

Bubba Cheramie, President
Dick Hopes, Sec. / Treasurer

Officers and Directors

Barry Humphus, Editor, Brent Evans
George Kuffel, John Marcon, Chuck Middleton

MARCH HIGHLIGHTS

There was not a meeting in March due to an unexpected trip out of town on our meeting day by our presenter. NOTE THAT OUR MEETING WILL BE ON SATURDAY, APRIL 20.

Harrison Paint has long been a fixture in the Lake Area with a good selection of products, including floor and wall coverings, product advice, expertise in all sorts of finishing items and more. This month Tom Simms once again lends his knowledge and experience to the Lake Charles Woodworkers.

After all your fine work on wood, for some, one of the last considerations in the finish. But this can also be part of the design process as well as the construction proceeds.

Tom Simms has just come back from a national meeting on finishing products and this month, he'll tell us what he learned. Just in time, we'll focus this month on finishes and finishing.

BRUSHING ON VARNISH

By Sal Marino

Edited by Barry Humphus

While not very easy to apply by spray application, oil based varnish is one of the easiest finishes to apply by brush. Because varnish sets-up slowly it gives the user plenty of time to brush and spread it out evenly on to the surface. It's hard to spray because it has a tendency to run if applied too heavy. Any film finish can be sprayed successfully if thinned out enough, but varnish is one of the last finishes you would want to spray. Over many years of testing, I have come to realize that brushing is the best way to apply oil based varnish.

Before applying varnish by brush, you should know a little more about how long it takes for each coat to set-up and how long before you can apply the next coat along with how it reacts to temperature and humidity and some other facts. Oil based varnish is much higher in solids than some other film finishes like lacquer. Therefore, it should only take a few coats of varnish to build a film significant enough to protect the surface of what you are finishing. After the

surface has been sealed, it usually only takes about three coats to give you enough protection.

One very important factor when applying varnish is how the temperature effects the speed at which it cures. You should not apply varnish in temperatures lower than 65 degrees. If you apply varnish in lower temperatures it may take several days, even weeks for it to cure. Room Temp. (approx. 70 to 75 degrees) is good for applying varnish. Hotter temps. will make the varnish cure quicker, but the solvent in the varnish will evaporate quicker, making the varnish set-up quickly and you may have a problem getting the varnish to flow out properly. This could result in brush marks, bubbles and an uneven film. When working in temperatures higher than 75 degrees, try not to work on large surfaces.

Try to set aside a room or part of your workshop to apply your varnish. This room should be as dust free as possible. Do not do any other woodworking, (especially sanding) in this area. If you are going to set aside an area of your shop instead of using a different room, it would be a good idea to also surround this area with heavy plastic sheeting. Before applying the varnish, wet mop the floor, this prevents you from kicking up any dust when you walk around. I always place clean craft (brown) paper under the piece I will be varnishing. Once the surface has been prepared properly you are ready to brush on your varnish.

There are a number of high quality brushes that can be used for brushing on clear topcoats. The best for shellac and lacquers are natural hair (like badger) or china bristle brushes. While any of these brushes will do a great job when applying varnish, there is a much less expensive alternative. A polyfoam brush. That's right, the disposable type. Oil based varnish is classified as a cold finish. This means the solvent use is not as strong as evaporative finishes like shellac and lacquer. Alcohol and lacquer thinner
Comming Up ...

Steve and Terry LeGrue of the Cutting Edge will join the LCWW at thestudio of John Marcon, Saturday, May 11, 9:00 a.m.

will melt a foam brush but the mineral spirits, solvents or turpentine used in most oil based varnishes will not harm a foam brush. Foam brushes are especially useful for novices who have a hard time getting brush marks out when applying a finish. If used properly, you can get excellent results. I always have a good supply of 1", 2" and 3" foam brushes in my shop. They are very inexpensive, so I use one for each coat and then throw it away (*You can save even more money by cutting out your own foam brushes from packing foam. Ed.*).

