashing or a drip cap. Old window sills may now be incorrectly pitched because of settlement, and may hold rather than shed water.

**Porches**

PORCHES MADE OF wood are a major maintenance challenge—which is why so many have either fallen off or been removed in years past. Porches, however, add a lot of charm and character to a house and deserve to be repaired or restored if time and budget permit.

WOODEN PORCHES are particularly decay-prone because (1) There are many horizontal surfaces to trap water; (2) Wood is near (or in direct contact with) the damp ground; (3) There is a lot of end-grain that is exposed.

A PORCH earmarked for restoration has to be examined carefully to see whether it would be better to repair it or rebuild it from scratch. The decision is governed by the amount of damage and the skills and budget available to you.

EVEN IF YOU OPT to rebuild, however, you should try to recycle the original trim elements, duplicating missing pieces as necessary. Recycling the trim ensures that the original character is retained. If you are rebuilding everything—including the trim—there's a great temptation to take short-cuts and over-simplify. If, on the other hand, you are creating new pieces to match missing elements, you'll take pains to see that the new matches the old.

WHEN INSPECTING A PORCH, be sure to check:

- **Foundation and sub-structure.** Posts, under-framing and connections where the porch joins the house are likely to rot—especially if there isn't adequate ventilation under the porch.
- **Decking.** Floorboards have exposed end-grain and tend to rot from the end in. Pitch of the porch floor may have changed due to settlement so that puddles of water form on the deck.
- **Steps.** Wooden steps in contact with the ground are invariably the first element to disintegrate. Treads that aren't properly pitched to shed water won't last long either.

PORCHES should also be closely inspected for termites, carpenter ants and other wood-destroying insects. Look for telltale termite mud tunnels running up piers, foundation, etc., or the little piles of sawdust that are the hallmark of carpenter ants.

**Foundations**

MAJOR PROBLEMS with the foundation usually show up in the form of cracks and/or wall misalignments that create poorly fitting doors and windows. Minor cracking is to be expected in an old house, and signs of sagging are not necessarily great cause for alarm—especially if walls are plumb. Cracks that go straight through masonry units (brick or stone) rather than along mortar joints can be a source for greater concern. At this point, you had best consult a structural engineer. (There will be more on how to read cracks in an upcoming issue of OHJ.)

AT THE VERY LEAST, cracks in the foundation should be repointed to prevent penetration of water and insects. Crumbled bricks should be replaced; crumbling mortar should be repointed. Any wood should be at least a foot above the ground. Beware of vegetation too close to the house. Lush greenery next to wooden siding can prevent the wood from drying out after a storm.

EXAMINE CLOSELY what happens to rain water that runs off the building. The ground should slope away from the structure. Splashblocks at the base of the downspouts prevent soil erosion and help divert water away from the foundation. If there is significant basement flooding, you may need to install a drainage system that will conduct rainwater from the leaders to a drywell. In severe basement flooding situations, it may be necessary to excavate around the foundation and install French drains.

A QUICK WAY to gauge the extent of foundation problems is to sight along the building's walls. This "eyeball test" will show if walls are bulging or sagging.

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The Old-House Journal 58 March 1981
By Dan Maciejak, Brooklyn, New York

American houses were once surrounded by shaggy lawns instead of the close-cut gardens we're accustomed to today. It may be time to reconsider devoting a portion of our land to the shaggy lawn or meadow. Besides being cheaper to maintain, a meadow is a potential source of new pleasures attractive to wildlife that varies by season, and is geographically distinct. Meadows also save fuel, time, fertilizer, herbicides and water.

American technology and salesmanship changed the look of home grounds in the late 1860's by providing an inexpensive close cutting lawn mower. At the same time, a machine aesthetic was introduced into American culture that enabled us to obtain a nationally recognizable lawn idiom: The close-cut garden lawn.

Where To Begin

To start, simply let your lawn go. Just be sure to alert your neighbors to your plans. Explain that meadows are the first step towards letting land revert to its natural forest state. While you're not planning a forest in your yard, you are going to revitalize the land and entice some wildlife to your neighborhood. Assure them you will pay attention to the borders (and be sure you do), so that your meadow doesn't encroach upon their manicured lawns.

If you live adjacent to vacant lands and abundant bird life, numerous seed types will naturally be re-introduced in your lawn and help re-establish your meadow. If you live in an area surrounded by suburban lawns, fewer varieties will be available, but you can collect or buy seeds and establish diversity yourself by planting them in selected areas.

Letting your lawn go may be a disturbing proposition if you have taken great pains to maintain a good lawn. But reconstructing a meadow and choosing new varieties of plant life can be rewarding. If you choose to plant wildflowers in groups be careful to water and protect your new seeds from shade and competition from aggressive plant neighbors.

If you have been less careful of your lawn, you are likely to be rewarded with a larger variety of grasses and flowers. All the weeds and shrubs that will begin to appear may not be historically accurate—many plants have been introduced since most old houses were built—but excluding them would be as costly and time-consuming as standard lawn maintenance. It's best to compromise with our contemporary situation and encourage all appropriate plant life to flourish.

Controlling Annual Weeds

Ragweed, lambs quarters and other annual weeds that reproduce only by seed and not by root are potential pests. They may have a rank appearance that is difficult to explain to neighbors as welcome components of your wildflower meadow. You can control them however by encouraging perennial grasses and wildflowers to compete favorably with them. Well-timed mowing and controlled burning (the less desirable option—your town fire chief or volunteer fire department will have to carry out the burn in most suburban areas) can help speed the inevitable dominance of perennial plants. Fire is used to best advantage on large, relatively isolated parcels of land, provided you comply with local regulations. It does have the advantage of adding potash and minerals as soil nutrient. But in most cases, well-timed mowing is the best option.

