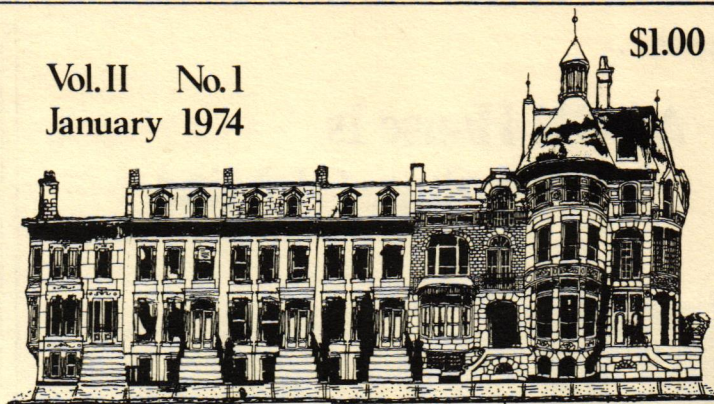


THE OLD-HOUSE JOURNAL

Vol. II No. 1
January 1974

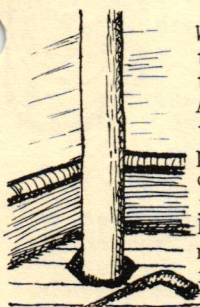
\$1.00



Renovation And Maintenance Ideas For The Antique House

Catalogue Your House's Secret Passages

IT'S THE ONLY WAY THERE IS TO DO IT! These are the emphatic words of the plumber when he's explaining why he plans to run his pipe right through a highly conspicuous corner of your parlor, ruining some ornamental plasterwork in the process.



WHEN A PLUMBER OR ELECTRICIAN has to run a line, he naturally picks the path of least resistance. And that usually means straight through floors and ceilings. Exposed piping or electrical conduit obviously is visually objectionable to the homeowner. But what do you do when the workman stoutly maintains that there is no other way to run the line?

ANSWER: BEFORE THE WORKMAN ARRIVES, make an inventory of your house's secret passages—those hidden voids and tunnels inside the walls that extend through the floors, which greatly simplify stringing of wire and pipe. Some workmen will not take the trouble to hunt for these themselves, so you're best off having done your homework before the fellow arrives.

WHETHER YOU'RE RUNNING WIRE FOR NEW CIRCUITS and convenience outlets, or for a stereo, intercom or alarm system—or pipes for a new kitchen—you'll find that one of the most precious architectural gifts the original builder could have bequeathed to you is a set of cellar-to-roof passages.

NOW, IT IS POSSIBLE to hide any conduit in just about any wall—if you are willing to pay for all of the hacking and patching that is required. But by knowing in advance what secret passages are available, it is likely you can achieve total conceal-



In This Issue

AN ITALIAN VILLA IN NEW HAVEN.....	3
MAJOR REPAIRS IN PLASTER SURFACES.....	5
MANSARD ROOFS.....	9
TOOL CATALOGS FOR QUICK EDUCATION.....	12
AN OLD HOUSE IS A STATE OF MIND.....	2

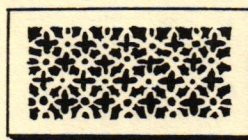
Coming Next Month

DUPLICATING PLASTER MOLDINGS

ment at no greater expense than what you'd be charged for exposed pipe or conduit.

THERE ARE THREE TYPES OF SECRET PASSAGES that are likely to offer ideal spaces for top-to-bottom or inter-floor runs. They are:

- (1) old hot-air ducts;
- (2) pipe chases;
- (3) voids next to chimneys.



IN HOUSES THAT WERE formerly heated by hot air there will be unused air ducts in the walls. In city row houses, these ducts were usually built into the brick common walls. Finding these ducts will be a job of varying complexity—depending on how thoroughly the house has been renovated. Mapping out these old air ducts is extremely valuable, however, because they can make the bringing up of both wire and pipe from the basement a relatively simple matter.

IF YOU'RE LUCKY, the previous occupants will have left the old hot-air registers in the rooms. That shows exactly where the old ducts ended. There are two types of ducts to contend with: The Branch Duct and the Mainline Duct. The mainline is most valuable because it rises from the cellar in a straight line.

YOU CAN DETERMINE WHICH TYPE of duct you've located by using a piece of string or fishline and a

(Continued on p. 10)

An Old House Is A State Of Mind

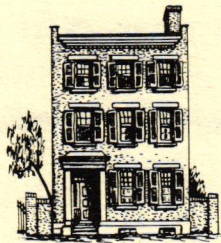


A READER RECENTLY WROTE in telling us about his house, but noted that "it was only built in 1868, so I'm sure it's not an old house by your standards."

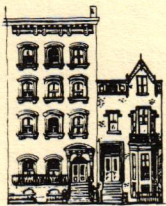
OBVIOUSLY, it's time to state what we mean by an "old house." Since The Journal is published out of an 1872 Victorian brownstone, we're certainly not going to discriminate against an 1868 house. Age alone does not an old house make: An old house is in the mind and perception of its owner.

WE HAVE SEEN PEOPLE with an 1850 house who obviously would have preferred a new home. By the time they had ripped out every trace of woodwork and ornamental plaster, and rearranged all the walls, they had an ersatz new house.

THE JOURNAL is for people who love the fact that theirs is an old house, whether it was built in 1720 or 1920. They see their house as more than just a shelter. An old house is part of the history of the human race, outliving the people who originally built it, and gives us a sense of continuity with previous generations.



OLD-HOUSE PEOPLE may adapt the house to the needs of modern living. But they approach changes in the house with a sense of respect for the intent of its original builders. They are wary of making architectural changes that are out of keeping with the house's original period—one reason being that anachronistic changes will ultimately reduce the market value of the house.



AN OLD HOUSE CONVEYS a sense of place and tradition; the owners don't view it as a disposable cardboard box to be thrown away in 20 years when a new fashion comes along.

THE OLD-HOUSE OWNER also has a respect for fine craftsmanship—whether it's work that was originally done by the builders or work that is currently being done. And the relationship with the past enables the old-house owner to endure the multitude of mechanical problems that are a consequence of a house's age.

AN OLD HOUSE is a state of mind.

—R. A. Labine



THE OLD-HOUSE JOURNAL

Published Monthly For People Who Love Old Houses

Editor	R. A. Clem Labine
Editorial Assistant	Carolyn Flaherty
Circulation Director	Paul T. McLoughlin
Contributing Editors	Martin M. Hechtman James R. McGrath Claire Wood

Published by The Old-House Journal Company, 199 Berkeley Place, Brooklyn, N.Y. 11217. Tel. (212) 636-4514. Subscriptions \$12/yr. Contents of The Old-House Journal are fully protected by copyright and must not be reproduced in any manner whatsoever without specific permission in writing from the Editor. Logo art: Stanley Skardinski

Contour Gage For Irregular Beams

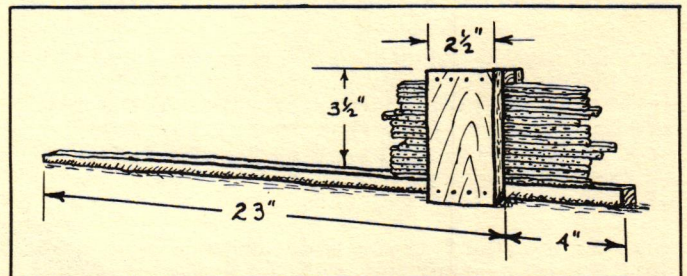
A reader in Somers, Conn., recently told The Journal of a problem encountered while renovating his 19th century farmhouse.