Sealer Coats. You don't need a special sealer to seal the wood. Special sealers like sanding sealers will not do any better of a job of sealing the wood than the finish itself. Sealers only make the first coat easier to sand, thus speeding up production time. Also, if you use the wrong type of sealer, you may have adhesion problems. The best sealer for your first few coats should be the varnish itself. Take some of the same varnish you are planning to use as your finish and thin it down 50 percent (this is a 1 to 1 ratio) with mineral spirits or gum turpentine. This will be your sealer. It will do a good job of sealing the wood and you won't have to worry about contamination problems. Pour some varnish through a paper paint strainer or stocking into another can or jar, then add the same amount of mineral spirits into the varnish. Stir well and strain a second time into a deep dish or bowl. It's best to work out of an open bowl or dish so you can easily dip your brush into it. Now, dip the foam brush into the mixture until the brush has been loaded slightly past the bevel on the foam brush. Lift the brush up and let the excess drip back into the dish. Next, brush on the first coat with the grain making sure not to leave any puddles or drips. Allow the sealer coat to dry overnight and then sand with 320 grit paper. Remove the dust with a vacuum, or tack cloth. If you are working on very porous woods, apply a second sealer coat following the previous steps.

Varnish Coats. It's a good idea to also thin out your coats of varnish a little. You can reduce your varnish 20 to 25 percent 4 parts varnish to 1 part mineral spirits or gum turpentine or 3 parts varnish to 1 mineral spirits or gum turpentine. This will not effect the strength of the varnish, it will only make it flow better and allow time for air bubbles that form when brushing to pop. The only drawback is that you will have to add a few more coats because less will remain on the surface once the varnish has dried. Prepare the varnish by mixing and straining in the same way you prepared the sealer. Use a foam brush and load it in the same manner as the sealer. Apply the varnish to the surface by brushing either with or against the grain initially. The main idea is to get it on the surface doing as little brushing as possible. Once on the surface take one light pass with the tip of the brush moving with the grain. Overlap each pass slightly, then leave the varnish alone, do not do a lot of brushing, this will make the solvent evaporate quicker and the varnish will set up too quickly and not have enough time to flow out. Let the varnish dry overnight, and then sand with 320 grit sandpaper and remove dust using vacuum or tack cloth. When sanding, if the varnish starts to clog the paper, it has not dried enough. If the varnish turns to powder, it is dry enough to sand and apply the next coat. Continue to apply 2 to 3 more

coats of varnish using the same process. If you are going to rub out the finish (by wet sanding) after it has cured, you may want to apply at least a total of 6 coats (not including sealer coats). This is because if there is not enough varnish left on the surface, you may cut through the finish into the raw wood in some spots.

Once you have applied the last coat, let the finish cure for several weeks before you are ready to use it or rub it out. Varnish does not need much maintenance. If you wish, you may apply a coat of paste wax or liquid polish from time to time.

WHY YOU GET BUBBLES AND BRUSH MARKS IN YOUR VARNISH

By Sal Marino (*Edited by Barry Humphus*)

What Causes the Problems. It is very frustrating when one spends hours and hours building a project, making sure that all the joints fit properly, the wood grain matches from board to board, removing any glue squeeze out, etc. only to wind up with brush marks and or bubbles in the finish they have brushed on. Most people immediately blame the brand of finish they have used and swear never to use that inferior product again. In truth, the problems are not with the brand of finish. Most popular brands of varnishes and polyurethanes will give you excellent results if you know how to properly brush on that finish and a little about how finishes flow out and their set up time.

There are two main factors that cause a finish to bubble and show brush marks after it has dried. The first has to do directly with the way you apply the finish, (your brushing method). Many people assume that if they brush out the finish well, it will level and stay smooth. This is absolutely incorrect. When you apply a finish by brush, you are basically agitating (moving the finish around) Brushing introduces air into the finish, thus creating air bubbles. Even if one is careful, one cannot completely avoid the development of some bubbles, but if you brush too much, you will wind up with a whole surface full. Secondly, the more you brush out a finish, the quicker the solvent in that finish will evaporate, thus the quicker it will set up. If the finish sets up too quickly, it will not have enough time to level itself. The bubbles will not have enough time to pop and any brush marks will not have enough time to flow out.

