

Refinishing Secrets Of The Boston Museum



ALTHOUGH THE PRINCIPLES of furniture restoration are relatively simple, everyone-including the expertsmakes mistakes from time to time. So it never hurts to go back to the beginning and review the basic rules that a professional restorer uses when he first approaches a fine piece of furniture. Keep in mind that these remarks apply only to pieces that are

valuable and worth taking special pains with.

DON'T DO ANYTHING THAT CAN'T BE UNDONE. In the real world, everything changes, shifts and moves. That includes glued joints and sur-face finishes. So if you have a piece of fur-niture worth preserving, anything you do today will have to be re-done by you or someone else in 25, 50 or 100 years.

FOR EXAMPLE, synthetic resin glues (such as E1mer's Glue-All) are rarely used on Museum pieces. The aging characteristics of these glues are unknown—as compared with animal glues that have been used on furniture for centuries. And when you have to remove a synthetic glue in order to re-glue a joint-good luck!

THE ANIMAL HIDE AND HOOF glues used at the Museum are water-soluble and can always be dissolved when repairs are necessary. For the same reason, linseed oil finishes or other oilbased varnishes are not used on the Museum's furniture. More on that later.

NEVER IN HASTE. Whether it's a newly-acquir-ed piece you're very excited about, or an old piece you're in a hurry to refinish-take your time. Many fine pieces have been ruined by a too-hurried approach to repair and refinish-ng Wait until the excitement ng. Wait until the excitement or impatience has passed before you start to work. More finishes have been ruined by excessive haste than by ignorance.

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Coming Next Month

HOW TO GET PLASTERED NICELY



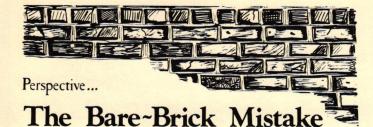
 $\mathbf{B}_{ ext{are two}}^{ ext{E}}$ CLEAR ON YOUR PURPOSE. There are two extremes in restoring. One extreme is to keep the piece looking as old as possible—with the old dark finish, nicks, dents, burns, broken parts and all. At the other extreme is the desire to make the piece look exactly the way it did the day it was built.

The information in this article was presented at a Preservation Workshop spon-sored by The Victorian Society at The Athenaeum in Philadelphia. Conducting the Workshop was Mr. Jonathan Fairbanks, Curator of American Decorative Arts at the Boston Museum of Fine Arts. He was assisted by Mr. Vincent Cerbone, ture Restorer at the Museum. Furni-

VICTORIAN FURNITURE provides a good illustration. Victorian furniture makers used the color of the wood as a design element-and many of the woods they used were quite colorful. The pieces were coated with shellac, however, and shellac darkens with age. So the somber shades we associate with Victorian furniture

results from the aging of the shellac-not from the intent of the designer. Anyone with a "like new" restoration in mind, therefore, vould want to strip off the old dark shellac and apply a new clear finish.

(Continued on p. 10)



MANY INEXPERIENCED RENOVATORS are enchanted with "exposed brick" as a charming and rustic touch-whether or not the house was originally designed that way.

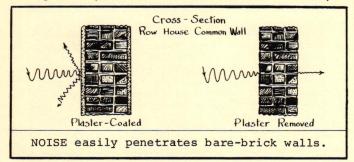
CHIPPING PLASTER OFF A WALL to get down to bare brick seems like a fast, easy and inexpensive way to add charm to a home. In some extreme cases we have seen, "renovating a house" simply means ripping all the plaster off all the walls that have bricks underneath.

BARE BRICKS CAN BE A TERRIBLE MISTAKE!

FIRST, PLASTER WAS INTEGRAL to the original design of the house. Rushing to make basic al-terations that destroy the house's original character and flavor can be a mistake that you will have to live with for many years. Some remodelers think that to make a house look old, it should look crude and primitive. Nothing could be further from the truth. The old-time craftsmen went to great pains to give their work a finished look. Even the old hand-hewn beams that are shown off so proudly in "colo-nial" houses were originally encased in smooth boards.

SECOND, PLASTER IS A GOOD THERMAL INSULATOR. It definitely is a mistake to remove plaster from an exterior wall. A masonry wall is surpris-ingly porous—and with only three courses of brick between you and the winter winds, you'll be spending a chilly winter.

THIRD, PLASTER IS A GOOD SOUND INSULATOR. This is especially desirable in row houses. If you



and your next-door neighbor both opt for the bare-brick look on opposite sides of the same wall, you may well find yourself listening to him practice the bassoon every midnight.

S 0 PAUSE before you take that hammer and cold chisel in your hands. If you are tempted to rip off the plaster because it's too difficult to repair it...WAIT! The December issue of the Journal will be devoted to the techniques of plastering, in which all of your questions will be answered and your self-doubts dispelled.

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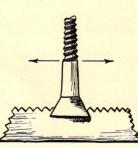
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Recycling Old Brass Screws

 $D_{\text{house}}^{\text{URING RECONDITIONING PROJECTS, the old-house}$ owner frequently ends up with a pile of antique brass screws that he'd like to use again. But the slots in the heads are filled with paint and it's hard to get a grip with a screwdriver.

