GENERATION AGO, sheet-metal workers built a lot of cornices, skylights, and roofs -- usually standing seam roofs. Since around 1940, though, few of these roofs have been installed on houses. The cost of the skilled labor required to install a handcrafted roof is out of reach for many homeowners, and a good roofer/metalworker is almost as hard to find as a good roof thatcher.

UNTIL RECENTLY, old-house owners who wanted to replace their worn-out standing seam roofs didn't have many good choices. Most roofing contractors won't go near the job, and the ones who will usually want to tear off the metal and install asphalt shingles or roll roofing. Or worse yet, they'll coat the metal with a horrid black ooze that will not stop leaks. Do not allow these people to darken your door. Or your roof. Anyone with time, gumption, and good native skill can install a standing seam roof using pre-formed panels and inexpensive rented tools.

cont'd on p. 44
A $1,000 OHJ grant is music to the ears of the Compton Heights Concert Band of St. Louis, seen here in front of their restored Victorian bandstand. Compton Heights is a historic neighborhood of 270 families, and the band (organized in 1976) has become a focal point of community pride. Band President Harry Swanger (upper right) spearheaded the fund-raising drive that sold 180 OHJ subscriptions—and added $2,080 to the band's treasury.

Six Groups Win $1,000 Grants

Six preservation groups each have $1,000 more for their 1985 projects thanks to The Old-House Journal's Grant Program. The six winners became eligible for the grants by participating in OHJ's Revenue-Sharing Plan in 1984:

- Sussex County Historical Society - Newton, N.J.
- Compton Heights Concert Band - St. Louis, Mo.
- Historic Albany Foundation - Albany, N.Y.
- Preservation & Conservation Association of Champaign County - Champaign, Ill.

The revenue-sharing plan lets preservation organizations offer their members OHJ subscriptions at a discount. And each group keeps half of all the money it collects. Last year the 149 participating groups earned $22,000 for themselves.

The first $1,000 grant goes to the organization that sells the most subscriptions—this year, the Compton Heights Concert Band. The other 5 grants were awarded by a drawing. Names were drawn by Mary Kay Gallagher, a resident of Brooklyn's much-admired Prospect Park South community since 1959. She has been a tireless advocate of Brooklyn's neighborhood revival through her work as a real estate broker specializing in historic houses, and as a Director of the Prospect Park South Assn.

We started the revenue-sharing program to share money with preservation groups who help us sell OHJ subscriptions. Our alternative is to sell subs by direct mail. But instead of shoveling money into the Postal System, we'd rather give the money to preservation groups.

Over $25,000 is available for the 1985 Revenue-Sharing and Grant Programs. If your group would like to participate, contact: Barbara Bugg, The Old-House Journal, 69A Seventh Ave., Brooklyn, NY 11217. (718) 636-4514.
Old-House Living...

General Rochambeau Slept Here
The Story Of Breakneck Hill
by Lawrence M. Duryee

UNLIKE MOST OLD-HOUSE LIVING STORIES, this article focuses on a restoration completed over forty years ago. The Duryees bought the Josiah Bronson house in 1940 and still live there; they have spent years researching the history of their house. Although the restoration is long since completed, the Duryees' intimate knowledge of its past continues to make the house an important part of their lives. — SJM

MY WIFE ESTHER AND I first saw the old Josiah Bronson house one bright April day in 1940. We were galloping down an old logging road, paying attention to our mounts. Two friends riding with us slowed their horses and pointed. "That's the oldest house in Middlebury, Connecticut," they said. We couldn't believe it! The shingles were weatherbeaten and warped. The big central chimney needed repointing and rags were stuffed into holes in the door to keep the rain out. A rickety side porch didn't belong there. Piles of rusty farm machinery cluttered what was once a lawn. Under the old maple, a lopsided spring house once used for cooling milk was on its last legs. An old cowbarn leaned dangerously near the bend in the road, its roof caving in. Its south door, through which cows had been led for milking, was shattered.

DESPITE ITS WRETCHED condition, the Bronson house appealed to us in a way we couldn't define. We were very curious about its history. The next day we checked old land records and queried the town clerk. "Yep," he said in his Yankee drawl. "Oldest house in town. Maybe 1740, maybe earlier." We learned that Isaac Bronson, Josiah's father, began construction in 1738, but died before the house was completed. Isaac left the unfinished house to Josiah, "in building, with all the stone-work and the glass." A year or so later Josiah completed the house, moved in, and, with four wives and twelve children, lived until the age of ninety-two. We found his headstone in our local graveyard.

FOLLOWING HISTORIANS' LEADS, we tramped through the dense woods beyond Josiah's apple orchard and found the large stone monument that marks the spot where the famous French leader, General Rochambeau, had camped in 1781. Rochambeau led four thousand of his native troops, who had landed at Newport, Rhode Island, on the long march from Providence to the Hudson River where they joined forces with General Washington's Continental Army. (They went on to defeat Lord Cornwallis and the British Army.) The encampment at Breakneck occurred on a rainy night in June 1781. Rochambeau's mapmakers designated Breakneck Hill as Camp No. 9. It's reported that Bronson invited the French general to spend the night in his home. After the memorable battle at Yorktown, Rochambeau's victorious army came back through Connecticut and camped in the same spot they had earlier, labelled Camp No. 46 this time. Again, Josiah entertained his friend General Rochambeau.
On another cloudless day two months after we first saw it, we mortgaged our future and bought the old Josiah Bronson place. With a picture in our minds of colonial charm, intimate gardens, and fields of hay and alfalfa for our horses, we dedicated ourselves to restoring the house. Two centuries of wind, snow, and summer storms had not changed its fundamental structure; most at this point was loving care.

The previous owner, a mechanical engineer, had started work on the interior and installed a unique invisible heating system (see O&J, Dec. 1976) to supplement the three fireplaces. I made an eight-foot-long hinged trap door for the entry to the attic to prevent heat loss. After installing ventilators to let moisture out, I insulated the attic with six inches of glass wool.

The cellar sent us into ecstasy! When we inspected the oak beams, still covered with bark, each end was held in place with wooden pegs, we covered the dirt floor with gravel for easier walking and installed a pump to keep the basement dry during heavy rains.

Our 90-year-old neighbor took us aside and, if telling us a great secret, insisted that we carefully examine the foundation stones of the central chimney, we finally found it—a loose boulder two feet above the cellar floor. We removed the boulder by wedging pointed knives around the stone, being careful not to mar it. Behind this boulder was a cavern four feet wide and five feet high. Inside we could see the walls and the large smooth boulders that formed the domed ceiling. The vault floor, two feet above the cellar floor, was free of soot, so the cavern had not been used for cooking. Legend has it that the Bronson family used the vault as a hiding place for valuables during raids by the Algonquin Indians. After the Indians had gone, the treasures were removed. Silver, gold coins, and pieces of rare china brought from England were hidden there and then recovered—all in complete secrecy.