PROBLEM: The ceiling plaster in one room had deteriorated beyond repair and was being replaced with sheetrock. When the old plaster and lath were taken down, it was revealed that the ceiling beams had been sawn from relatively small logs, and the curve of the tree trunks at the beam corners meant that there weren't any squares angles.



SINCE 2 x 4 BLOCKING had to be nailed between the beams to anchor the sheetrock, the end of each 2 x 4 had to be cut to match the curves of the beams. And because the 2 x 4's had to fit flush, precise measurements of each contour was called for.

THERE WERE TOO MANY cuts to make to fuss with cut-and-try cardboard templates. And commercial metal-pin contour gages couldn't handle the deep curves—and wouldn't measure the contour at a precisely square angle to the beam.



SOLUTION: A simple home-made contour gage made from scrap wood and Good Humor sticks.

(Continued on page 9)

An Italian Villa In New Haven

By Claire Wood



THREE AND A HALF YEARS AGO, THE HOUSE was a downtown derelict, abandoned to weather and the vagrants who sought refuge there, its interior scarred by a fire that had broken through to the second floor—a microcosm of urban blight. Today, having undergone a dedicated, painstaking restoration at the hands of its owners, Richard and Maryanne Mazan, it is a serene townhouse in New Haven's historic district of Wooster Square.

WHEN THE MAZANS BOUGHT their Italian Villa, it was already an old friend. Richard Mazan was born and brought up in the neighborhood, and the house on Chapel Street is part of his early memories. When Richard and Maryanne were married eleven years ago, they bought a four-story 1870 row house which had been restored through the Downtown Redevelopment Agency, but the Italian Villa around the corner remained part of their consciousness.

IT HAD STOOD EMPTY FOR SEVERAL YEARS with disastrous results. The fire, kindled on the floor of what is now the dining room by a vagrant trying to keep warm, had been contained by the fire department, but Richard remembers standing in what was to be his parlor and staring in disbelief at a room festooned with icicles and condensation. Before

he knew that it would eventually be his home, he and his brother boarded up the doors and windows in an effort to keep out vagrants and stop vandals—simply because they thought it was a beautiful old house in need of help.

THE BUILDING had been acquired by the New Haven Downtown Redevelopment Agency, and when it was advertised for a minimum bid of \$2,000, the Mazans were among the dozen bidders.

They lost, but within a year the house had proven too formidable a task for the new owners and was back on the market. The Mazan's bid was again low, but ultimately they found themselves owners of the Italian Villa by default.

AMONG THE EXTERIOR HIGHLIGHTS of the house, built around 1850, is a romantic balcony on the side (the original finials for which were stolen and are currently being replaced) and the curved roof which covers it, which was meant to imitate an oriental awning, like the silken hangings of an Indian palace.

THE ITALIAN VILLA FORM was a building contractor's delight, because he could construct a number of the basic simple shapes in a row, giving them inexpensive individuality with different cuts of window frames, distinctive porch pillars, or unique moldings under the eaves.

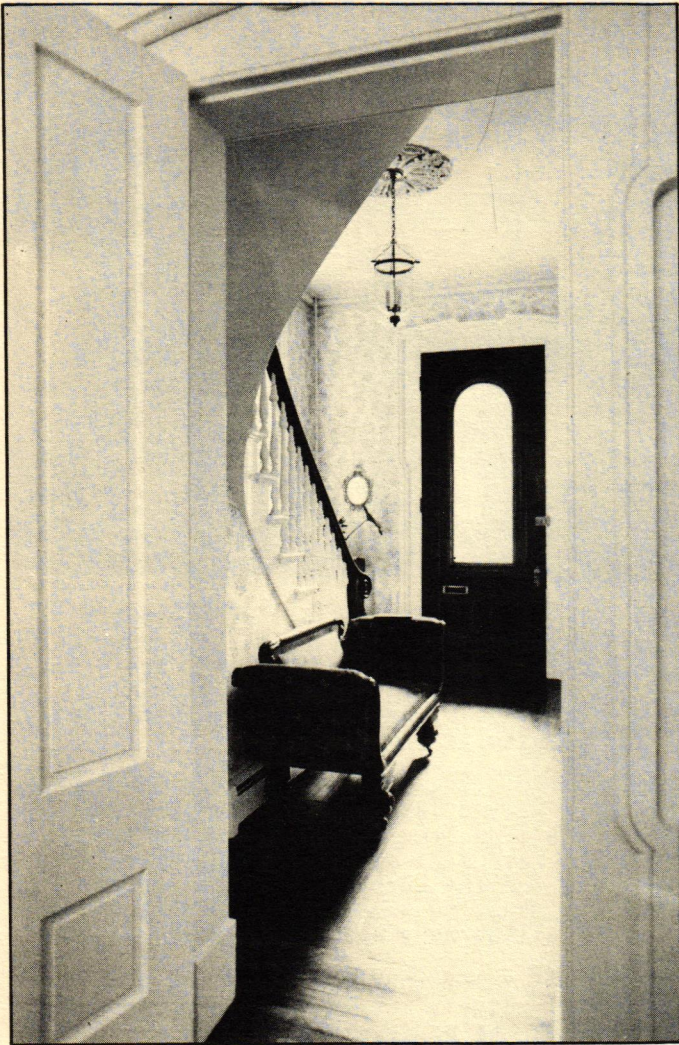
GUIDED PRIMARILY BY THEIR OWN knowledge and taste, reinforced by a dedication to detail, and with advice from Downtown Redevelopment and the New Haven Preservation Trust, of which Richard is a commissioner, the Mazans set out to restore their derelict to its former glory.

A CONTRACTOR DID THE heavy work, but Richard, a high school teacher of Russian and biology, with a relatively flexible schedule, kept a careful eye on the proceedings. ("No verbal instructions; everything in writing!") When they began the restoration, Richard had an interest and a degree of natural skill but no strong experience in crafts. He now has the experience: In plastering, stonemasonry, plumbing, electrical wiring, painting, woodstripping, and restoration of marble mantelpieces.