SOLUTION:



Clean the slots out by running them over a hacksaw blade. To avoid skinned knuckles, be sure to run the screw over the blade as shown in the diagram; don't attempt to hold screw in your hand and cut down on it with the saw. You can use emery paper to take paint off the rest of the head.

A Home For Your 'Leftovers'

 $A_{\rm facts}^{\rm S}$ YOU RENOVATE YOUR HOUSE, you may find artifacts of an earlier age that have no place in your current scheme of things. Before you throw out these "leftovers," consider...

THE VICTORIAN SOCIETY IN AMERICA maintains an archive that is collecting samples of old wallpaper, carpets, drapery hardware and just about anything else that would be of interest as part of a "material history" of the

19th century. Any samples should have name, address and date removed affixed to them. Address all queries to: The Victorian Society, The Athenaeum, E. Wash-ington Sq., Philadelphia, Penn-sylvania 19106.



Old-House Living ...

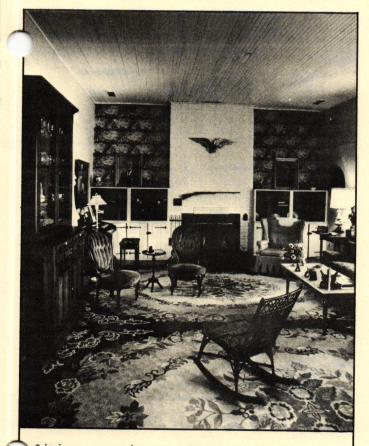
A Schoolhouse In Kentucky



FOR NINETY-ODD YEARS, the highwindowed frame building on Wood Road has been, in one form or another, an integral part of the community of Lyndon, Kentucky, near Louisville.

IT WAS BUILT IN 1882 as Progress School #8, a one-room schoolhouse accommodating all eight grades. Within a year or two, a long second room was added to make a crossshaped building; a large sliding blackboard served as a divider between the upper and lower schools. The building functioned as Lyndon's schoolhouse until 1936, when a new school was built. The old schoolhouse, with its giant maple tree and 7/8 acre of land was sold at public auction for \$1200.

THE NEW OWNERS installed a number of interior walls and rudimentary plumbing. When Mr. and Mrs. F. E. "Sandy" Wood bought the house in 1944 for \$6,200, it was perfect for them and their three children. The original one room —top bar of the cross—had become two bedrooms, with a family room in the middle, and



Living room mixes Wood's favorite antiques with the school's original board ceiling.



then another bedroom and bath. The old school vestibule the top of the cross —became part of the family room (for many years an area utilized by son Perry's model train layout). The school cloakrooms, (boys to the right; girls to the left) became dressing rooms and closets. The original coat hooks are still on the wall.



Current view of side of ex-schoolhouse.

THE OLD SCHOOLHOUSE HAS CHANGED SLOWLY and organically in response to changing family needs. As the children went off to school, the first major structural addition was a long sun-room and office along the back of the house. The addition made it possible for the old schoolhouse to be the place where the Woods lived both their private and professional lives (advertising, law, writing and publishing).

BECAUSE THE SCHOOL BUILDING HAD NO CELLAR, the heating plant had to stay above ground, in a utility room off the back porch. Structural problems prevented running hot air ducts through the floors, so they were installed under the roof instead, with vents in the ceilings. The only other major problem in the history of the house occurred during the years before city water service reached Lyndon and the Woods' water supply was dependent on a cistern and pump. During winter months, the pump had a distressing habit of freezing solid. Mrs. Wood, 5' 3", 100 lbs., was the only person in the family competent to handle a blowtorch and at the same time small enough to squeeze into the accessible work space in the utility room. She has wonderful memories of unthawing the pump at 5:00 a.m. on winter mornings.

(Continued on next page)

THE LIVING ROOM is the second room of the old schoolhouse, the stem of the cross. In the original thin-board ceiling, the Woods pre-served the tin-covered hole where the Franklin stove pipe entered the chimney. They implanted a brass plaque in the brick fireplace with the names of the Progress School Class of 1896-97, a good percentage of which are family names of friends and neighbors.

T IS EASY TO SIT IN THIS ROOM and look out of the nine foot windows to the big maple tree in the back yard and imagine a small boy, bored with geography, poking pencil stubs through a hole in the floor. During the course of one alteration, the Woods found beneath the house a collection of well chewed pencil stubs with worn erasers and several rulers, one of which had been worked by somebody's penknife.

ANOTHER LEGACY FROM THE SCHOOLHOUSE are the original wavy-glass windowpanes, by some miracle all still intact.

THE ROOM IS NOW FURNISHED WITH family and community treasures: A cherry drop-leaf table (c. 1675), a cherry corner cabinet (c. 1723), and a Jackson Press (c. 1825), charming Victorian lady and gentleman's chairs, and various family portraits, editorial cartoons, and prize-winning photographs of Louisville.

AS WITH SO MANY OTHER OLD-HOUSE OWNERS, the Woods, having loved and restored one, moved on to others. The reclamation of downtown Louisville and restoration of its splendid old townhouses began in the area around the University of Louisville.