A few years ago, Michel Rochambeau, the General's descendant, and his wife came to the United States from Paris. They not only traced the entire route their ancestor had followed in 1781, but spent the night in Josiah Bronson's house. Together, we were able to celebrate the continuation of a friendship that began on a rainy night in June more than two hundred years ago.
Improving Old Walls
And Ceilings With
Lining Materials

by Stephen L. Wolf

OLD WALLS AND CEILINGS in need of repair... bad cracks that keep coming back... peeling and flaking paint... tacky artificial wood panelling... water-damaged plaster... a cinder-block wall you'd like to make smooth. Frequently, the answer to these old-house problems is a lining material.

THE TERM "lining canvas" may be commonly used, but it's become a misnomer. Canvas or cotton is still the fabric of some lining materials, but today most are based on synthetics such as polyester or fiberglass. The lining material is coated with latex, usually an acrylic, which is pigmented white. This coating bodies the base fabric and acts as a primer.

DON'T CONFUSE lining materials with lining paper. Lining paper, as its name implies, is a paper product and is not primed. Unlike lining materials, it's intended for use only under wallcovering. To some extent, it will smooth out a not-too-rough wall, but basically it's used to provide good tooth and even porosity for the wallcovering adhesive. It also absorbs some of the moisture in the adhesive, thereby reducing the possibility of bubbles and wrinkles.

LINING MATERIALS, or fabrics, are available in several weights. The heavier ones, approximately 18 to 20 mils thick, are intended for use over such surfaces as cinder block, cement block, and brick. These fabrics are thick and stiff enough to bridge open areas, including mortar joints. They usually show a surface texture, and so are more frequently finished with wallcoverings that hide their texture, rather than with paint.

THE MORE LIGHTWEIGHT fabrics are recommended for walls that are relatively smooth, but have suffered minor damage such as flaking paint, cracking plaster, efflorescence due to past water damage, or less-than-perfect previous patching. Paint or wallcoverings can be applied over these liners.

WHEN SELECTING wallcovering designs and paint finishes, you should of course make your selection after your own decorative preferences. But bear in mind that certain designs and finishes will improve the overall appearance. If your walls are showing their age, avoid glossy finishes in either wallcovering or paint. The higher the gloss, the more light reflection will show up surface irregularities. Flat finishes are recommended (or at most an eggshell sheen). With wallcoverings, a fairly busy design will also help.

General Hanging Instructions

I. MASONRY
(Concrete, Cinder Block, Cement Block, Brick)

THE LINING MATERIALS recommended for masonry walls are heavier and stiffer than those used on smoother surfaces. But they won't conceal the bumps and protuberances of these rough surfaces; you'll have to smooth these irregularities by knocking or sanding them off. Extensive filling won't be required because the lining materials are strong enough to bridge pits and mortar joints. The only case where you should bother filling in crevices and

The best way to rescue a wall such as this one, with its water-damaged plaster and peeling paint, is by applying lining material.
joints is when you’re covering cinder block. (If you’re tackling that job, use a latex block-filler for a smoother surface.)

WHETHER OR NOT you use block-filler, be sure to size the wall. Use a mixture of 50% water and 50% ready-mixed vinyl adhesive; allow to dry at least two hours. If the wall was previously painted, replace the vinyl-adhesive size with an acrylic-emulsion primer (Roman’s R-35, Zinsser’s Shield, Inel-X’s Aqualock, or any other product specifically designed to go under wallcovering).

CUT EACH STRIP of the lining material 2 to 3 inches more than the height of the wall. For the first strip measure from the corner approximately 1/2 inch less than the width of the material, so you can cover the corner. Paste the back of the strip, giving special attention to the edges. When you carry the strip to the wall, fold it over loosely, paste side to paste side.

HANG EACH STRIP vertically, from the top down. Use a plumb line to make sure the hanging is exactly vertical. Smooth with a sponge or smoothing brush, one foot at a time. (Don’t use too much pressure, or you’ll force the lining into the joints and cracks.) Work from the center out to eliminate air bubbles. Butt the seams — do not overlap. Trim the top and bottom with a razor blade.

ALLOW AT LEAST four or five days drying time -- even more if the area is poorly ventilated or if the weather has been humid. Afterwards, prime the lining with an acrylic-emulsion primer, and let it dry for several hours. These materials may then be painted or wallcovered. When hanging a wallcovering make sure its seams don’t coincide with the seams of the liner.

II. PANELLING
(Wood, Composition Board, Plastic, Etc.)

HERE AGAIN you should apply heavier lining materials to bridge grooves, seams, and other irregularities. First roughen the surfaces with a coarse sandpaper (80 D production paper). You should also wash these surfaces thoroughly, as they’ve frequently been waxed or oiled. If you can stand the odor, ammonia makes a good wash; otherwise, a heavy-duty cleaner such as Ajax may be used. Rinse it off completely when you’re finished.

THE PANELLING should then be primed with an acrylic-emulsion primer. Allow two or three hours drying time. Use a ready-mixed vinyl adhesive and hang the lining material horizontally. (This will give you the smoothest results.) If you find it easier, hang the material vertically, but be careful that the seams don’t line up with the grooves in the panelling.

THE MOST FREQUENT USE of lining material is on walls that have been repeatedly painted over the years. It can create a new wall by removing all sorts of problems: peeling from water damage; cracks in the paint film (which sometimes extend to the plaster underneath); badly done spackling or other repairwork. The liners for these jobs are usually smoother in finish and more lightweight than those used on masonry. But heavier material may be best for badly damaged walls.

PREPARE THE WALL by sanding off all bumps and protrusions. Flaking and peeling paint must be rigorously scraped off. Wide cracks and depressions deeper than 1/4 inch should be filled with a paste spackling. Don’t bother filling fine cracks -- the lining fabric will bridge them.

THE SMOOTHER THE SURFACE with which you start, the smoother your final result will be. Apply an acrylic-emulsion wallcovering primer before hanging the liner. Then hang the fabric vertically (although sometimes horizontal hanging is done), using a ready-mixed vinyl adhesive. Liners of synthetic fabrics are always butted at the seams; liners of cotton canvas can be overlapped and double-cut at the seams because cotton is subject to shrinkage. Air bubbles under the liner can be removed by slicing them open with a razor blade and pressing the material back into place.

