



HOW-TO BOOKLET #3031

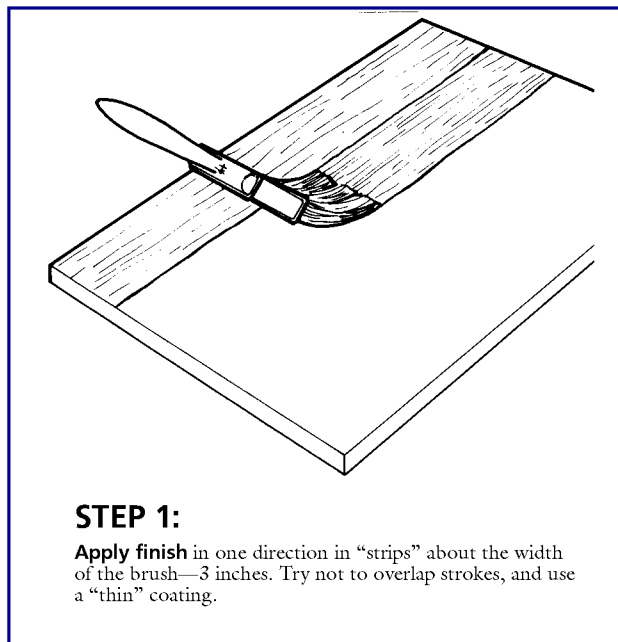
VARNISH & ENAMEL



TOOL & MATERIAL CHECKLIST

- Varnish/Enamel Of Your Choice
- Brushes
- Fine Grit Abrasive
- Mixing Paddles
- Masking Tape
- Mineral Spirits
- Tack Rag
- Steel Wool
- Wipe-Up Cloths

Read This Entire How-To Booklet for Specific Tools and Materials Not Noted in The Basics Listed Above.



Regular varnish and enamel are identical products, except enamel is always pigmented. Both products are applied almost the same way, but application can be tricky because varnish and enamel react differently on surfaces than do housepaint and stains. That's why you need to know about varnish and enamel, and the basics are in this Booklet.

THE VARNISH FAMILY

You can use varnish over stain. Or, you can use it over a surface that has been finished with an enamel or paint of some sort. Varnish lays on the surface that it covers. It has few penetrating features, although it will soak into wood a little bit.

Varnish is manufactured in 5 categories:

1. Clear
2. Pigmented (like in enamel)
3. Flat
4. A semi-gloss which has a shine when dry.
5. High gloss which has a shine when dry.

Varnish is a "thin" material. It doesn't provide a lot of "depth" to wood grain like you see on some bar tops and table tops with coins "embedded" on them. For this finish, you need to buy an epoxy which is poured on the surface and is self-leveling.

There are two other “types” of varnish now available: **urethane varnish** and **vinyl varnish**. They both are different than regular varnish in these ways:

Urethane varnish offers better protection than regular varnish and it is the product to use outdoors. You can buy it in finishes that are flat, glossy, semi-glossy, and stain-like. They are applied with a brush, or you may spray them. Know that the wood will be slightly darkened from this product. Drying time depends on the product; check the label.

Vinyl varnish dries fast—15 minutes or so. It is available in gloss and semi-gloss, and you will need at least two coats which may be applied with either a brush or spray. Vinyl expands and contracts with the wood, making it similar in this respect to spar varnish, which is used outdoors only.

Flat varnish does what the name implies: dries to a flat finish. It does not offer a lot of protection to wood—as does semi-gloss or satin. You can apply this product with a brush or spray, and it almost always requires two coats to cover the surface adequately. Sand between coats with fine grit abrasive. The product dries in about 24 hours.

Semi-gloss varnish has a bit of a shine to it when dry—a little on the dull side with a yellowish cast. You get good protection with semi-gloss and you should use two coats—sometimes three—for best results. A good trick to use with semi-gloss, is to cover the surface first with high gloss varnish. Then dull the high-gloss when it is dry with steel wool or fine abrasive. Then apply semi-gloss as the top coat. This will eliminate the third coat of semi-gloss which usually is needed.

