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NOVEMBER DECEMBER 1994

OLD-HOUSE Journal



Houses of Homes......24

BY JAMES C. MASSEY AND SHIRLEY MAXWELL Take an elevator ride to the penthouse, and enjoy an architectural overview of late-19th-century apartment buildings.

A professional restorer shares his techniques for freeing one common type of pocket door's hangups.

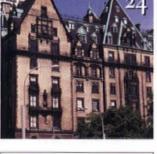
Tips on retrofitting classic two-handled showers and baths to prevent scalding.

The Care & Feeding of One-Pipe Steam......40

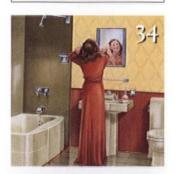
BY DAN HOLOHAN An old house owner's guide to the upkeep — and shushing of steam heating systems.

Тне 1994 OHJ Index.....79

ON THE GOVER. Pocket doors, oak panelling, and ceramic tile create a grand entry in this 1880s ship captain's house in Gloucester, Massachusetts. Painting by John Nesta. Antiques courtesy of Essex Antiques. PHOTOGRAPH BY STEVE MARSEL









Departments



EDITOR'S PAGEby Gordon Bock 6 Covering Next Year

RESTORER'S NOTEBOOK......14 How not to lose a sash cord, tips on metals in plumbing, and making invisible wood dutchman repairs.

READING THE OLD HOUSEby James C. Massey and Shirley Maxwell 18 A Chevy House Road Trip

VERNACULAR HOUSES......by Lynn Elliott 84 Massachusetts Triple-Deckers

THE EMPORIUM

| Catalogues, Products & Services, For Sale/Swap, Real Estate, Events | |
|---|---|
| CLASSIFIEDS | 7 |
| RESTORATION SERVICES | 6 |
| PRODUCTS NETWORK | 0 |
| Advertisers' Index | 8 |

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EDITOR Gordon H. Bock

MANAGING EDITOR Laura Marshall

ASSOCIATE EDITORS Lynn Elliott Josh Garskof

CONTRIBUTING EDITORS John Leeke Sanford. Maine

James C. Massey and Shirley Maxwell Strasburg, Virginia

J. Randall Cotton Philadelphia

Patrick Mitchell

DESIGN ASSOCIATE Inga Soderberg

PRODUCTION ASSOCIATE Claire MacMaster

> ART ASSISTANT Kate Gatchell

PRODUCTION MANAGER

CIRCULATION MANAGER Ellen Higgins

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CUSTOMER SERVICE Cathie Hull, Nicole Gaspar

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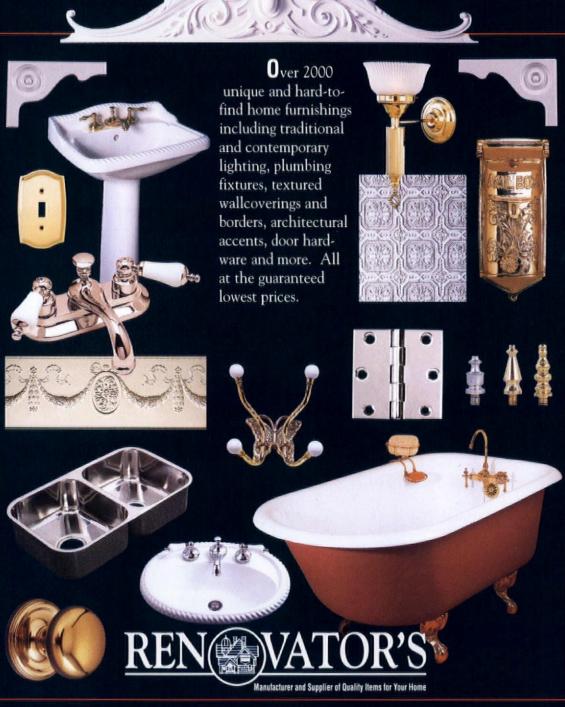
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Covering Next Year

F OR ME, READING THE COVERS OF MAGAZINES AT THE supermarket checkout counter is a fantasy experience. Each publication has its own specialty — from homemaking, women's beauty, and men's body building to television soap operas and "entertainment news" — and an audience they're luring to buy with tantalizing photos and enticing cover lines. Well they should. It's a feeding frenzy out there on the newsstands, and lots of questions, numbers, and exclamation marks can help make a matter-of-fact subject sound newer or more exciting than the competition.

Bombarded by all those catchy phrases and images of gorgeous women and stunning men (while I stand in line with sack of potatoes and a bar of soap), I sometimes slip into a daydream. What if OHJ, with all its nuts & bolts articles, were to cook up some zingy cover lines of our own? If we did, some of the topics featured on upcoming covers might read like this.

JANUARY/FEBRUARY 1995

THE FIRST OHJ OF THE year is on interior techniques and there could be:

• Decorative Plaster Casting: The Inside Story

Discover Your True Lincrusta Installation talents

- Shellac Is It for You?
- · Spanish Colonial Houses You Can Make in Minutes

MARCH/APRIL 1995

IN THE SPRING, OHJ IS KITCHEN-ORIENTED (WITH A look at Omamental Concrete Block Houses). Here we could clone some cliches from the TV digest industry:

- Concepts for Old-House Kitchens What the Stars are Doing
- Rate Your Favorite Reproduction Art Tile
- · Ice Boxes & Refrigerators: The Best and Worst

MAY/JUNE 1995

MAY/JUNE WILL HAVE A SPECIAL FOCUS ON CHANGES AND additions to old houses, and would be a natural for some

language from weightlifting and body building books:*Lean and Mean:* Successful Projects

- Period Facade Designs Look Great Fast
- The Latest Personal Col P '11
- The Latest Research on Greek Revival Houses

JULY/AUGUST 1995

PORCHES AND OUTBUILDINGS ARE THE SUBJECT OF THIS warm-weather OHJ, which could have a sensational or kiss-and-tell spin:

- + Stabilizing Outbuildings Getting What You Want
- * The Shocking Truth about Sleeping Porches
- Restoring Stucco A Homeowner Tells All
- Rare, Never-Before-Seen Low-Pitch Roofs

SEPTEMBER/OCTOBER 1995

THE FALL OHJ WILL COVER BIGger-than-average restoration projects and how to manage them. It's a logical place to throw around some numbers.

• Plaster Ceiling Medallions: 10-Day Countdown

• 8 Questions You Still Have About Cleaning With Blasting

• Power Tools Buyers' Guide for Anyone Over 21.

NOVEMBER/DECEMBER 1995

TO WIND UP THE YEAR, OHJ WILL EXPLORE THE UPkeep of flues and hearths — subjects that could be made suggestive with amusing results.

 What Your Chimney Masonry Really Wants (But Will Never Ask For)

- Easy Ways to Better Fireplace Mantels
- The Secret Side of Tilework

Cover lines like this, however, are just a bit of whimsy around here. While OHJ will continue to grow and learn along with our readers in the months ahead, we'll still keep to our own path of useful articles and unique information about wonderful old houses and their care.

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- 3. Date installation was completed.
- 4. Materials used and recipe/techniques.
- 5. Name of designer and/or architect, if applicable.

Completed entries should be mailed to: The Finishing Touch, c/o The Old-House Journal, 2 Main Street, Gloucester MA 01930 and must arrive by February 28, 1995. Winners will be selected by a panel of experts and will be announced in the July/August issue.

Installation may feature the wallcoverings in either an historical context or a modern adaptation. Criteria includes quality of design, finishing techniques and creativity. Installations are not limited to one room.



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availability.

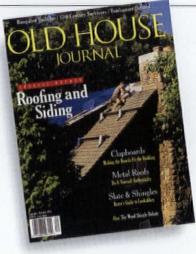
Winner responsible for transportation to and from nearest Virgin Atlantic U.S. gateway city. Other restrictions may apply.

 Employees of Crown Berger Ltd., Old House Journal, Virgin Atlantic or related agencies are not eligible for entry.

Only one submission per person is permitted.

Old-House Journal reserves the right to print submitted material.
Entrants must be 18 years of age or older.

L E T T E R S



STANDING INSPIRATION

Dear OHJ,

THE SEPTEMBER/OCTOBER 1994 ISsue is a long-sought inspiration for me. I've looked longingly for years at standing seam metal roofs, but assumed they were beyond my means. With your article and my son's strong back, we'll do it ourselves.

- MARILYN MINEER Concho, Ariz.

101/17

List OF PLATTE

101/17

PERINALY GIRT

Framing for a

17th-century jetty.

CRIMALY GILL

COMMENTS ON COLONIALS

I READ WITH GREAT INterest "Survivors from the 17th Century(September/October 1994)." The photograph of the William Rittenhouse Homestead - where I am executive director - was probably taken before its bicentennial restoration. It's the only surviving building from America's first paper mill industrial village. Historic RittenhouseTown is open to the public and information can be obtained by calling (215) 438-5711.

— Andrew Zellers-Frederick Historic RittenhouseTown Philadelphia, Pa. I ENJOYED "SURVIVORS FROM THE 17th Century," by James C. Massey and Shirley Maxwell. They suggest the jetty's original purpose may have been to protect the lower wall. This explanation has a great deal of merit, especially since jetties were common with wattle-anddaub construction.

Yet there may be other reasons for this prominent feature, according to Richard Harris, in his book, *Discovering Timber-Framed Buildings* (Shire Publications Ltd., UK). The origin of the jetty may have been: 1) an architectural symbol of wealth and status; 2) to provide passersby (read: commercial patrons) with protection from the rain; 3) reduction of main-span deflection of the floor joists by introducing a reverse bending moment; or 4) to provide an increase in floor space with-

out increasing the lot size, by borrowing from the public right of way. — JOHN HORTON, RA Hendersonville, N.C.

COMBATTING CUPPING

I AM A RECENT SUBscriber to your magazine and enjoy it very much. The "Cupping Conundrum," described in the July/August 1994 issue's Ask OHJ, can be greatly reduced by combining bark-down installation with the application of deck adhesive to the floor joists. I routinely use a product such as Dap or Macklanburg-Duncan in conjunction with

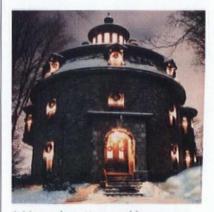
Deck King screws and it has greatly reduced cupping even on exposed decks. Adhesive is especially helpful where blind nailing is required. (If you are using pressure-treated lumber, use a specially-formulated adhesive.)

> – DAVID J. WOFFORD Kerrville, Tex.

BUYING BENT GLASS

IN RESPONSE TO THE LETTER IN Ask OHJ (September/October 1994) from a reader looking for curved glass, we have bought it for over five years from Eagle Convex Glass Company (423 Tuna Street, Box 1340, Clarksburg, WV 26301; 800-720-9297).

> — JUDY LIPMAN New Egypt, N.J.



A Massachusetts round house.

ROUND HOUSE

I AM, AFTER SEVERAL MONTHS, FInally writing in response to your March/April 1994 issue, which featured octagonal and round houses. I live in a round house myself, built out of granite in 1872. The builder was a local industrialist who owned a granite quarry, a carriage factory, and an amusement park. Most of the woodwork is walnut. The living area is oval, the dining room is round, and the remaining rooms are very irregular shapes. I look forward to every issue of OHJ with anticipation.

> - R. Edward Roach Lowell, Mass.

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L E T T E R S

A 'MUST READ'

IOSH GARSKOF'S "PRIOR TO PAINT" (July/August 1994) is an article that all owners of old houses need to read. We recently painted our c. 1895 Queen Anne and found the original gingerbread trim in excellent condition. The wood on our home is a direct example of the point made in the piece that "a well-maintained paint film can shield wood so that it will last virtually forever." Thanks to OHJ for an outstanding article and special thanks to all the past owners of our house, who kept a good coat of paint on it. We'll do the same for future residents.

- Tony & Arlene Golladay Brandenburg, Ky.



A new paint job on the Golladays' almost 100-year-old Kentucky house will protect it for years to come.

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to carpets. It includes building elements — wainscot, doors and windows, hardware, plumbing fixtures as well as finishes, furnishings, and textiles.

We give you beautiful photographs: lavish full-page room shots and close-up details. But we don't stop there. You'll find practical advice, plenty of background, and endless sources. Whether you're looking for an Empire sofa or push-button light switches, you'll find it in **OLD-HOUSE INTERIORS**.

OLD-HOUSE INTERIORS blends the historical approach with design flair. What you'll see is not decorating fads, but a classic approach to interior design. Here are just some of our regular features:

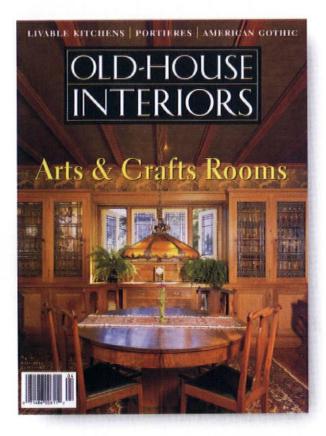
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MORE STOREY STORIES

I ENJOYED "FOUR-STOREY STORIES" in the September/October 1994 issue. The tax advantage of gambrel roofs can be documented in the East in one well-known tax, the 1798 Federal Direct Tax. The storey within the gambrel roof often was not mentioned in the descriptions of buildings for the tax, or occasionally it was mentioned as a half storey. Perhaps a more practical advantage to the gambrel roof, however, was that it allowed framing of the roof with much shorter timbers, easier to fabricate and easier to handle.

Another apocryphal story I frequently encounter in late-18thto mid-19th-century houses concerns a turned disk of ivory set in the top of the newel post. It is said to signify that the builder was paid in full, or that the mortgage was paid off. I suspect its sole function was actually ornamental — how boring. And, in the East, the chief apocryphal story says that an old home's bricks came over from England as a ship's ballast. This, too, has questionable accuracy.

– JAMES T. WOLLON, JR., AIA Havre de Grace, Md.

MOTH TRAPS

IN RESPONSE TO A READER QUERY in the September/October issue regarding pantry moths, we have found pantry moth traps at feed and grain stores and at pet food stores. Or order them from Gardens Alive Co., 5100 Schenley Place, Lawrenceburg, IN 47025; (812) 537-8651.

- CLAIRE & PAUL WRIGHT Hopkinton, Mass.