THE ORIGINAL MARBLE FIREPLACES in the Mazan's house were either vandalized or destroyed by fire. Maryanne, an administrative assistant at Yale, learned through the university of a nearby rectory slated for demolition, and received permission for Richard to disassemble its marble fireplaces, transport them across town, and reassemble



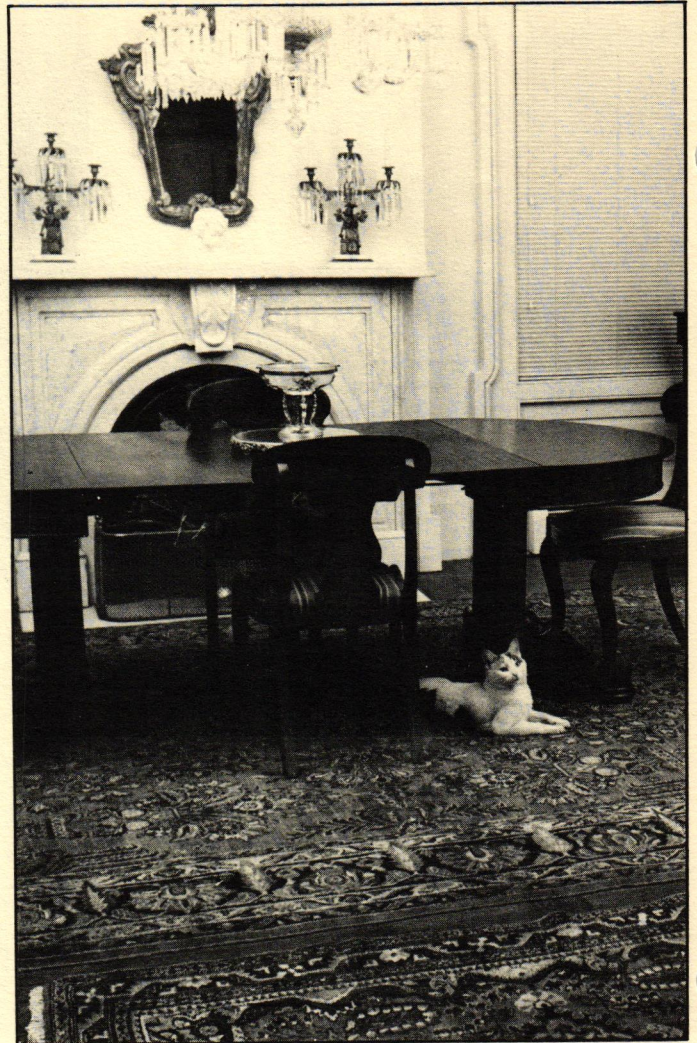
BEFORE renovation the Villa was a boarded-up derelict.



them at home. At the end of that operation, Richard knew pretty much all there is to know about marble warps. ("Did you realize that marble warps?") The one original mantel intact in their house had been badly blackened by fire; thanks to a lot of hard work with 600-grade automobile paper ("Aluminum oxide, not flint paper") the mantel is now clean and lustrous as the day it was carved.

RICHARD ALSO RECOMMENDS automobile paper for wood, exercising extreme caution to work the grain. His glowing mahogany balustrade is a testimonial to his skill. He himself made running moldings of perlite core and plaster veneer to restore a fire-damaged ceiling. Originally, ceiling moldings were usually cast in place on the ceiling, but Richard made his in five foot lengths on a table using a copper molding machine, allowed the sections to dry, sawed away remnants of the original moldings and drilled and fastened the new sections in place.

A MINOR MIRACLE OF PLASTER REPAIR was accomplished by a friend of the Mazans. The parlor and front hall center ceiling moldings had been destroyed and swept up in literally hundreds of pieces. He put them together again in the manner of a jigsaw puzzle, and replastered them to the ceiling, working for weeks on a rolling stage and feeling a bit like



Michaelangelo before he was done. The final effect, however, is perfection.

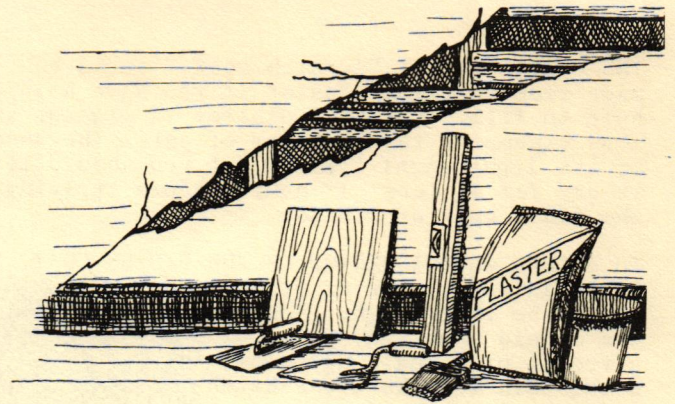
WHERE RESTORATION PROVED IMPOSSIBLE, the Mazans substituted reconstruction. Under two feet of silt and soil in the front yard, tangled in the roots of overgrown privet, they found a small section of the original cast iron fence. Using it as a pattern, they had a new fence made, incorporating the original section so that some hundred years after it was first installed it was back where it belonged.

IN THE MANNER OF OLD HOUSES, their villa has given the Mazans a number of whimsical "presents": a pair of Victorian ladies' boots, wedged tightly under the floorboards, where they also found a charming little Maybasket, full of handmade paper flowers. Workmen collected almost an entire set of antique chessmen inside various walls and ceilings—probably lost when a carpenter tipped over a board during a lunchtime game.

DESPITE SOME aggravation that is part of any renovation, it's obvious that the Mazan's restoration has given them great personal pleasure, and their pleasure is a lasting contribution to Wooster Square and the celebration of old houses everywhere. ***

The Art Of Getting Plastered

Part II Major Repairs In Plaster Surfaces



FINISH PLASTERING is quite an art—although not as difficult as some believe. In this article we'll review some of the major types of plaster repairs the old-house owner may encounter. At some point—depending on your own level of craftsmanship—it doesn't pay to do these repairs yourself. After surveying these techniques, you can decide which jobs you want to tackle yourself—and when it will pay to send out a call for help.

A COMMON PROBLEM in old houses is loose or bulging plaster. This is caused by one of two things: (1) Lath has pulled loose from the studs; (2) Plaster has pulled loose from the lath. The former condition is less serious than the latter. To determine which type of condition you have, you may have to poke an exploratory hole or two.

IF LATH HAS PULLED LOOSE FROM STUDS, the plaster can be pushed back into place and held with countersunk screws and washers. (See description of ceiling anchors following.)

IF PLASTER HAS COME OFF THE LATH, in most cases you'll have to rip the loose plaster off and patch as described elsewhere in this article.

THERE IS A SPECIAL CASE of plaster pulled loose from the lath in a ceiling in which it may be possible to salvage the old plaster if you are really in love with it. Salvage depends on being able to work on the ceiling from above, either from an attic or by lifting floorboards. The procedure involves:

- (1) Pushing the old plaster back into place and holding it firmly in position with wooden braces that extend up from the floor;
- (2) Removing the old plaster keys from behind the old lath;
- (3) Pouring a fluid mixture of plaster of paris over the lath and the old ceiling plaster. Linen cloth can be laid in for additional strength. The plaster of paris layer will adhere to the old ceiling plaster and re-anchor it to the lath. This technique is rather involved, however, and if you're not sure of your own skills you had better consult a professional plasterer.