THE WOODS NOW OWN and have renovated two houses within a half block of each other on St. James Built in 1905 on the site Court. of the Louisville Exposition, the restored houses are currently rented out. Should the Woods decide to leave their country school house, however, they have waiting for them an old house in downtown Louisville.





WITH ALL of the attention being focused on the energy crisis, it's time to look at that great energy-conserving invention: the window shutter.

FOR THE ORIGINAL OLD-HOUSE OWNER, shutters weren't just pretty decorations. They can also be a practical tool in running the house. In winter you can cut consumption of heating fuel by closing the shutters at night. This cuts radiation losses through window apertures. During winter days, you capitalize on the sun's warmth by opening the shutters on the sunny side of the house.

IN SUMMER, the process is reversed, and can cut-or eliminate-the need for air conditioning. During the day, close the shutters

Restoring Shutters To Working Order

FEW THINGS ARE MORE ANNOYING THAN WINDOW SHUTTERS THAT DON'T WORK HERE'S A REVIEW OF PROPERLY. EVERYTHING YOU NEED TO KNOW TO RE-PAIR FRAMES AND LOUVERS...SO YOUR SHUTTERS WILL OPERATE PERFECTLY.

on the sunny side of the house to keep out the sun's rays. At night, open the windows and shutters to let the house fill with cool night air.

THE TRICK to this energy-conserving scheme, however, is having shutters that work freely. In many old houses they have been pretty well battered after 100 or so years of use. Here's a review of various mechanical ailments that afflict shutters and some remedies that have been used successfully.

Shutter Sag

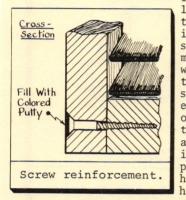
FREQUENTLY, LOOSE HINGES CAUSE SAGGING that prevents proper closure. These loose hinges in many cases can't be fixed by merely tight-ening screws because after numberless retightenings the screws have stripped all of the wood from their holes. One obvious remedy is the Old Matchstick Trick-stuffing a matc stick into the hole to give the screw more wood to bite into.

A MORE PERMANENT SOLUTION is to fill the hole with plastic wood. (A very satisfactory filler is Elmer's glue mixed with fine sawdust.) Re-insert screw while the filler's soft—but tighten all the way. When the filler has set in a couple of hours, tighten down the screw.

Securing Loose Joints

SHUTTER JOINTS may have come unglued to the extent that the shutter won't close properly. Method of repair depends on how badly it's unglued.

IF JOINTS ARE PARTIALLY LOOSE, you may be able to open them far enough to force more glue in and clamp while glue sets: To get new glue



into a crack, run a line of it on top of the crevice and blow it in through a drinking straw. An alternate method is to use a 3" wood screw to reinforce the joint. Drill a shank hole (large enough to pass the body of the screw) through the outer frame section, and drill a pilot hole in the second frame piece. Countersink hole so that screw head is hidden. Cover screw head with linseed

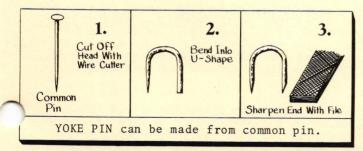
oil putty colored with pigment (burnt umber, raw umber, raw sienna—available at paint stores) that match the wood.

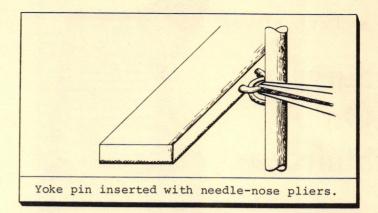
IF JOINTS ARE COMPLETELY LOOSE, the simplest thing is to totally disassemble the shutter, reglue joints, and reassemble. Getting all louvers back into their sockets is something of a Chinese puzzle, but with patience it can be done. Two or three bar clamps will hold the shutter together while glue is setting.

Pinwheeling Louvers

LOUVERS MAY BE MISSING THE YOKE PIN that connects them to the vertical post—so that some louvers don't move in unison with the others. This can be fixed with a common pin, file, and needle-nose pliers.

CUT OFF HEAD and bend pin into a U-shape. Sharpen blunt end with a file. With needlenose pliers, slip new yoke pin through loop on vertical post and force it into old pinholes in louver.

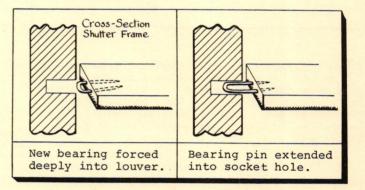




Replacing Missing Bearing Pins

IF THE WOODEN BEARING PIN at the end of a louver breaks off so that the louver hangs down like a broken birdwing, replace the missing bearing pin with a wire pin.

MAKE A U-SHAPE from a common pin, as shown in the diagram. Sharpen the blunt end. With needle-nose pliers, force the two legs of the U into the louver where the old pin had been. When new pin is inserted deeply enough so that louver can be pushed back into frame, use needle-nose pliers to withdraw pin so that it telescopes into the bearing socket.