Satin varnish. This product leaves a satin-like finish—a cross between semi-gloss and flat. It will provide fairly good protection, but not as much as high-gloss varnish. Apply satin with a brush or spray and figure on two coats; sand between coats.

High-gloss varnish shines like a diamond in a coal bin. For protection, it is the best, probably, of the varnish family, and it may be applied with a brush or spray. Expect it to darken the wood slightly; it will have a light yellowish cast when dry. You might get away with 1 coat; 2 coats are better. Sand between coats for the best results.

Spar varnish is made for finishing outdoor objects. The varnish remains “soft” but dry so it expands and contracts with the wood. Do not use it inside; any of the other varnishes are better inside.

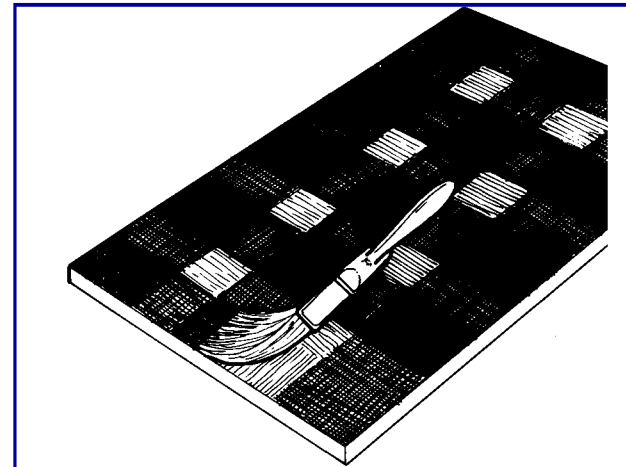
SUCCESSFUL VARNISHING STEPS

After you prepare the surface for varnishing—removing old finish, dulling the gloss on sound finish, and so on—here are the steps to apply it. The very same steps are valid for applying enamels.

- 1 Before you start the job, go over the surfaces with a tack rag. Then brush on the varnish (enamel) on the flat surface of the work in the direction of the wood grain. Don’t overlap strokes if possible.
- 2 When the finish has been applied in one direction, criss-cross the surface with another coat of finish. Try not to overlap the strokes, but they can be overlapped just a tad—you can’t help doing so.
- 3 Go back to the start, applying the finish as you did in Step One, filling in any bare spots and creating a “checkerboard” with the fresh finish. Your final stroke should be in one direction only with just the tip of the brush. Don’t brush again.

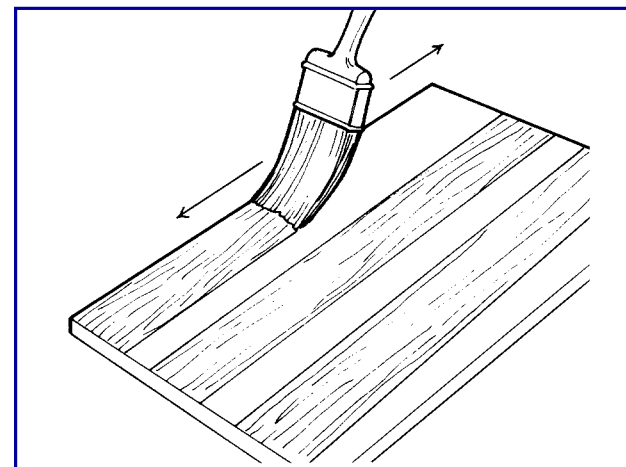
AT CORNERS and EDGES, brush just to the corner or edge. Then, reposition the brush and come toward the corner or edge in the opposite direction.

ON ROUND OBJECTS, go around the object with the brush, not lengthwise of the object.