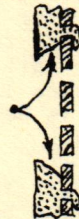
PATCHING HOLES IN PLASTER is a relatively simple matter. You have several techniques to choose from, depending on your work pref-

PLASTER is an integral part of the skeleton of an old house. And it's something you can't escape looking at every day. In this 4-part series, The Journal tells how to restore damaged plaster of all types—and how to replace that which is beyond hope. Coming in future issues:

- Part III Plaster Moldings
- Part IV Running Plaster Cornices

erences and materials at hand. Whichever method is selected, first step is to undercut the old plaster with a putty knife or beer can opener so the new plaster will be firmly locked to it.

Under -
Cut



ONE PATCHING PROCEDURE involves replacing all of the missing plaster with new plaster. This means there must be lath at the bottom of the hole for the plaster to grab onto. If any lath is missing, you can tack some salvaged lath in place, or nail in some new wire lath, rock lath or plain sheetrock. NOTE: This occasional need for replacement lath means you should save a bundle of random lengths from any wall demolition you undertake.

BEFORE APPLYING PLASTER, thoroughly wet the old plaster and lath. This will prevent the old material from sucking water from the new plaster and impeding a proper set. One convenient way to accomplish this wetting is to use an old plastic detergent squirt bottle filled with water.

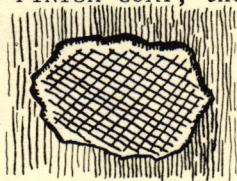


IF THE HOLE TO FILL is more than 1/8 in. deep, it should be filled with two or more layers of plaster to prevent cracking of the final coat. Since plaster of paris will harden in about 20 min., this won't take an inordinate amount of time. Depending on depth of the hole, the undercoat should be built up to within 1/8 in. of the surrounding wall in one or two applications. (You can check clearance with a board laid across the hole.)

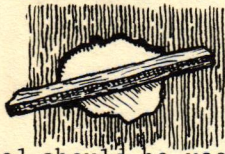
IF YOU ENCOUNTER DIFFICULTY with plaster of paris setting up too fast, you can retard set-up by adding vinegar 50-50 to the mixing water. Or you can throw in a handful of powdered spackle into the plaster powder and mix well before adding water.

THE UNDERCOAT, or "scratch coat," could be made from perlited plaster if you have a large hole to fill. Perlited plaster is lighter and less expensive than plaster of paris (because of its lightweight filler) but you should let it dry for at least 48 hours before applying the final coat of plaster.

TO INSURE GOOD ADHESION OF THE FINISH COAT, the intermediate layers of plaster should be left rough. You can use an old comb, the point of a trowel or a small piece of metal lath to make cross-hatch scorings in the undercoat.



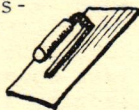
TO APPLY FINAL COAT of plaster, surface of the previous coat should be thoroughly wet down. Then fresh plaster is troweled on to bring the level up to the rest of the wall. A board that's long enough to span the patch can be worked back and forth across the hole to knock down any high spots and fill in valleys.



A RECTANGULAR PLASTERER'S trowel should be used to obtain a smooth finish. It takes some practice to use this tool properly. So give yourself every advantage by purchasing a top-quality trowel; Marshalltown makes a good one.

FOR PATCHES UNDER 6 inches in diameter, plaster of paris is a satisfactory material for the final coat. Its disadvantages are its fast set-up and the fact that it doesn't work as smoothly as lime-plaster. For patches larger than 6 inches across, lime-plaster is better because of its superior workability.

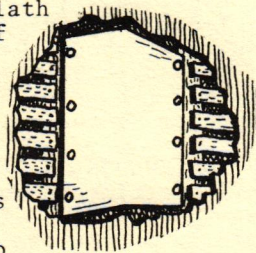
TO APPLY FINAL COAT OF PLASTER, work trowel from left to right, starting at the base and using the upward stroke to force in the new plaster, then seal with a downward stroke. Trowel should be held against the plaster with its leading edge raised only slightly, bearing down firmly on the trailing edge. To get a glassy surface on the plaster, it should be allowed to set for a few minutes, then re-worked continually with the trowel. A clean brush is used to wet the plaster just ahead of the trowel as it is stroked across the surface from top to bottom. Rough spots will be discovered and removed in this process. The more the plaster is worked, the smoother the final coat will be.



KEEP TROWEL CLEAN by frequent dunkings in a bucket of water.

PLASTERING IS GREATLY SIMPLIFIED

If plasterboard or rock lath is used as a base instead of a plaster scratch coat in large patches. If old lath is still in place, plasterboard can be nailed right on top. Just be sure that it's nailed to the studs. If needed, thin wooden shims can be tacked to the studs to bring the plasterboard to within 3/16-in. of the wall surface. (Old pieces of lath make handy shims.)



From The Plasterer's Lexicon

QUICKLIME—Calcium and magnesium oxides formed by firing limestone over 1700 F. Slaking quicklime with water sets off a violent reaction that brings the whole mass to a boil. Principal use of slaked quicklime is in masonry mortars because of the high degree of workability it imparts to the mixture.

HYDRATED LIME—Prepared at the factory by adding controlled amount of water to quicklime. Two basic grades are available: Mason's hydrated lime and finishing lime. Finishing lime is used in final plaster coats to impart plasticity to the plaster. Although partially hydrated, finishing lime should be allowed to soak in water for 24 hrs. to improve its workability.

PLASTER—When gypsum rock is heated to 266 F., three fourths of the water is driven off. The resulting fine white powder is known by many names—the most common being plaster of paris. Other common names are gypsum plaster and gaging plaster. Gaging plaster comes in quick-set and slow-set varieties.

HARDWALL PLASTER—Gaging plaster mixed with perlite aggregate to form a lightweight base-coat plaster. Sold under trade names such as "Structolite."

BROWN COAT—Coat of plaster directly beneath the finish coat. In two-coat work, brown coat is the base-coat applied over the lath. In three-coat work, brown coat is applied over the scratch coat.

SCRATCH COAT—First coat of plaster in three-coat work.

FINISH COAT—Last coat of plaster. Usually consists of lime putty and gaging plaster mixed ratios ranging from 5:1 to 2:1.

PUTTY—Product resulting from mixing lime and water together.

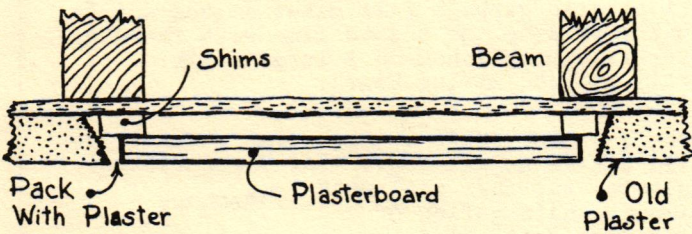
WITH PLASTERBOARD NAILED IN PLACE, you can apply finish coat of plaster directly, follow-steps outlined above. Be sure to pack plaster tightly in crack between plasterboard and old plaster.