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PERENNIAL PLANTS will respond to mowing with increased root growth, just as your lawn did. Mowing should take place in early spring, after growth has begun. The meadow should be cut down to about 2 in. above ground. Annual weeds will be diminished in strength, but some will grow and attempt to set seeds. If they are sufficiently weakened, the perennials will surpass them, and shade them out. If you are particularly offended by a few persistent annual weeds, you may pull them up by hand, or mow the meadow again to a height of 4 in. to 6 in. In two years or so, the annuals will give up.

A LATE SUMMER MOWING (no earlier than mid-August) every year or two is a good idea. It will reduce woody growth such as unwanted shrubs after perennials and wildflowers have gone to seed. Field-nesting birds and rabbits will have safely left their nests by then. However, aster and other flowering plants may not have bloomed yet, so depending on your locale, you may want to choose a later mowing date.

Selecting Seeds

ANN SEEDS LISTED were available in 1870 and are still available today. They were called "bunching grasses" and were popular for their aesthetic appeal as well as for their availability. If starting with bare topsoil, you'll find 55 to 60 pounds of seed is required per acre. Cost is under $2 per pound, depending on quantity purchased. "Days to Germination," refers to the amount of days before each seed germinates. pH is measured on a scale of 1 to 14. Seven is neutral, less than seven is acid and more than seven is alkaline.

ONCE YOU DETERMINE the pH of your soil, whether by testing with litmus paper (leave the paper in a cup of moistened soil overnight) or by calling your nearest Cooperative Extension Service (see box), you can choose which seeds will grow best in your meadow. The first numbers indicate the pH range the seed will tolerate, the numbers in parentheses indicate the optimal range for each seed type.

<table>
<thead>
<tr>
<th>SEED TYPES AND PROPERTIES</th>
<th>pH TOLERABLE ( ) OPTIMAL</th>
<th>RESISTANCE TO WEAR-DROUGHT</th>
<th>WEAR- DROUGHT RESISTANCE TO</th>
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<tbody>
<tr>
<td>NAME</td>
<td>DAYS GERM.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Redtop</td>
<td>10</td>
<td>4.8 - 7.8 (6.2 - 6.9)</td>
<td>3</td>
</tr>
<tr>
<td>(Agrostis alba)</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Roughtstalk Bluegrass</td>
<td>31</td>
<td>5.5 - 8.5 (6.2 - 6.9)</td>
<td>3</td>
</tr>
<tr>
<td>(Foa trivialis)</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Meadow Fescue (Festuca elatior)</td>
<td>21-28</td>
<td>5.8 - 7.0 (5.8 - 6.9)</td>
<td>2</td>
</tr>
<tr>
<td>Red Fescue (Festuca rubra)</td>
<td>21-28</td>
<td>5.0 - 8.0 (6.0 - 7.0)</td>
<td>2</td>
</tr>
<tr>
<td>Perennial Eygrass (Lolium perenne)</td>
<td>14</td>
<td>5.5 - 7.8 (6.2 - 6.9)</td>
<td>1</td>
</tr>
<tr>
<td>Perennial Ryegrass (Lolium perenne)</td>
<td>14</td>
<td>5.5 - 7.8 (6.2 - 6.9)</td>
<td>1</td>
</tr>
<tr>
<td>Orchardgrass (Dactylis glomerata)</td>
<td>5</td>
<td>5.5 - 7.8 (6.2 - 6.9)</td>
<td>3</td>
</tr>
<tr>
<td>Medium Red Clover (Trifolium pratense)</td>
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<td>5.5 - 7.8 (6.2 - 6.9)</td>
<td>2</td>
</tr>
<tr>
<td>White Clover (Trifolium repense)</td>
<td>6</td>
<td>5.5 - 7.8 (6.0 - 7.0)</td>
<td>2</td>
</tr>
</tbody>
</table>

Wildflowers And Paths

WILDFLOWERS ARE a seasonal delight. A common yellow wildflower, brought from Europe and now common on abandoned farm land and sandy soils, is King Devil (pictured to the right) or Hawkweed (Hieracium bombicinum). Turkscap Lily (Lilium superbum), native from Massachusetts to Florida and west to Indiana, prized by our forebears for its ease of cultivation, prefers moist acid soils to grow well. Most soil east of the Mississippi is acid. Another way to tell if your soil is acid is if azaleas, chrysanthemums, hickory, radishes, raspberries, magnolia or marigolds can grow well on your property. They all thrive in acid soil.

BUTTERFLY MILKWEED (Asclepias tuberosa), common from Maine to Florida and tolerant of dry, sterile soil, grows readily from commercial seed. A delight to its namesake, this orange-blossomed perennial grouped or single may be counted on for a dazzling mid-summer showing (pictured on left).

PATHS MAY BE CUT from place to place using an electric powered grass trimmer which is almost silent compared to a gas-powered mower. It uses a nylon line. (Allegretti and Weed Eater are two companies that make grass trimmers, and they cost between $55 and $60.) Paths may be laid out with the intangible passing near colorful wildflower spots on the way. They may be changed from year to year if excessive wear occurs along the route. I've found living with abundance of new life and color to be enriching and rewarding.

Illustrations by Patti Allison

WHO TO CALL & WHERE TO BUY IT

The Cooperative Extension Service in your area can answer any questions for you. This service is sponsored by the U. S. D. A. (United States Department of Agriculture). They fund state university agricultural school programs in each state. To find the service nearest you, look under USDA in the phone book.