ALLOW AT LEAST four to five days drying time before painting. Lining materials are factory-primed, so primer is usually unnecessary under a flat finish. For semi-gloss and high-gloss enamels, however, either an alkyd or latex enamel undercoater should be applied. If wallcovering is to be hung over the liner, always prime with an acrylic-emulsion wallcovering primer.
<table>
<thead>
<tr>
<th>Product Name</th>
<th>Maker</th>
<th>Composition</th>
<th>Texture</th>
<th>Thick-ness</th>
<th>Roll Size</th>
<th>Basic Uses</th>
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<tbody>
<tr>
<td>Wall Cover No. 9962</td>
<td>Imperial Wallcoverings a division of Collins &amp; Aiken</td>
<td>25% cellulose, 38% synthetic fibers, 37% acrylic latex saturant</td>
<td>slight surface texture</td>
<td>20 mils</td>
<td>28 in. W by 15 ft. L; packed three single rolls per bolt, approx. 105 sq. ft. per bolt</td>
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</tr>
<tr>
<td>Wall-Over No. 20950</td>
<td>Columbus Coated Fabric</td>
<td>65% polyester, 35% natural cellulose</td>
<td>slight surface texture</td>
<td>18 mils</td>
<td>27 in. W by 15 ft. L; approx. 105 sq. ft. per bolt, total 1,175 sq. ft.</td>
<td></td>
</tr>
<tr>
<td>Wall-Tex Canvas No. 30950</td>
<td>Columbus Coated Fabric</td>
<td>80% cotton, 20% polyester</td>
<td>very slight surface texture</td>
<td>12 to 14 mils</td>
<td>27 in. W by 15 ft. L; packed in doubles rolls, approx. 64 sq. ft. per double roll</td>
<td></td>
</tr>
<tr>
<td>Softer Canvas No. 30990</td>
<td>F.B. Chemical</td>
<td>80% polyester, 20% acrylic primed</td>
<td>very slight surface texture</td>
<td>12 to 14 mils</td>
<td>54 in. W by 36 ft. L; per bolt, approx. 189 sq. ft. per bolt, total 7,056 sq. ft.</td>
<td></td>
</tr>
<tr>
<td>Gild-Wall No. 70127</td>
<td>G.U.-I-10 &amp; Resins Corporation</td>
<td>Johns Manville Fiber Glass</td>
<td>smooth mat</td>
<td>22 mils</td>
<td>48 in. W by 300 ft. L; 1,200 sq. ft. per roll</td>
<td></td>
</tr>
<tr>
<td>Gild-Wall No. 72659</td>
<td>G.U.-I-10 &amp; Resins Corporation</td>
<td>Johns Manville Fiber Glass</td>
<td>smooth mat</td>
<td>30 mils</td>
<td>48 in. W by 300 ft. L; 1,200 sq. ft. per roll, total 1,200 sq. ft. per bolt</td>
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</tr>
<tr>
<td>Gild-Wall No. 70884</td>
<td>G.U.-I-10 &amp; Resins Corporation</td>
<td>Johns Manville Fiber Glass</td>
<td>burlap finished</td>
<td>32 mils</td>
<td>40 in. W by 300 ft. L; 1,000 sq. ft. per roll</td>
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* Additional cost of primer approx. $1.50 per sq. ft. ** Ins-Aid Primer Sealer.
THE AMAZING WATER LEVEL

BY LARRY JONES

A WATER LEVEL IS A "LOW-TECH" GEM of a tool, quite useful for work around an old house, where nothing is level, but some things ought to be. I've used water levels to level porches, to translate the first-floor ceiling height to an outside wall, to set the tops of fence posts, and to establish a sloping grade for an underground foundation drain, among other things.

PLASTERERS USE THE WATER LEVEL for lots of jobs, including placing dots and screeds and running cornices. You may recall that John Garrison mentioned using a water level in his article on running plaster cornices in our Dec.'84 issue. The tool is so easy to handle that it even can be used from scaffolding and other tight areas on construction projects. (If you are doing any type of decorative plastering and want to find out more about how plasterers use this tool, see our new book Plastering Skills, available from the Old-House Bookshop.)

OF COURSE, A LOT OF LEVELING JOBS can be done with a bar level or a surveyor's transit. Most of us know that a surveyor's transit is one of the best and most accurate leveling instruments available. But there are a few snags. First, you'll have to pay to rent one of these precision instruments. Second, you'll need to know how to set up and use one. Assuming you need the extreme accuracy of a transit without all the bother you should try a water level. It can be of infinite length, and can go around walls or through windows. It's as accurate as any leveling tool, and it's real cheap.

TO MAKE A WATER LEVEL, all you need is:

• A garden hose 3/8 in. or 1/2 in. inside diameter, with a good rubber washer in the female end. You don't want your level to leak. The length depends on your needs; 25 feet is usually the shortest common length of garden hose you can buy.

• Clear plastic hose of the same inside diameter as your garden hose (get this at a hardware store) and cut into 1/2 to one-foot lengths. Clear acrylic tubing (available from plastics dealers) will also work, using hose clamps instead of couplings.

• One male and one female hose coupling; make sure the female coupling has its washer. (Get these at a hardware store, or cannibalize an old garden hose that's been chewed by the lawn mower or the dog.)

• Some hose clamps (hardware store or auto supply house) for connecting soft plastic hose to couplings.

Assemble the above parts as shown in the illustration.

THE EASIEST WAY TO FILL THE LEVEL is to funnel water from another garden hose or faucet into the level. If there's no running water on your jobsite, then you can fill the level by siphoning water from an uphill source (a big bucketful of water) into the hose. You may find it less messy, especially indoors, to have a second bucket downhill to catch the excess water. Once the level is full -- it's full when the water comes about halfway up in both clear plastic viewing tubes -- you should
gently shake the level up and down (with the ends open) to dislodge any air bubbles in the hose. Errant bubbles will affect your readings.

TO CHECK THE LEVEL FOR PROPER FUNCTION, bring the ends of the level together as in Figure 2. The water line should be level. If it's not, there's something wrong (a kink in the hose, an air bubble, or a large bug in the line). You'll have to correct whatever is wrong so that water comes to the same level in both viewing tubes.

NOTE THAT THE WATER forms an inverted arc in the viewing tube (see Figure 2). You will get more reliable measurements by always reading the top line of this arc (make sure your partner reads this same line too). And when you sight or mark using the level, both of you should have your eyes level with the water to avoid distortion and inaccurate readings.

FIGURE 4 SHOWS how the water will move as you try to find the unknown point. As you hold the level with the water line at the known point, the water line will move as your partner looks for the unknown point. If the water line on your end goes up to X, your partner's end is too high, at x. If your end goes too low, to y, then your partner's end is too low, at y. As you can tell from this illustration, if one end of the level gets much higher than the other one, water will slosh out the low end. To keep this from happening while you're moving the level, you and your partner should keep a finger over the end of the tubing. You have to take your fingers off when you are ready to read the level, though. Some plasterers simply stick corks in the ends of the tubes until they're ready to use the level.

HERE'S AN EXAMPLE of how the water level works (see Figure 3): Let's say you have a wainscot that extends up the wall to point A, and you want to find the same height on the adjacent room wall (we'll call this point B). Hold the level so the water line comes to point A, and have a partner take the other end of the level into the other room. The water in the viewing tube at the other end will be at the same height, which is point B. It doesn't matter how far apart these points are; the only limit is the length of the hose.

The first mention of a water level we've found was in a 1929 issue of Carpenter Magazine. The tool simply consisted of water-hose with a glass tube slipped into either end and filled with water.

IF YOU NEED TO MAKE SEVERAL MARKS, you should make all of them from the original mark. This reduces the possibility of cumulative errors as you progress. If the length of your hose requires you to move both ends, be sure to regularly measure back to previous points to check your work.

YOU CAN EVEN USE WATER LEVELS outdoors in cold weather. Just use a hose material that remains pliable (rubber is best), and put some anti-freeze in the water. If you do this, DON'T use the siphon method to fill the level -- you don't want to swallow any anti-freeze, because it's poisonous. The coloring in the anti-freeze will make the water line in the tubes easier to see.