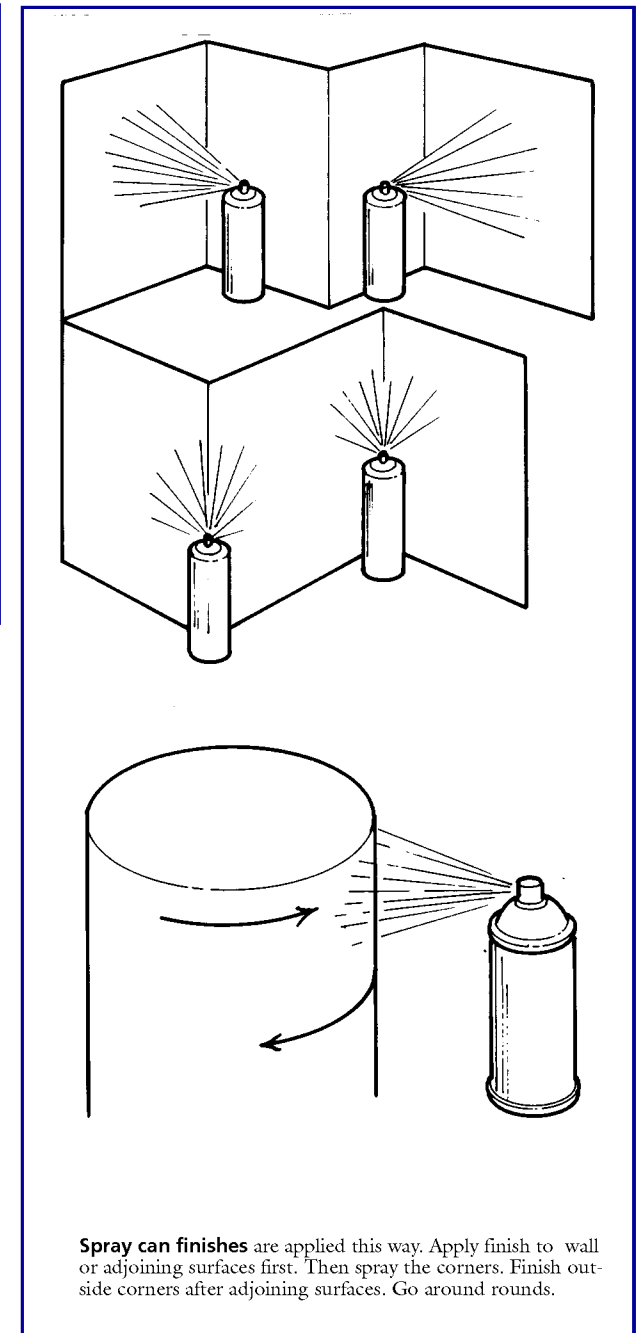
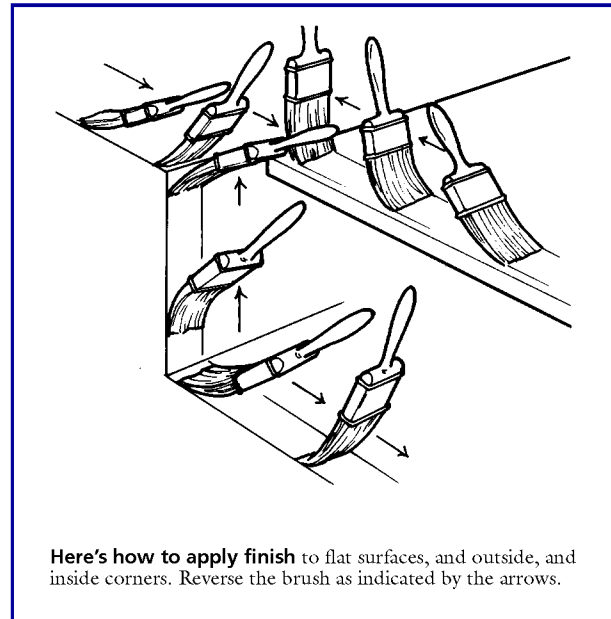
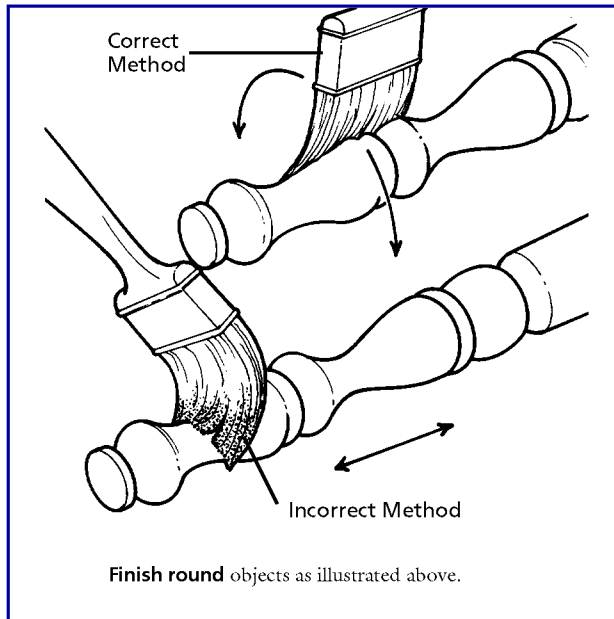
STEP 2:

“Criss-cross” the finished surface with another coat of finish, again trying not to overlap strokes. Strokes are width of brush.



STEP 3:

Brush on finish coat in opposite direction of first coat, filling in any bare spots. The final stroke must be with the tip of brush.



Should you stir varnish? Some say yes; some say no. We recommend that you do not stir clear varnish. If the varnish has any pigment in it, the varnish must be stirred from time to time. Satin and flat varnishes have a flattening agent that sinks to the bottom of the container, so these two types should be stirred at the finish is applied. Just stir enough to keep the pigment suspended; do not over-stir it.

General application rules. If you are top-coating a project with varnish, use the varnish right out of the container. It doesn't have to be thinned. But, if the varnish is difficult to spread, we recommend that you thin it with just a smidgeon of turpentine or mineral spirits. A couple of teaspoons often is plenty. Mix in the thinner very slowly and carefully and try not to stir up bubbles in the varnish. The same rules apply to enamel.

Have plenty of light in the room when you apply varnish or enamel. Then, as the finish is spread, put the work between your eyes and the light. You will see the spots that you have missed.

Generally, most varnish/enamel users try to apply too much varnish/enamel to the surface at one time—like house paint. The opposite should be done: apply varnish and enamel in small areas in thin coats, hence the reason for the checker-board technique. Too much finish will sag, drip, and run.

Urethane varnish usually should be thinned slightly for the first coat and then applied with a nylon or bristle brush. But check the container label first. Use mineral spirits for thinning. New wood will need three coats.

MAKING A PICK STICK

Varnish and enamel usually attracts dust and lint, and, of course, you see the debris after the job is finished. What you need is a pick stick, which is designed to pick up this lint and dust on the surface before the finish has dried but too late to re-brush the surface.

You make a pick stick from a cotton swab dipped in some specially prepared varnish.

Heat some varnish in a double boiler created out of a small tin can set in a larger pan of water. Buy some crushed rosin from a music store and add seven or eight parts rosin to one part heated varnish. The rosin should dissolve completely.

When the varnish and rosin have been mixed, let the mixture cool and dip a cotton swab into the material and pick up a tiny amount of it—about 1/8 inch in diameter. Moisten your fingers and roll the substance into a pear shape. Continue to roll and tap it in the palm of your hand until it is sticky but firm. The stick is now ready.

THE ENAMEL FAMILY

Enamels have a pigment and pigment hides lots of defects in wood—and other materials.

You can buy oil-based and water-thinned enamels in a variety of colors; latex and acrylic enamels will be thinned with water, while an alkyd, varnish, or lacquer enamel will be solvent-thinned. The advantages water-thinned enamels have over their solvent-thinned cousins include lack of odor and easy brush and drip clean-up. The water-based products are just as durable as the oil-based products.

Enamels come in a variety of gloss types, including high gloss, satin finish, and flat. You'll probably find more colors in high-gloss types than the others. Enamel may be color-mixed also.

Trim house paint often is called “enamel,” which it is. However, this material should be used only on house trim, not on furniture finishing projects.