These are two well-known vendors of wildflower seeds:

George W. Park Seed Co.
PO Box 31
Greenwood, SC 29647

Herbst Brothers
1000 North Main St.
Brewster, NY 10905

Local suburban and rural nursery outfits may have other sources as well.
NOW THAT WE'VE SOLVED the problems of sagging floors, inadequate girders, and rotted subflooring, repairing floorboards looks easy. You won't need an engineer to help with surface repairs; it's true; on the other hand, this is the work that shows. Patience and a sharp chisel help. If you've developed basic carpentry skills, so much the better.

THE FIRST STEP is to go over the whole floor, resetting nails and looking for loose boards. Put a piece of old carpeting or a thick layer of newspaper down on the raised board, and then a wide block of wood over that. Strike the block with a heavy hammer to bang the board into place. Using a nailset, tap all popped nails back into the floor.

SQUEAKS IN THE FLOOR are the result of a loose board, so you should attach loose floorboards to the sub-floor or joist at the point of the squeak. The noise might also be caused by deflection of an inadequate joist: Bridging between joists, or additional support, will fix this as described in Part 1 (January).

MOST OF THE TIME, just resetting old nails won't permanently fasten a loose floorboard. Still working from above the floor, you can provide additional holding power with flooring nails or wood screws.

THE DRAWING on page 63 shows some simple "fixes" for loose boards. Special flooring nails, called screw nails or spiral nails, should be used in repairs. When fastening boards to the sub-floor, always drive two nails at opposing angles. This prevents the nails pulling out if the board shrinks or warps. A sharp-ended nail may split dry old wood, so before driving a new nail, drill a slightly smaller pilot hole into the wood. Alternately, you can nip off the tip of each nail: A blunt end will crush rather than split the wood fibers.

WIDE-PLANK butt-jointed floors are held to the joists with face-nails or screws. The wrought nail heads, or plugs over the screws, are part of the finish pattern of the flooring and should not be changed. So when reinforcing a loose board, drive new nails into the edges of the board, at an angle.

WOOD SCREWS provide even more security than flooring nails. When repairs must be made from above, screws should be counter-bored, and the holes plugged with a piece of matched wood. (Pieces of dowel work nicely; or cut a matched plug with a plug cutter.) When the under-floor is exposed (as over a basement) better to screw from below, through the sub-floor and into the loose board to pull it into firm contact. You will need the extra grip of screws when re-fastening a warped board. Saturate a badly cupped board by keeping a damp towel on it for several days; then screw the edges down to the sub-floor.

TO FIX LOOSE BOARDS and squeaks in flooring between joists, nail the floorboard to the sub-floor. Whenever possible, though, drive nails or screws into a joist. If fasteners won't bite securely into the top of a joist, a block of wood can be nailed to the side of the joist to receive the nail or screw. Locating the joists is made easier if the underside of the floor is open for inspection. Otherwise, tap across the floor: Over a joist the floor will sound solid instead of hollow.

IF YOUR FLOOR is only one thickness (no sub-floor), joists will be at right angles to the floorboards; if the floor is pre-1920 and has a sub-floor, joists will probably be parallel to the boards. Joists are evenly spaced, most commonly every 16 inches on center, but in an old house it might be 20 inches, 24, etc. On wide boards with visible face-nails or plugs, the nailing pattern will outline the joists.

MINOR HOLES AND GOUGES may be filled with wood putty, which can be pre-stained to match the floor. (Use colors-in-oil, or settled pigment from an oil stain.) Cracks in salvageable boards should be repaired and filled to prevent further splintering of the board. Try gluing down long splinters, then filling the crack with a wood filler or wood putty, or with a homemade filler of sawdust mixed into white glue. Go darker and more neutral with fillers. "White" patches and unnaturally reddish tints are far more obvious than darker spots. Build up layers of filler, allowing each to dry between applications, and sand it smooth.
CRACKS BETWEEN OLD FLOORBOARDS are a different story. This aggravating old-house problem can't be easily solved because the spaces are from years of expansion and compression as the moisture content of a wood floor increases—as it would during a hot humid summer—the wood expands. The swelling wood comes up against adjacent boards, so the wood's cellular structure is put into compression. When the boards lose moisture again—during the cold dry winter—the boards shrink to less than their original width. This shrinkage stops, but the stabilized condition may nonetheless have left you with the familiar wide gaps. Now, if you plug the gaps with an inflexible filler, you risk causing further compression and the filler may pop out.

WHAT CAN BE DONE? If the spaces are minimal and the floor is over a heated space, just go ahead and apply your finish over the cracks. If the floor is a single thickness and the underside is exposed, nail thin strips of wood underneath to span the gaps. If cracks must be filled, you might toe-nail thin strips of wood (equal to the depth of the boards) between boards, nullifying the danger of one board only. Or force grey weatherstrip felt into the cracks with a screwdriver; varnished hemp can even be used when cracks are extra-wide.

THE MOST ELEGANT SOLUTION in extreme cases is to take up the floorboards and relay them. But because of the difficulty of removing boards without damaging them, most do-it-yourselfers will avoid this job. If you intend to paint or cover the floor, cracks can first be filled with marine caulking compound, an expensive but wonderfully elastic and paintable filler used on boat decks. It never hardens.

TURNING A DAMAGED BOARD or two over is a last-ditch possibility. You'll have to plane down the rough underside, and then shim the board up to the level of the rest of the floor when you relay it. Considering the difficulty of replacing certain species of wood, and of finding boards that are the right thickness, it becomes very attractive to reuse as many old boards as possible.