Faking A Louver

NEW LOUVERS CAN BE CUT from thin wood, patterned after the ones still in place. Orangecrate slats are about the right thickness, and are easily cut and stained.

IF THE SHUTTER FRAME WAS TOTALLY DISASSEMBLED reglueing, the new louver should be cut with wooden bearing-pins at both ends and inserted when reassembling the shutter. Then fashion a new yoke-pin as described above.

IF THE SHUTTER IS STILL IN ONE PIECE, the new louver should be cut with only one wooden bearing-pin. After slipping the wooden bearing into its socket, anchor the other end using the telescoping bearing-pin technique described above. Then attach a new yoke-pin.

YOUR SHUTTERS — now in perfect working order — are not only aesthetically pleasing, but also ecologically sound.

Ask The House Doctor ...

Surgery On A Staircase



Q: One staircase in my 1890 Victorian frame house has developed a noticeable sag. Is this likely to be serious—and if it is what can be done about it? R. Bradley Andover, Mass.

WHILE EVERY CASE IS DIFFERENT, your problem reminds me of a situation I encountered in a brownstone row house. I had lived there for about a year and had been busy coping with electrical and plumbing problems when I began to notice little things about the top-floor staircase...

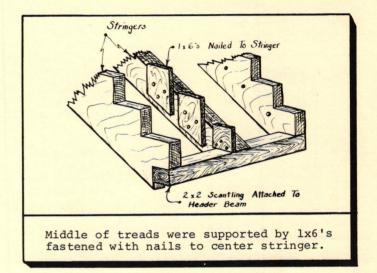
...LITTLE THINGS like a noticeable increase in the amount of rhythmic bouncing as one ascended the stairs. Little things like a hole in the plaster under the staircase...a hole that wouldn't stay patched no matter how many times I plugged it with plaster.

I DECIDED THAT OPEN-STAIR SURGERY would be necessary. Now do-it-yourself stair surgery is not for everyone; you need a strong back and must be able to withstand the sight of spilled plaster. However, the following description may help you diagnose a similar condition—or help you direct the ministrations of a specialist you might call in.

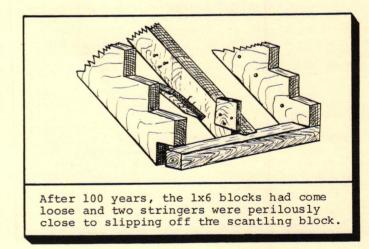
TO DETERMINE why the plaster was always falling out of the patch, I performed an exploratory operation. The plaster on the underside of the staircase was ripped out in the area of the hole-that-wouldn't-stay-patched. Enough plaster and lath was removed so that both a flashlight and the surgeon's head could be inserted into the opening.

WHAT I SAW REVEALED that part of the staircase framing had come loose and was bearing down on the plaster below every time someone went up the stairs. Radical surgery was needed.

FIRST STEP IN THE OPERATION was far and away the messiest and most unpleasant—removing all of the plaster and lath from the underside of the staircase. Opening the underside in this fashion revealed the full extent of the problem—and the remedies that would be necessary. The first diagram shows a simplified view of the framing that the original builders put together—before the treads and risers were nailed on.

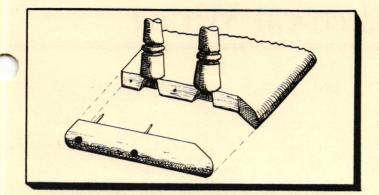


After the shifts and shrinkages that occur in 100 years, however, this is the condition that confronted me:



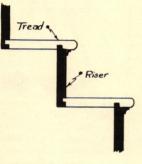
The outer stringer had come almost totally off the supporting scantling and was held up only by a faint hope. Also, most of the 1 x 6 blocks used to support the middle of the treads had come off. I decided to totally disassemble the staircase and rebuild it.

IN DISASSEMBLING A STAIRCASE, first thing to remove is the balusters. On this staircase, they were keyed into the treads and held in place by the end trim. End trim is held with



nails and should be worked loose gently. Slip a stiff putty knife into the joint between tread and end trim. Open the joint wide enough so you can slide in a pry bar. (Don't use a screwdriver to open the joint; it will damage the wood.)

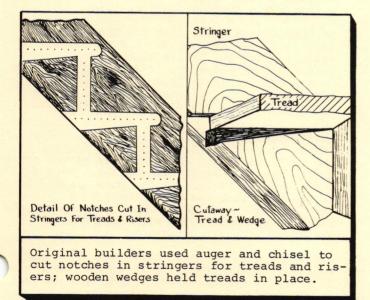
When end trim is removed, the balusters can be slipped out of the keyway. Tops of the balusters are usually glued into the hand railing. If these joints haven't already worked loose, you can twist them by hand and the glue will give way.



Once the balusters are removed, * next comes the treads and risers. Note: Since the balusters are hand-fitted to each tread, reassembly is greatly simplified if you number each baluster and tread so you can put all parts back in the same order in which they were removed.

Treads and risers are mortised into each other and held together by nails.

JUDICIOUS USE OF THE STIFF PUTTY KNIFE followed up with the pry bar will allow you to work treads and risers loose without damage. (I found it easiest to start with the bottom riser.)