ROOFING CORRECTION

WE ENJOYED READING "SLATE AND Shingle Lookalikes" (September/October 1994). One correction, however: There are ASTM specifications for non-asbestos fibercement roofing shingles, shakes, and slate. The standards (ASTM C-1225-93) cover such factors as the products' composition, strength, water tightness, and frost resistance.

> — MARILYN MUELLER Supradur Manufacturing Rye, N.Y.

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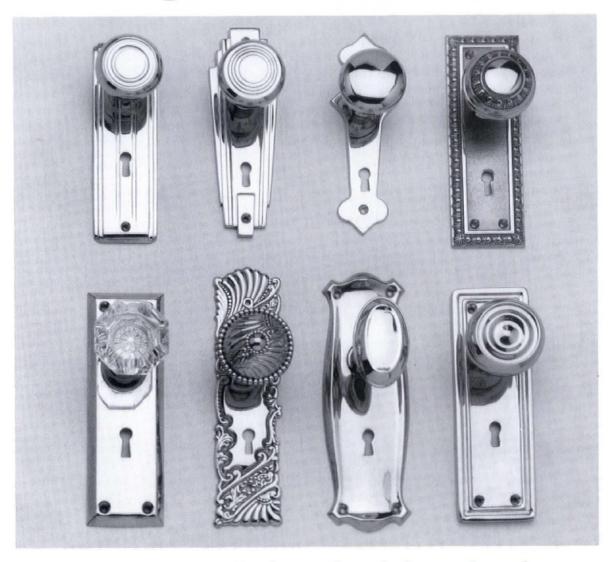
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RESTORER'S NOTEBOOK

BRUSH TIPS

Here's some professional ad-vice about paintbrushes. If paint gets all the way up to the ferrule (the metal band that holds the bristles), the tool will never be clean again and is essentially ruined. To prevent this, pre-soak a dry brush before each use with either water for latex paint, or mineral spirits for oil-based paint. Then, take care not to dip the bristles more than halfway into the paint. Also, hang the brush to dry after cleaning so liquids drip away from the ferrule. (That's what the hole in the handle is for.) Another great trick is buying a flea comb for dogs. It gets a brush far cleaner than any other tool, even the specialty brush combs sold in paint stores.

> - MARK DICHIARA Atlanta Ga

> > A pair of locking pliers is an easy way to prevent losing a sash cord in the wall.

CORD HOLDER

When PULLING WINDOW SASH TO replace glass or to reputty, many people put a nail through the sash cord to prevent it from getting sucked into the pocket. That's fine when it's a chain holding the counterweight, but it's a bit of a pain if it's a rope. I find that a small pair of locking pliers works better. Before I detach the rope from the sash, I clamp on the pliers. They hold it while I work. Once I'm done and the cord is resecured to the sash, removing the pliers is a snap.

- LUCY MCLENDON-BROWN Springfield, Ill.

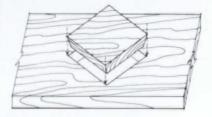
PLUMBING PEDAGOGY

N EVER SCREW A BRASS FAUCET directly onto old galvanized steel piping. Dissimilar metals that are joined in water create a batterv-like condition, and the tiny electric current produced will lead to galvanic corrosion. (The same goes for all metal installations where there's water, including plumbing supply lines and mechanicals in toilet tanks as well as roof metals.) To prevent problems at faucets, use a dielectric fitting at the junction of different metals. This small adapter (available at plumbing supply houses) has a non-metallic bushing that keeps the metals from touching. If you have low water pressure at a tap, especially if you see sticky residue, it could be from galvanic corrosion. Remove the fixture and check the lines for buildup. A few feet of pipe immediately next to the dissimilar metal may need replacing.

– JESS MALONE Wilmington, Del.

PERFECT PLUGS

THE TRICK TO INVISIBLE WOOD dutchman repairs, my grandfather taught me, is to avoid patching at right angles to the grain. Use diamond or trapezoid plugs to fill the spots chiseled out of the moulding, floorboard, or whatever. Undercut the edges so they taper inward and prepare an exact-fitting plug from wood with look-alike flat or edge grain. (Often, he re-used wood from an out-of-the-way area



Shape a dutchman plug so it doesn't cut directly across the grain.

of the house, such as inside a closet, to get a good match). Glue the plug tightly in place, leaving it a hair above the surface, then sand it flush.

> – A. JACKSON Santa Cruz, Calif.

YARDSTICK USES

I HAVE FOUND YARDSTICKS USEful for more than just measuring. I use them for shimming up cabinets, leveling furniture, and filling old hinge mortises on painted jambs. (It's a lot easier than ripping down stock on the table saw.) Just cut to size and nail into the mortise. You can putty around the edges and then sand flat. Yardsticks are cheap or free. I keep a couple on hand with the measurements already sanded off.

> - CHELLE DELANEY Jacksonville, Fla.

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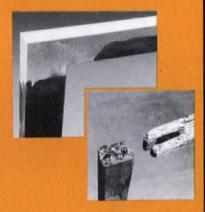
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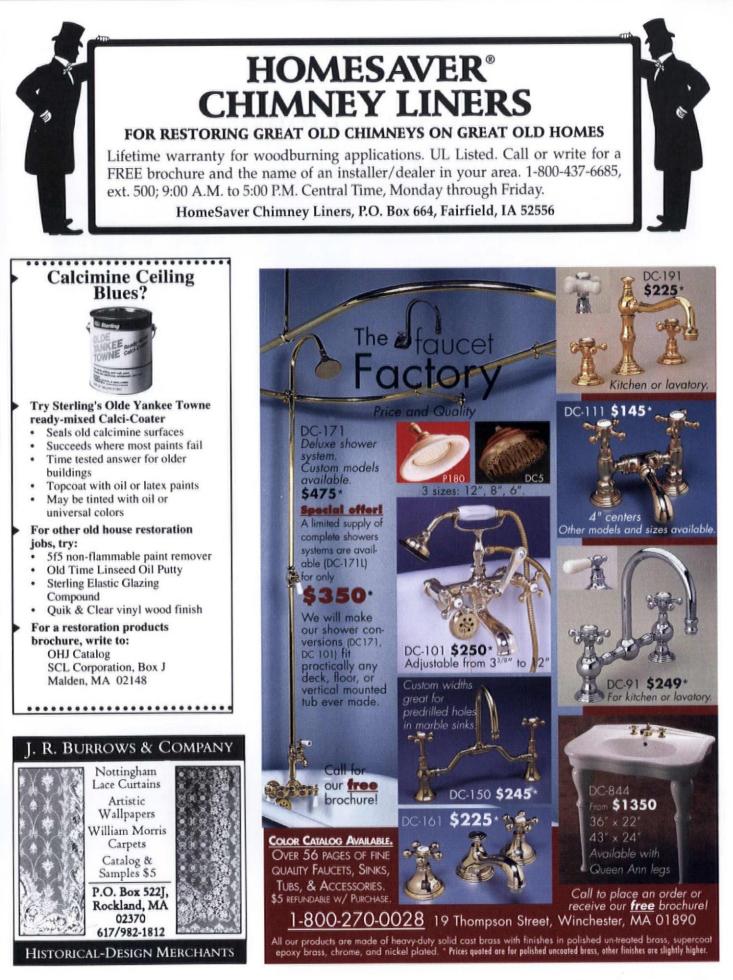
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reading the old house

A Chevy House Road Trip

BY JAMES C. MASSEY AND SHIRLEY MAXWELL

THIS READING THE OLD HOUSE TURNS THE TABLE AND answers our question about "Chevy Houses" (see "An Architectural Rummage Sale" September/October 1993). Second-hand reports about a 1920s housing phenomenon — new homes that came complete with a new car in the driveway — piqued our interest, and we wanted to know more. Did any OHJ readers have direct experience with this novel merchandising approach?

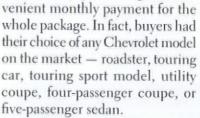
Sure enough, the ink had hardly dried on the issue when, to our delight, Barbara and Jim Wagner confirmed the existence of Chevy houses. The Wagners kindly showed us around their two properties and an entire community of these small, 1920s cottages in Garrett Park, Maryland, a quiet, railroad suburb of Washington, D.C. The houses were developed by Maddux, Marshall, and Company and were promoted in a brochure entitled, "A Residential Park Development of Charm and Distinction." The brochure begins with an impressive mission statement: "Placing within [a family's] reach ownership of home, the pleasure of one's own car, and other elements of Human Happiness such is the impelling idea in back of the development of beautiful, rustic Garrett Park, the suburb ideal."

The Chevy House style might be described as a sort of Cape Cod with a prominent front porch —



Both the one-car garage and the Chevrolet auto that it housed were optional.

a modest, generically traditional, all-American approach. Three different models of these economical cottages — the Roseland, Sylvan, and Woodbine — were built with varying designs for their entry porches. All the models featured a living room, kitchen, single bathroom, a dining alcove with built-in benches and table (a breakfast nook-like feature that wasn't in the kitchen), a folding Murphy bed in the living room, and a built-in Atwater-Kent radio. The Chevrolet and the garage were both extras, but their cost could be included in the house mortgage, making one con-



Today, Chevy houses are still sought ater because their exterior designs "read" as well as more expensive houses. Although most have received substantial additions or alterations, it is surprising how many have survived with their basic features intact. The Chevrolet may be long-gone, but the charm of these picturesque frame cottages lingers.



The appeal of classic Cape Cod exteriors with pedimented porches have insured the survival of Chevy Houses, such as this 1927 Sylvan model.



The Lost Art of Steam Heating by Dan Holohan

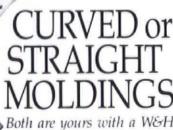
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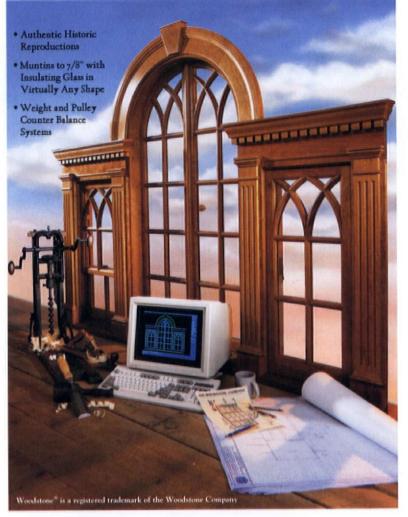
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SNOW JOB

As the owners of a Queen Anne located in the snowbelt, we have a recurring problem with excessive snowfalls that rip off our gutters. We've tried metal, but it only twists and gets bent out of shape; vinyl breaks off. What should we do?

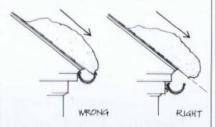
> - J.P. LEGUERRIER Chesterville, Ont.

YOUR GUTTERS COULD BE INSTALLED improperly. Often new gutters are hung right next to the roof edge, as close to the last course of shingles as possible. This means the gutters catch water effectively. but they may come down under the weight of high snow accumulation. Instead, install your gutters a good distance below and beneath the edge of your roof to allow snow to fall clear. A good rule of thumb is to install gutters so their front edge sits below the plane of the roof slope. Rain will still run in, but snow buildup will

Heavy snowfalls and a steeply pitched roof add up to damaged gutters on the Leguerriers' Ontario Queen Anne.

slide clear.

Another weapon for combatting falling snow is the snow guard. These little brackets are made for all types of roofing and are useful for holding snow up on the roof, especially above entrances. They are widely available



Gutters that get in the way of sliding snow may sustain damage (left). Install below the plane of the roof and the avalanches will fall clear (right).

through roofing suppliers, including: Snow Management Systems, Inc., P.O. Box 1505, Stowe, VT 05672; (802) 888-8573 or Northern Roof Tile Sales Co., P.O. Box Send your questions to: Ask OHJ The Blackburn Tavern Two Main Street Gloucester, Massachusetts 01930

275, Millgrove, ON LoR 1Vo; (905) 627-4035. Be sure your roof can handle the weight of the trapped snow.

WHY SKY BLUE?

Here in the South, historic houses all seem to have sky blue porch ceilings. No one I have spoken to knows why. Please share any information you have on this.

> - JANE CALHOUN Ruston, La.

INDEED, LIGHT BLUE IS THE norm for old porch ceilings (as gray is for their floors). This likely comes from a combination of aesthetics and practicality. Victorian taste-makers believed in using the colors found in nature. (Some Renaissance decorators even painted cumulus clouds on the blue background.) More importantly, however, light blue reflects light well, an important feature on porch ceilings, which blocked light into the front parlor. Old porch ceilings were not always light blue, however. In cases where the porch ceiling had exposed rafters, Victorian painters sometimes chose to paint the ceiling the main color of the house and to use the trim color to pick out the structural members. Beadboard ceilings were often varnished.

HEATILATOR CLEANUP

Hantavirus, the cause of the mysterious deaths on a New Mexico Navajo reservation in 1993, is spread by mice and is now a serious health threat in the South-[continued on page 22] Cartouches – Niches – Mouldings Friezes – Centerpieces – Grilles Cornice – Brackets

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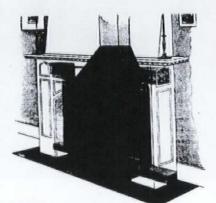
west as well as throughout the United States. We would like to sanitize our Heatilator fireplace, where we know mice were nesting. Air channels travel under the hearth, back behind the firebox, and out through an array of bricks centered over the entrance to the fireplace, creating a difficult area to clean. What is the best way to disinfect it and to make sure the firebox is safe to use?

> – LAUREN & HARRY MCGAVRAN Los Alamos, N. Mex.

WE SPOKE TO ROBERT C. STRUBLE, senior product manager at Heati-

lator Inc., who offered this advice for cleaning and disinfecting your fireplace circulation unit. First remove the metal grille or soldiered bricks that form the air inlets at the base of the fireplace. Snake a vacuum cleaner hose in as far as vou can and remove the debris. (If vour're concerned about the virus, you might want to locate the vacuum outside to prevent exhausting into the living area.) If you cannot remove all the debris, try rinsing the unit from the top by pouring water through the vents above the firebox - a messy last resort. Then saturate the unit with a disinfectant. rinse, and allow it to dry. Lastly, light a good hot fire to kill any remaining bacteria. Whatever action you

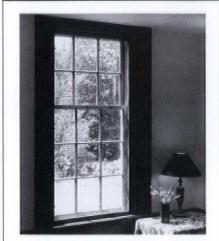
take, do not close off your built-in circulator. That can lead to superheating the air inside, a serious fire hazard.