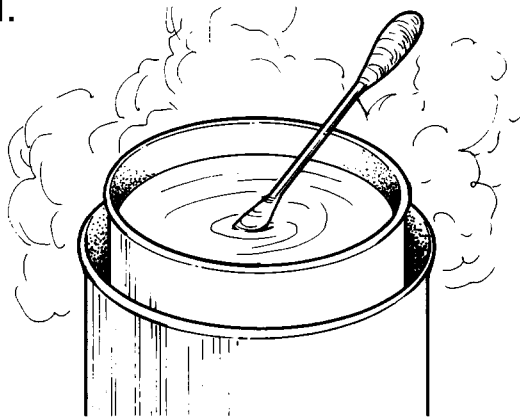
If you are starting from scratch, or have removed the old finish from a surface and are ready to enamel it, do yourself a favor and coat the surface first with an enamel undercoater. Not only will you save money on the cost of enamel, but you will have a better surface upon which to apply the enamel. Enamel undercoaters “smooth the way” for the enamel topcoats.

Enamel, as stated, is applied just like varnish. If you are finishing bare wood, you can opt to use an enamel undercoater, or a thinned shellac sealer, or a thinned finish enamel. We recommend the undercoater or a shellac sealer. Don't dilute the enamel finish.

If the job calls for two—or three—coats of enamel, let each coat dry and sand the surface lightly between coats with a fine grit abrasive. Let the finish job set at least a month to 6 weeks before you apply wax to it.

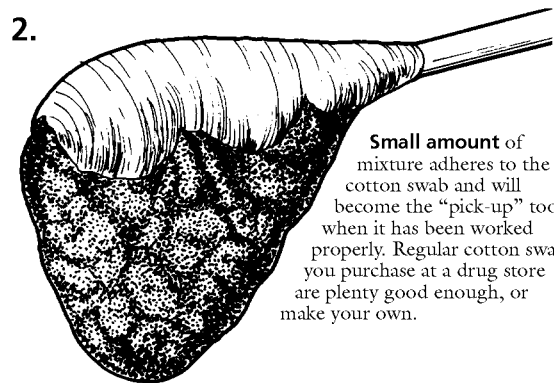
About Brushes. Enamel and varnish are painstaking to apply, so don't ruin the job and waste your time with a cheap brush. We also urge you to buy a new brush for each new job. Used varnish and enamel brushes are difficult to clean. Any residue left in them after cleaning will “work up” in the new finish, causing you lots of trouble.

1.



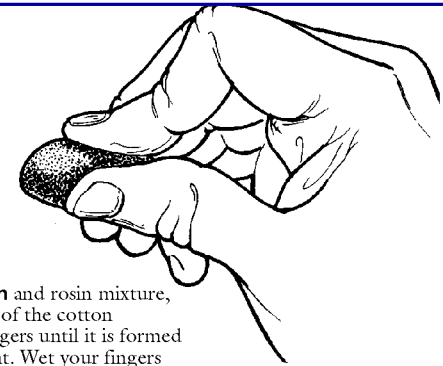
Making pick stick for dust and debris is easy. Heat varnish in “double boiler” using tin can and a pan for utensils. Varnish does not have to boil, just warm it enough to dissolve the chunks of rosin. Dip swab into the mixture.

2.



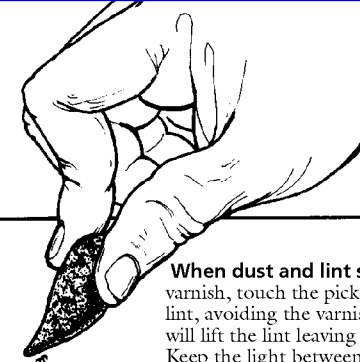
Small amount of mixture adheres to the cotton swab and will become the “pick-up” tool when it has been worked properly. Regular cotton swabs you purchase at a drug store are plenty good enough, or make your own.

3.



Roll the varnish and rosin mixture, along with some of the cotton between your fingers until it is formed into a single point. Wet your fingers with water first so the stuff won't stick to them as you are forming the swab.

4.



When dust and lint settles on “moist” varnish, touch the pick stick point to the lint, avoiding the varnish. The pick stick will lift the lint leaving the surface clean. Keep the light between you and the work so you can see lint.