Necessary Replacements

WHEN YOU REALLY start looking hard at your old floor, you'll begin to see all sorts of inconsistencies you never saw before. Once you've made the commitment to remove a few bad boards, be careful not to get carried away. Dents and dings, worn spots, variation of color and texture are marks of character, and the old floor is a major contributor to the charm of an old room. Best to replace only boards that are inadequate or hazardous. Here is a checklist of boards to be replaced:

- Severely warped and buckled boards.
- Deeply nicked and splintered boards.
- Boards with noticeable and irreversible urine stains.
- Boards or sections of flooring with holes left from outdated registers, the removal of a partition wall, etc.
- Missing sections of border or inlay.

CUTTING OUT a butted or a shiplapped board is not too hard...but alas, most flooring is tongue-and-grooved. To keep from disturbing adjacent sound boards, you'll have to destroy the damaged board in removing it. The bad board will probably have to be cracked or sawn down the middle to dislodge it. This can be done with a mallet and chisel, with a small hand-saw (keyhole saw), or even with a circular saw. If you use a circular saw, set the depth of the cut to the thickness of the finish floor, and use a carbide flooring blade which will even cut through nails. Always finish the cut with a chisel, so you don't go screeching into the next board.

WHEN REMOVING a section of a board, cut across it at a point near a joist. To start the cut, drill a hole in the damaged board, and insert a keyhole saw in the hole. Saw across the board to free an end. (Or drill large overlapping holes.) Avoid drilling into the sub-floor. When there is no sub-floor, it's especially important to cut off the board near a joist—the joist or a block nailed to it will give support to the replacement board.

ANOTHER WAY that is occasionally possible is to insert the chisel between boards, so you can chisel the tongue off the damaged board and free it that way. Only do this if gaps between boards are wide—otherwise you risk gouging the edge of the neighboring board.

AFTER REMOVING the damaged board, but before inserting a replacement, square up the remaining cut edge of the board. Holding a sharp chisel perpendicular to the board, chisel a shallow groove across the grain to break the wood fibers. Then chisel towards the groove so the wood splinters off at the cut. Continue scoring and chiseling in this fashion until you have cut through the depth of the board.
A flooring nail driven through to a joist firmly secures loose floorboards. (2) When driving nails only into sub-floor, drive two at opposing angles. (3) When under-floor is open, screw loose boards from below. (4) Screwing from above will hold warped boards; counter-bore and plug holes. (5) To stop squeaks from slightly warped or shrunken boards, drive finish nails into cracks at an angle.

OAK FLOORBOARDS will be the easiest to replace; many lumberyards carry 2-in. x 5/16-in. butt-end oak flooring strips. Boards of more unusual dimensions or species may be available at yards specializing in hardwoods. It won't be easy to get cherry, maple, or walnut and to match new boards for thickness, width, and surface finish. Larger planks can be ripped and planed by the dealer or in a home shop. You can "borrow" flooring from inside closets or upstairs rooms you intend to carpet. Don't discount salvage sources. It's unlikely you'll find just what you need at a wrecker's yard, but certainly it's worth a few phone calls. In matching finish texture of boards, remember that early boards were planed rather than sanded smooth.

MEASURE A NEW PIECE of board. So that it can be dropped into place, turn it over and chisel or plane the bottom shoulder of the groove off. Place shims under the new board if it is thinner than the old boards. Then knock it into place, protected by newspaper and a block of wood as described previously, and face-nail into the sub-floor. Board ends can be nailed into the joist, or into nailing blocks which have been fastened to the joists. Countersink nail heads and fill holes as always.

Very often, several adjacent boards will need replacing. When fitting in sections of tongue-and-groove flooring, remember that only the last board needs to be dropped in and face-nailed as outlined above. Other boards can be fastened in the usual manner—with a flooring nail driven through the tongue. Also, stagger the joints when replacing a section of flooring. Cutting all boards off at the same joist both weakens the floor and makes the patch obvious.

The Labor Pays Off

IT'S HARD to find someone to tackle minor floor repairs...you'll probably have to do them yourself. The work takes patience and labor more than anything else, so you'll save money by doing it yourself anyway. When major work is needed, especially if it involves sub-flooring, you may want to find a carpenter or a flooring contractor.

PARQUET FLOORS present special problems. You are dealing with tiny pieces of wood, often of various species, and intricate patterns. This is not a job for the novice woodworker, nor for most flooring companies. If you can't find a parquet specialist, hire a cabinetmaker, who will have the woodworking expertise, a knowledge of stains, and some exotic wood scraps lying around. Again, labor-intensive work is not inexpensive.

ALL THE PROBLEMS covered in this series (see January and February issues too) must be solved BEFORE you renew your floor finish. Also, all plumbing and electrical work should be done (the flooring may be disturbed during such work), and finish work should be completed on walls and ceiling. In May, we'll explain the pros and cons of various floor finishes.
A Shift in Stair Production

There's been a shift to production stair shops that build knocked-down staircases in stock designs and sizes. Therefore, today there are barely a handful of stair-builders capable of handling the geometry and skills that were once a standard part of the trade.

Teachers and Models

Like many recently retired mechanics and craftsmen, Harry Waldemar had no apprentices coming along behind him. "But we've discovered that he's an excellent teacher," To help explain the construction of various types of stairs, he has built perfectly detailed scale models of straight-run, cellar, row-house, and circular stairs, and stairs with winders and open and closed strings. These will be featured in the articles to come.

Construction Details

An old staircase, plain or fancy, may look like fine cabinetwork, but its turnings and carvings and well-worn treads are just the finishing touches on a strong structural undercarriage. Simple repairs are those that involve balusters, trim, and handrail—these can all be tackled from topside. Other problems are more complex, involving the stringers (which house the treads and risers), the newel post, or the support structure underneath.