A 1928 advertisement from *Home Builders Catalog* shows how air circulates through and warms in a Heatilator fireplace unit.



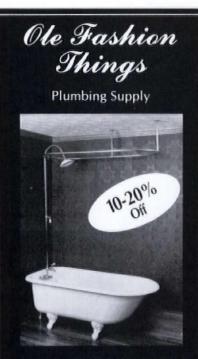
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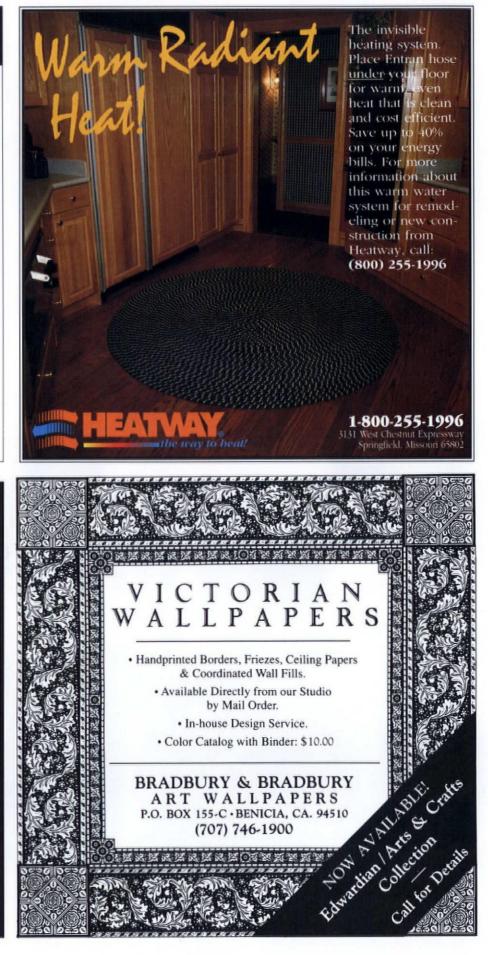




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BY JAMES C. MASSEY & SHIRLEY MAXWELL

When new, the Ansonia Hotel the most flamboyant of the early New York luxury apartment buildings — included reception rooms, a palm garden, three restaurants, a theater, a ballroom, and a swimming pool. 7

HROUGHOUT AMERICAN HISTORY, "HOUSE" AND "HOME" HAVE BEEN almost inseparable ideas. Home might be a fully detached structure in a suburban cul-de-sac or a row house on a busy city street, a Victorian mansion or a 1950s split-level, but the basic concept has never changed. One house, one home, one front door that opens (and closes) on one family's life — or maybe not.

of HONTES The Origins of Apartments

Since the third quarter of the 19th century, the homes of many Americans have not been in single-family houses, but in multi-unit buildings: cooperative, condominium,

or rental apartments. The fact is, many oldhouse owners share their front doors with a dozen or a hundred neighbors.

Apartment living is a mostly big-city phenomenon that came late to America, but it is a practice that is almost as old as Western civilization, leaving aside southwestern Native American cliff dwellings and pueblos. High-rise (70' or higher) apartment buildings or insulae in firstcentury Rome are well documented and may go back to 300 B.C. After the fall of the Roman Empire, apartment construction dropped off, but it revived as European cities began to grow again in the late-medieval period. The obvious incentive for such housing is the lack of space and the high cost of land in densely populated areas.

Even before the Civil War, it was obvious that the United States's fast-growing urban population required more homes for the poor, the expanding middle class, and even the growing ranks of the incredibly wealthy. Cities were clearly running out of buildable land in desirable locations and were in danger of losing their middle-class

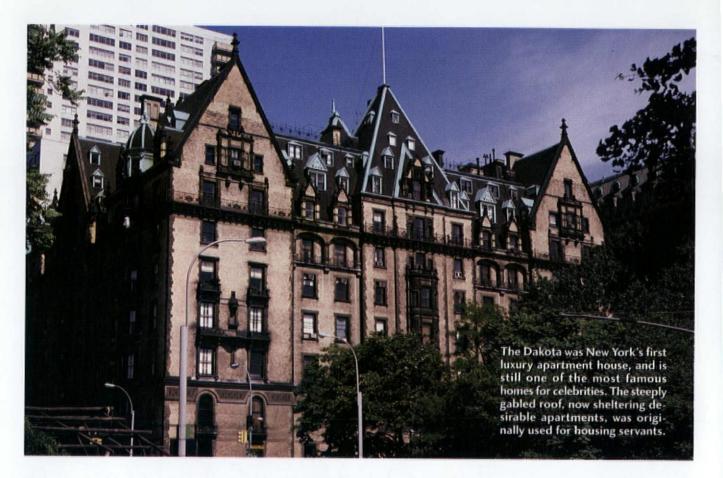
> citizenry to cheaper homes in the suburbs. Some reformers like Calvert Vaux, one of the great popularizers of rural residences in the mid-19th century, were quick to understand that not every urbanite was willing to pull up stakes and head for suburbia to find a decent place to live. In an 1857 presentation to the American Institute of Architects, Vaux proposed a solution to the dilemma: an elegant design for a four-storey, 50' wide, multifamily "Parisian Building" — an apartment house. It was never built, but the seed of change was sown.

> So in the frantic post-war building boom, American architects and developers seized upon what many considered a risky (and to some, risqué) idea from Europe: stacked housing or what was soon

called apartment houses. The first such dwellings were called *French flats*, in recognition of the fact that France supplied the model for many of the new buildings. There were other



The line between New York tenements and middle class apartments can be slim, perhaps no more than a fancy broken pediment at the roof.



European sources of inspiration as well. The English, Welsh, and Irish clung to the row house for relief from urban housing shortages, often creating tall, thin, unlivable buildings that were cruel experiments in vertical housekeeping. On the other hand, Scotland — which, incidentally, contributed the term "flat" to our vocabulary — had a well-established apartment house tradition dating to the 16th century. The average height for these



This grand early Chicago apartment building featured French flats, a term reserved for more elegant front-to-back apartments. Note the several entrances, each providing access to four or eight flats.

tenements (still the Scottish term for apartment buildings) was six or seven storeys.

Reactions of the Middle Class

APARTMENT HOUSES WOULD EVENTUALLY BLOSSOM IN THE United States, at least in the largest cities, but it would take time and practice for Americans to cotton to the idea. The middle class, responding to Victorian mores, were deeply uneasy about living so close to each other. They worried about what would happen to the family's privacy with all those nosey strangers lurking just beyond thin interior walls and floors. Even the concierge and doorman, whose oversight was relied on to prevent unwelcome intrusions from the outside world, were suspect because of their tendency to gossip.

Above all, there was the family's middle-class image in the community to be considered. Moving to an apartment house seemed dangerously like taking rooms in someone else's rundown and subdivided house (actually a fairly common practice) or in a hotel or boardinghouse (also increasingly common), any of which could be thought to signal at least a lack of social progress, if not downward mobility or even questionable character. Worse yet, apartment houses sounded too much like tenements, those horrid urban boxes that began to appear in the 1830s, where immigrants and the very poor were crammed into tiny, dark, airless compartments known as railroad flats. At first glance, then, an apartment seemed hardly a proper home for a family of the self-respecting middle class.

Yet, apartments were affordable, and they were conveniently located. What's more, they frequently offered much more than the comforts of the average home. In fact, they made it possible to live almost like rich people, who enjoyed their own apartment lives without fretting over any loss of privacy or virtue. Many of the most onerous household tasks, including cooking, laundry, childcare, supervision of servants (not to mention providing living quarters for them), could be efficiently handled through centralized, cooperative arrangements paid for by the individual apartment owners themselves. (In fact, the term cooperative apartment sprang from just that aspect of pooled resources.) Feminists, such as Sarah Gilman Young, leapt to the defense of apartment living in the 1870s. The idea was to lighten the workload for women at a time when housekeeping was becoming harder and lonelier because potential domestic helpers were turning to factory jobs.

Not everyone agreed with that premise, however. One objection to apartment living (which may have been voiced mostly by men) was that there was so little for women to do in an apartment that they were liable to forget how to run a household (woman's true vocation, according to Victorian thinkers such as Catherine Beecher), while neglecting the welfare of their families for city pleasures like visiting and shopping.

Single Living

HOWEVER, THERE WAS VERY little objection to one early apartment type. Bachelor flats were considered dandy ways for young men to leave the family home without taking on the rigors of house ownership (or marriage). Such flats pro-

vided a parlor, bedroom, and bath as well as laundry service, but no kitchen and no prepared meals, except for breakfast. (Perhaps it was feared the inhabitants might become too comfortable and choose to be bachelors forever.) They were expected to eat at their clubs or nearby restaurants.

There were fewer such facilities for single women, and these usually included vestigial kitchens, in which the residents could cook their own meals and practice the arts of homemaking for the day when they would have larger kitchens of their own. Sewing machines were banned from the apartments, however, to prevent any possible confusion with tenements, in which women often made their living by sewing for hire.

America's entry into the apartment house era progressed hesitantly for a decade or two, centering mostly on New York, Boston, and Chicago in the 1870s, before spreading to other cities in the 1880s. Many smaller cities, such as Baltimore, held firm against the apartment house onslaught, but by the turn of the century, millions of American families were calling apartments home. Constantly improving technology, particularly the perfection of the hydraulic elevator, made the transition from house to apartment relatively easy, although not quite as laborfree as initially advertised (most apartment owners chose to keep kitchens). The elevator sent apartment buildings soaring to formerly unscalable heights, with no need to



One of Boston's early apartment houses (left), the Hotel Victoria is richly decorated with elaborate terra-cotta Moorish ornament (above).

set foot on the stairs. Central heat, toilets, and running water in every unit were quickly seen as essential features of apartment living, and all went a long way toward removing any remaining social stigma attached to multifamily buildings, since their presence clearly

(and sometimes legally) distinguished respectable apartments from tenements.

Apartment Hotels

DESPITE THE RATHER UNSAVORY CONNOTATIONS OF THE residential hotel, many early apartment buildings were called *apartment-hotels*, to indicate that they included hotel-like services, such as centralized kitchen and laundry facilities. Nineteenth-century apartment buildings were even given fancy names like those used for hotels (the Dorchester, the Ansonia, the Agassiz, etc.). The naming craze abated after World War I, when the best addresses became just that — street addresses with no names attached.

Perhaps the first true apartment building in the United States was an apartment-hotel, the Hotel Pelham



Many of the best apartment houses were identified only by address, rather than by pretentious names. A major feature of fashionable apartment buildings was a grand entrance with an equally grand lobby inside. This terra-cotta example in Washington, D.C., is one of the finest.

in Boston, constructed in 1857 (Alfred Stone, architect) and no longer standing. Even with its six-storey height and firstfloor commercial uses, the Pelham seems to have blended happily enough into its fashionable residential neighborhood. Although designed only for permanent residents, it offered many hotel services, such as a public dining room, and some notable hotel inconveniences, such as shared toilets and baths and no private kitchens in any of its eighteen apartments.

Wealthy Designs

APARTMENT HOUSE DEVELOPERS AND ARCHITECTS AT FIRST opted for buildings that had a houselike look. Sometimes they sought to create what seemed from the street to be one grand mansion; at other times they chose a design that resembled a series of tall row houses. The design of Stuyvesant Flats, which opened in New York in 1869 (the city's first purpose-built apartment house), made for an even more congenial relationship with its neighborhood. The work of prominent architect Richard Morris Hunt, the low four-storey building with two discreetly placed entrances contained sixteen well-lit and airy apartments, including some small studios under the mansard roof. The Stuyvesant was demolished in 1957.

New York's first true luxury apartment house, the Dakota (1884), so named because, the wags maintained, its Central Park West location might as well have been in the Dakota Territory, is still a highly sought-after place to live. Certainly the record for grandeur, at least as measured in square feet, must go to the flat designed for the Edward F. Huttons on New York's Fifth Avenue in 1925. With fifty-four rooms, outdoor sleeping porches off the master bedrooms, a rooftop playground for the Hutton children, and a private driveway and lobby, it is said to be the largest apartment ever constructed — bigger than the detached mansion that it replaced on the site. It was only after the wealthy had shown the way that the middle class were able to embrace apartment houses with some conviction.

As time and technology marched on, apartment-house design presented another perplexing aesthetic question. On the grand scale that the elevator made possible and the high cost of land made necessary after the 1880s, almost any building was likely to wind up looking like a commercial structure, especially since the ground floor often was devoted to stores, restaurants, or offices.

Aesthetics aside, apartment house floor plans required juggling often-competing needs for privacy, light, air, efficiency, and economy throughout the building, particularly in ones that sat on narrow single lots or in the middle of a block. Various building shapes — H, C, U, and the dumbbell, for instance — evolved over the years to deal with these problems. Interior courtyards were popular if the developer could acquire enough lots to spare the space for them. Otherwise, judiciously placed air shafts



This Romanesque Revival building has an apartment on either side of a common entry, typical of many Chicago Six-Flats.



Both sides of this 1920 courtyard apartment building in Coronado, California, are lined with small free-standing "cabins." At the rear is a two-storey apartment with four units.

were relied on to provide windows, air circulation, and light.

Geographic variations on building plans were common, especially for smaller apartment buildings. Boston, for example, developed the Triple-Decker — one apartment on each of three floors (see Vernacular Houses). Chicago preferred the Six-Flat, which was pretty much the same as a double Triple-Decker. Duplexes, in which one apartment was spread over two floors with an interior staircase providing passage between the floors, were popular with some builders and owners, although they were seen as wasteful of expensive space by others. Triplexes were less common — and less convenient. Generally, it was the one-storey plan that offered the most apartment for the least money and effort and proved most popular.

The development of the elevator, followed by advances in air conditioning technology, led to a complete rethinking of the high, hot garret spaces that had once been reserved for servants' quarters or artisans' workrooms. The top floors and penthouse became the choicest space in the building, the lofty and expensive domain of the wealthiest apartment owners. The elevator also made rooftops the city equivalent of the suburban backyard — play space for children and adults, even gardens that flourished above the noise and grime of the city below.

From the beginning, the opportunity to design on a grand scale and impact urban streetscapes led many able architects to specialize in the apartment-house genre. Over the years, apartment house architects have imbued apartment buildings with 19th- and 20th-century style, from Chateauesque, Romanesque, and Beaux-Arts to Art Deco, Moderne, and Modern. Harvey J. Hardenbergh, architect of the Dakota Apartments, gave his clients an elegant Chateauesque building that has lost virtually none of its interior or exterior details — nor any of its appeal as a desirable residence. On a less elevated plane, there are thousands of humble flats peering out from beneath the deep, exposed eaves of 1910s Arts & Crafts buildings around the country — also happy homes.