SHEETROCK CAN BE USED in place of plasterboard if you have some handy. However, sheetrock lacks the specially treated surface that makes plaster stick hard to plasterboard. You can increase the adhesion of plaster to sheetrock by using a latex bonding agent such as Aqua-Weld.

THIS TRICK CAN BE MODIFIED in making ceiling repairs where the overhead plastering required is beyond most renovators' skills. Old

ceilings that seem in bad shape may really have only one section that needs replacement. By repairing this one section, the rest of the ceiling can be saved.

THE BAD SECTION is cut back to sound plaster, ending on the mid-point of a beam. For additional strength, you might want to secure the edges of the old plaster with ceiling anchors (see next column). A piece of sheetrock is then cut to fit the hole you have just made. Use 3/8-in. thick stock, since it's easiest to work overhead with this light-gage material. Determine thickness of shimstock that must be nailed to the beams to bring sheetrock out to surface of the old ceiling.



USING SHEETROCK NAILS, fasten sheetrock patch to ceiling beams. Then fill crack between sheetrock and old ceiling with plaster, feathering the plaster out to make a smooth joint. If necessary, you can go over the plaster seam with joint cement to get a perfectly smooth, sandable joint.

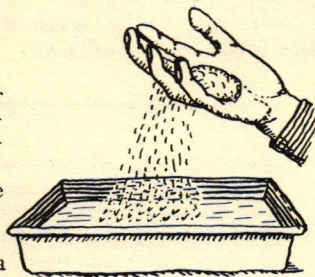
Tips On Mixing Plaster

By Francis Valentine

WHILE I DON'T CLAIM to know everything about plastering, I've learned some things while renovating my brownstone that may be of value to other renovators.

ONE TRICK is the proper way to mix plaster, whether you're applying pure plaster to a small patch, or are making lime-plaster for covering larger areas. The trick is: **DON'T STIR THE PLASTER WHILE MIXING IT WITH WATER!** Mechanical action of stirring hastens set-up. Stirred plaster of paris will start to harden within 5 min.; when properly prepared it will remain workable for 15-20 min.

THE PROPER TECHNIQUE is to sift plaster powder slowly into water until the water is completely absorbed. **DO NOT stir** during this operation. If you're making pure plaster for small holes, simplest way is to prepare it in a clean plastic pan. Start with **COLD** water, and use same volume

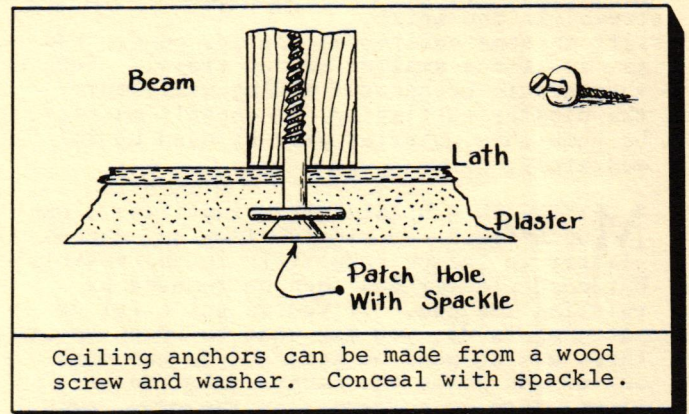


(Continued on pg. 8)

How To Use Ceiling Anchors

WHEN BULGING PLASTER is caused by lath pulling loose from the beams, the condition can be remedied with simple anchors—as long as the plaster is still firmly keyed to the lath. This condition is frequently found in old ceilings, where the lime in the plaster corrodes the lath nails—allowing the ceiling to sag.

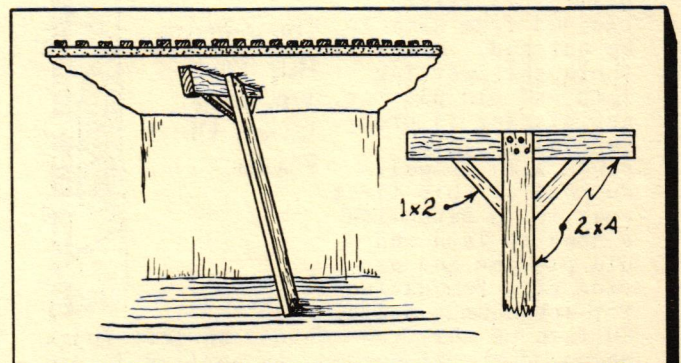
WHETHER USED ON CEILING OR WALLS, principle of the anchor is the same: (1) Bulging plaster is pressed back into proper position; (2) Hole is drilled through plaster and pilot hole for screw is made in the beam; (3) Hole in plaster is countersunk; (4) Anchor is screwed in place and concealed with spackle.



Ceiling anchors can be made from a wood screw and washer. Conceal with spackle.

HOLE IN PLASTER should be drilled with a carbide-tipped masonry bit. Countersink is made with a big masonry bit or an old countersink that you don't mind dulling on the plaster. After drilling pilot hole in beam, screw in anchor until it holds plaster firmly in place. For most applications, a 3-in. screw is about right.

IF A LONG CRACK in a ceiling is to be reinforced, use ceiling brace to hold plaster in place while anchor is inserted. Space anchors about every 24 in. **NOTE:** In old ceilings, beams may not be spaced evenly every 16 in. You may have to drill exploratory holes to find each one.



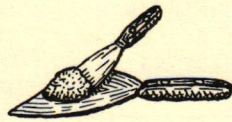
Brace made from 2x4's holds sagging ceiling plaster and lath in place while ceiling anchors are attached to beams.

(Mixing Plaster—Cont. from pg. 7)

of water as volume of plaster you want to end up with. The plaster powder combines with the water and will not increase volume significantly.

SIFT PLASTER THROUGH YOUR FINGERS into the pan until all water has been absorbed. Rapping the pan will jog any remaining water to the top of the mixture. Sift more plaster onto the surface to absorb these last traces of free water.

GOBS OF PLASTER PUTTY can then be lifted out of the pan onto your trowel. (Be careful not to disturb the remaining plaster when removing the small amount to work with.) If the plaster on the trowel is too moist, sift on some additional plaster powder and mix in with a smaller second trowel. Even though this mechanical mixing will start the plaster setting up, it doesn't matter because this material will be used up immediately.



MIXING IN A PLASTIC PAN simplifies cleanup because you simply allow any excess plaster to harden completely in the vessel. Hardened plaster can then be removed by twisting the pan. If you've got a lot of patching to do, you may want to have two or three mixing pans on hand so you can work out of one while the excess from the previous batch is hardening in the other pan.

PURE PLASTER HAS SEVERAL ADVANTAGES for patching holes: (1) It sets quickly so that successive layers can be applied at 30-min. intervals; (2) It can be painted as soon as it is completely dry—usually overnight. (In contrast, lime-plaster should cure for at least several weeks before painting.) (3) Plaster takes a smoother finish than spackle; (4) It's simpler to mix than lime-plaster.