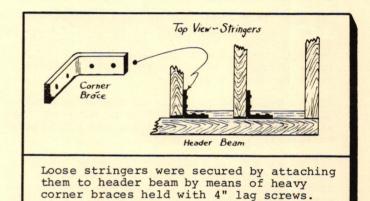


ONCE TREADS AND RISERS WERE REMOVED, next task was to secure the two stringers that had worked loose. (The third stringer had been fastened to the brick wall with cut nails and was still solid as a rock.)

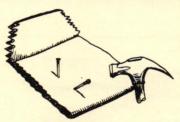
THE STRINGERS were shoved back into position but there had been enough shrinkage so that simple toe-nailing to the scantling would not provide a secure joint. The answer was two heavy 6" corner braces.

CORNER BRACES were fastened to the stringers and header with heavy 4" lag screws. It's hard to drive screws in the old dried beams. Pilot holes are a must, as well as lubricating the threads with soap before driving. Lag screws were used so a hefty wrench could be used to drive them.

NEXT, NEW TREAD SUPPORTING BLOCKS for the middle stringer were cut from 2 x 6 and nailed and glued in place. In order to fit the blocks exactly against both tread and riser, treads and risers were put back one by one, and the support blocks fitted snugly against them and secured with nails. The original wedges were re-inserted between the underside of treads and the two outside stringers.



Wedges that were missing were replaced with new ones cut from one-inch pine board stock.



NOTE ON NAILING: On a staircase, which is subject to continual working and stress, it is important that nails be driven at opposing angles to resist being pulled out.

RE-INSERTION OF THE BALUSTERS was quite easy, and sheetrock was nailed to the underside of the stringers to replace the plaster that had been pulled down.

The operation was a success.

the state of the

^{*}With all of the balusters removed, it's an ideal time to consider stripping them. You can make a vat and dip them easily. Also, it's easier to refinish them when you can pick each one up and turn and twist them as you apply the finish.

Coping With Frayed Electrical Wiring

Many old houses have frayed electrical wires that can cause short circuits.... and possibly fires. Here are the danger signs to watch out for and what you can do to avoid rewiring the entire house.

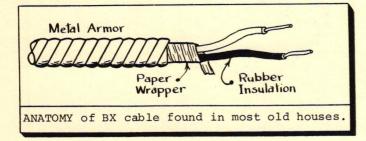
MOST HOMEOWNERS have had this experience: You set out to install a new outlet, switch or ceiling fixture...and the insulation on the wire in the electrical box crumbles in your hand. Frustrating, yes. But it also signals bigger troubles ahead.

THE NATURAL TEMPTATION in such a situation is to wrap the offending wire with electrical tape, utter a fervent prayer and stuff the wire back into the box. However, crumbling insulation is symptomatic of advancing age in your electrical system—and should be given more thorough-going treatment.

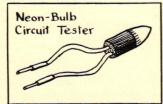
THE BEST that comes out of such a condition is an eventual short-circuit that will blow a fuse or circuit breaker. The WORST would be current leakages and sparking that isn't large enough to blow a fuse—but is sufficient to cause a fire.

FRAYED WIRES ARE going to be common in houses that were wired in the 1920's or earlier. Now at age 50 or more, this wiring can be expected to show signs of senility.

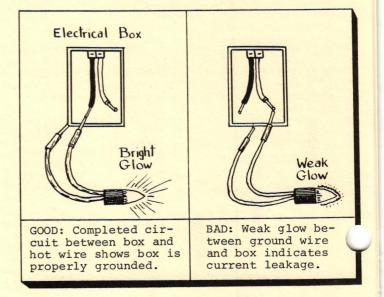
WIRING IN MOST OLD HOUSES will be of the BX variety. This consists of a spiral metal armor (that also acts as a safety ground) and two or more rubber-insulated wires. Problems arise as the rubber becomes embrittled after prolonged exposure to air. The oxidized rubber may crumble away, allowing the two wires to contact each other (short circuit!), or allowing the hot wire to short out to the metal armor.



IN ADDITION to crumbling insulation, there is another warning sign that your wiring may be in a dangerously deteriorated condition: Current leakage from the hot (black) wire to the ground (white) wire.



Leakage can be detected with a neon-bulb circuit tester as indicated in the diagram. The ultimate symptom, of course, is a short circuit that blows a fuse or trips a circuit breaker. This is far preferable to the sparking that leakage can cause, however. Sparking leads to fires. When the fuse blows cleanly, the power is cut off and danger of fire is eliminated. And a blown fuse prompts immediate action to trace and cure the problem because otherwise the entire circuit is inoperable.

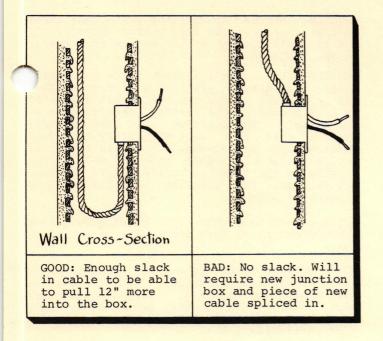


Sometimes CRUMBLING INSULATION can be dealt tape. There is the danger, however, that the crumbling insulation continues back into the box connector where it's not readily visible. If such is the case, it's a ready-made condition for a short circuit or fire.