Some noted architects were also intrigued by the apartment house's potential for providing well-designed mass housing at moderate cost. Frank Lloyd Wright's 1895 designs for the Edward C. Waller and the Francisco Terrace Apartments in Chicago were among his early attempts at buildings that combined social conscience with innovative construction techniques.

Coming full circle, many apartment houses have been converted in recent years from rental units to cooperative or condominium status, giving the individual apartment owners the responsibilities and the joys of ownership.



Many three-storey apartment buildings in the Fan District of Richmond, Virginia, have generous covered porches for each of the six apartments.

BACK ON TRACK

Getting the kinks out of pocket doors

OU'VE TRIED YANKING, wiggling, screaming, and swearing, but that dang pocket door is still hiding in the wall. If you can coax the beauty out, it scrapes noisily across the floor and is out of line with its partner. Maybe using the doors is such a hassle, you don't even bother.

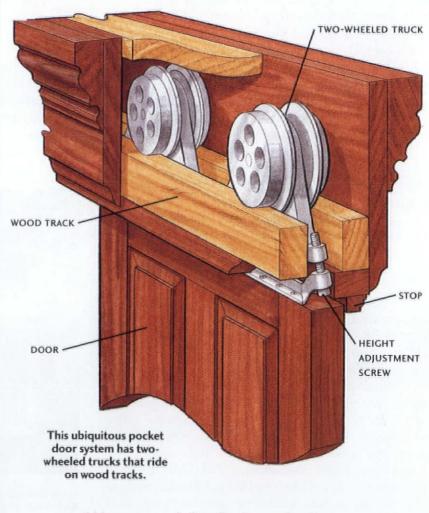
I have repaired numerous old pocket doors and have developed a technique for fixing one of the most common designs. These particular doors hang from twowheeled trucks that ride on a wood track. Usually the rails of the track have warped, worn, or moved as the building settled and no longer provide an even riding surface. My cure is to shim the tracks to level and cover them with a metal liner. Typically, this requires no plaster demolition and only minimal moulding removal.

Starting Simple

SHINE A FLASHLIGHT INTO THE NARROW crevice above your pocket doors to find out what kind of system you've got. (You can also feel around with your fingers.) Some of the techniques that I will describe carry over to other types, but overall my method is specifically for double-wheeled, woodtrack doors (see "Identifying Pocket Door Systems," p.33). First, try out a few easy steps for fixing doors. Proceed to the rest of my process only if they fail.

Minor hangups can be fixed using the height adjustment screws located between the door and each wheel assembly, or truck. It's possible that you can get the doors to clear floors, hang plumb, and meet each other correctly simply by turning these screws.

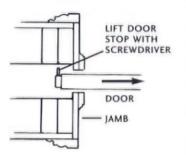
If not, you'll need to get at the recess above your doors. It is a surprisingly messy operation, so spread a drop cloth, and don your eye and respiratory protection. Care~ by ~ Joseph Corlett



Illustrated by Robert LaPointe

THINGS TO WATCH OUT FOR WHEN REMOVING DOORS:

In some cases, doors have been nailed shut, or are stuck against a bowed stud. Also, your door may have a stop on the pocket end which catches on the jamb (see below). Flip it up or down with a screwdriver to allow the door to pass.



fully remove the stop moulding (and the head jamb if necessary). Clip off the nails, or pull them through the back. Now pull a door all the way out of its pocket. If it won't budge, place your foot at the base and pull the top out. Remove your foot and pull out the bottom. Continue "walking" the door to the access.

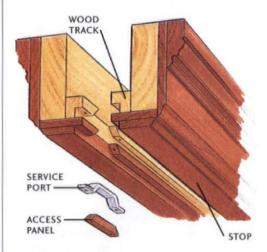
Remove the height adjustment screw to get the door off the truck. There are access panels near the center of the rails. These cover service ports for removing the wheels. Remove the panels and ports (right), then stick your fingers in, grasp the wheel frame, and slide it off the mounting plate. Remove it through the port. Repeat this process for the other trucks. (Sometimes getting the second set to the access involves removing a door jamb or framing.) If the trucks are cracked or broken, there's your problem (see "Replacement Parts," p. 33).

Check the track for strength and condition. Hanging 100-pound weight from the track should cause minimal deflection (say ¹/₆"). Are the rails screwed tightly into solid framing? Often they have pulled away from their anchors over the years. If so, refasten them with wood screws (in pre-drilled holes). Rehang the doors and see if the problem is solved. If not, it's a good bet the track has warped, and it may be time for my leveling and lining technique, which follows.

Leveling the Track

FIRST, DETERMINE THE EXTENT OF THE problem. Are the rails are true? Use an 8' spirit level or, if you can't get the tool into the opening, use a good straightedge with a 4' level. If that's impossible too, use a water level or laser level. You'll also need to check the parallelism - or level across the two rails - every 10" as far as you can reach into the pocket. Sometimes, though, there is not enough room to get even a torpedo level across both rails; in this case, make a parallelism jig – a simple wood T, made of straight boards, either rabbeted or lapjointed in an accurate right angle (see p. 32). Tape a torpedo level to its leg to read the parallelism. Also check the jambs and floor to be sure they're plumb and level. (If they're not, when you level your doors jamb, floor, and doors won't be flush.) The most common problem I find is that the rails have come out of level and are no longer parallel, causing the doors to bind or catch the floor.

Prepare a metal liner for each wood rail. Use $\frac{3}{4}$ " x $\frac{3}{4}$ " cold-rolled, angle (Lshaped) steel available at metal supply shops and from welders. One liner will rest on each wood rail (see p. 32). Cut lengths 2" shorter than the wood track (the wheels don't ride that far anyway and it'll make your job easier). Place them on top of the tracks, mark the service ports; then take them out of the wall, cut notches, and set

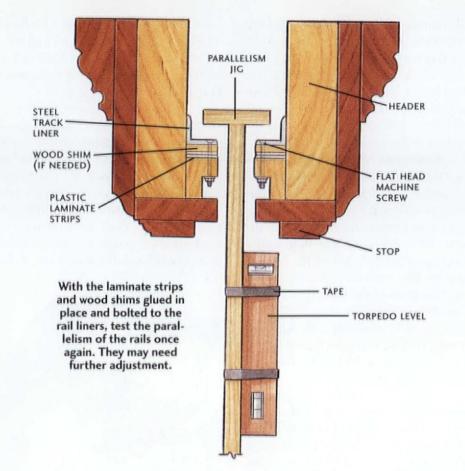


Opening up the service port.

them aside.

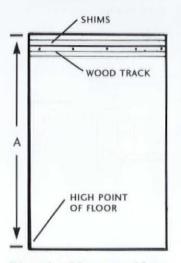
Mark a level line across both jambs about 3' above the floor. These will be your reference points for leveling the rails. Use strips of countertop laminate (such as Formica) to shim the rails to level. Laminate is available in many grades - offering a good variety of thicknesses for careful shimming. I find that having a supply of six strips at about 1/6" and six at about 1/32" is a good start. (You can buy, or salvage, the laminate remnants you'll need from a cabinet shop.) Cut 3/4" strips that are the full length of the metal liner for starters, then cut pieces as needed to bring each section of rail to level. (Often, a whole rail needs to be brought up and using pieces is much harder than using full length strips.) For major shimming, use hardwood strips ripped to the thickness needed.

Stack shims on the wood rails until you have a level run parallel with the ref-



ADJUSTING FOR SIZE

Many times, bowing of the track has caused the doors to hang up. In other cases, large gaps appear under them. One of the most crucial repair steps is to size the opening for the door. Dimension B must be ¹/4" smaller than Dimension A (below).



Dimension A is measured from the floor's high point to the top of the shims.

erence marks (on average, portions need to come up between ½" and ½"). Use the parallelism jig to confirm that the rails are level laterally every 10" as far into the pocket as you can reach. Pretty darn close is good enough for now; you'll fine tune later.

Measure from the top of the shims to the floor's high point (located with a level) and note as dimension A (see right). Without rehanging the door, insert the truck into the mounting plate and thread the adjustment screw halfway in. Measure from the door bottom to the wheel bottom and note as dimension B. Dimension B must be 1/4" less than dimension A (%" floor-to-door clearance plus %" steel liner thickness). If dimension B is too large, do not trim the door; you must add shims to the track. If dimension B is less than dimension A by more than ¼", remove shims until you reach 1/4" difference. Remember to keep the rails level and parallel after changes.

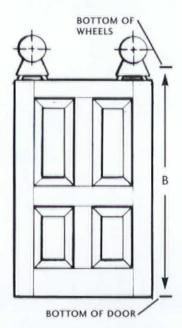
Bolting It All Together

CAREFULLY GLUE THE SHIMS TO THE RAILS using dabs of construction adhesive. (It's

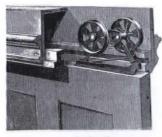
easiest to take them out of the recess in their positions, glue them together, and then dab on adhesive to stick them to the rails.) Place the rails on top (do not glue), with proper spacing for the wheel flange. Starting at the access, press the steel to the shims with your fingertips and hold or, if possible, clamp. Bore ¼" holes through the wood track, shims, and just far enough into the steel to make a legible mark. Locate one hole every 16" as far as you can reach into the pocket.

Remove the steel from the shims. Finish drilling the holes and countersink them on the wheel side. Countersink generously, or you'll feel and hear a bump every time a wheel moves across a screw head. Remove any burrs.

Place the steel back on the shimmed rails and drop #14 flat head machine screws through the holes. Use screws that are long enough to accept washers, lock washers, and bolts. (The shanks should pass through the holes without turning.) Because you are reaching between the rails and into the cavity, this operation can be very difficult. A small magnet attached to the end of a fiberglass ice fishing pole



Dimension B is measured from the door bottom to the bottom of the wheels.



A Syracuse Bolt Company patented pocket door truck, 1880s.

REPLACEMENT PARTS

Fixing the track won't do much good if the old iron wheels or axles are broken. We haven't found any companies that carry stock reproduction parts (probably because there were so many types), however we've found a few professional restorers who will custom reproduce wheels and other mechanicals.

Blaine Window Hardware 17319 Blaine Drive Dept. OHJ Hagerstown, MD 21740 (301) 797-6500

Leo Custom Hardware

7532 Columbus Avenue S. Dept. OHJ Minneapolis, MN 55423 (612) 861-1473

If there is simply no salvaging your pocket door trucks, you could install a new track system for your old doors. Here are a couple of suppliers for modern kits.

National Mfg. Company P.O. Box 577 Dept. OHJ Sterling, IL 61081 (800) 435-4672

Johnson Hardware P.O. Box 1126 Dept. OHJ Elkhart, IN 46515 (800) 837-5664 may bend and hold a screw long enough to drop into the hole. Install washers, lock washers, and nuts; tighten to snug.

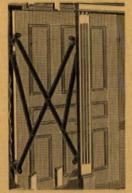
Bolting the liners down has probably changed the level and parallelism of the track. Check both. If adjustments are required, loosen the nuts, shim accordingly, snug the nuts again and recheck. Repeat this process until you are satisfied — but don't be too much of a perfectionist, very close is probably good enough. Then trim the screws with a hacksaw blade, so they don't interfere with the door.

Rehanging the Doors

CUT THE SHIMS BLOCKING THE ACCESS with a pad saw or tiger saw (such as a Sawzal). Dab adhesive on them, stick them to the service ports in the rails, and add ¹/₈" shim (the steel track thickness).

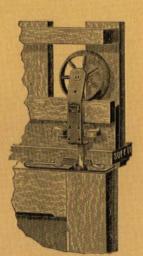
Identifying Pocket Door Systems

THERE ARE THREE CATEGORIES OF POCKET DOOR systems. The first, popular in the early-19th century, rolls on wheels at its bottom with a wood peg guide at the top. The second is a later model which hangs from tracks above; first on double-wheeled units that ride on wood tracks (the type repaired in this article), later with single wheels on metal tracks



An 1896 illustration of the Prescott Trackless Door Hanger.

or in metal tube-like rails. With the industrial explosion of the late-19th century, patents were taken out on a third type of system with no wheels, relying on scissor-like hardware inside the pocket



Place each truck into the service

port and onto the track. Rest the door in place on two 3/8" thick wood shims. With

your hand in the access, slide the wheel

frames onto the mounting bracket on the

door. Remove the shims and the door will

each end of the door to get it to meet its

partner and the jamb evenly, and to clear

the floor. Place a 4' level on the edge and

adjust the doors to plumb and get es-

cutcheons to meet strike plates. Smear

wheel-bearing grease along the rails, then

push the doors back and forth several

times to spread it. Your original stop mould-

ing or jamb may not fit now. If not, store

the original moulding and fabricate re-

Then listen to the whoosh of a flying

production trim to match.

pocket door.

Turn the height adjustment screw on

hang from the wheels.

The Colton Junior Single Track Hanger, popular in the 1890s

- many of these were short-lived designs. Shining a flashlight into the recess above your doors should tell you what you've got. However, there are many

variations of all of these types. Repairing yours will take ingenuity and an understanding of how they work.

> For bottom rolling doors, the Russell and Erwin door Sheave, 1860s.

Indoor Rain: The Sho

wer's Short History

by Stephen G. Del Sordo

and the OHJ technical staff

ODERN AND CONVENIENT BATHROOMS ARE THE HOLY Grails of most building remodelers. Old-house restorers want convenient bathrooms too, but we also want them to have a period appearance and "feel." To supply this interest in older bathroom schemes, an extensive reproduction fixture industry has blossomed in the last decade or two. Many of these fixtures, as well as advice on their fashionable use, can be found in old magazine illustrations, decorator books, and manufacturer's advertising — all legitimate sources of restoration information. Suprisingly, such literature reveals the shower as a rather recent addition to the historic bathroom. Since showers

are today's primary mode of personal hygiene and, original or not, likely candidates for a restored bathroom, it's good to look at their various incarnations over a century or so of existence.



An 1870s

showerhead.