IF YOU NEED A WATER LEVEL, but don't have the time or inclination to make one yourself, you can order one from U.S. General Tool Co., Dept. OHJ, 100 Commercial St., Plainview, NY, 11803. (800) 645-7077. Order the "Levelall," model #47001. Price: $24.99.
To Roof or Not To Roof — How Hard Is It?

A gable roof — not too hard.

A shed roof — easy.

A hip roof with a dormer — getting complicated.

A truly complex roof — hire a professional.

PRE-FORMED PAN

A: A pre-formed pan as it comes from Follansbee Steel. Available in terne or TCS, they come in 20- and 24-inch widths. B: Pre-formed pans come without cross-seams cut or bent. You must form this seam yourself.

The Old-House Journal

March 1985
MEASURE THE ROOF and figure for a standing seam at the centerline. Make a sketch showing the layout of the pans on the roof, and calculate the number of pans you'll need. If your sketch shows that the pans running along the gables (or at the corners, in the case of a hip roof) will be less than half-a-pan wide, shift the seams to allow one set of the edge pans to be full-width.

ALLOW 1-1/2" for cross-seams; that is, consider an 8' pan to be 94-1/2" long. For a shallow pitch roof (less than 6" per foot slope) consider an 8' pan to be 86-1/2" long, as the cross-seams are deeper on this type of roof, to allow for the installation of a cross-seam connector strip.

PRE-FORMED PANS come in 20" and 24" widths. As a general rule, use the 24" wide pan. Most of the work is in forming the seams, and wider pans mean fewer seams. You wouldn't want to use pans wider than 24 inches; wide pans buckle, or "oil-can," as they expand and contract. You might want to use pans narrower than 24" when the standing seams are used as a visual effect to echo existing architectural features, or on a small roof (for proportion). Standard lengths for pre-formed pans are 8, 10, and 12 feet. It's hard to handle a pan longer than 8' without wrinkling the metal; so, in most cases, you should use the 8' pans. (Exception: when a slightly longer pan would cover the whole roof, as on a small porch.)

FOR A ROOF made up of 24" wide pre-formed pans, allow 21" between seams; that is, consider a 24" pan to be 21" wide. For 20" wide pans, allow 17" between seams. Figure the gable end pans this way: When using pre-formed pans, you must cut off the upstand on the gable side, and allow 3/4" to fold over a drip edge. So, consider the pans that will run along the gables to be 20-1/4" wide (for 24" pans), or 16-1/4" (for 20" pans).

YOU'LL NEED a few specialized tools (see box on page 47). You can either rent these tools, or buy them at a sheet-metal supply house.

SOME OTHER things you'll need:

- Enough drip edge and/or gutter to run around the roof perimeter. (Gutters for the eaves, drip edge for the gable ends.)
- Enough 2" x 4" metal cleats to be spaced at 12" centers around every roof pan.
- Flashing, for chimneys or where the metal roof meets a wall.
- Optional: Valley flashing (necessary, of course, if your roof has valleys) and a ridge cap (more on this later).

ALL OF THESE MATERIALS should be the same material as the roof pans. Pre-formed drip edges, cleats, flashing, and ridge caps are available in terne or TCS. If you're using copper, you'll have to have these items made locally. Don't forget to allow for waste when you order materials; order 15% extra of everything, a greater percentage for a small roof.

IF YOU use terne, specify IX-401 terne. This indicates 28 gauge metal with a 40-pound terne coating. If you're using TCS, specify 28 gauge TCS. For copper (or lead-coated copper), specify 16-oz. material.

A sample roof layout. Dimensions assume steep (greater than 6 inches per foot) pitch and the use of 24-inch wide pans.
METAL ROOF must be applied over a wood deck. Do not use treated wood for the deck. If your roof is covered with roll roofing, built-up roofing, shingles, or other roofing material, you must remove this covering before installing the metal roof. The decking must be clean, smooth, and dry. Lay rosin-sized paper over the deck -- just lay it, don't nail it. This paper serves as a slip sheet between the metal and the deck. Don't use roofing felt (tar paper) under a metal roof. The asphalt in the felt can cause the metal roof to corrode.

LOAD, TRANSPORT, AND WORK the metal carefully. Coated metals derive much of their durability from the coating. Nicks in the coating allow moisture and/or corrosive atmospheric pollutants to reach the underlying metal. Dimples in the metal act as little pools to collect moisture and corrosive agents.

DON'T LET loading dock workers or delivery people mishandle your future roof. And most importantly, when you (or your contractor) are on the roof, wear sneakers, crawl as often as possible, don't step on the seams, and don't store other materials on the roof.

IF YOU ARE using terne, it must be painted before it is installed on the roof. Paint the undersides of the pans with one coat of a good metal primer, suitable for ferrous metal. The exposed side of the metal must also be primed, so it's good to give the pans one coat of primer, top and bottom, before installation. Terne cleats, drip edges, and flashings must also be painted on both sides before they are installed. The paint must be brush applied. Do not spray or roll. You can use any compatible topcoat (from the same manufacturer as the primer) on the exposed side of the metal. With TCS or copper, painting is optional. (Remember, unpainted TCS is silver-grey.)

IF YOU'RE USING PRE-FORMED PANS, you'll have to cut some half-length pans. Use your straight or combination snips. You'll need one half-length pan for every row of pans on the roof. This allows for the cross-seams to be staggered, as is required for proper strength. If a local shop is forming your pans, simply order the correct quantity of half-pans. You'll probably need some pans of various lengths to fill out odd sections of the roof. You'll have to form these on-site.

IF YOU DON'T have access to a sheet-metal brake, you'll have to bend the cross-seams on-site. On all of the pans except those that will be installed at the roof peak and along the gable ends, make two 3/4" cuts into each end of the pan, one inch in from the standing seam upstands. Cut a 2 x 4 board to the length of the flap created by these cuts, and make a 3/4" deep saw cut the length of the 2 x 4. This board is your low-tech sheet-metal brake. Insert the flap of metal into the saw cut, and bend the bottom flap down 90 degrees; bend the top flap up 90 degrees. Then place these flaps against the 2 x 4, and bend them loosely over, roughly parallel to the pan. The pans that will reach the roof ridge will have this seam only on the bottom. Leave the tops of these pans uncut for now.

USING A KERFED BOARD as described above, bend the seams that mate with the drip edges. With pre-formed pans, you must first cut off the upstand on the gable side of the pan.
INSTALLATION

INSTALL THE DRIP EDGES (or gutter) according to the manufacturer's directions. (You can buy these pre-formed in terne or TCS, or have them formed locally.) To install the pans, start at the bottom left edge of the roof, and hook the first pan into the drip edges. Using a mallet and a block of hardwood, flatten the seams at the drip edges. Then, using Vise-Grip crimpers or roofing tongs, crimp the pan/drip edge seam tightly together. Install hold-down cleats at 12" spacing up the right side of the pan, and across the top edge of the pan. Fasten the cleats to the deck with two 1" roofing nails. For terne and TCS, use cleats the same material as the roof, fastened with galvanized nails. For copper, use copper cleats and copper nails. Fold the tail of the cleats over the nail heads.