AN ELECTRICIAN MIGHT TELL YOU that the only cure is to rip out all the old wiring and totally replace it. While such a step is doubtless the best solution, it is quite expensive — and messy. There is an in-between solution that is much less expensive and can extend the life of your old wiring by many years.

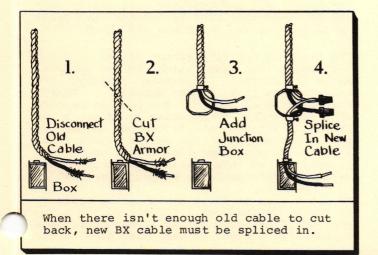
THIS IN-BETWEEN SOLUTION is possible because the insulation inside the armored section of the cable is almost always in far better condition than the insulation that has been directly exposed to the air for many years. So to get wire that has sound insulation, all you have to do is cut back a foot or so of the old BX armor and expose the wire that has been protected from air oxidation.

YOU MIGHT WISH to leave this task to an electrician. But if you live in an area where do it-yourself wiring is permitted, here is what is involved.



IF THE ELECTRICIANS who originally installed your wiring did a proper job, they left some slack in the BX cable into the box. You can then cut back the armor and get some fresh wire to work with. Here are the steps that you would follow:

- 1. BE SURE POWER IS TURNED OFF.
- 2. Chip away plaster around the box and unscrew box from the lath or stud.
- 3. Remove cable from box by loosening screws on cable clamp.
- 4. Pull slack cable out of wall and cut 12" off the BX armor. Be careful not to cut into insulation of the wires inside the armor. Insert plastic anti-short collar between end of armor and wires in the armor.
- 5. Cut off deteriorated section of wire and use the freshly exposed wire to reinsert into the box.



6. Re-clamp cable to box; re-mount box in wall; patch plaster.

Note: Detailed instructions on cutting of wire and mounting of electrical boxes is contained in the booklet cited below—or in any standard wiring text.

IF THERE ISN'T ENOUGH SLACK WIRE, the remedy is a little more complicated. What's involved is adding a junction box and splicing in a new piece of BX cable.

While a messy job—because a bigger hole in the wall is involved—it's usually a lot less

Inexpensive Electrical Know-How



A GOOD STARTING POINT for gaining mastery over your electrical system is the 50-page booklet published by the National Plan Service. It covers all the basics, starting with electrical theory, tools, safety procedures, and how to tackle all the basic wiring jobs. It is a handy reference whether

you plan to do the wiring yourself or just want to talk intelligently to an electrician. The price is 85¢. "How To Do Elecrical Wiring" from National Plan Service, 1700 West Hubbard St., Chicago, Illinois, 60622.

expensive (and less messy) than ripping out and totally replacing the old wiring.

JUNCTION BOXES and spliced wiring can be installed either in walls or ceilings. The hole that is left in the plaster is a relatively simple matter for you—or a plasterer—to patch.

One frequently encounters complex curves that must be sanded. Next time, try making a sanding block out of an old deck of cards. The cards will adjust themselves to the curves and provide even sanding pressure.



TEST YOUR MATERIALS. Different materials react differently on different surfaces. You are never completely sure what's right for your piece until you test on an inconspicuous place.

IN SELECTING A STRIPPING AGENT, for example, you would look for the mildest chemical that will do the job, and yet not damage the wood. The most common solvents and strippers, starting with the mildest and arranged in approximate order of chemical ferociousness are:

> Mineral spirits (benzine) Turpentine Toluene/Xylene Diacetone alcohol Denatured alcohol Acetone Commercial paint removers Morpholine Pyridine

NOTE: Morpholine and pyridine, which are really "eager eaters" give off toxic fumes and should only be used in a well-ventilated space.

IF THESE SOLVENTS FAIL to do a satisfactory job, the only option left is mechanical abrasion—sandpaper, steel wool, etc.

D^{ON'T} REMOVE ALL WRINKLES OF AGE. At the Boston Museum, the intention is never to make the piece look like new. Dents and worn places are one of the consequences of a piece of furniture being old.

How To Apply French Polish

French Polish sounds deceptively easy to apply. Actually it takes some practice to get the hang of it. So be sure you experiment on some expendable item before you take on grandmother's priceless heirloom.

For its display pieces, the Boston Museum mixes its own French Polish fresh for each job. The formula is simple:



Measurements are by volume.

To apply this mixture, you need time, patience—and practice. First, make sure that all traces of the old finish, wax, etc. have been removed. Then make a small pad (about 3" square) out of old, soft cotton cloth. An old shirt or sheet will do. Apply the shellac solution to the pad and apply to the surface with a hard, continuous HOWEVER, broken or missing parts that might otherwise prevent the viewer from appreciating the over-all concept of the design are repaired and replaced.