Early Showers and Sociology

IN FACT, IT WAS uncommon for homes built prior to the 1920s to have a shower at

all. As an example, the bathroom in my 1910 home on Maryland's Eastern Shore, still mostly original, is simply a sink, toilet, and large clawfoot tub. For many homeowners, adding a shower (even to an existing bathtub) was an unnecessary expense. There was the bill for the extra plumbing and installation, and there was the hidden cost

of constantly repairing wood wainscot and plaster — the principal wall covering in pre-World-War I

In 1923, bathrooms had white porcelain fixtures, including a built-in tub with a single-head shower, according to this advertisement for a Standard Sanitary Manufacturing Co. bathroom (left). bathrooms. The only thing between these surfaces and the shower spray was a rubber or duck-canvas curtain.

Even where plumbing was common, showers were rare at first because they only served half the population. Evolved from bathhouses, barracks, gymnasiums, schools,

Colored porcelain hit bathrooms in the late 1920s, when technological advances made it possible. Companies such as Crane's in this 1937 ad (top) and Standard in a 1930 promotion (bottom) used bright schemes to attract consumers.

and the like, early showers that doused the bather vertically from overhead had been around since at least the 1880s, but were strongly associated with athleticism and the male body. Moreover, the pressure of the stream was considered too much for the weaker sex, who gen-

erally preferred

tubs. "Indeed, some constitutions cannot stand the rigors of shower bathing," wrote house authority Charles E. White, Jr. in 1914, "a practice which should be resorted to only under the advice of a physician."



A 1911 Standard advertisement displays an early "needle shower." Distinct from bathtub and bathing, showers were intended not for cleansing, but for therapeutic value.

The pioneers that had showers did not see them as instruments of cleaning – for that they still bathed. These sprays were tools of medicine and thought to have a therapeutic value for "stimulating the proper action of the skin." In time, though, showering was linked to personal hygiene and their use increased. The germ theory, confirmed in the 1880s, trickled down to the public as the sanitary movement of the early 20th century. Soon homemakers' magazines and newspaper advice columns stressed regular bathing and the futility of cleaning while sitting in water that became increasingly dirty.

In the tub, "there is a chance of transferring skin affections, and the process of tub bathing is not one to insure cleanliness unless care is taken to rinse the body with a spray," wrote William Beall Gray in *Gray's Plumbing* (1916). "In the shower bath, for which there are arrangements of many forms, the water is continually renewed throughout, in as pure a state as the initial supply, while in the tub bath the condition is changing for the worse first to last." In other words, the same water never touched the body twice. Many authorities distinguished between a "shower bath" (large drops of water released at low velocity) and a "rain bath" (minute jets delivered at high velocity).

Spritzing at the Turn of the Century

TO BE SURE, THERE HAVE ALWAYS BEEN THE EQUIVALENT of today's technology buffs who experimented with showers and other mechanical advances in their homes, but one had to be relatively wealthy to play the game. A perfect illustration is the 1905 Fort Pitt Supply Company catalog, which shows an elaborate shower installation with a full complement of directional sprays for \$297 to \$400. By comparison, the 1910 *Home Builder's Catalog* from Sears, Roebuck and Company lists their most expensive bathroom outfit — sans shower — for \$45.95. That sum included a 5' tub, lavatory, and water closet, along with the fittings for each.

The state-of-the-art shower in the 'teens was not a sole head above the bather, but an array of tubes and nozzles worthy of NASA. "The older form of showers, " pronounced

a 1911 trade handbook, "are not so desirable as those in which the outlet is inclined and placed at about the level of the shoulders, thus avoiding wetting the head." Generally called needle or cage showers, these bathing machines could incorporate a shampoo spray, a liver or kidney spray, needle spray, spinal spray, and bidet spray, with

separate controls for each. Whether attached to a tub or installed separately in a corner of the bathroom, the shower was actually an enclosure of pipes formed from "ingenious arrangements of nickel-plated loops." A mixing chamber blended hot and cold water and registered the temperature on a thermometer before it went to the sprays. However, these chambers were not always effective and the bather ran the risk of being either scalded or chilled during the shower experience.

Manufacturers, of course, had long insisted otherwise. As early as 1888 the J.L. Mott Iron Works of

FURTHER READING

There are a number of readily available books and catalog reprints that illustrate shower and tub arrangements in older homes.

• HOME BUILDER'S CATALOG, 1910 edition of Sears, Roebuck catalog; Dover Press.

 MOTT'S HLUSTRATED CATALOG OF VICTORIAN PLUMBING FIXTURES FOR BATHROOMS AND KETCHENS, 1888 edition of J.L. Mott Iron Works catalog; Dover Press.

✓ VICTORIAN PLUMBING FIX-TURES FOR BATHROOMS AND KITCHENS, reprint of J.L. Mott's 1888 Catalog "G"; Dover Press.

 THE WELL-APPOINTED BATH, edited by Charles E. Fisher III; reprint of the 1914 J.L.Mott Catalog and the 1935 American-Standard Catalog; Preservation Press.

 THE BATHROOM, THE KITCHEN, AND THE AESTHETICS OF WASTE, by Ellen Lupton and J. Abbot Miller; design history with a wealth of useful period illustrations; Princeton Architectural Press. New York proudly announced that they had kept the number of valves and knobs to a minimum so the bather wouldn't be confused about which they were operating. Liver sprays adjusted to the correct height, the floor spray unscrewed easily for access to the douche or bidet spray, and Mott claimed the mixing chamber would not allow water hotter than 98 degrees F.

Where space allowed, the same machinery could be

installed as its own fixture. A basin or "receptor" of porcelain or enameled iron caught the water while bathing went on inside the pipe framework surrounded by curtains. By 1910 the switch to bright white tile on walls and floors was making "the small, dark, musty, bathroom ... with the unsanitary wooden floors and wainscotting ... a thing of the past," much to the delight of tilemakers. It also made moot the objection that a shower's spray would destroy the plaster and the wood surfaces.

For even more money the shower could be built into a wall. Partitions of marble, tile, glass, or slate enclosed the plumbing, carefully cemented to make them watertight; floor slabs were usually marble in the 'teens. Stall showers might also have an enameled seat built into the wall "for those who prefer to take their shower bath sitting." The whole affair was very heavy — not to mention potentially leaky — and the house framing had to be built accordingly.

'Twenties Technology Takes Over

IN THE 1920S, SHOWER INSTALLATIONS WENT from a trickle to a spray. As homebuilding

boomed, family lifestyles altered, and building products became more standardized, the shower assumed the dominant cleaning role in the bathroom, often upstaging — or completely squeezing out the tub. A growing middle class and the economy of scale made it practical for plumbing manufacturers to mass-pro-

The Meyer Sniffen Spray Bathtub put shower and tub together in the 1880s, well before the union became a common sight (top). The Fort Pitt Nickel-Plated Brass Combination needle shower, bidet, liver spray, and spinal bath, 1905 (bottom).

duce shower assemblies and profitable to sell them at affordable prices.

Changes where afoot in the whole bathroom as fixtures evolved from elaborate, furniturelike units with jutting decorative elements to plain, unadorned modules with recessed parts. The tub, slowly loosing its dust-catching feet to a one-piece, built-in skirt, was standardized as a five-foot enclosure in response to the smaller bathroom square footage. The basic lone showerhead, always an option (even as a rubber hose hooked to the tub faucets), took on a new prominence as fewer new bathrooms could stable both a showerbath and a bathtub. Always large and expensive, cage and needle showers were suddenly dead in the water as floor space shrank and their pseudoscientific value eroded. Separate shower stalls grew less popular for the average family too as the decade progressed and bath-

room design reacted to the trend of downsizing homes and their interiors.

Color came on the scene after 1928, directly influencing how homeowners thought of bathrooms and, by association, showers. White, the color of sanitation, gave way to the first "cheerful pinks and yellows, gleaming ivory and soft tans, greens and blues enticingly cool as lake water on a summer's day," as manufacturers perfected the means to make them consistent from piece to piece. Bathrooms switched from mini laboratories of hygienic activity to centers of personal grooming and fashion. Streamlined to a shiny, flexible chrome font, the shower was ready when the tide turned.

Shower Decisions

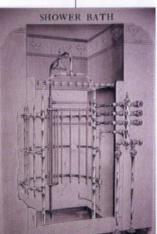
YOU CAN MAKE GENERAL ASSUMPTIONS ABOUT what is historically appropriate for your bathroom based on the shower chronology, but this may indicate an awkward shower — or no shower — as the proper choice. However, unless you are working on a museum-level restoration, there is no reason why you cannot install the bathroom that you want in a period house, just leave a record of notes and

photographs so that the next owner can understand your departures from the evidence.

Try, too, to be honest in appraising the original style and finish of your home. While we all admire fancy wainscotted shower enclosures with sprays that come from every angle, if you live in a small worker's cottage you might find that such a device is not that aesthetically pleasing or practical in a small bathroom — not to mention expensive. The good news is bathrooms and showers have not changed much since they were popularized. Today's equipment looks much the same as the early fixtures, and porcelain remains the material of choice. Once you have chosen your path, finding the right unit should be the easy part.

Stephen Del Sordo is based in Bethesda, Maryland, where he is Senior Historian with Dames & Moore (an international environmental engineering firm) and active in preservation planning.





ShowerPower Getting Old-House Bathrooms out of Hot Water

E'VE ALL BEEN VICTIMS. YOU'RE STANDING IN THE TUB, ALL SOAPED up and rinsing off, when someone in another part of the house taps the cold water (typically with a flush of the loo). All of a sudden, a good, hot shower gets much, much hotter too hot for comfort. B Y 6 0 R 0 Π N 8 Π ſ

Trouble is, many showers also get too hot for safety. Hot water scalding is not a new problem (it's as old as water heaters) but in recent years it has become a big health — and legal — issue. Most at risk are young children and the elderly. Healthy adults can take a brief exposure to very hot water without lasting ill effect, but the skin of small fry is much thinner and burns easily. Older folks get hurt because they're slower to react to the quick surge in temperature and take longer to shut off the water or get out of the way.

Plumbing the Problem

HOT WATER SCALDING IS ALSO A CHRONIC old-house problem. The showers and bath valves in many old houses are the simple two-handle kind that produce, say, a 50-50 hot/cold mix by adjusting the flow through two individual valves. Couple these controls to undersized plumbing or clogged pipes and the low water pressure they create, and the stage is set. Anytime the demand on the cold water increases, the pressure drops dramatically; instead of a mix of hot and cold water coming through the valves, it's almost all hot. Bathtubs are not immune, and many an early "modern" single-handle shower valve is no guarantee of mixing either. Water-saving, low-volume showerheads only aggravate the effect.

Water heaters themselves are another part of the problem. Where a 30 gallon tank is trying to supply a household that really needs 40 gallons, it's an old quick fix to boost the temperature in order to get that fifth shower in the morning or to still have hot water by the time it gets to the top of the house. In the past, automatic dishwashers, too, demanded very hot water to work effectively. The result is, many hot water heaters are supplying water at up to 160 degrees - hot enough to make tea or send someone to the hospital with second- or thirddegree burns.

Mix it Up

THE STRIKES AGAINST SCALDING TAKE place on two fronts. One is overcom-

Period plumbing, like this 1930s Dash Sanitary shower head (with "halo" curtain fittings) is attractive, but quaint twohandle shower and bath valves don't guard against hot water scalding.

38

ing the crude, fixed control of a two-handle valve with a constantly adjusting device that produces a regulated blend of hot and cold water. In many states, build-

ers are required by law to use such antiscald valves in new construction.

One type or another of these single-handle controls is usually part of a contemporary shower installation. Pressure-balancing valves use hydraulics to keep the water temperature within 3 degrees Fahrenheit of what the bather sets no matter how the hot and cold supply dips and peaks. Some designs employ a sliding piston or spool that shuttles back and forth to

SUPPLIERS

RESOURCES CONSERVATION, INC. P.O. Box 71, Dept. OHJ Greenwich, CT 06836-0071 (800) 243-2862 Scaldsafe brand shower hot water sensor; contact for nearest distributor.

S P A R C O 65 Access Road, Dept. OHJ Warwick, Rhode Island 02886 (401) 738-4290 Aquamix brand thermostatic mixing valves; contact for nearest distributor.

ARCHITECTURAL ANTIQUITIES Dept. OHJ Harborside, ME 04642 (207) 326-4938 Salvaged Victorian shower and tub fixtures, cleaned and reconditioned. proportion both flows; other manufacturers accomplish the same end with a rubber diaphragm. Thermostatic valves use temperature-sensitive bimetallic elements or wax cartridges to regulate hot and cold. They're more expensive (and more common in Europe), but they have a reputation for greater reliability. On most types, the installer can also set a temperature limit on the mixed water (to 120 degrees, for instance) by adjusting an internal stop. Where it's necessary to have positive safety from scalding, such as in hotels and health spas that serve the public, special thermostatic showerheads and line interrupters will shut all water off in milliseconds if it gets

within scalding level. However effective, an antiscald valve that's a single-handle "stick shift" doesn't retrofit to an older shower or bathtub very well and doesn't look very period. What to do? We asked Stan Patey, master plumber and OHI contributor, for some advice. Says Stan, "the object is to make the two-handle valves safe, the same as gang showers in gyms or whirlpool baths." His method is to install a thermostatic mixing valve in a box just outside the tub or shower, an approach that complies with the Massachusetts plumbing code, one of the strictest in the nation. These devices are not point-of-use controls, but rather industrial-type valves that are preset to simultaneously control both hot and cold water and limit the mixed temperature. In an old-house shower installation, hot and cold lines are plumbed to the mixing valve, then the output of the valve becomes the hot water supply line to the shower or bath.

Adding a tempering or mixing valve, such as the thermostatic unit shown here, to the hot water supply will limit the temperature to a safe and legal 112 degrees even if the cold water pressure decreases.

Once the hot water limit is set, typically at 110 degrees (a little hotter than the average hot shower), the water cannot exceed this temperature no matter how the cold water fluctuates. (The temperature of the mixed water should be confirmed with a thermometer.) On the best units, hot water flow cuts to a trickle if the cold water drops out completely. Models vary from manufacturer to manufacturer, but most are relatively inexpensive (about \$110) and straightforward to install. Be sure lines are clear of dirt and loose sediment, however, Rust or scale that breaks loose inside old pipes while the work goes on can foul the mixer.