INSTALL THE SECOND PAN above the first pan by hooking it into the top of the first pan and into the drip edge. Close the seam at the drip edge as before. Flatten the cross seam between the two pans with your mallet and wood block. Be careful with this pan (and all subsequent pans) to keep the seams straight, installing a standing seam roof is a lot like hanging wallpaper; small errors at the beginning of the run create impossible problems at the end. Anchor the second pan with cleats, then install the remainder of the first row of pans all the way to the ridge of the roof.

TO INSTALL the first pan of the second row, hook the triple bend over the double bend and slide the pan up until it hooks on the drip edge. Crimp the seam at the drip edge, and install cleats along the right edge and top edge of the pan.

Tools of the Trade

A Straight Snips — For cutting straight or slightly curved lines in sheet metal 24 gauge or lighter. They come in right-handed and left-handed versions.

B Combination Snips — Similar to straight snips, but will make highly irregular or scroll cuts.

C Roofing Double-Seamer — This hand-and-foot-operated tool closes the standing seams of pre-formed pans. This is the tool you can rent from Follansbee Steel.

D Handy Tongs — For bending the edges of light sheet metal. Good for forming drip-edge seams.

E Vise-Grip Crimpers — More commonly available than handy tongs, they do the same job, and stay clamped where you put them.

F Sheet-Metal Brake — This is a stationary shop tool, used to form sheet metal into roof panels (and cornices, gutters, etc.).

G Hand Roofing Double-Seamer — An ingenious antique tool. Used to form double-lock standing seams. Some very old roofs were formed with just this tool and a mallet.
NOW YOU ARE READY to close the first standing seam. Here are two ways to do this:

METHOD 1: Use roofing tongs or Vise-Grip crimpers to close the seam. First, crimp the small flange tight with the top of the horizontal flange on the adjacent sheet. Then, use your mallet and wood block to bend this seam down enough for the Vise-Grip crimpers to close the seam. This is the cheap, but labor-intensive way to do it.

METHOD 2: Rent a pair of seamers from Pollansbee Steel. You have to pay a healthy deposit, but when you return the tools intact, they refund your deposit, less $50 a week for the use of the seamers. This method costs a little more, but it's a lot quicker.

INSTALL THE REST of the pans in the manner described above. Remember to stagger the cross seams, and keep the pans properly aligned — a chalk line is recommended.

FINISHING TOUCHES

HERE ARE TWO WAYS to finish the ridge of a gable roof:

METHOD 1: Flatten the standing seams three inches from the ridge, loosely fold back the ends of the pans 180 degrees, and install a ridge cap. This is the modern way to do it. Ridge caps for this type of installation are available pre-formed in terne or TCS.

METHOD 2: Flatten the standing seams three inches from the ridge, and form one more standing seam along the ridge line. You might have to do this with your mallet and wood block, as neither light tongs nor the Pollansbee seamers will easily bend this many thicknesses of metal. (See "Ridge-Forming Detail" on page 47.) This is the traditional method. There are roofing tongs large enough to form these seams, but they're very expensive and nearly impossible to rent. (This ridge finish also applies to a hip roof. The only difference is that the ridges of the hip roof are mitred together.)

IF THE ROOF abuts a vertical wall, flatten the standing seam just before the wall, bend the pans up the wall, and counter-flush over them, using the same material as the roof for the flashing.

TO FLASH A CHIMNEY, treat the roof pans as if they were base flashing. Use your mallet and wood block to bend the pans to conform to the vertical surfaces of the chimney, and counterflash.

OLD-HOUSE OWNERS are accustomed to learning "lost arts" such as plastering, slating, and wall glazing. Installing a standing-seam roof is another of these lost arts, and one of the most rewarding. Few things please an old-house lover more than knowing that the art relearned, the work redone, and the house repaired, will endure. And few things will ensure the endurance of an old house more than a handcrafted metal roof.
WHITENASH has been used throughout the history of this country as an inexpensive, easily obtainable, white surface coating for both the outside and inside of buildings. During the last century, it was most commonly applied to the exteriors of cottages, barns, and outbuildings.

WHITENASHING IS STILL a cheap, quick method to paint a building white, and it's especially appropriate for a building that has always been whitewashed. Such buildings usually have unplaned vertical-board siding — just the type of rough finish that holds whitewash best. Whitewash was sometimes used on masonry buildings, but masonry was often left unpainted, so you don't see whitewashed masonry nearly as often as you see whitewashed wood.

AS WHITENASH IS APPLIED, it builds up in cracks, knotholes, and joints between boards, acting as a filler for these imperfections. The result, if you work carefully, is a smooth, even finish. Because it's basically lime, whitewash also acts as a wood preservative; it's repugnant to most insects and has moderate water-repelling qualities.

MODERN OIL OR LATEX PAINTS do not adhere well to whitewashed surfaces, or to surfaces that held whitewash until recently. So there are two options for repainting a previously whitewashed building: Either completely remove the old whitewash by scraping, then repaint with modern paint; or, renew the whitewash coating. Renewing is by far the easier option.

MAKING IT
WHITENASH, LIKE ANY PAINT, will not adhere to an unsound surface. You must brush or scrape any dirt or loose lime scale off the surface before you re-whitewash. A quick brooming of the building is usually all that's necessary.

YOU CAN BUY all of these materials, except for the salt, at any good lumberyard.

- Hydrated masons lime (one 40-lb. bag covers approximately 160 square feet.)
- 1 pound kitchen salt per two or three bags of lime
- A 2- or 3-gallon plastic bucket
- A whitewash brush (6- or 8-inch hemp bristle type)
- Paint sticks (for stirring)

A WORD OF CAUTION: Lime is caustic and will burn you if it comes in contact with your skin. Be careful, especially during mixing, not to splash the powder near your eyes and nose. It's a good idea to wear goggles and gloves when you work with whitewash.

MIXING WHITEWASH is like mixing cocktails: It is done according to inexact formulae, largely to individual taste. The basic proportions are: Two parts lime to one part water, and 1/4 cup of salt per batch. The mixture is best prepared as needed in the bucket from which it will be dispensed. This way, it's ready for application as soon as it's mixed. The mix should be readily workable with a brush — about the consistency of frozen custard or light cake icing.

PAINTING WITH WHITENASH is easy and requires only the amount of care you want to put into the job. Simple, haphazard strokes in all directions produce a stucco-like effect that is fine for sheds and small buildings. Long, parallel strokes take time, but give a more finished appearance and improve the looks of the building.

A WHITEWASH JOB can last for many years. While sometimes prone to bleed-through from knots in new wood, or rain erosion at ground level, whitewash can be touched up invisibly at any time. A 40-pound bag of lime costs about $5.50, so whitewash is substantially cheaper than paint. And best of all, it never fades. A whitewashed building will stay whitewash white!