Fixing Stairs

The trick in fixing a staircase is knowing the hidden mysteries of construction. Once you understand what's behind a loose rail or a squeaky tread, most repairs require only simple carpentry. The drawing on the facing page should help explain how a typical staircase is put together.

A series of upcoming articles in The Journal will cover common stair problems. We'll explain how to fix such conditions as a loose handrail and balusters, a wobbly newel post, squeaking or damaged treads, and treads and risers pulling loose of their housing in the wall stringer.

The Old-House Journal 64 March 1981
How The Chintz Decorator Transformed Turn-of-Century Rooms

By Katharine Conley

Decorating with chintz was popular at the turn of the century and considered to be particularly appropriate for Colonial Revival style houses. Using chintz started out as a fad which was popularized by Elsie de Wolfe. She used chintz liberally in her fashionable interior designs. She claimed the time had come to hearken back to America's colonial days for tasteful, simple decoration. And while there are not many turn-of-the-century photographs of anything but opulent houses, there remains Elsie's book, The House in Good Taste (1910), which we know was widely read and admired.

THE USE OF CHINTZ (glazed cotton, usually with at least five colors and frequently in large floral patterns) instead of all those "masses of draperies looped back and arranged with elaborate dust-catching tassels and fringes that mean nothing" was intended to provide windows with lightness. Elsie referred to the 18th century with nostalgia, when curtains were functional and used for accent in a room instead of overpowering it. Her chintz curtains and furniture coverings were light in weight, and also in the effect of their many-colored patterns.

While some of the patterns illustrated in her book seem loud to us now, they were subdued in comparison with the effect of the late 19th century rooms she had been raised in. Late 19th century decoration reflected a predilection for mixing patterns and colors that was at times merciless. The patterns Elsie de Wolfe chose were often bright, but they also provided the only genuinely colorful element in a room, since they were frequently the only pattern used in a given room.

The colors in the chintz provided the main theme of a room's decoration. They were light in bedrooms and darker in public rooms like the drawing room. One type of darkly colored chintz was actually a light print on a dark ground called a "black chintz." The black chintzes Elsie used were reproductions of fabrics fashionable in the 1830's.
Rose-colored silk hangs over thin glass curtains and under the chintz. Much of the furniture is painted a pale color, and lightness is emphasized by the mirrors.

ELSIE HERSELF painted the furniture she used for her professional interior designs. She preferred "soft field" colors of cream or gray. Frequently, she would further decorate the furniture with garlands that picked up colors or actual details of the print in the chintz used in the room.

WALLS PAINTED in pale cream colors helped set off the chintz's pattern. Carpets too were usually in neutral shades, sometimes with a single strip along the edge in one of the chintz colors. More color was provided by prints hung on the walls. In bedrooms, Elsie recommended hanging 18th century fashion plates for the appropriate mixture of taste and color.

Glass Curtains

THE THINNESS of the chintz was partly compensated for by a "glass curtain"—light white muslin hung flat and full against the glass, between the glass and the chintz. It was to be hung on a small brass rod as close to the glass as possible, leaving just enough space for the window shade beneath it. The curtain was to hang in straight folds to the window sill, "escaping it by half an inch or so." Elsie did not approve of lace, since more often than not the lace in question was imitation. She never expected to find lace curtains in the house of a "woman with really good taste."

ELSIE ENCOURAGED THE USE of window shade, glass curtain and chintz curtains because so many layers were necessary to replace the draft protection provided by all those masses of Victorian draperies she so despised. Because while they were not aesthetically pleasing to her eye, they did serve a useful function in 19th century houses. All those heavy hangings were excellent draft excluders despite their busy appearance.

Hanging Valances

WHILE SOME OF THE CURTAINS in her more formal rooms hung straight from the top of the windows to the floor, many of the curtains in her illustrations had valances.

She is specific about how the valances were to be hung:

Chintz curtains are often hung with a valance about ten or twelve inches deep across the top of the window. These valances should be strung on a separate rod, so that the inside curtains may be pulled together if need be. The ruffled valance is more suitable for summer cottages and bedrooms than for formal rooms. A fitted valance of chintz or brocade is quite dignified enough for a drawing room or any other.

Later on, she specified the depth of the valance should equal one full repeat of the pattern.

ELSIE DE WOLFE explained that at first people objected to her bringing chintz into their houses, thinking it mean and poor. But her argument was that "it is infinitely better to use good chintzes than inferior silks and damasks, just as simple engravings and prints are preferable to doubtful paintings. The effect is the thing!"

SOURCE BOOK

FABRICS FOR HISTORIC HOUSES by Jane Nylan-der is an excellent reference book for those with early 20th century houses who like the simple elegance of Elsie de Wolfe's designs. This is a second, fully revised edition and is a useful handbook for homeowners. The book's major feature is a catalog listing of fabrics used in the United States in the 18th and 19th centuries, among them chintzes. It has many black and white photographs of different prints, order numbers and names of the companies that make the fabrics.

TO ORDER, send $6.95 plus $1.50 postage to: Preservation Bookshop, National Trust for Historic Preservation, 1600 H St. NW, Dept. OJU, Washington DC, 20006. Stock # 3174.
a solder of 50% pig lead and 50% block tin applied with a rosin flux.

TINPLATE SHEETS should be fastened using only tinplate cleats and galvanized iron or steel nails. Copper alloy cleats and nails should not be used because of the potential for galvanic corrosion.