Turn it Down

FURTHER BACK ON THE LINE, THOUGH, is the primary front in battling scalding - the water heater. Since it's always best to address the source of oldhouse problems, rather than treat symptoms, backing off the heater temperature to no higher than 120 degrees should be the initial line of defense it's certainly the easiest to execute. A lower hot water temperature at the source means safer water at the tap. Furthermore, lower temps translate as reduced heating fuel costs, and there is less standby loss of heat while the water heater is idle. In the kitchen, today's dishwashing detergents are for-

mulated to work at average water temperatures and dishwashers often carry their own water preheaters. (If the dishwasher does need a hotter water supply, look into an auxiliary heater at plumbing supply houses). Getting rid of ex-

cessively hot water even reduces the toll on the plumbing itself, especially valve washers and other parts not much tougher than human skin.

The Care & Feeding of ONE-PIPE STEAM

By Dan Holohan

t's really the simplest of heating systems, you know

— nothing more than a glorified tea kettle connected to a tangle of pipes and radiators. Nevertheless, one-pipe steam can sometimes act as though it has a mind of its own. The pipes hammer as if possessed. The air vents spit brackish water. The fuel bills go up, even as your level of comfort goes down. It doesn't have to be that way. One-pipe steam can be a quiet, obedient, and efficient servant. If your system isn't under control, sticking to a few regular upkeep rules and "thinking" like pipes and steam will help you house train that beast in your basement.

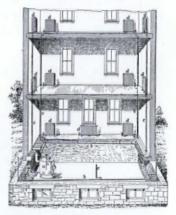
How Much Pressure? Not Much!

WHEN YOUR BOILER TURNS WATER INTO steam, the water expands about 1,700 times in volume. A pint of water suddenly becomes a cubic yard of steam.

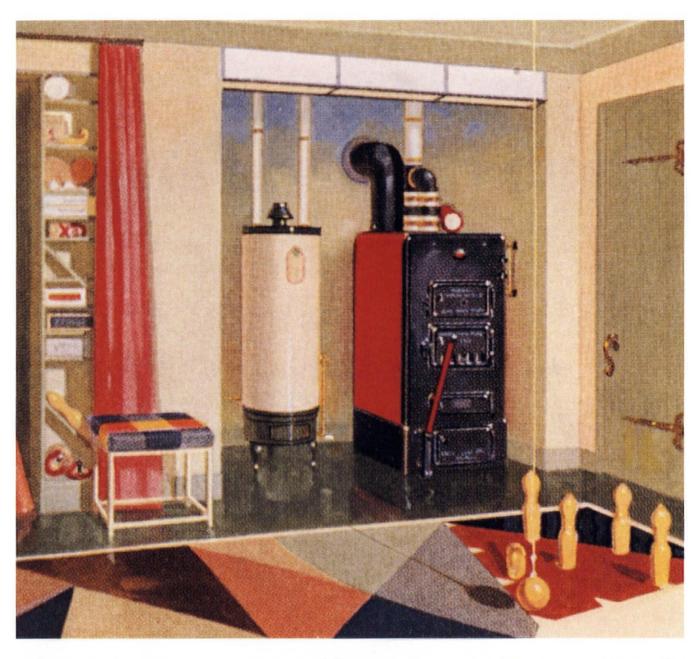
Steam doesn't know up from down. All it knows is out. It will always travel from high pressure (the boiler) to low pressure (the air vents). In most homes, a few ounces of pressure is all that's needed to get the steam from the boiler to the remotest radiators. It's not the pressure in a steam system that heats, it's something called latent heat.

Consider this. It takes 142 Btus to heat a pint of water from 70 degrees to 212 degrees. What you wind up with isn't steam, though, it's water at 212 degrees. If you want steam, you have to add an additional 970 latent heat Btus to that pint of water. When the water changes state, steam will explode out of the boiler and head for the air vents, but the temperature will remain the same: 212 degrees. You can't measure latent heat with a thermometer, but when the steam condenses in your radiators, you get it all back. You don't need much pressure to heat your house because heat's there at o psi in both water and steam. The only reason you need any pressure at all is to overcome the slight frictional resistance the steam meets on its way to the radiators. Any one-pipe-steam system in an American home will heat beautifully on 2 psi pressure or less if you set it up properly. If your pressure is higher, there's something wrong and you're wasting fuel.

You can check your steam pressure by looking at the boiler's pressure gauge. If it exceeds 2 psi, try turning the pressure down by adjusting your pressuretrol that's the small gray control on top of, or in front of, your boiler. The pressuretrol has two settings: "cut-in" and "differential." Set the "cut-in" pressure at ½ psi and the "differential" as low as your control will allow (usually 1 psi). The "cut-out" pressure (the point at which the burner will shut off) will be the sum of the "cut-in" and the "differential." For instance, if you set your control to cut in at 1/2 psi with a 1 psi differential, the system will cycle between ½ psi and 1 ½ psi. If you set your



In a one-pipe steam system, steam jumps out of the boiler and heads for the air vents, pushing the air out of the system. It heats the radiators, then turns back into water, which flows downhill to the boiler like rain through a gutter, and the cycle begins again.



Steam — the system of choice in the 'twenties — still heats many old houses. The boiler is its heart and the place where proper set-up and regular service starts. pressuretrol down and the pressure continues to rise anyway, your pigtail is probably clogged with sediment. Replace it with a new one (they're very difficult to clean).

In a one-pipe system, high pressure can lock your air vents closed and keep the steam from moving. If you want to save money and heat your home more evenly, crank the pressuretrol down, not up. You'll release the vents and give the air a way out. The steam will follow, and your radiators will get warmer than ever.

Good, Clean Water

WET STEAM IS THE BIGGEST CAUSE OF UNeven heating I know of and, if your boiler water is dirty, your steam will be wet. Wet steam is what you see coming out of a tea kettle — steam that contains more than 2% liquid water by volume. The empty space between the tea kettle's spout and the plume of wet steam is dry steam. This is the good stuff, and it's as invisible as air.

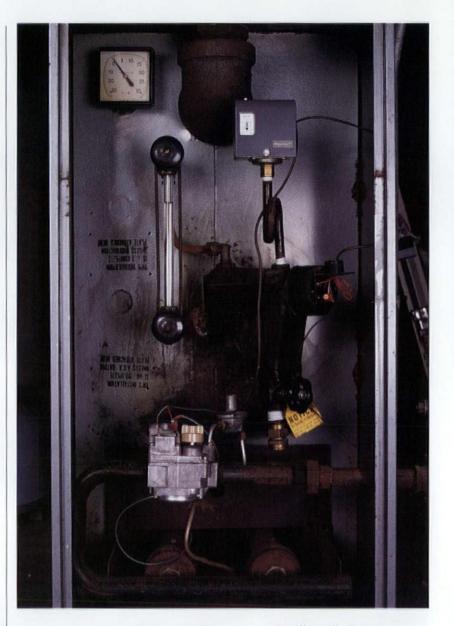
When your boiler water is dirty, the dry steam immediately begins to give up its latent heat energy to the droplets of carried-over water. The mixture of dry steam and water (wet steam) slows dramatically, condensing in your basement pipes instead of your radiators. Your boiler runs on and on, but your rooms stay cold because the thermostat isn't satisfied. Your pipes hammer and your air vents spit because there's too much water in the system piping. The water in the boiler rocks and surges violently, throwing even more water up into the pipes, making the situation worse.

If you look at the water gauge glass on the side of your boiler you can actually see what's going on. Ideally, the water line shouldn't bounce more than ¼". The portion of the gauge glass above the water should appear to be clean and dry with no bubbles or droplets of water streaming down from the top. When you look at the upper portion of the gauge glass, you're looking at your steam. Dry steam is crystal clear; wet steam looks like a rainy day. If you have a surging water line or a sloppy condition in the top of the gauge glass (and your system knocks and hammers in mid-cycle), suspect wet steam.

Another way to check for wet steam is to run the system and unscrew an air vent from a radiator that's still cold. Hold a lighted match next to the vent hole and watch the flame carefully. If the radiator seems to pant against the flame, blowing it back and forth (the rapid expansion, then sudden collapse of the steam as it leaves the boiler), your boiler is most likely producing wet steam.

To get rid of the dirt that produces wet steam, you'll have to clean your boiler. It takes nearly a full day to do this properly yourself. Most manufacturers recommend you use tri-sodium phosphate (TSP) or a soap called MEX (available in paint stores). You need one pound of either chemical for each 50 gallons of boiler water. Mix it in a pail of hot water and pour it into the boiler through the relief valve tapping (be very careful not to jar or damage the relief valve when you remove it from the boiler). Let the soap cook in the boiler for several hours at a lowered aquastat setting (so it doesn't make steam), and then drain the boiler. After the boiler has had a chance to cool, slowly refill it with fresh water. Heat the water again (without making steam) and drain. Usually, you have to do this a number of times before the water runs clean and free of soap.

Oily or dirty water is usually the consequence of new work — say, changing a boiler or fittings (installers use a lot of oil when they cut and thread pipes).



Once the system is thoroughly cleaned, you'll be able to look forward to dry steam and many years of good performance before you'll need to do it again.

Dirt And Low-Water Cutoffs

THE LOW-WATER CUTOFF SENSES THE MINimum water line in your boiler and shuts off the burner if the water line drops too low. Since a one-pipe steam system is open to the atmosphere, a good deal of rust develops as the years go by. The steam washes this rust back to the boiler and into the low-water cutoff. It's very important that you flush about a quart of water out of the low-water cutoff every week to prevent sediment and rust from building up inside the cutoff's float chamber. You'll usually find the pressuretrol sitting on a circular piece of pipe called the "pigtail" (right center). Set the "cut-in" and "differential" on this control to regulate the operating pressure of the boiler, read on the gauge (at the top left).





When you first start your boiler, the water should fill about two-thirds of the gauge glass (top). As water turns to steam and leaves the boiler, the level will drop (above). Clean steam will be invisible, but dirty water will show in the glass. The "normal" water line is another thing. It changes quite a bit during the operating cycle. During operation, "normal" will be down around the lower-third of the gauge glass. When the boiler shuts down, the water will return and bring the "normal" line back to the start-up level.

An automatic water feeder will add water to your boiler, but only to maintain a safe minimum water line - that's about 1/2" off the bottom of the glass, just slightly above the low-water cutoff point. It will never keep your boiler filled to the twothirds point on the gauge glass, nor should it. If it did, the water returning from the system would have no place to go. However, if your water is dirty, it will surge up and down inside your low-water cutoff and automatic water feeder. This can easilv and repeatedly open and close the automatic water feeder and add water to your boiler when it doesn't really need it. It can also burn out the switch in your lowwater cutoff. This is another good reason to have your boiler periodically cleaned. A surging water line can flood your boiler and send even more water up into the piping where it will hammer and squirt and cause damage to your home.

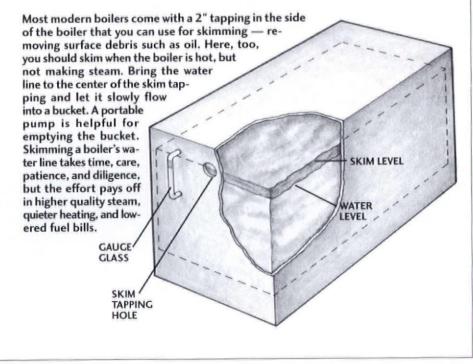
The pH of the water is another point to check, especially if you have knocking and banging. On the pH scale, 7 is neutral. As the number goes down, the water becomes acidic, as it goes up, the water becomes alkaline. If your water's pH is too low, you'll have greater-than-normal corrosion in your system. If it's too high (over 11), your boiler water will foam (create steam bubbles), causing the steam to condense before it reaches the radiators, and the system to knock and hammer. The boiler will also go off on low-water more frequently, and if you have an automatic water feeder, the boiler will flood.

A good pH for a steam boiler is anything between 7 and 9. Old-timers used to add vinegar to steam boilers that acted up. Vinegar is a mild acid. It drives the pH of the water down. When a boiler foams, a couple of quarts of vinegar is often all it takes to calm things down.

A Balancing Act

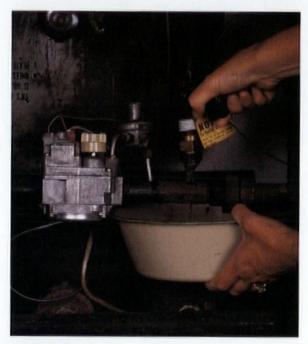
STEAM DOESN'T TRAVEL WHERE IT WANTS to go, it simply looks for a way out of the

SKIMMING FOR CLEAN WATER



system. If your water is clean and you're still having problems heating certain rooms, stop and consider the air that has to leave the system on every cycle.

When I'm troubleshooting, I always try to "think" like steam. I start at the boiler and ask myself, "If I were steam, which way would I push the air?" Then I walk though the system and look for the air vents. Many times, I'll reach the end of the main without seeing any. If I were air, I wouldn't be able to get out, so how can the steam get in?



If the low-water cutoff can't do its job because it's filled with crud, your boiler might dry-fire and break. A simple weekly flushing keeps it clean.

A good one-pipe steam system has very large air vents near the ends of the steam mains and smaller air vents on each radiator. The vents on the radiators should be on the side opposite the inlet valve and about halfway down the radiator. This positioning is important. If the vent is at the top, the steam will shut it before most of the air has a chance to escape from the radiator.

Large radiators contain more air than small radiators so they need to be vented more quickly. A trick the oldtimers used when they had a very large radiator was to install two vents instead of one. They drilled and tapped the radiator for a second air vent several inches lower than the first.

The large air vents on the mains are crucial to one-pipe-steam system balance. They coax the steam deep into the piping system before it heads up into the radiators. If the steam favors the pipes over the radiators, it will arrive at each radiator inlet valve at about the same time.

This is a key point the old-timers knew well and respected. By venting the mains very quickly, and by venting the radiators according to size — not location in the house — they made the steam

go where they wanted it to go. The goal is to make all the radiators, both large and small, hot all the way across on the coldest day of the year.

You may have heard you should vent radiators that are far from the boiler quickly and radiators that are close to the boiler slowly, but this becomes unnecessary when you vent the mains well. Steam, when unimpeded by air, moves at very high velocity. If you give the air a way out, the steam will arrive at each radiator supply valve at about the same time. Then, all you have to do is vent your radiators in proportion to their size, not their location.

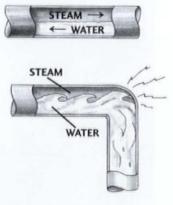
The Hammers of Hell

THE SNAPPING AND BANGING YOU HEAR IN your pipes is "water hammer." It happens whenever steam and water meet in a horizontal pipe.