Neglected whitewash — an outbuilding on the author's property.
You may not know about Woodworkers Supply of New Mexico, but their free catalog of high-quality and often hard-to-find woodworking tools, finishing products, furniture hardware, and books is certainly worth ordering. Almost anyone restoring an old house could use the Delta 14-in. band saw I spotted in their last catalog on sale at a $200 savings. Another really special find were two beautiful, rosewood-handled squares with brass blades. These handsome and highly functional tools were made by John Economaki at Bridge City Tool Works. The Master Try Square sells for $47 and the Joints maker’s Square is $32. The pair is $69.

The catalog is full of other fine tools that last a long time and don’t cost a lot. To get your copy of the latest catalog, write to Woodworkers Supply of New Mexico, 5604 Alameda N.E., Albuquerque, NM 87113. (505) 821-0500.

I find the ash rake to be one of the most handy tools. It looks like a hoe and is great for cleaning ashes out of a bake oven. It sells for $18. Another useful tool is the $14 poker that also works well for pulling pies out of the oven. The shovel is conventional, but holds a lot. It sells for $25. The broom is not only good for ashes, but will also brush water into the brick-oven interior before baking.

For Rumford fireplaces or stoves, Ian has the same tools listed above in 3/8-in. round stock that are 25 in. long. Ash rake, $16; poker, $12; shovel, $25; and broom, $22. The sets can be ordered with a four-hook, matching wall rack and sell for $100 complete, $95 for the shorter set. A three-legged, four-hook, fireplace tool stand can be ordered in place of the wall rack for $140 complete or $135 for the shorter set. Shipping is extra.

To find out more, order the catalog ($2, refundable with order) from Ian Eddy, Blacksmith, Dept. OHJ, RFD 1, Sandhill Rd., Putney, VT 05346. (802) 387-5991.

Woodworkers Supply of New Mexico, but their free catalog of high-quality and often hard-to-find woodworking tools, finishing products, furniture hardware, and books is certainly worth ordering. Almost anyone restoring an old house could use the Delta 14-in. band saw I spotted in their last catalog on sale at a $200 savings. Another really special find were two beautiful, rosewood-handled squares with brass blades. These handsome and highly functional tools were made by John Economaki at Bridge City Tool Works. The Master Try Square sells for $47 and the Joint maker’s Square is $32. The pair is $69.

These days there aren’t many old-house parts that can’t be recreated by craftspeople, purchased new as reproductions, or eventually found at architectural antique shops. Original designs in fireplace mantel and hearth tiles seem to be the exception. Short of pirating them out of someone else’s house, they just don’t exist.

Well now there’s one source, if Anglo-Japanese transfer tiles are to your liking. (Remember Bruce Bradbury’s Anglo-Japanese article, Nov. ’83?) The series consists of five outstanding period patterns, all hand-decorated in sepia and cream with a matte finish. Artist Steve Bauer, responsible for some of the sophisticated wallpaper designs of Bradbury & Bradbury, created the intricate patterns for these tiles. Both Bradbury & Bradbury and Designs In Tile, the Northern California art tile studio who produces the tiles, will be selling them. The five new designs were expressly created for use around fireplaces, but their rich design and variety of sizes allows them to be used in bathrooms and kitchens for wainscot borders, splashes, and trim. Matching, undecorated tiles can be purchased nationwide and offer greater design possibilities at a reasonable cost.

6 in. x 6 in. tiles are available for $11 each, designed for use around the fireplace opening. 6 in. x 3 in. repeating borders, designed for use around fireplace openings and hearth perimeters, are $9. Hearths frequently had smaller corner blocks, such as the 3 in. x 3 in. tiles that sell for $8 each. Handling, shipping, and insurance is extra.

For more information on the tiles, send $5.50 for a one-page flyer to: Bradbury & Bradbury, Dept. OHJ, P.O. Box 155, Benicia, CA 94510, (707) 746-1900, or Designs In Tile, Dept. OHJ, P.O. Box 4983, Foster City, CA 94404, (415) 571-7122.

New Period-Style Fireplace Tile...At Last!

These days there aren’t many old-house parts that can’t be recreated by craftspeople, purchased new as reproductions, or eventually found at architectural antique shops. Original designs in fireplace mantel and hearth tiles seem to be the exception. Short of pirating them out of someone else’s house, they just don’t exist.

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The Old-House Journal 50 March 1985
The Old-House Journal

The Jasmine Company of Denver has introduced what they call the Sensible houses who cater to professionals. In the past they've only been available from electrical supply stores or local home centers nationwide including True Value Hardware stores, the tool sells for $11.49 by itself or $13.49 in a kit with 28 wire terminals. If you can't find the Wire Multi-Tool in your area write to Cable Wire Products, Inc., Dept. OHJ, P.O. Box 6767, Providence, RI 02940 for the dealer nearest you.

One of the handiest, most time-saving tools in my tool box is an automatic wire stripper. In the past they've only been available from electrical supply houses who cater to professionals. Snapit, however, has just introduced the Wire-Multi-Tool, which combines three useful functions into one tool.

The Multi-Tool has a set of double-action wire stripping jaws that grabs onto electrical wire and pulls off a predetermined length of insulation in another. There's no tugging at the wire with this tool. A tension adjustment allows you to strip wire from 300 ohm t.v. up to 14 ga. A built-in crimper is designed to nip wire of all sizes. Openand closed-ended wire terminals, contacts, and splices can be neatly crimped onto wire with an automatic crimper on the back of the tool.

The tool is built with high-grade steel cutters, and crimpers with glass-filled plastic and hardened steel grip handles. Available at hardware stores and home centers nationwide including True Value Hardware stores, the tool sells for $11.49 by itself or $13.49 in a kit with 28 wire terminals. If you can't find the Wire Multi-Tool in your area write to Cable Wire Products, Inc., Dept. OHJ, P.O. Box 6767, Providence, RI 02940 for the dealer nearest you.

New Mouldings

Grinling Architectural Mouldings has a new line of hard polyurethane cornices, ceiling medallions, wall brackets, chair rails, and corbels. Designed for interior use, the mouldings closely resemble carved wood or cast plaster but are much easier to fit and install.

The ceiling medallion or rose comes in 9 styles and range, in price from $27 to $50. The medallions and wall brackets/corbels come with adhesive for mounting. Cornice mouldings and dado rails are attached with ceramic-tile adhesive (not supplied) and are held in place with small nails which are removed later and the holes filled.

The cornice mouldings come in 7 styles ranging in price from $24 to $44 for each 6-ft. length. The single chair rail/dado comes in 6-ft. lengths and sells for $25. The wall brackets/corbels come in 2 styles and sell for $21 each.

For a free brochure write: Grinling Architectural Period Mouldings, Dept. OHJ, 192 Christopher Columbus Dr., Jersey City, NJ 07302. (201) 435-8682.

Here's an inexpensive way to reduce air infiltration in your old house, which is reversible and requires little labor. The Jasmine Company of Denver has introduced what they call the Sensible Storm Window. For less than $2.50 per square foot, you can install this interior storm window system to almost any wall or window trim surface.