HOLES THAT ARE 6-in. dia. and under can be successfully patched with pure plaster, with the apertures larger than 1 in. across being best handled with two or three coats. All loose plaster is first cleaned from area to be patched. After thoroughly wetting lath and old plaster, new plaster is pressed firmly into place with trowel. Purpose of this first coat is to establish a bond to lath and old plaster and provide firm foundation for subsequent coats. Surface of this coat should be left rough. Second coat, if needed, is applied 30 min. later, bringing surface of plaster to within 1/8-3/16 in. of the wall surface. Final coat is applied with wide taping knife or

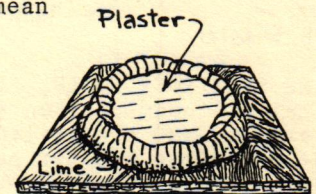
Cross-Section
Hole Filled
With Three
Layers Of
Plaster



or rectangular plasterer's trowel. After the final plaster coat has set for a few minutes, it should be re-wet with a water brush and smoothed in one direction with the trowel to produce a glassy surface.

FOR HOLES LARGER THAN 6 in. dia., base coats should be made of perlited plaster or plasterboard as discussed elsewhere in this article. For these larger patches, you'll want to consider finishing with lime-plaster because of the greater workability of this material. To make lime-plaster, start by soaking hydrated lime at least 24 hrs. according to directions on the bag. (A plastic garbage pail makes a good soaking vat.) Mixing the soaked lime with the plaster is accomplished on a large (4 ft. x 4 ft.) plywood mixing board.

PLACE ON THE BOARD as much lime putty as you can use in a half hour. For inexperienced plasterers, this will mean about a half-gallon of lime. A ratio of 5 parts lime to 1 part plaster is about right for beginners (professional plasterers will use about 3 parts lime to 1 part plaster). So if you've put 2 quarts of lime on the board, this means you'll need approximately 1/2 pint of plaster.



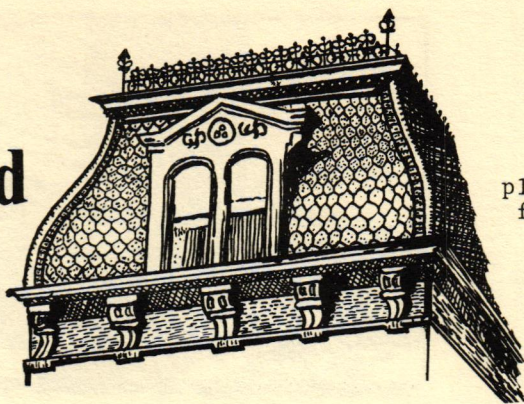
TO MAKE THIS MIXTURE, form the lime putty into a ring on the mixing board. Place a pint of water into the center of the ring. Sift plaster powder into the center until all of the water is absorbed. Don't touch the plaster with the trowel at this stage.

TO MIX LIME AND PLASTER, take a wedge of lime and plaster or as many wedges as needed and mix on the edge of the board. (Don't disturb the rest of the plaster when removing the wedge with your trowel.) This will allow 20 min. of workability for the material in the center ring. If mixture is too thin, you can sift a little more plaster powder onto the batch you've pulled aside for mixing. Transfer the lime-plaster mix onto your hawk and trowel into place. Follow the leveling and smoothing techniques discussed in this and the previous article.



FRANCIS VALENTINE owns an 1883 brownstone in the Park Slope section of Brooklyn. A meticulous craftsman, Valentine is Asst. Civil Engineer of the East River Bridges of The City of New York. He is also an accomplished photographer and is currently working on a collection of photos of outstanding building exteriors in Manhattan.

Mansard Roof



plied to the hip roof, produced the mansard, fortunately no longer in favor."

In adapting the style of Louis Napoleon's Paris to row house forms, city architects often added a mansard roof and cast iron railings known as "cresting" to the popular brownstone front house. Because the French roof was difficult to remove in future renovations, it often remains as the only feature from the Second Empire style, giving today's city rooflines a picturesque quality.

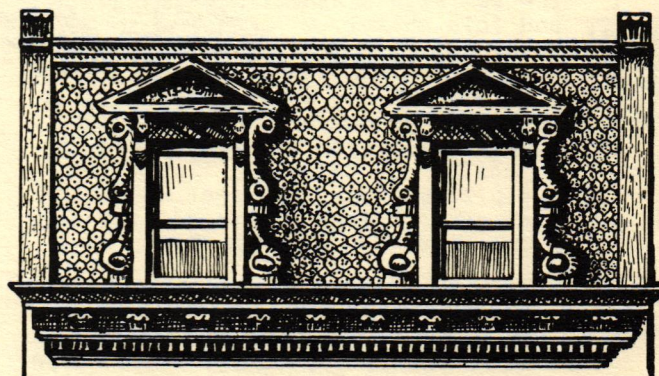
The classic mansard roof has steep sides broken by large dormer windows. The "French roof" form (named after the celebrated architect Francois Mansart) grew out of a desire to add an extra livable story to a house by bending out the slopes of the roof and providing more headroom and additional light with dormer windows.

Visitors to the International Expositions of 1855 and 1867 were impressed with the wide boulevards of Paris, bordered by tall mansarded apartment houses. Lithographs, engravings, and architectural journals spread the idea of the mansard roof throughout the western world. But Americans were the greatest enthusiasts for the style and made it distinctly their own for a brief but very busy period from the 1850's to the 1880's.

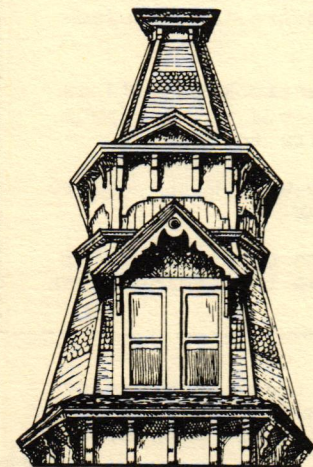
Post offices, universities, courthouses and grand hotels expressed their dignity with a mansarded roof. It was adapted to homes in the city, suburb, town, village and farm. Mansard roofs had slopes that were straight, concave, convex, or both combined in an S-curve. They had dormer windows that were rectangular, pointed, gabled or round like portholes, and even ones with double rows of dormers. The mansard was adapted for mansions, city row houses, and middling-sized homes for the Victorian family.

Victorian architect, Samuel Sloan, noted: "The French Roof is in great request. Public and private dwellings and even stables are covered with it and no man who wants a fashionable house, will be without it."

Only recently regarded as atrocities, now we are coming to see that many mansard-roof houses can be appreciated as grand examples of a now-vanished distinctive architectural style.



An excellent review of the Mansardic Era is given in John Maass' book, "The Gingerbread Age, A View of Victorian America," published by Bramhall House in New York.