INCIDENTALLY, here's a handy trick for dupli cating a rosette or piece of wood carving tha may be missing. You can use dental alginate* to make a mold of the carving that remains on the piece. The alginate will make a soft, flexible mold that will accurately reproduce undercuttings on carvings. You can then pour Lucite molding compound* into the mold. Depending on the ratio of Lucite powder to monomer you use, the material will harden in 15 minutes to 2 hours.

COLOR CAN BE CAST into the molding by mixing powdered pigments into the Lucite before casting.

OTHER MOLDING MATERIALS may be equally suitable for your application. Such things as Kerr impression material (also a dental supply), latex, and glue molds can be used. Only experimentation will tell you what's right for your particular job.

 $S\,{}^{\rm ELECT}$ SURFACE COATING CAREFULLY. There are two basic types of finish: oil varnish and spirit varnish.

*Dental alginate and Lucite molding compounds are available through dental supply houses. They are used by dentists to make impressions in the mouth.

motion, never letting the cloth stop on the surface. Add shellac to the pad as needed. The idea is to build the surface up from dozens of extremely thin layers—each one of which has dried before the next one is laid down.

When rubbed in with hard pressure and vigorous hand motion, each shellac coat is microscopically thin—and the alcohol evaporates in just a couple of minutes. So after you have gone over the piece the first time, you go back to the beginning and apply another very thin layer. The process is repeated... and repeated...and repeated...literally dozens of times until the finish has been built up to the desired thickness and sheen.

The trick in applying French Polish 1s avoiding having the pad stick to the surface. Since the alcohol evaporates rapidly, the surface gets tacky rather quickly. That's why practice is needed. The pad can be made more resistent to sticking by adding a few drops of linseed oil to the pad before applying the shellac. The purist avoids this, however, because some linseed oil inevitably is applied to the surface and once it has dried the surface isn't perfectly renewable.

French Polish produces a high-gloss surface. It can be dulled down, if desired, by going over the final coat (after it has thoroughly dried) with a piece of very fine steel wool.

(Continued from preceding page)

OIL VARNISH POLYMERIZES on exposure to air and ms a coating that is chemically bonded to self and to the wood. Once this bonding takes place, no ordinary solvent will lift it. A strong chemical—such as those in paint removers — must be used that will actually at-tack and destroy the coating. Linseed oil, tack and destroy the coating. polyurethane, penetrating sealers and most commercial varnishes fall into this category.

SPIRIT VARNISHES FORM a coating by the evaporation of the solvent. These coatings-unlike oil varnishes—can be removed by simply ap-plying more of the solvent to the surface. Shellac and nitrocellulose lacquer fall into this category. Shellac is dissolved by alcohol and nitrocellulose lacquer can be dissolved by commercial lacquer thinner.

AT THE BOSTON MUSEUM, only shellac finishes— called French Polish—are used on the display pieces. Shellac is used because the surfaces are easily renewed (or totally removed) by the application of alcohol. Air-polymerized fin-ishes such as linseed oil are never used because they are too difficult to remove.

ONCE THE PIECE has been given its French Polish finish it is never waxed or oiled. Usual-ly all that's required is dusting with a dust cloth. If there are fingerprints or other marks to be removed, this can done with a marks to be removed, this can done with a sponge slightly moistened with water and a few drops of vinegar, or a petroleum distillate, such as mineral spirits.

A GOOD FRENCH POLISH FINISH should last for 60 conditions-long to 80 years under ideal enough to let your grandchildren worry about refinishing it the next time.



Helpful Publications You Can Send For

Exotic Hand Tools

EVERYTHING YOU WANTED ____BUT DIDN'T KNOW WHAT TO ASK FOR. Japanese hand tools are very different from the standard U. S. variety ... and Japanese craftsmen produce excellent results

with them. This 7-page flyer shows several zen exotic hand tools, plus some Japanese-anglish instructions on how to use and care for them. Some of these tools are ideal gifts for the home craftsman who "has everything." Free. "Catalog No. 2" from Tashiro Hardware Co., 109-113 Prefontaine Place, Seattle, Washington 98104.

Installing Sheetrock

GYPSUM WALLBOARD is frequently used in oldhouse remodeling instead of plaster walls. This 4-page folder from Georgia-Pacific con-tains useful step-by-step directions for cutting and installing sheetrock, with 15 clear illustrations. Shows how to install on ceilings, and how to handle inside and outside corners, plus taping and finishing of joints. Free. "Gypsum Wallboard Application" from Georgia-Pacific, Gypsum Division, 900 S. W. Fifth Avenue, Portland, Oregon 97204.

Wood Identification Kit

UNFINISHED VENEER SAMPLES of 20 different types of wood (2" x 4" x 1/28") plus an iden-tification catalog. Excellent "Show and Tell" method of examing color, grain and texture of yarious woods. Very useful starting point if you're planning to do some fancy woodworking. Or use it just to increase your ability to ntify woods. Accompanying catalog has an interesting collection of decorative woodwork

plus an extensive collection of woodworking

tools and materials. CAVEAT: Fulfillment of the request for kit and catalog took 9 weeks for the order sent by the Journal. This may be unusual-but better allow several weeks for delivery. Send \$1 for Veneer Kit and Catalog to Albert Constantine & Son, Inc., 2050 Eastchester Road, Bronx, N. Y. 10461.