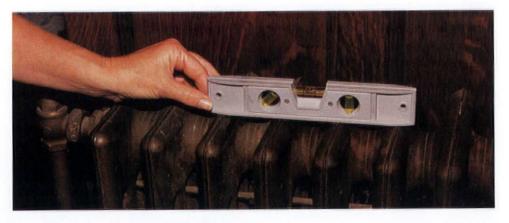
There are two types of water hammer. The first occurs when water puddles in a pipe on the off cycle. The steam enters the pipe like a gale-force wind and drives the pocket of water into the first turn. Usually, you hear a repetitive banging sound that builds to a climax. The second type of water hammer takes place when steam suddenly condenses directly over a pocket of water. The water, subjected to a sudden partial vacuum, leaps up and smacks against the top of the pipe. You hear a sharp snapping sound as the pipe shivers and shakes. Both types of water hammer will drive water up into your radiators and out the air vents. The force is so pow-



Vents on steam mains often added in coal-to-oil conversions — are there to get steam to all the radiators at the same time. This Richardson vapor vacuum vent is an early example, but still on the job at 90 years old.



In a one-pipe system, different densities allow steam and water to flow in the same pipe (top). Water hammer occurs when they act up, as when steam pushes water into an elbow. Using a six-inch level allows you to check the radiator's pitch from section to section. A large radiator may seem pitched properly, but the center sections can sag like an old burrow's back, trap water, and hammer.

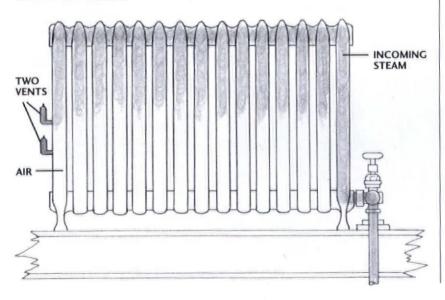


erful it can actually tear pipes from fittings. Never take it lightly. It can destroy a lot more than your solitude.

You'll often get the second type of water hammer when you remove asbestos insulation. Without the insulation, the heat loss of the pipe increases by about five fold. As a result, there's more water in the pipes than ever before. Combine this with a few flaws in the pipe's pitch and you'll have some very noticeable water hammer. Always reinsulate with a more suitable material because, water hammer aside, if the steam condenses in your basement, you'll be cold upstairs.

If you have water hammer when the system first starts, suspect poor pitch on the mains. When steam and water flow in the same direction, the mains must pitch a minimum of one inch in 20

Steam is lighter than air. As it enters a radiator, it rises to the top and works its way across until it closes the air vent. Adding a second vent to a large radiator lets the air continue to escape and allows more steam to enter the radiator.



feet. If steam and water flow in opposite directions (as they will in a back-pitched pipe), you need one inch in 10 feet. Check the pitch with a taut string and a line level. The horizontal run-outs to radiator risers should be pitched more than the mains and, ideally, they should not be longer than eight feet (to prevent water hammer and squirting air vents). If they must be longer, you can sometimes pitch the radiator away from the supply valve and drain its low end into a return line below the boiler water line.

I recently spoke with a woman who had an automatic water feeder stick in the open position, flooding all her pipes. After things were back in order, she started the system and found she now had water hammer. As it turns out, the additional weight the water put on the pipes when they were flooded pulled a few of the hangers loose and changed the pitch. The steam was now letting her know about it in a big way.

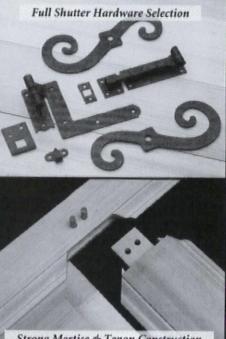
If there's hammering inside the radiators, check their pitch. One-pipe steam radiators are heavy and, over the years, the end opposite the supply valve can dig a trench in a wood floor. Never try to throttle the heat to a one-pipe radiator by closing the supply valve part way. If the valve is half-closed, the water will not be able to get out, and the radiator will hammer and squirt.

One-pipe steam really is quite simple. Once you get to know it, once you start to "think" like steam, I think you'll find it's pretty easy to tame.

Dan Holohan writes about older heating systems from his consulting firm in Bethpage, New York.

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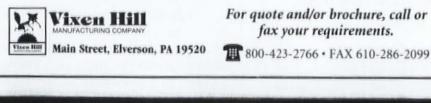


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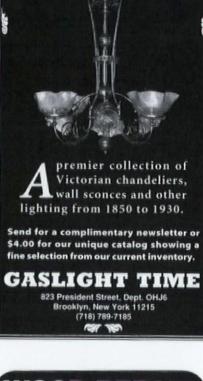
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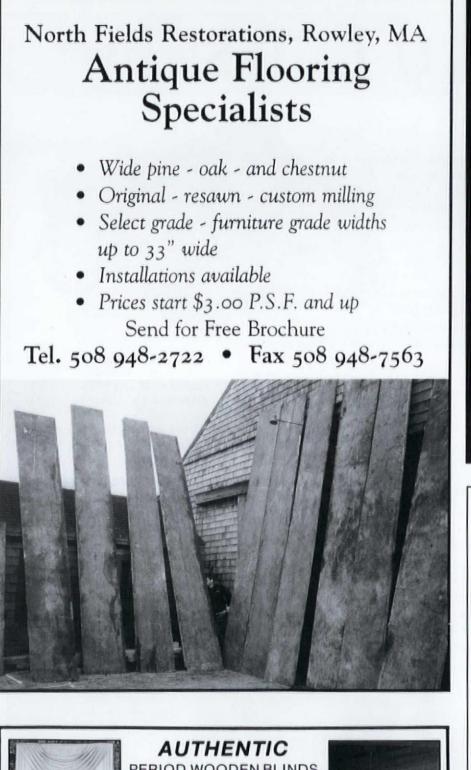
Vinyl floorcoverings in linoleum designs are appropriate for post-Victorian kitchens.

The Scamozzi composition capital is stocked in sizes as small as $4\frac{1}{2}$ " in diameter x $2\frac{1}{2}$ " high.

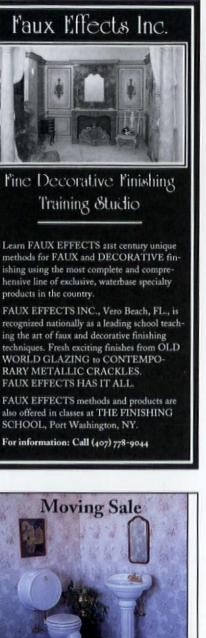
imitates old felt-based linoleum rugs — which, in turn, were imitating Colonial carpeting! The floorcovering is available in a green, red, or brown floral pattern, and can be double-face taped to the floor or glued down with a vinyl-back ad-

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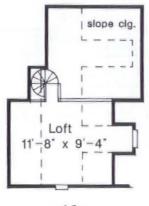
ENGLISH GATE HOUSE



EMINISCENT OF THE GATE HOUSES OF ENGLISH country estates, this enchanting cottage is ideal for a vacation home, weekend retreat, or guest cottage. The living/dining area accommodates a small table, sofa, chair, and coffee table with space for a built-in entertainment unit. Spiral stairs go up to an optional loft area for extra sleeping room or a quiet sitting area.

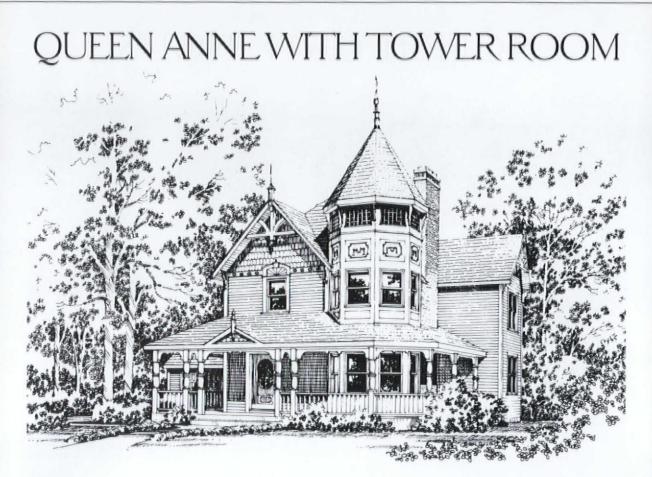
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first floor

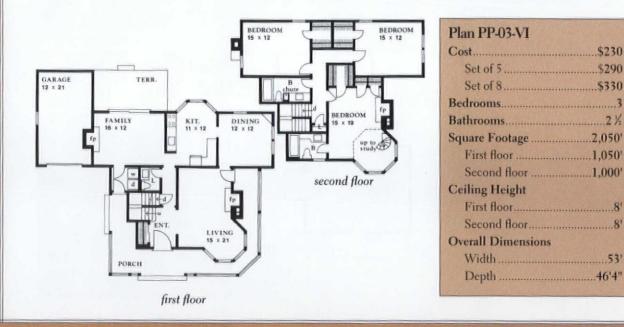


second floor

| Plan LG-14-PV | |
|--------------------|--------|
| Cost | \$170 |
| Set of 5 | \$230 |
| Set of 8, | \$270 |
| Bedrooms | 1 ½ |
| Bathrooms | 1 |
| Square Footage | |
| Optional loft | |
| Ceiling Height | |
| First Floor | 9' |
| Overall Dimensions | |
| Width | |
| Depth | 24'10" |
| | |



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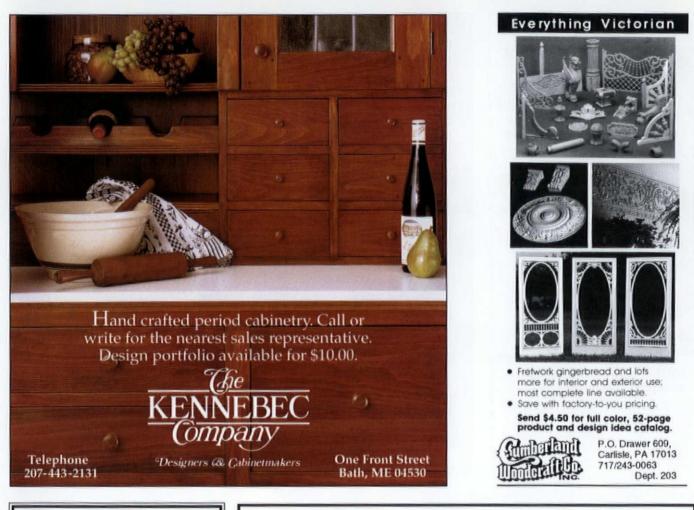
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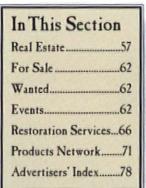
BRIMFIELD MA—C. 1800 Federal (part restored). 9 rooms incl. 3 bedrooms, 1-1/2 baths, encl. porch and deck, 2 working fireplaces, large 2-car garage and barn. 85 acres. Partly cleared, including 30-acre tree farm. \$310,000. (413) 245-3293.

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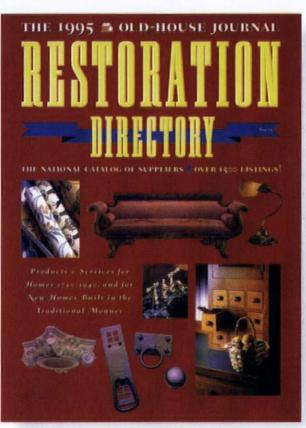
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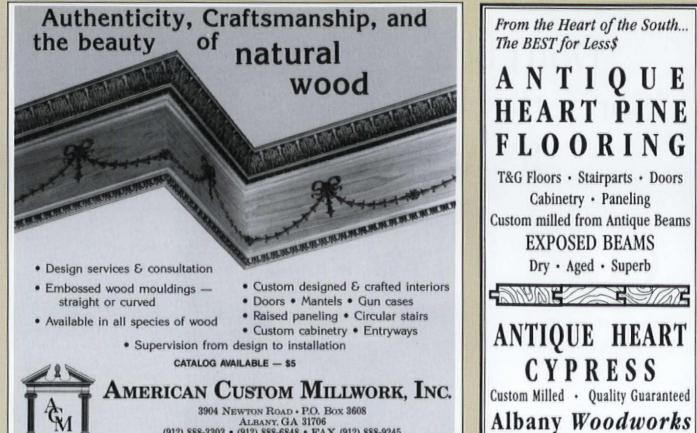
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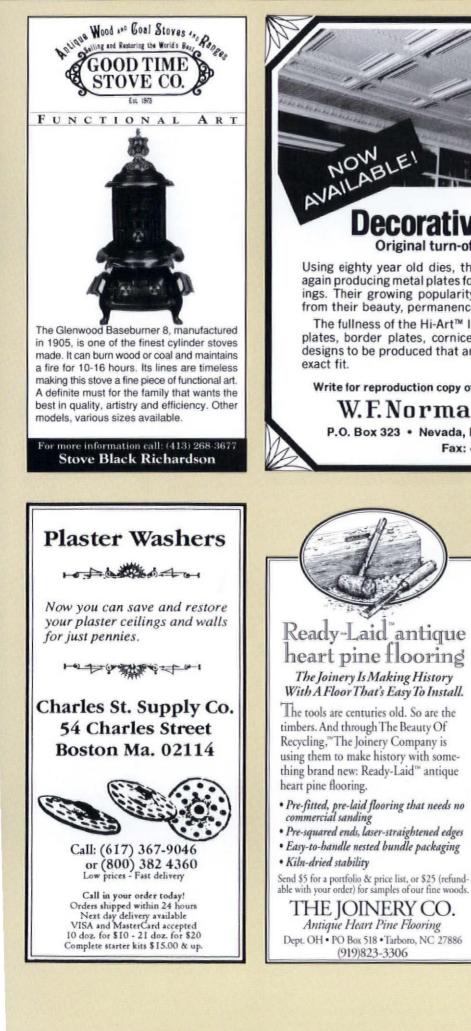
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Events

AIA WORKSHOP — Hors D'oeuvres to Hard Hats: Funding & Implementing Capital Improvement Projects at Historic Houses. The Historic House Museum Consortium of Metropolitan DC explores the process and challenges of conducting major construction, restoration, and repair projects at historic properties. Fri., Nov. 4 at The American Institute of Architects Headquarters Board Room, 1735 New York Ave., NW, Washington, DC. (202) 638-3221.

