Chapter 20

PAINTING AND FINISHING

Every step in building a house is important, and painting and finishing is no exception. Woodwork exposed to the weather should be painted just as soon as possible to prevent it from absorbing moisture. There is not quite as much rush with interior painting except for floors, which should be given a protective coating of some sort before they are put into use.

**EXTERIOR PAINTING**

A good paint job will not only protect the outside of your house, but it will also make it more attractive, so take pains with the selection of your color scheme, the paint you use and the manner in which it is put on.

The exterior of the house—that is, any portion that will be exposed to the weather—should be painted with a good grade of exterior paint. Do not take the time and trouble to mix your own paints because, in the first place, this is rather tricky work and you may not get a good quality of paint and, second, there are many fine ready-mixed paints on the market that are better than anything you could mix yourself. Be sure that you have good paint brushes; they are as important for the job as is a good paint.

As a general rule, painting should start at the highest point of the house and work down. If the roof wood shingles are to be stained, this should be done first of all. Stain is easily applied by brush, and the main point is to get it on evenly and to keep it off other woodwork that is to be painted. After the shingles have been done, do the cornice trim, the siding, and then the window and door trim.

![Types of paint brushes](image)

**Fig. 1.** Flat wall brush for exteriors and other large surfaces and a varnish brush. *A, B and C* show the wall brush. *D* shows the bristle contour of an inferior wall brush. *E* is a seamless ferrule varnish brush.
The first rule to follow for good results in painting is to be sure that the wood is both dry and clean. Do not paint right after rain or during damp weather. Allow the wood to become bone dry before you begin to apply paint. Another point is not to try to paint when the temperature of the air is below 50° F. Below this temperature, paint will not flow properly and the job will not turn out well. The best way to insure that the wood is clean is to wipe it down with turpentine. Rough spots in the wood should be sanded smooth. Knots and sappy spots should be coated with either orange shellac or aluminum paint before the first coat of paint is applied. Unless this is done, the rosin will bleed through the paint after it is dry.

The First Coat

The first coat of paint, the priming coat, is the most important of the three coats that are required for exterior work. Unless this coat is worked well into the wood's pores, where it will dry and make a strong bond, the weight of subsequent coats of paint may cause it to pull loose and peel off. The proper thinning of the first coat will depend on the condition of the wood. If the wood is rather green and contains a good deal of rosin and gum, the priming coat should be thinned with turpentine. The turpentine will act on these gums as a solvent and allow the paint to penetrate the pores of the wood. If the wood is very gummy, it might be wise to wipe it down thoroughly with turpentine before painting. On the other hand, if the wood is very dry, the first coat should be thinned with linseed oil to replace the oils in the paint that will be absorbed.

The first coat of paint should be worked into the pores of the wood. Do not just flow the paint onto the wood; slap it on and work it in. Many experts feel that the only way to get a priming coat applied properly is by brush. A paint sprayer does not force the paint into the pores as well as can be done by a brush. For the second and third coats, a sprayer can be used if one is available.

The Second and Third Coats

As soon as the first coat of paint is dry, go over the surface and fill in any holes or nail heads with putty. The putty should not be applied before the first coat goes on because the wood will absorb the oils out of the putty and cause it to dry out and crack or fall out. After the putty is hard, give it a light sanding and then apply the second and third coats. Be sure to allow ample time between coats for the paint to dry. The exact time required will depend on the weather conditions, but be sure that the paint is good and hard before you go ahead with another coat.

The general practice is to paint the siding first and then do the trim around doors and windows. This trim was given a priming coat when it was installed, so only the second and third coats are required for it. In spite of the common practice of painting the trim
a different color than the siding, it is not essential by any means. You can paint it the same color as the siding or you may select any other color that appeals to you.

**Wood Siding Shingles**

Shingles used for siding can be stained or painted. The reason that these shingles can be painted while roof shingles cannot, is that siding shingles are not so apt to absorb moisture as roof shingles.