Basically what you are buying from the Jasmine Company are the instructions and enough foam weatherstripping and magnetic and steel tape to allow you to make a set of storm windows. You supply the acrylic glazing and labor. Does it work? Colonial Williamsburg uses a similar system to cut the air infiltration and heating costs on some of its buildings, and finds the approach to be cost effective and easily removable without leaving any holes or damage.

To find out more, send for the free brochure or enclose $3 for the Sensible Window Booklet which contains instructions and buying information: Jasmine Co., Dept. OHJ, 1929 Jasmine St., Denver, CO 80220. (303) 399-2150.

Sheet Metal Manual

If you're planning to do sheet metal work, don't make a move without first consulting the SMACNA Architectural Sheet Metal Manual! I've had a copy for the last six or seven years and have found it to be a gold mine of information on just about every sort of sheet metal you're likely to encounter.

The manual is designed to provide architects and specifiers with an up-to-date reference on the proper design and installation of sheet metal. But it is just as valuable to old-building owners who are either planning to do sheet metal work themselves or just want to better understand what their contractors are about to do. One of the real benefits of the manual is the abundance of very clear drawings and easy-to-understand recommendations. Often alternative design solutions and installations are presented for varying climatic conditions through the country.

As good as the manual is for helping you specify practically any architectural sheet-metal requirement, you should always consult reputable sheet metal contractors in your area. They can offer suggestions on choices of metals, the relative economics of different techniques, as well as local area practices and climatic concerns.

The Architectural Sheet Metal Manual, Third Ed., Vol. 1 sells for $50 ppd. (This spring, Vol. 2 is due out.) The 5th edition of the Architectural Sheet Metal Specifications, which sells for $10 ppd., is also useful. These prices will be discounted 40% to practicing architects and engineers, provided they are not in the contracting business; educational institutions (such as universities, high schools, trade schools, etc.), public libraries, bookstores; federal, state and local government agencies. Perhaps your State Historic Preservation Office or local library either has copies you can use or would be interested in purchasing them as reference material.

For a free catalog of publications write SMACNA, Inc., Dept. OHJ, P.O. Box 70, Merrifield, VA 22116. (703) 790-9890.

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March 1985
This year's leaders are Andrew Ladygo, historic preservationist and Workshop Director of S.P.N.E.A. in Boston, and David Flaharty, the "dynamic duo" of plaster restoration, have lectured together for the prestigious Association for Preservation Technology, the Restoration College at Mt. Carroll, Illinois, and other audiences nationwide.

The conference will include lectures, demonstrations, and workshops for old-house owners and professionals. There will also be time to talk with the leaders and explore the historic houses and churches of Jonesborough, Tennessee's oldest town.

For more information, send inquiries to:
JONESBOROUGH CIVIC TRUST
P.O. Box 451
Jonesborough, TN 37659

The Repair and Reproduction of Historic Plaster Walls & Ornaments

FLUVANNA COUNTY, VA — 1840s elegantly restored frame house, 16 acres, 5 dependencies. 3 BR, 2 baths, all new wiring and plumbing, and central heat. Custom woodwork enhances the parlor, heart-pine bookcases, Relief cupboards, metal plume, and 1920's decor. Custom Feuerlein, Inc. (804) 293-1113; 593-3083.


LOUDOUN COUNTY, VA — Brick home c. 1790, 35 mi. west of Washington, D.C. beltway. Restored, 3 BR, 2 baths, 3 FP, (w/dampers), OHWBB 3-zone heat- Stone floor, 259,000. C.J. Mym, Home Broker, Rt. 2, Box 276, Purcellville, VA 22016. (703) 338-7474.


TALLAPOOSA, GA — 2-storey, turn-of-century white frame house featuring stained glass, heart pine floors, metal single roof, 2 baths, 2100 sq.ft., large front porch, basement, & double carport. 1 hour from Atlanta. Frances Hagood, Rt. 2, Box 431, Tallapoosa GA 30176. (404) 574-2571.


GEORGIA — Beautiful 2-story, 1876 Queen Anne in small town 45 min. from Atlanta. Wrap-around porch with turned balustrade, 5 baths, 1 large tower, modern eat-in kitchen, 2 large dens, DR, parlor, LR, 3 BR. Moved, must sell. Will finance. $55,000. Jim Gill. (404) 796-7592.

CHARLOTTEVILLE, VA — 30 minutes proximity. Charming farmhouse, c. 1860s, with 20th-century additions on 5 acres. Some wide-pine floors, 4 FP, for wood stoves, generous rooms, high ceilings, several outbuildings. Front porch and kitchen in need of some restoration. Gabrielle Hall, Montague, Miller & Co., Box 1668, Charlottesville, VA 22906. (804) 295-4049.

ICAN CAPA AREA — Restored 100-year-old Victorian. 11 rooms, 6 BR, 5 1/2 baths, attic ballroom. All natural oak trim and hardwood floors, stained glass windows, uniquely designed staircases. Many antique fixtures. $250,000. Jerry Abel, 5 N. Benton, Palatine, IL 60067. (312) 539-0831.

GETTYSBURG, PA — 13-acre gentleman’s farm, hand-restored to productivity. 1887 brick farmhouse with original wainscock, wide-board floors. Modern plumbing, electrical systems. 3 structures, 33 buildings! $114,070. Additional 44 acres also available. Randall B. Inskip Real Estate/Better Homes & Gardens. (717) 334-7675.


HOPATCONG, NJ — Lakefront cottage, 85 years old. 17-room mansion on 1/2 acres. Former home of Joe Cook, world-famous vaudevillian. 5 FP. Brochure available. Curtis Turner Real Estate. (201) 770-1414.

VILALIA, LA — Nat’l Register turn-of-century showplace on banks of Mississippi River across from historic Natchez. 2-storey, restored, with 3 BR, 3 baths, on 1-acre lot in city’s best neighborhood. Can be used as 3 apartments or B & B $175,000. Owner. (318) 336-4665.

RESTORATION SERVICES

BEVELED GLASS — Custom-made windows, doors, transoms, etc. Repairs, restorations, originals, duplicates. To your specifications/deadline. Attention to detail, pride in craftsmanship. Competitive rates, professional service. Shipping to all points. David Campbell, Historical Beveling, 1218 S. Main St., Gainesville, FL 32601. (904) 376-5963, 24 hours.

HISTORIC PRESERVATION Specialists of Chicago provide complete services for older & historic buildings & landmarks. Services include historical and technical research, historic registration applications, feasibility & adaptive reuse studies, architectural & engineering services. Thomas L. Pratt, 1841 W. Schiller St., Chicago, IL 60612. (312) 335-4942.

HARDWOOD MOULDINGS to match early styles or more contemporary styles. Made from quality woods at affordable prices. Curtis Turner Real Estate. (201) 770-1414.

ANTIQUE CEILING FANS — Restoration and sales. 25 fans located in downtown Deering St. Historic District. House in exc. cond. and original configuration. High ceilings throughout, original woodwork, wainscoting and pull-chain toilet), 4 BR, 3.5 baths, on 1 1/2 acres. Many new mechanical features, very little "remuddling." Make an offer. Curtis Turner Real Estate. (201) 770-1414.