COLONIAL WILLIAMSBURG EXHIBIT — The DeWitt Wallace Decorative Arts Gallery exhibit "Drawing on the Past: The Restoration of Williamsburg 1927-1994" through Jan. 1, 1995.

NORTH BENNET STREET SCHOOL — Open House, Fri., Nov. 4, 10 am -2 pm; Sat., Nov. 5, 10 am - 3 pm. Free admission for a rare glimpse of work in progress within its craftsmanship training program.

ANNAPOLIS HOUSE TOUR—Historic Annapolis Foundation. Three centuries of history. Part of Annapolis's 300th Anniversary. Fri., Nov. 4, 5-9 p.m., \$25 admission. 10% disc. w/advance reservation. Call (410) 267-7619.

CEMETERY WALK—Art Deco Society of Los Angeles 10th Annual Cemetery Walk, Sat., Oct. 29. Historic perspective of Hollywood personalities and monumental art and architecture, \$7. Call (310) 836-6600.

HISTORIC PETERSBURG — Foundation Home tour Sunday, Dec. 4 from 12 to 5 p.m. 18th- and 19th-century buildings of Petersburg, VA. Call (804) 732-2096.

MUSEUM ANTIQUES SALE — The 26th Annual High Museum Antiques Show & Sale: Buckhead's Pyhipps Plaza, 3500 Peachtree St., NE. Fri., 10 a.m.-9 p.m.; Sat., 10 a.m.-6 p.m.; Sun., noon-6 p.m. Preview party Thurs., Nov. 10, 7-10 p.m. Call (404) 892-3600, Ext. 430.

VICTORIAN HOUSE TOUR – Old Allegheny Victorian Christmas House Tour, Dec. 9-11, Pittsburgh, PA. Tour of Allegheny West Historic District, noon – 8 p.m. Sat.; 1 p.m. - 8 p.m. Sun. Tickets \$15 pp. Ticket quantities limited. Tickets for Tea Tour \$27.50 pp. Call (412) 323-8884.

FLORIDA FOLKLIFE/LIVING HISTORY DAY — December 3, Floral City, FL. Tour historic homes, reenactment of a Victorian wedding in restored 1884 United Methodist Church, horse drawn hay ride, folk skills demonstration, among other events. Call (904) 726-7740.

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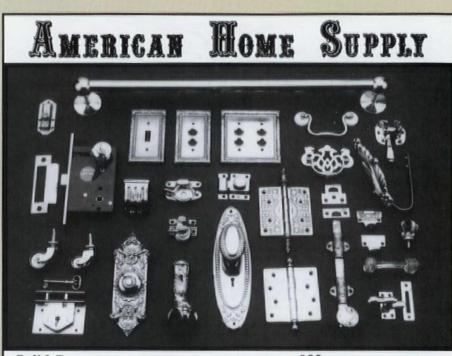
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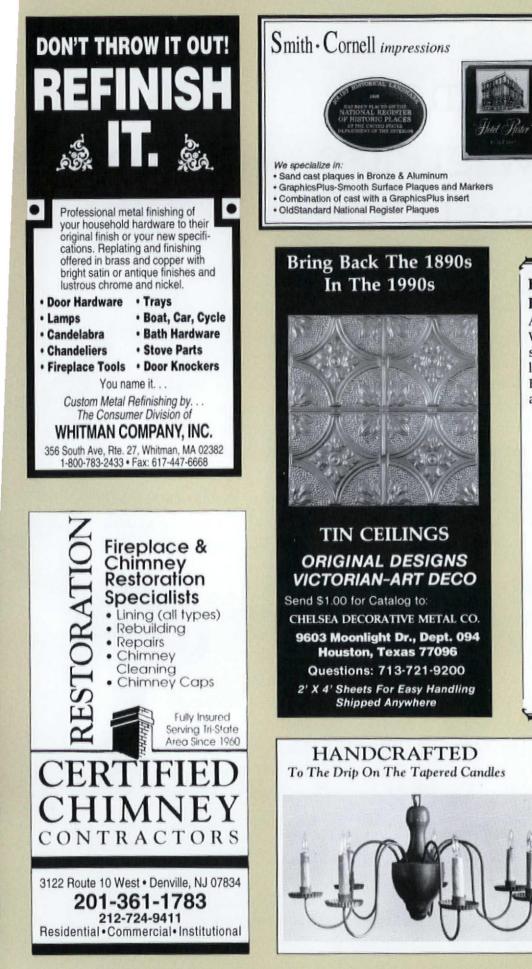
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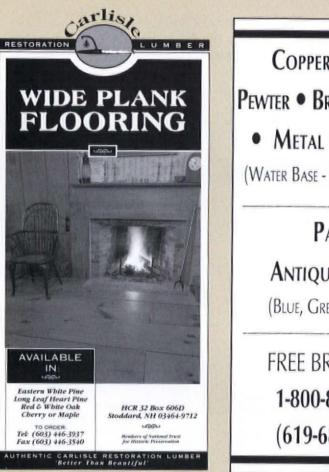
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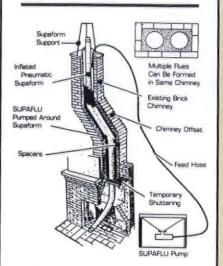
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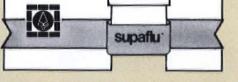
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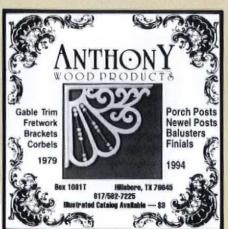
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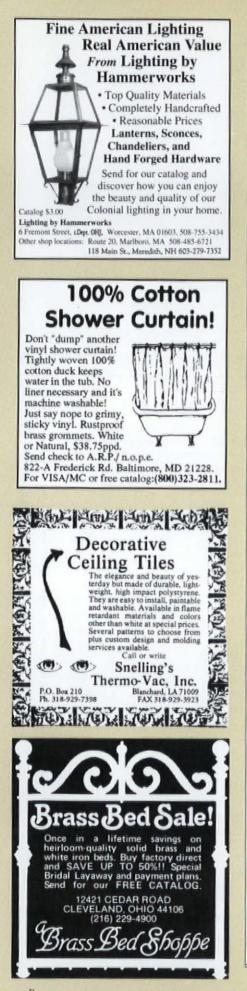
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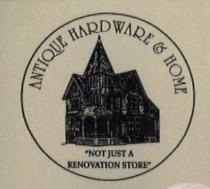
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| 16 113 5 5 5 7 7 32 6 5 7 7 32 7 33 30 3 7 5 5 7 7 32 7 5 7 7 32 7 7 38 7 7 5 7 7 28 7 7 28 7 7 28 7 88 65 7 7 10 7 7 5 38 10 7 5 5 5 7 10 7 10 7 10 7 10 10 10 10 10 10 10 10 10 10 | Midwest Architectural Wood Prod. 6 Monarch Radiators |
| 113 5 527 732 657 7 32 7 702 7 753 7 753 7 753 7 753 7 753 7 753 7 753 7 753 7 753 7 753 7 752 10 5538 10 752 11 1 6 30 30 | Monarch Radiators 7 National Supaflu Products 7 Nixalite of America 5 North Fields Restorations 50 Northern Roof Tile 7 Ohmega Salvage 66 The Old Wagon Factory 7 Ole Fashion Things 2 Patina Finishes & Copper 66 |
| 113 5 527 732 657 732 657 733 330 702 753 725 728 33 38 659 10 11 11 1 1 538 11 12 752 732 735 725 728 732 732 732 732 732 732 732 732 732 732 | National Supaflu Products 7 Nixalite of America 5 North Fields Restorations 5 Northern Roof Tile 7 Ohmega Salvage 6 The Old Wagon Factory 7 Ole Fashion Things 2 Patina Finishes & Copper 6 |
| 5 527 732 657 733 303 702 753 30 702 753 38 659 10 538 10 538 10 753 38 659 10 11 11 11 11 11 11 11 11 11 | Nixalite of America 5 North Fields Restorations 5 Northern Roof Tile 7 Ohmega Salvage 6 The Old Wagon Factory 7 Ole Fashion Things 2 Patina Finishes & Copper 6 |
| 527 732 657 7 32 303 7702 7753 7725 725 788 38 10 5338 7522 11 1 6647 30 30 | North Fields Restorations |
| 732 657 32 303 702 753 725 728 728 10 538 10 538 10 11 1 647 30 | Northern Roof Tile |
| 657 32 303 702 1 753 725 1 753 1 753 1 659 1 1 538 1 1 538 1 1 6647 30 | Ohmega Salvage |
| 32 303 702 753 725 10 10 1538 10 538 10 11 1 1 647 30 | The Old Wagon Factory |
| 303 702 702 1 753 1 725 1 38 1 659 1 10 1 538 1 11 1 1647 1 30 30 | Ole Fashion Things2 Patina Finishes & Copper |
| 702 753 725 1728 18 10 10 10 10 10 11 1 1 647 30 | Patina Finishes & Copper6 |
| 753 725 728 38 659 10 538 752 11 1 647 30 | Patina Finishes & Copper6 |
| 753 725 728 38 659 10 538 752 11 1 647 30 30 | |
| 725 728 38 659 10 538 752 11 647 30 30 | Period Lighting Fixtures7 |
| 728 38 659 10 538 752 11 1647 30 30 | Petit Industries, Inc6 |
| 38 659 10 538 752 11 1 647 30 30 | Pitcaim-Ferguson & Associates |
| 659 10 538 752 11 1 647 30 | Primrose Distributing |
| 10 538 752 11 1 647 530 10 10 10 10 10 10 10 | Protech Systems |
| 538 752 11 647 30 | Reggio Register Company2 |
| 752 11 1 647 30 | Rejuvenation Lamp & Fixture2 |
| 11 1 647 30 | Renovator's Supply |
| 1 647 30 | Rinnai America Corporation6 |
| 647 30 | Roy Electric Company6 |
| 30 | Schwerd Manufacturing |
| 30 | Shutter Depot |
| 30 | Shuttercraft |
| 1 | Sky Lodge Farm |
| | Smith-Cornell |
| 209 | Snelling's Thermo-Vac |
| | Southampton Antiques4 |
| | Specification Chemicals5 |
| 687 5 | Steptoe & Wife7 |
| 539 | Sterling-Clark-Lurton Corporation |
| 122 5 | Stewart Iron Works Company |
| 748 | Street Level Supply6. |
| | Stulb Company |
| 608 5 | Sunflower Shower Company7 |
| 747 | Fool Traditions |
| | Touchstone Woodworks |
| | Tuff-Kote Company |
| 1 | Uncle John's Gingerbread House7 |
| 1 | Van Dyke's7 |
| 4 | Victorian Lighting Works6 |
| 1 | Vintage Plumbing Specialties4 |
| 13 | Vintage Wood Works |
| 401 | Vixen Hill |
| 128 | W.F. Norman Corporation |
| | Ward Clapboard Mill |
| | Whitco/Vincent Whitney40 |
| 1 | Whitman Company68 |
| 1 | William J. Rigby Co70 |
| 439 | Williams & Hussey10 |
| 1 | Window Saver |
| 1 | The Wood Factory |
| 1 | Woodhouse |
| | Woodstock Soapstone Company |
| | Woodstone Company |
| | Woodwright Design |
| 722 | rield House6 |
| | |
| Ad | |

Advertisers' Index

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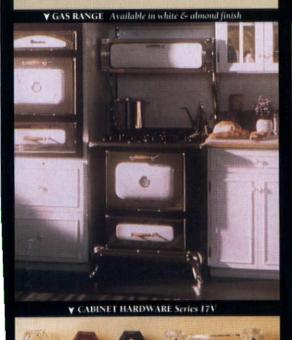
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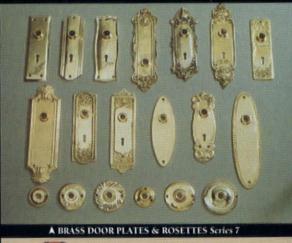
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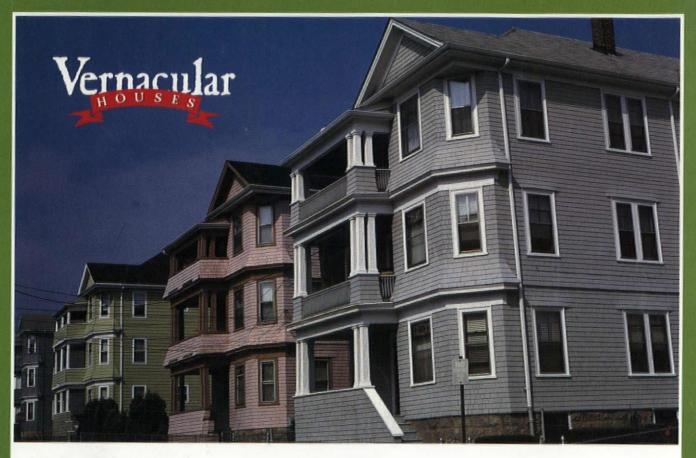




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MASSACHUSETTS TRIPLE-DECKERS

A FTER THE CIVIL WAR, AS IMmigrants flooding into the United States were in need of housing, a distinctive, multi-family row house — now called the Triple-Decker — developed in South Boston and nearby Roxbury, Massachusetts. Unlike the brick or stone row houses of other cities, its wood frame construction was based on the strong Colonial building tradition that existed in New England.

These row houses were originally called Three-Deckers, a nickname for British man-of-war ships and their three gun decks. The term implied something of great size and was a natural for the new row house with its three "decks" (porches).

Triple-Deckers, as the name suggests, are three stories high with an individual apartment and rear porch on each floor. Inside, front-



Triple-Deckers (above) were usually located near jobs, had comfortable apartments, and provided more light than brick row houses. Bow-fronted Triple-Deckers (top) line the streets of Fall River, Massachusetts.

to-back apartment floor plans consist of a side entry, parlor, dining room,



two (or three) bedrooms, and a kitchen ell. During the late 19th century, bow fronts — copied from the fashionable houses of Beacon Hill were adopted, making the parlor more spacious.

Originally, there were two types of Triple-Deckers: the flat roofs of South Boston and the pitched roofs of Roxbury. As row houses spread, the two types mingled. Double Triple-Deckers — two row houses built side by side for six families — also became common.

The Triple-Decker continued to be built well into the 20th century. By the 1920s, approximately 15,000 buildings had been constructed. Today, the Triple-Decker is still a vital and convenient part of urban living.

> - LYNN ELLIOTT Gloucester, Mass.