It is not normally practical to replate a deteriorated sheet of tinplate under field conditions. However, at Lindenwald (Martin Van Buren National Historic Site), the terneplate roof was recently cleaned and the coating was repaired in situ. Rust, paint, and asphalt coatings were removed by low-pressure abrasive cleaning using walnut shells. Where the original terne coating had failed, the sheets of iron were recoated with a tin-lead mixture applied with a specially designed soldering copper. (Historically, a small soldering tool is called an "iron" and a large one is called a "copper.") After this partial recoating, the entire roof was painted.

PRIMING AND PAINTING is mandatory, and for optimum protection, both sides (not just the exposed face) of the new tin or terneplate roofing should be shopcoated with one coat and preferably two coats of a linseed oil/red lead and iron oxide primer. (Or linseed oil/iron oxide primer where red lead is illegal or unavailable.) Although seldom done, it is a good idea to apply a coat of compatible, high-gloss oil-base finish paint prior to installation as an added measure of protection, especially for the bottom side.

A FINISH COAT should be applied immediately after installation, followed by another in two weeks. Finish coat paint used on tin roofs should employ only "metallic brown" (another name for iron oxide), "Venetian red" (ferric oxide, calcium carbonate, and ferrous sulfate), red iron oxide (ferric oxide), or red lead (tetroxide of lead) pigments. Although red lead pigments are very effective protection in the prime coat, they are less effective in succeeding layers as the red lead is further from the metal. However, a finish coat containing red lead is more compatible with a prime coat containing red lead than without it. (That is, there is no reason to put a finish coat of red lead paint over a primer that does not contain red lead because it would not be effective in preventing corrosion. Graphite and asphaltic base paints should not be used on tinplate or terneplate because they can encourage corrosion.

REPLACEMENT of tinplate or terneplate sheets which have rusted through may be the only practical solution. One would remove the damaged sections and replace them with new material of similar composition, configuration, and construction. Materials other than tin-

GALVANIC ACTION

Galvanic corrosion occurs between two different metals in contact forming an electrolytic couple. A galvanic action will occur only (1) when there are two different metals in close contact, and (2) when there is an electrolyte (such as water) present so that ions can go into solution and travel from one metal to the other. In some cases, the electrolyte may be moisture or condensation on the surface of the metals. Galvanic action is speeded up in corrosive environments, such as proximity to sea-water or urban and industrial pollution.

In theory, any time two metals are in contact, the metal closer to the electropositive end of the scale will act as an anode and will eventually be corroded. (However, metals near each other on the scale that are in close physical contact should not be a cause for alarm.) The further apart the two metals are on the scale, the more acute the problem of galvanic action. For instance, galvanized nails on a copper roof won't last long.

19TH CENTURY soldered joints were nearly invisible; this is a modern repair. Wide joints increase likelihood of galvanic action and failure due to differential expansion of solder and terneplate.

UNDERSIDE of the terneplate roofing above corroded because the bottom was not painted before installation. Condensation—which could not evaporate—formed on unprotected underside.
plate or terneplate should not be used to patch tinplate because galvanic corrosion will occur. However, if all the tinplate roofing or siding must be replaced, it may be desirable under certain circumstances to replace the tinplate or terneplate with units of lead-coated copper or terne-coated stainless steel because these materials are more durable and easier to maintain than tinplate. Although both are more expensive in initial cost, they last longer and cost less to maintain if not painted. Either of these materials, if used in visible areas, should match the size, configuration, and construction details of the original roof, and should be painted to match the original color. Lead-coated copper has been used successfully as a replacement material for tin and terneplate for years. When used, it is virtually maintenance free and will not create a galvanic reaction unless damaged, as by a scratch through the lead, exposing both the lead and copper to the atmosphere and rain.

THE TINPLATE FLASHING of the roof hatch has been corroded away (in front of the vent) by the action of an asphalt coating and water.

THE LEAD-COATED COPPER is not applied correctly, its appearance will not duplicate that of a tinplate roof. Many sheet metal workers have a tendency to apply solder freely to the joints over the surface of the lead-coated copper which results in a rough seam that may be an inch or more in width. This contrasts greatly with historic tinplate seams where often no solder was visible on the surface of the metal.

CAUTION SHOULD ALSO be used when substituting terne-coated stainless steel for the complete replacement of tinplate roofing and siding. A section of the Lindenwald terneplate roof was replaced with terne-coated stainless steel and it was found that the material was more difficult to form and solder than terneplate. Because of the difficulty in working the material, it was not possible to achieve a sharp fold in the metal that duplicated the folded flat seam of the original terneplate. Terneplated stainless steel is also hard to cut and needs special tools for metal-working.

THIS ARTICLE was adapted with permission from an excellent new book, METALS IN AMERICA'S HISTORIC BUILDINGS, just issued by Technical Preservation Services of the Heritage Conservation and Recreation Service. It is a unique general reference on building metals—where they were used, their properties, and how to identify, preserve, and maintain them. The text is illustrated with 160 photos and drawings. Part I of the book, by Margot Gayle and David W. Look, AIA, explains historic uses of metals and alloys (including aluminum, bronze, copper, iron, lead, nickel, steel, and zinc). John Waite, a practicing preservation architect from Albany, NY, provides detailed guidance in Part II on repair and conservation techniques of each metal, alloy, or coating commonly used.

COST OF THE BOOK (170 pages) is $5.50; make checks payable to the Superintendent of Documents:

METALS IN AMERICA'S HISTORIC BUILDINGS
Stock No. 024-016-00143-5
Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
WANTED

L. B. VALK, architect—Any information on this Los Angeles architect or the location of any of his houses. He was active circa 1900. Possibly he was married to a Borden daughter of that area. Frank J. Laermer, 383 State St., Marquette, WI 54443. (715) 732-2934.