Because of the rough texture of shingles, it is easier to apply paint by a sprayer. If you use a brush, use an old one since the rough surface may damage a new brush. (Shingle stain is applied by brush.)

**INTERIOR WALL FINISHES**

If the walls in the house have been plastered, they should be given some sort of a finish just as soon as possible. Fresh plaster without any protective paint over it, while looking perfectly all right, will absorb dirt and dust and you will find it almost impossible to get it clean. It is best, therefore, to put some sort of a finish over the plaster as soon as possible.

**Types**

As far as paints for plaster go, you can use either an oil paint, a water-thinned paint or calcimine. An oil paint will provide a good durable surface that can be washed and cleaned repeatedly, and that will serve later

**Asbestos-Cement Shingles**

Asbestos-cement shingles can be painted with an oil paint, but you will be better off if you use an asbestos-cement-shingle paint. The reason for this is that it is difficult to be sure that the shingles do not contain moisture and, if they do, using an oil paint on them will turn out badly. The special paints designed for these shingles will not be damaged by moisture either inside the shingles or on the outside surface of the paint itself.

**Stucco**

Stucco is best painted with special Portland-cement paints that will not be damaged by moisture and will provide a certain amount of waterproofing for the stucco.

*Fig. 2. A flat calcimine brush, left, and a Dutch calcimine brush, right. Both come in widths up to 8 inches.*
as a base for paper or for any type of paint you may wish to apply. Oil paint is probably the most satisfactory finish of all, but it costs the most and requires the most time to apply. Before an ordinary oil paint can go over plaster, the plaster must either be about a year old or should have the lime in it neutralized with a chemical. If this is not done, the active lime will destroy the paint. There are some special types of oil paint that can be used over fresh plaster without fear because they contain synthetic oils that are not damaged by lime, but ordinary flat wall paints cannot be used. The lime in the plaster can be neutralized by making a solution consisting of 2 pounds of zinc sulphate crystals dissolved in about one-half a gallon of water. This solution should be applied liberally over the entire wall surface. Allow it to dry on

the plaster and then brush off any crystals that remain on the surface. A coat of varnish size should be applied to prevent an uneven absorption of the paint by the porous plaster. A coat of paint the same color as the finish paint can be used in place of the varnish size. After this is on, the three coats of paint can be thinned according to directions and then applied. If the ceiling is to be painted, it should be done first and be followed by the walls.

Rather than go to the time and trouble of neutralizing the lime and applying three coats of oil paint, you may prefer to use a good grade of water-thinned paint. The better brands of this type of paint can be applied directly to fresh plaster, and they will serve later on as a base for oil paint or for additional coats of water-thinned paint. They can be washed and they dry very quickly and have no odor, as an oil paint does. Of course, some of these paints do not quite deliver all that they promise, so before you select one, do a little asking around and find a brand that has given good results right along.

Application
The main trick in applying one of these quick-drying paints is to get the sections joined up before the paint begins to dry. A great help in doing this is to close all windows and doors in the room that you are working in. This will prevent drafts of air from passing over the painted surface and evaporating the water out of the paint too rapidly.
As far as the actual application of the paint goes, brush it on in 1-foot squares, working from the top of the wall down. By covering a small area at a time and working quickly, you will have ample time to join up the sections before the paint around the edges has set.

Fig. 3 shows the proper way to hold the brush when you come to painting in the corners.

Calcimine is the least expensive finish you can use on a wall, and it can be put on fresh plaster directly after the size has been applied.

As far as painting the various wallboards goes, you do not, of course, have to worry about neutralizing the lime. These products can be painted with an oil paint, water-thinned paint or calcimine just as soon as they are in place. The better types of board do not require any size for calcimine or water-thinned paint but do need one for an oil paint. This size is usually a varnish size. Directions for decorating wallboard are available from your local dealer and should be consulted.