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Last year, The Old-House Journal gave away $22,000 to preservation organizations across the U.S. Your organization can tap into this source of funds this year; there's no upper limit on what's available.

The Revenue-Sharing Program — This plan lets you provide Old-House Journal subscriptions to your members at a discount. You can sell a 1-year subscription for $14 — a 22% discount. Your organization keeps $7 out of every $14 you collect. You have to submit a minimum of 12 subscriptions (either new subscriptions or renewals) to qualify for the Revenue-Sharing Program. Submitting the minimum 12 names means you keep $84. Send in 50 names and you get $350.

The Grant Program — Every organization that qualifies for the Revenue-Sharing Program automatically becomes eligible for the Grant Program. In December The Old-House Journal will award six $1,000 grants to participating organizations. The first $1,000 grant will go to the group that sends in the most new subscriptions or renewals. The other five winners will be selected by drawing. (Winners of the 1984 grants are announced on page 36 of this issue.)

For details & appropriate forms, call or write:
Barbara Bugg
Group Services Coordinator
The Old-House Journal
69A Seventh Avenue
Brooklyn, NY 11217
(718) 636-4514
THE TWO BEST HEAT TOOLS
FOR STRIPPING PAINT

That’s a strong claim to make, but we stand by it. The OHJ editors have tested the heat tools available, and these two are still the best: the strongest, most efficient, longest-lasting heat tools you can buy. The Heat Gun and Heat Plate are designed to provide years of service on heavy-duty jobs. The other paint-stripping tools now available don’t compare: They’re not industrial quality, are made largely of plastic, have a lower heat output, and break down all too quickly.

Together, the Heat Gun and Heat Plate described below can solve your most difficult paint-stripping projects. Refinishing experts agree that, whenever practicable, hand stripping wood pieces is preferable to dipping them in a strong chemical bath. The Heat Gun and Heat Plate are the best overall tools for taking paint off wood surfaces. They make paint removal safe, quick, and economical.

Heat is a fast method because the paint bubbles & lifts as you go along. There is no waiting for chemicals to soak in, no multiple recoatings, and far less cleanup. Unlike stripping with chemicals, all layers of paint are removed in a single pass.

As for economy: Because these tools are long-lasting, industrial products, the initial expense is made up in savings on the $18 to $22 per gallon stripper that you’re no longer buying in quantity. Even after heavy use, a worn-out heating element on a gun can be replaced by the owner for about $7.

The Heat Gun

Ideal for moulded & turned woodwork!

Over 10,000 OHJ subscribers have purchased the Heavy-Duty Heat Gun, and discovered the best tool for stripping paint from interior woodwork. (A small amount of chemical cleaner is suggested for tight crevices and cleanup, but the Heat Gun does most of the work.) It will reduce the hazard of inhaling methylene chloride vapors present in paint removers. Another major safety feature is the Heat Gun’s operating temperature, which is lower than that of a blowtorch or propane torch, thus minimizing the danger of vaporizing lead. The Master HG-501 Heat Gun operates at 500 to 750°F, draws 15 amps at 120 volts, and has a rugged, die-cast aluminum body — no plastics!

The Heat Plate

For any flat surfaces — even clapboards!

After testing all of the available heat tools, the OHJ editors recommend the HYDElectric Heat Plate as the best tool for stripping clapboards, shingles, doors, large panels, and any flat surface. The Heat Plate draws 7 amps at 120 volts. Its electric resistance heating coil heats the surface to be stripped to a temperature of 550 to 800°F. The nickel-plated steel shield reflects the maximum amount of heat from the coil to the surface. And among the Heat Plate’s safety features is a wire frame that supports the unit, so you can set it down without having to shut it off.

Both the Heavy-Duty Heat Gun and the HYDElectric Heat Plate come with complete operating & safety instructions, and are backed by The Old-House Journal Guarantee: If your unit should malfunction for any reason within two months of purchase, return it to us and we’ll replace it.

The Heat Gun is available for only $77.95; the Heat Plate for only $39.95. (These prices include fast UPS shipping.) You can order either or both by filling out the Order Form in this issue, or by sending a check or money order to The Old-House Journal, 69A Seventh Avenue, Brooklyn, NY 11217.

A New Tool For Old Houses:

The Makita Professional SCREW GUN

The OHJ editors have discovered a contractor’s secret: the versatile, time-saving Screw Gun. Once you own one, it’ll help you finish many old-house jobs quickly & neatly — and it’ll save fragile plaster & cabinetwork.

THIS industrial-quality electric-powered screwdriver operates on the same principle as a standard variable-speed electric drill. But instead of a chuck for a drill bit, it has a magnetic screwdriver bit surrounded by a little sleeve. You can adjust this sleeve to control the depth to which you drive a screw. Set it once, and drive screws to exactly the same depth in just seconds each.

THE MAKITA 6800DBV Screw Gun is lightweight (3.3 lbs.) & well balanced for easy control. It operates at 2500 RPM, & is reversible; if you make a mistake, it can instantly withdraw the screw. It has a standard drywall-screw bit & drives only drywall screws, and has become a favorite tool of contractors who have to attach Sheetrock patches without damaging the fragile surrounding plaster. Using screws in combination with plaster washers, the Screw Gun can resecure plaster that has separated from its wood lath — or it can attach the whole plaster/lath assembly back to the studs or joists by using plaster washers with longer screws. The Screw Gun is excellent for attaching shelf brackets or furring to existing plaster. It’s fast & strong for building new plywood cabinetry. If you have built-in cabinetry in your old house, it can strengthen them & even resecure them to the wall — hammering in nails only knocks them apart more.

THE SCREW GUN comes complete with operating instructions, written specifically for old-house owners. And it’s also backed by The Old-House Journal Guarantee: If your unit should malfunction for any reason within two months of purchase, return it to us and we’ll replace it.

THE SCREW GUN is available for only $99.50. (Price includes UPS shipping.) Check the box on the Order Form, or send a check or money order to The Old-House Journal, 69A Seventh Avenue, Brooklyn, NY 11217.
Plastering Skills

This textbook was written to teach apprentice plasterers the basic skills of the wet-plastering trade. From setting lath to ornamental plastering. Although acknowledged as the best book in its field, it went out of print 10 years ago. But now it's available again, in this special limited edition published by American Technical Publishers exclusively for OHJ. If you just want to re-create 10 feet of missing plaster, or need to replaster an entire wall, here's the how-to book you've been looking for.

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DANIEL D. REIFF of Fredonia, New York, sent us these photos of two 19th-century farmhouses in northern New Jersey. The beauty and character of the house at right are intact. The house above has become a substitute-siding showcase. Varicolored PermaStone encases the ground floor; light-blue vertical aluminum siding covers the second floor. Fat strips of aluminum siding hide the seams between all the different coverings. The porch is gone (because it blocked the view of the sidings?), and the aluminum canopy replacement adds insult to injury. Should anyone find the house lacking in visual variety, the addition has white horizontal siding. —CG