PLEASE HELP! I need a source for clear glass globes for several antique chandeliers. Will send sketch and dimensions. Mike Burch, Robey Theatre, P.O. Box 869, Spencer, WI 54480.

WANTED—275 feet of wrought iron fence. E.W. Cantor, P.O. Box 1185, Bristol, VA 24201. (703) 669-8775.

INTERESTED IN SALVAGE RIGHTS to an early to mid-19th century house (Italianate-Manard preferred). Should have a complete, unabused, original hardwood-detailed interior: “want everything”—Millwork, marble, hardware, mantels, flooring, etc. For restoration and reerection. Might consider an already dismantled interior. Any US location OK. Roy Schneider, 439 W. Longden Ave., Arcadia, CA 91006.

WANTED ANTIQUE HOME prior to 1850 with many fireplaces, etc. Country setting preferred. Under $100,000. R. Greer, 354 S.Kingsley Dr., Los Angeles, CA 90020.

FREE ADS FOR SUBSCRIBER/MEMBERS

Classified ads are FREE for current members/subscribers. The ads are subject to editorial selection and space availability. They are limited to one-of-a-kind opportunities and small-lot sales. Social commerical 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.

KNOB ROSES wanted. System (no mounting screws visible) pictured has an iron plate screwed to the door, threaded ID into which is mated the brass retaining ring (with a male thread). Rose is porcelain. Note shims between knob and brass ring. If anyone needs rings and/or roses write. 25 or more users will justify a custom run. James Igenritso, 625 Elm, Monroe, MI 48161.

4 CASTERS for Recocol Revival Victorian double bed. Shank needs to be approx. 9/16 in. long. They should be double doublw to support weight of heavy bed. Hal P. Demuth, 4025 Pinewood Rd., Alexandria, VA 22310. (703) 960-1265.

PUMP—Cast iron, 4 to 5 ft. high for kitchen well outside 1800 center chimney Colonial farm house. T. Wirth, 41 W. Main, Niantic, CT 06357.

ORNATE CAST IRON radiators, preferably less than 24 in. high. Wood interior and exterior louvers shutters. Wood interior and exterior doors. (203) 599-1076.

DUST PROTECTOR CORNERS for steps—Prefer brass. Antique or reproduction. 36 required. N.A. Knudsen, 331 W. Wesley, Wheaton, IL 60187. (312) 665-5633.

BOOKS AND PUBLICATIONS

THE ARCHITECTURAL LEGACY of the Lower Chattahoochee Valley in Alabama and Georgia by Gregory Jeanes. Identifies endangered structures and gives a photographic record of their interior and exterior, plus drawings of their floor plans, elevation and trim. 280 pages. $45. Historic Chattahoochee Commission, Box 33, Eufaula, AL 36027.

FOR SALE


OAK HARDWOOD FLOORING in original bundles—12 sq. ft., 3/16 in. solid interior oak doors (circa 1880) two and three panel top and bottom, 6-1/2 to 7 ft. in height. Will sell or trade for Victorian items, furniture, etc. A. Snyder, 61 Payne St., Hamilton, NY 13346. (315) 824-1954.

1977 OIL FIRED BOILER with hot water coil; condition very good. Peerless JOT-5-S. 162,500 BTU/hour; 640 sq. ft. steel; $250. 1977 oil burner, used with above boiler; condition very good. Exxon Watchdog. $50. Moser, 127 F., 15, New York, NY 10003. 212 674-7935.

100+ YEAR OLD solid brick by 1000 lot only. Also 100+ year old beams and pegged rafters, and some heart pine flooring. Call or write for prices. Thomas, P.O. Box 382, Athens GA 30605. (404) 533-2228.

TRANSOM HARDWARE available (used). Send $25 for color photograph of hardware. Jay Feichter, 2436 California St., Denver, CO 80205.

ANTIQUE FRENCH (double-humped) roofing tile, 1614 in. x 914 in. Made by Ludowici-Celadon Co., Chicago. Contact Larry Hardesty, 703 Locust, Greenscarg, IN 46035. (317) 655-8996.

1900 LAUDER player piano. Fully restored and reconditioned. $3500. Also 2 antique and restored stoves. 1) Station agent no. 24 railroad station heater. 2) "Queen Anne" small 4 burner cookstove. Both usable. Coal/wood. Photos available. S.C. Millman, Box 345, Sharon Springs, NY 13459. (518) 284-2836.

UNIQUE BATH. This rectangular steaming tub fills silently from the bottom. Supported by massive claw feet. It can be centered in a room or along a wall. $1350. Also one fluted oval based pedestal sink $600. David. (619) 528-1515.
REAL ESTATE

WILLIAMS HILL Restoration Project: Richmond, VT reconstructed ca. 1804 cobble front cape with meticulous attention paid to detail. 5 bedrooms, 21/2 baths, formal dining room, central chimney mass with 5 soapstone framed fireplaces. Nestled in the Green Mountains on 10 acres with protective easements, close to Burlington and skiing. $250,000. Write for brochure: Foothills Farms Real Estate, P.O. Box 2205, S. Burlington, VT 05401.


VICTORIAN INN, owner financing available in Port Townsend, WA. A turnkey operation, a good living and a good way of life. $375,000. Thecla Scudi, 731 Pierse St., Port Townsend, WA 98368. (206) 385-9826.

FOR RENT—Large corner store on Seventh Ave., Park Slope, Brooklyn. Excellent security. For further information call (212) 757-8344.