When you come to the door casings and the doors, consult Fig. 4, which shows the parts of the casing that should be painted the same color as the door itself. Needless to say, it is not necessary to finish all the walls in a house with the same type of paint. For example, it is always best to use an oil paint, such as enamel, in the bathroom and kitchen because here you want a surface that is waterproof and that can be washed easily. In living rooms and bedrooms, calcimine is perfectly satisfactory for the ceiling with a water-thinned paint for the walls or, if you wish something a little more expensive and durable, a water-thinned paint on the ceiling and an oil paint on the walls. Of course, for children’s rooms you need a good, durable and washable surface that only oil paint can supply.

**WALLPAPERING**

You will find it a good deal easier to paper walls before fixtures are installed. If this is done, the paper can be put up with minimum amount of fitting and the holes for the fixtures can be made in the paper after it is in place. Wallpaper should not be applied to plaster walls until the plaster is com-
Fig. 5. Pasted wallpaper folded for convenient handling. Top to bottom: for vertical hanging, top edge at right; for cutting into strips; for horizontal hanging, top edge at bottom; for ceiling hanging, matching edge at bottom.

pletely dry. If the paper is going to be applied to some type of wallboard, the board must first be covered with a lightweight felt. Strips of felt are joined at the seams with tight butt joints. Plaster walls must be covered with a glue size before the paper is hung. Size for this purpose comes in powder
Fig. 6. Checking the alignment of a window by means of a plumb line. This window is not vertical and the wallpaper will have to be cut to fit.

Form; it needs only to be mixed with water for use.

As a rule, ceilings are painted rather than papered, but if you wish to paper the ceilings, they should be done before the walls. You will need some good scaffolding for this job so that you will be able to get the paper up into place with a minimum amount of effort.

The best method of getting the paper on straight is to draw a line across the ceiling. The distance of this line from
the wall should be 2 inches less than the width of the paper. Thus, 2 inches of the paper will fold around the joint between the ceiling and wall and a little way down the wall itself. This overlap will be covered by the strips of paper that are put on the walls after the ceiling has been finished. This procedure will insure that your first strip of paper on the ceiling is parallel with the walls.

After the line has been drawn, measure off and cut a strip of paper. It should be a few inches longer than is required to cover the ceiling so that its ends will extend down along the walls. The self-edges (or selvages) of the paper can now be trimmed off either with scissors or a sharp knife. When you are using heavy grades of paper, a butt joint between sections is necessary, so then both self-edges must be removed. When a lighter grade of paper is used, an overlapping joint can be made, and this calls for the removal of the self-edge from only one side of the paper.

After trimming, the paper is ready for pasting. This is done by placing the paper on a clean table with the pattern side facing down. The wallpaper paste is applied with a wide brush and the pasting should begin at the center of the paper and work out to within a few inches of the edges. Special care must be taken when pasting the edges not to get any of the paste on the pattern side of the paper. Try moving the paper so that the edge extends a little over the side of your worktable and carefully brush on the paste. The paper can then be folded up, making sure that a pasted surface does not come into contact with a pattern surface. See Fig. 5. The paper is placed against the ceiling and positioned so its outer edge is along the line on the ceiling. The paper is unfolded and smoothed out with a brush. The ends of the paper extending down the walls can be trimmed off and the other sections of paper put on.

In papering walls, it is best to drop a plumb line at a point near a window frame, as you may find that in spite of all your efforts the walls and the location of the window frames are not absolutely perfect. The first section of paper is hung to the plumb line and the surplus on the other side can be trimmed off around the window frame. See Fig. 6.

Allow at least 2 inches of paper for turning corners. Fig. 7 shows the method of working around angles and the best direction in which to work. Fig. 8 shows how to get the paper to fit around door frames and similar openings.

**FINISHING THE WOODWORK**

As far as the interior woodwork goes, the finish used here will depend on the quality of the wood and the general decorative scheme of each particular room. The woodwork can be painted with trim enamel or given a natural finish with varnish, shellac or wax. Attractive wood with a natural finish is
very popular today. If you wish, the wood can be stained with a wood stain to bring out the grain and change the color somewhat.