Smoke Alarms

EARLY WARNING AGAINST LETHAL SMOKE. Two models of alarm available: Built-in or plug-in for residences or apartments. The 6" square unit surface mounts in the ceiling of selected area or on wall. Photo-electric cell activates horn alarm. Pilot light shows unit is functioning; intermittent alarm sounds if light goes out. Cover can be re-moved to silence alarm. Unit UL listed and meets all known standards. Free. "Smoke Detection/Alarm Brochure 1842" from NUTONE, Division of Scovill, Madison & Red Bank Roads, Cincinnati, Ohio 45227.

Do-It-Yourself Library

ONE OF THE MOST EXTENSIVE lineups of do-ityourself books is published by the Audel division of Howard W. Sams Co. The 48-page Audel catalog gives capsule descriptions of 95 home craftsman manuals. Sampling of titles: Brick Foundations; Arches & Tile Setting; Carpentry & Building; Home Appliance Servicing; House Wiring; Plastering & Stone Masonry; Plumbers and Pipe Fitters Library. Catalog contains postage-paid order form; all books are available for a 10-day free examination. Catalog is free. Ask for "Audel Books Catalog" from Howard W. Sams 4 Co., 4300 West 62nd St., Indianapolis, Ind. 46268.

Products For The Old House

Voltage Monitor

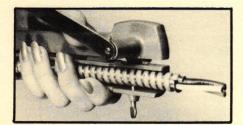
Power-line monitor plugs into any electrical outlet like a nightlight. Provides intant, accurate reading of AC line voltage



anywhere in the house. Instrument will safeguard household appliances by detecting voltage reductions, allowing homeowner to shut off the appliance. \$12.95 from Procon, 36 South Street, Burlington, Vermont, 05401.

Plywood Toter

Device makes it easier to handle big plywood sheets up to l in. thick. Plywood Toter has a metal channel that is placed under center of panel to be lifted. Heavy-duty nylon strap extends from channel to the carry handle. Carrier uses one hand to lift the handle and steadies top of panel with other hand. Device is only 8 oz., and can be folded into a pocket. \$4.95 postpaid. From Metaltek, P.O. Box 30388, Raleigh, N.C. 27612.



BX Cutter

New tool, called Roto-Split, cuts BX cable like a can open-Equipped with automatic er. stop, tool cuts through cable armor without damaging insula-Open chanted wires inside. nel makes it easy to cut cable in middle of roll. Cutter is Tool is backed replaceable. by lifetime factory replace-ment (except for cutter). It's \$8.95 plus \$1.00 postage and handling from Seatek Co., P.O. Box 235, Riverside, Connecticut 06878.

Recipes For Reviving and Refinishing

WITH PRICES SOARING EVER HIGHER, it's a pleasure to come upon a book of recipes with ingredients that are really low-cost. The results are not served, however, but admired.

"Finishing Touches" is a guide to caring for your valued possessions with recipes for finishing wood. And it does indeed give actual recipes ranging from traditional materials (turpentine, steel wool, etc.) to the simple but elegant #47, Red Wine Cleaner—obtained from the museum at Dijon, France, using hot red wine (California burgundy is fine) and a toothbrush.

This lively little red book, put together by the Willoughby House Junior Board, sensibly starts with wood descriptions; goes on to advise whether to revive or strip. It gives tips on repairs, formulas for waxes, plus methods of treating decorative and opaque finishes, and care of accessories—taking in everything from ceramics, glass, copper and brass

ings, and even rare books. There are notes on selections of pieces to refin-

to costumes, lace, paint-

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The Old-House Journal, Dept. 7, 199 Berkeley Place, Brooklyn, N. Y. 11217 ish; what to look for and beware of; and ends with a helpful glossary.

In addition to recipes for Mock Buttermilk Paint (in two colors: Coffin Red and Benedict Arnold Green), simple lemon oil polish, or a white ring remover, you will find special recipes for balustrades, pine shutters, and old random-width floors.

The agreeable prose style lets you know when a method is mainly elbow grease, particularly cheap, and makes allowances for eccentricities ("...if you must oil...") and makes all directions simple to follow. The section on Adaptations begins by reminding that "not everything must become a planter."

A \$3.00 check, plus 25¢ for handling and postage, sent to Willoughby House Settlement, c/o Ritorto, 10 Monroe Place, Brooklyn, N. Y. 11201, will get you a copy of "Finishing Touches."

> Ordering a few extra copies could help you whittle down that Christmas shopping list.

Renovating an old house can wreck a marriage that has successfully withstood the strains of poverty, children and changing careers.

Confronted by mounds of broken plaster compounded by the thousands of decisions about paint vs. wallpaper, where a light goes, what color to paint the woodwork, etc., etc., many couples settle matters by heading straight to the divorce court.

If you're worried about a renovating couple you know, maybe The Old-House Journal can save their marriage.

Armed with the information the Journal publishes every month, the husband will whisk through his projects with new confidence and mastery. Amazed by such a display of competence, his wife will be reassured that all will be well by Christmas.

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