1904 VICTORIAN with most interior restoration completed. Woodwork and oak parquet floors original. House has 5 bedrooms, 3 baths, 7 fireplaces, 4 ceiling fans, beveled glass in doors, porches, staircase, etc. Located in Sherman, TX 75090. All American 6th Annual Historic Home Show March 24-25. (214) 893-0114.

CHARMING LATE VICTORIAN FARMHOUSE in provincial village 3 1/2 hours NYC, New York—PA border. 10 rooms: Front parlor, dining room, family room, stone kitchen fireplace, laundry, walk-in pantry with 10 ft. pine counter, 2 baths. Some wide plank floors, 2 porches, shutters, basement heat. Large barn, 1/4 acres. 2 hex signs. Owner (607) 723-3185.

1800 GREEK REVIVAL. Tall gracious columns, magnificent original marble fireplaces, curving mahogany staircase. Beautifully landscaped acre with panoramic view. Listed in Maryland Historical Society. 6 bedrooms plus rented 3-story townhouse. Baltimore suburbs, 1 hour to Washington, DC $335,000. Wm. J. Byrnes Realty, Inc., Towson, MD 21204. Caroline Stewart (301) 628-4673.

APARTMENTS FOR RENT. We're restoring old houses ca. 1800 to ca. 1870 & want tenants who appreciate this. In Railway, Philadelphia and Pittsburgh metropolitan areas. $69,900. Call Joanne Revie, Red Carpet McGinn & Assoc. (301) 648-5444, listing agent; (301) 778-5555.


COLUMBUS, OH. Victorian style home ca. 1895. Historic 18 room, 4 story home adjacent to 40 acre lot where tours are given April-Oct. Home is listed on the National Register of Historic Places. A beautifully private residence or commercial tour home. Write Bennett House, Box 296, Wisconsin Dells, WI 53965.

1774 GEORGIAN COLONIAL. "Sunset Hall". 4 bedrooms, 2 1/2 modern baths, living room, dining room and parlor. 6 fireplaces! New wiring and heating. All original moldings, floors and hardware. Convenient to the Washington, Philadelphia and Wilmingtom metropolitan areas. $69,900. Call Joanne Revie, Red Carpet McGinn & Assoc. (301) 648-5444, listing agent; (301) 778-5555.


COLUMBUS, OH. Victorian style home ca. 1895. Historic 18 room, 4 story home adjacent to 40 acre lot where tours are given April-Oct. Home is listed on the National Register of Historic Places. A beautifully private residence or commercial tour home. Write Bennett House, Box 296, Wisconsin Dells, WI 53965.

RESTORATION SERVICES

PHOTO RESTORATION. Restoration or copy of one-of-a-kind or damaged photographs. All ages and photo processes handled. No negative necessary. Archival processing, mounting, toning, and framing also available. Call or write C. E. Sligar, 1347 Elizabeth, Crete, IL 60417. (312) 672-6075.

PAINT REMOVAL & REFINISHING for old houses—Captive Painting, 102 N. Columbus Ave., Freeport, NY 11620. (516) 778-0925.


LAWRENCE MEAD/Restoration woodworking, specializing in all cabinetry, doors and doorways. Will work with your architect or provide design services. References. 63 Tiffany Pl., Brooklyn, NY 11231. (212) 855-5964 or (212) 769-2221.

OHIO'S 1982 CATALOG
Do you run a business that sells products or services for old houses—which was NOT listed in our 1981 edition? Or do you know of a helpful source we didn't list?

If so, please write and send your brochure and price list. Or send the name and address of the company you know about, so we can contact them. Write: Restoration Editor, The Old-House Journal, 69A Seventh Ave., Brooklyn, NY 11217.

MEETINGS AND EVENTS

PENNSYLVANIA'S THIRD Annual Historic Preservation Conference will be held March 25-27, 1981 by the Office of National Register, Pennsylvania Historical and Museum Commission, in Harrisburg, PA. Technical workshops, affinity group meetings and major sessions including the Main Street Project will feature presentation and vernacular architecture in the state. Write Michael O'Malley, Conference Coordinator, Office of Historic Preservation, Pennsylvania Historical and Museum Commission, Box 1026, Harrisburg, PA 17120.

HHA ANNUAL PRESERVATION Conference, Rich­mond VA, April 30-May 3, 1981. Seminars, hands-on workshops in restoration skills, and special tours of Richmond houses and famed James River plantations are featured. Topics include security for buildings, phasing for historic structures, and easements for protecting historic houses. Workshops include restoration technology and preserving wood with epoxy fillers. The Biltmore Estate, Asheville, NC, April 29-May 1. Seminars, hands-on workshops for preservationists. Write: Richard L. Ortega, and David C. Ficetti. Top­ics include restoration technology and preserving wood with epoxies. James C. Massy, HHA, 1400 H St., Washington, DC 20006. (202) 673-4025.

BILTMORE HOUSE SYMPOSIUM on Victorian Living and Decorative Arts, April 22-24. Registration deadline March 30. For brochure with further information write Biltmore House, 1 Biltmore Plaza, Asheville, NC 28803. (704) 274-1776.

PRESERVATION ENGINEERING for the homeowner 6th Annual Historic Preservation Conference-Jonesboro, TN Historic District, April 9-11 in Ten­nessee's oldest town. Speakers will be Norman R. Weiss; Richard L. Ortega, and David C. Ficetti. Top­ics will include Basic Principles of Structures, Recognizing Problems in the Old House, Behavior of Trad­itional Building Materials, and Energy Efficiency Repairs, Houses Moving. Participation is limited to 100 appl­icants. For information contact: The Jonesborough Civic Trust and The Old-House Journal.
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