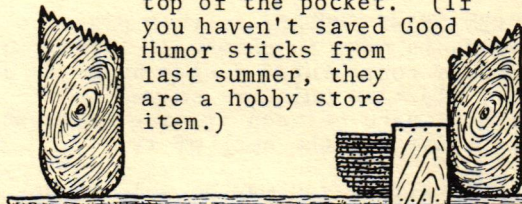


A few decades after its appearance the mansardic era came to an abrupt end. This once fashionable style has since suffered physical and verbal demolition. Lewis Mumford called it "a crowning indignity" and the 1925 House Beautiful Building Annual states: "The gambrel roof is the result of a frank and reasonable desire to enlarge the attic by bending out the slopes of the roof. A perversion of this, ap-



(Contour Gage—Continued from page 2)

The pocket on top of the wooden bar holds about 24 ice cream sticks. They are held in the pocket by friction; sticks are added until the whole bunch fits snugly against the top of the pocket. (If you haven't saved Good Humor sticks from last summer, they are a hobby store item.)



The gage is laid between two beams and the sticks are pushed one by one against the curve in the beam. The result is a perfect pattern of the contour that can be traced on a 2 x 4 and cut with a band saw or heavy-duty jig saw.

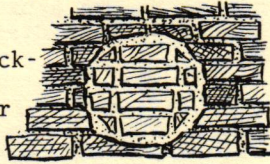


(Secret Passages—Continued from pg.1)

small weight (such as a bunch of washers). Simply drop the line through the register and note how far it goes down before hitting bottom. If the weight goes all the way to the cellar, you've found a mainliner.

IF YOU HAVE A BRANCH DUCT, it can still be used to run wire, since the bends can be negotiated with electrician's snakes. But a branch duct is virtually useless for plumbers; they'd have to break open the wall at the bends.

NEXT PROBLEM is to find where the ducts start in the cellar. It's likely that the openings for the air ducts in the cellar have been bricked over. But you shouldn't have much difficulty locating the patch(es) at the top of the cellar wall. A brick-and-mortar patch can be removed with a hammer and cold chisel.



IF NO REGISTERS have been left in the wall, a little more detective work will be required to locate abandoned ducts. From the cellar, you can find where the ducts start up the wall. Tapping on walls in rooms above the spot where the duct starts can locate covered-over registers on the mainline duct.

Mainline Duct From Cellar

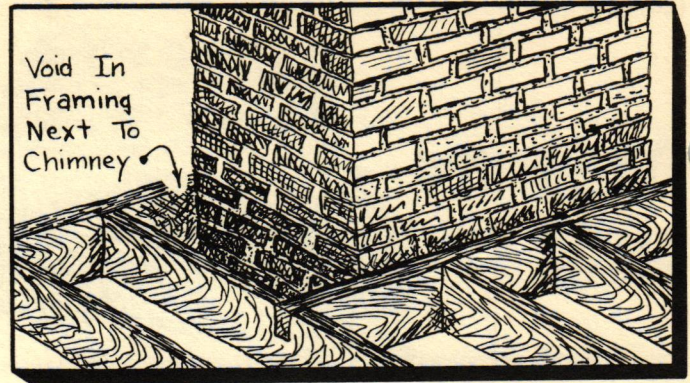
BRANCH DUCTS WILL HAVE TO BE located by the wall-tapping ritual and an exploratory nail here and there where you suspect there's a covered-over register. (Any holes made in this exploratory process can be easily patched with spackle.)

PIPE CHASES ARE THE NEXT BEST SOURCE of secret passages. A chase is a vertical channel in a wall through which pipes pass from floor to floor. Most pipe chases that include waste lines will go from the cellar to the top of the house, since waste lines have to be vented to the roof.

IN HOUSES WITH SLIDING PARLOR DOORS, the ends of the door pockets frequently contain passages for gas pipes.

IN OLD WOODEN FRAME HOUSES, another place to look for voids is next to chimneys. Since interior chimneys constituted a wide bulge in a room anyway, old-time builders seemed to leave a little space between framing beams and the chimneys just for the heck of it.

IF YOU HAVE AN ATTIC, you may be able to determine by inspection and exploration with a weighted line whether there's such a void next to your chimney. Inspecting the framing in the cellar may also give clues as to how closely the framing beams have been brought up to the chimney. Otherwise, you'll have to resort to artful tapping to see if there are usable voids next to the chimney.



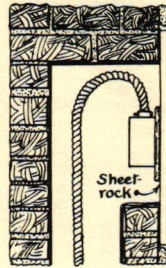
IN SHORT, there's no precise formula that will absolutely locate the secret passages in your particular house. But armed with these guidelines, you can be your own house detective

Replace Register With An Outlet

Electricians may tell you not to consider installing electrical outlets on brick walls because of the difficulty in running wire. But most common walls in city row houses contain an old hot-air duct—which makes it relatively easy to install an outlet where the register used to be. While you're at it, you may want to convert every old register on that duct to a convenience outlet.

Here are the steps that you or the electrician would follow:

1. Rip off the register grill. If screws are rusted tight, gentle persuasion with a pry bar will have to be used.
2. Chip plaster off the wall so that at least 2 in. of brick around the duct opening is exposed.
3. Drop a weighted string down through the duct and pull wire up from the cellar. Standard circuit connections are made at the cellar box.



4. Cut a piece of 1/2 in. sheetrock or rock lath so that it covers the exposed brick area.
5. Cut hole in the sheetrock to hold an electrical box. Secure box to sheetrock with clips. Connect wire to box.
6. Secure sheetrock to wall with masonry nails driven into mortar.
7. Plaster over surface of sheetrock or lath to bring surface up to level of rest of wall.

and map out the tunnels hidden within your own walls. With this knowledge, you'll know whether that next line-stringing job really is "impossible."

A Tale Of Two Houses



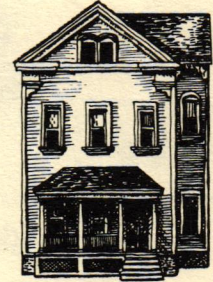
The Journal in recent months examined two houses—built 100 years apart—for secret passages. The differences are instructive. One was a Connecticut farmhouse built in 1825; the other was a frame house in the New York area built in 1920.

Examination revealed the Connecticut farmhouse had a pipe chase running from cellar to attic through an outside wall. However, the early owners obviously had trouble with pipes freezing in the wall, because the entire chase had been stuffed with sawdust for insulation!

In order to run wire through this chase for an alarm system that was being installed,

11 bushels of compacted sawdust had to be removed. (Since the house had recently been insulated, the danger of pipe freezing had been eliminated.)

The 1920 frame house was an entirely different case. In addition to a pipe chase for the main plumbing stack, the house had a 10 in. x 10 in. well running from cellar to attic in the middle of the house. The original purpose of this well—which ran through interior partitions—was unclear, since it was not being utilized for any specific purpose. But it was ideal for running wire for an intercom and sound system that was being installed.