**Painting Wood Trim**

The first step, if you wish to paint the wood trim with an interior trim paint or enamel, is to give all the woodwork a good sanding down with No. 1 sandpaper or steel wool. Dust off the woodwork and then coat the knots and sappy spots with orange shellac or aluminum paint. Now you can apply the first coat of paint. This should be thinned in accordance with the manufacturer’s instructions. Start working at the highest point in the room and work down. After the first coat of paint is dry, fill in any nail holes or flaws in the wood with putty or plastic wood. Give the filler time to dry and then rub the surface down with sandpaper. The second and third coats can then go on.

**Staining Woodwork**

If the woodwork is to be stained and given a natural finish, it must first be sanded down smooth with No. 0 sandpaper. Dust the surface clean and then apply a stain. There are many different types of stain that you can use for this purpose, but most amateurs prefer an oil stain. This can be applied to the wood with either a brush or a clean cloth. The edge grain of wood will tend to absorb more stain than the other surfaces and this will make the edges darker. To prevent this from happening, apply a mixture of half-and-half turpentine and linseed oil to the edge grain before you apply the stain.
Fig. 8. How to fit wallpaper around a door. The shaded areas have already been covered with paper. In hanging the rest, cut and fit the narrow strip first.

Remember when staining that the longer the stain is allowed to remain on the surface the deeper it will penetrate and the darker will be the wood. Also keep in mind that when stain dries it will be just a little lighter in color than when wet. It is best to stay on the safe side and have the stain too light than too dark. If it is too light, you can always apply another coat.

The stain should be applied to the wood and after time has been given
for it to sink in, the surplus is wiped off with a clean cloth. Allow twenty-four hours for the stain to dry and then go on to the next step. If you are working with wood that has an open grain, such as oak, elm, chestnut or walnut, a filler is next on the list. Fillers come in paste form and are thinned with turpentine before application. A filler is necessary to plug the pores of the wood so that when the varnish is applied, it will not sink into these little depressions and dry out with a rough surface. Of course, you do not have to use a filler. You can apply the varnish directly to the wood and sand it out smooth after it is dry. But you will find that several coats of varnish will have to be applied and sanded smooth before you have a base suitable for the finish coat. If the wood has not been stained, you need a neutral filler. If the wood is stained, you need a filler of the same color as the stain or tint that was used on the wood. The filler is applied across the grain and then finished by rubbing with the grain. Allow it to set for about fifteen minutes and then wipe it off with a piece of clean burlap. Wipe across the grain and then with the grain. Give the filler a day to dry and then give the entire wood surface a light sanding.

Varnishing

Most of the trouble encountered with varnish is the result of the surface’s not being properly prepared. The wood must be absolutely clean, dry and smooth. The temperature of the air where varnishing is being done should be around 70°. When the weather is cold, varnish will not flow out properly. When it is too hot, the varnish will dry too quickly. Not only must the wood be dry, but the air around it must not be damp. Do not varnish during damp weather or in the early morning or late evening when dew is falling.

The wood should be sanded down with No. 00 sandpaper before the first coat of varnish is put on. Flow the varnish onto the surface, working with a full brush at all times. You will probably find that the best way to get the varnish on is to apply it across the grain and then brush it with the grain. Do not try to cover too much area at one time, for if you do, the edges of the varnish may set before they can be joined up with the next section. And do not try to go back over a spot that has already been varnished because once the varnish has set, it will not flow out again and the brush will roughen up the surface. Catch any sags and wrinkles before they have a chance to
set. Work from the highest point down and do the baseboard trim last because your brush is very likely to pick up some dirt at this point. Two or three coats of varnish should be applied and each should be sanded down with No. 00 sandpaper to produce a smooth finish.

**MATERIALS LIST FOR PAINTING THE BASIC HOUSE**

- Exterior paint, 8 gallons
- Water-thinned paint, 11 gallons
- Floor enamel, 3 gallons
- Interior enamel, 1½ gallons