Helpful Publications You Can Send For



Floor Refinishing

AN EXCELLENT 22-page booklet on finishing floors is loaded with helpful information and new techniques, whether you are finishing a newly laid floor or are scraping and refinishing an old floor. Has an easy-to-follow description of sanding procedures that put the floor in shape to get maximum benefit from the finish. Also provides helpful guidance on various types of floor finishes available and the type of care required by each. Price: 10¢. "How To Finish Wood Floors" from Pierce & Stevens Chemical Corp., P. O. Box 1092, Buffalo, N. Y. 14240.

Ceramic Tile Catalogs

CERAMIC TILE can be used to great effect in many rooms besides the bath. Key to successful use of tile is being aware of the tremendous varieties of textures and designs available. To start, collect literature from all of the major manufacturers. A good introduction is the booklet "Ceramic Tile Makes A Lot Of Sense In A Lot Of Rooms Besides The Bath," published by the Tile Council of America, P. O. Box 2222, Princeton, N. J. 08540. Price: 25¢. This booklet contains names and addresses of all major tile manufacturers in the U. S.

A tasteful product line plus some good decorating ideas is contained in the 1973 catalog of Florida Tile Co. Ask for Bulletin 9.18/F1

from Florida Tile, P. O. Box 447, Lakeland, Fla. 33802. Free.

Less appealing to our tastes, but instructive nonetheless, is the Roman-Spartan line manufactured by U. S. Ceramic Tile Co. It's laid out in Catalog RS-380. Write U. S. Ceramic Tile Co., 1375 Raff Rd. S.W., Canton, Ohio 44710. Free.

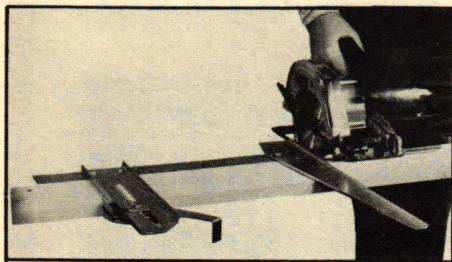
Antique Monthly

ANYONE COLLECTING antique furniture for their old house will want to receive *Antique Monthly*. Published monthly in newspaper format, *Antique Monthly* carries news of auctions, historic restorations, exhibitions, open houses, new books, plus articles on furniture and decorative arts. Equally informative is the voluminous advertising from shops and galleries. \$7.50 for one-year subscription; \$17.50 for three years. *Antique Monthly*, P. O. Box 2274, Birmingham, Ala. 35201.

Natural Wood Finishes

A SHORT COURSE IN HOW TO FINISH WOODWORK. Booklet includes wood identification and best uses, tools and equipment required, surface preparation, staining, priming, filling and finishing. Not an exhaustive study but a good overview of the subject with bibliography if greater detail is desired. 24 pages for 25¢ from: Pierce & Stevens Chemical Corp., Distributor Products Division, Box 1092, Buffalo, N. Y. 14240.

Products For The Old House



Saw Guide

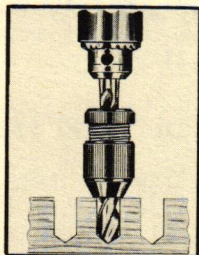
Device allows you to make a perfectly square cut with hand-held saws. Guide clamps to any board up to 10 in. wide with simple cam-operated lock. Can be rotated to 45 degrees in either direction on boards up to 6 in. wide. \$12.95. Manufactured by Chapco, Inc., Chester, Conn. 06412.

Paint Pouring Lip

A simple snap-in plastic collar eliminates paint spills down side of the can when pouring paint back and forth. Brush can also be wiped against collar to prevent paint collecting in groove at top of can. Gallon size: 69¢; Quart size: 49¢, postpaid. From Olson Products Co., 3613 37th Ave. N. E., Minneapolis, Minn. 55421.

Drill Stop

New drill stop lets you get drill-press accuracy with hand drill when you need to drill holes of exact depth. Simply slip stop on drill bit and tighten at desired depth. Can be used with twist drills or masonry bits from 1/16 in. to 1/2 in. dia. Set No. 1500 M is \$2.95 postpaid from Arco Tools, 421 W. 203 Street, New York, N. Y. 10034.



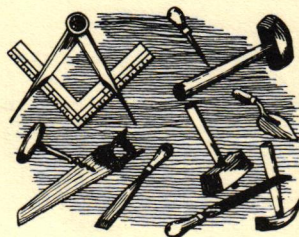
Tool Catalogs For Quick Education

TOOL CATALOGS can be great time-savers for renovators. First, a good catalog collection quickly shows the full range of tools and supplies available to the home craftsman—far more than you can see at even the best-stocked hardware store.

Second, a good set of catalogs gives you base price information. Armed with these data, you can evaluate "bargain" buys in local stores—and decide whether you'd be better off ordering from a catalog source.

A good general reference book is the Sears Roebuck catalog. Although the old-house owner might not care for Sears' furnishings and fixtures, they also supply a wide range of good quality tools, hardware and home-repair materials. Sears also has special home-improvement and tool catalogs.

The best over-all tool catalog is published by U. S. General Supply Co. Its 186 pages are crammed with a staggering assortment of tools and fittings. Prices are reasonable and service on mail orders has been good. Another extensive tool cata-



log is published by Silvo Hardware Co. Prices tend to be a little higher than U. S. General's, but they carry some items U. S. General doesn't.

An intriguing source is The Brookstone Co. They specialize in ultra-quality hard-to-find tools. Prices are high, but service on mail orders has been excellent. Other worthwhile additions to your collection are the catalogs of Woodcraft Supply Corp. and Albert Constantine & Son.

Here's where to write:

Sears, Roebuck & Co., Dept. 139K, 4640 Roosevelt Blvd., Phila., Pa. 19132. Catalog Free.

U. S. General Supply Co., 100 General Pl., Jericho, N. Y. 11753. Catalog \$1.00.

Silvo Hardware Co., 107 Walnut St., Phila., Pa. 19106. Catalog \$1.00.

Brookstone Co., Peterborough, N. H. 03458. Catalog Free.

Woodcraft Supply Corp. 313 Montvale Ave., Woburn, Mass. 01801. Catalog 50¢.

Albert Constantine & Son, 2050 Eastchester Road, Bronx, N. Y. 10461. \$1.00 for Catalog and veneer kit.

Cement A Relationship. Give The Old-House Journal.

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

Subscription is: Gift Personal

Name _____

Address _____

City _____

State _____ Zip _____

Donor's Name _____

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

Maybe you have a friend who's thinking about buying an old house—and needs encouragement.

Or maybe he has already purchased the house of his dreams—and is wondering how to impose his dreams on cement, plaster and wood.

In either case, The Old-House Journal is what he needs. The Journal's sole mission is to give the old-house owner practical information...so he has the confidence to tackle "impossible" jobs himself, or so he can talk sensibly to contractors.

A single \$12 subscription can save many costly mistakes in the course of a year...and provide the latest renovation and restoration ideas, plus a run-down on the newest in helpful booklets and publications.

So be a friend in deed. Give a friend in need a subscription to The Old-House Journal.

P.S.

We'll send your friend a card identifying you as the donor.