How To Prevent the Problems. Thinning the finish will make it flow out better so brush marks will level and air bubbles will have enough time to burst before the finish sets up. First, make sure the finish has enough solvent in it. Most oil based varnishes can be thinned with pure gum turpentine or a good quality mineral spirits, but it is always a good idea to check the label on the can to make sure. I usually like to thin out the finish about 20 to 25 percent with solvent. This breaks down to 1 part solvent to 4 parts finish or 1 part solvent to 3 parts finish. Thinning this much may not be necessary when the can is brand new and it's the first time you have opened it, but each time you use the finish, it will get thicker because as the amount of finish gets lower in the can, the more air stays in the can and this will make the solvent evaporate much quicker.

If you are not in the business, I do not recommend buying these finishes in large cans like gallon sizes. Purchase in smaller sizes or when first purchased, transfer the finish from the larger can to smaller ones and make sure the lid is placed on tightly. This will keep the finish from thickening too quickly.

Reducing the finish with solvent will not make it weaker or effect the way the finish performs. The only drawback is that when the finish dries and all the solvent has evaporated, less of the resin (finish itself) will be left on the surface. Therefore, you will have to apply a few more coats than you would have if you used the finish without thinning it. I believe this is well worth the extra time, considering the results you will obtain.

Proper brushing technique will reduce the amount of air bubbles that develop in the finish. When brushing on the finish, make sure to load the brush enough so you can apply a liberal amount of finish without having to press down on the brush to get more out. Lightly touch the surface with the loaded brush and then start to move the brush across the surface. As soon as the brush stops applying a continuous flow of finish, reload the brush, in this way you will prevent over-brushing. Try not to overload the brush, because if you do, you will wind up with drips or too much material on the surface. Some practice is required here. Run tests on scrap panels until you get the feel. Once the whole surface has been covered with finish, then you must perform a method called tipping off the finish. Do not re-load the brush. Using the very tips of the brush, take light passes just slightly overlapping each brush stroke. This should burst the majority of bubbles. This will not burst all the bubbles, but don't worry, the remaining bubbles will burst and level because of the extra solvent you added to the finish. Remember, sand lightly between coats with 320 grit paper.

A PICKLED FINISH

Edited by Barry Humphus

What is a pickling finish? Although certain stains are sold under the name pickling stain, technically, pickling is a method not a finish. Originally, pickling was performed on new wood to make it look old. Sometimes even strong chemicals were used to kill the natural color of the wood to turn it dull and give it a gray or weathered look.

Today when most people refer to a pickled finish, they automatically think of a white or off-white pastel semitransparent finish applied to an open pored wood such as oak or ash. This finish is quite fashionable today. The stains that are now labeled and sold as pickling stains are usually heavily pigmented white or off-white stains. They can be purchased in oil or water-based formulations.

The Materials. You can use either a specially formulated stain labeled and sold as pickling stain or you can make your own by taking either oil based paint or latex (water based) paint and reducing it about 25 percent. If you use an oil based paint, reduce it with either a paint thinner or gum turpentine. If use a latex paint, use water. Oil based does not raise the grain and dries slower so you have more time to apply it and remove just as much as you want. If you are sensitive to chemicals or

fumes use latex paint. The disadvantage to using latex paint is it raises the grain of the wood and it dries much quicker, therefore you do not have much control over how much you can wipe off once it sets up.

Use a white or off-white paint, depending on what color you prefer. You can also tint the paint or stain to make various shades of pastels. Sometimes reds are used, sometimes blues or greens. If you are working with a water based stain or latex paint, you can add universal tinting colors. Universal tinting colors are commonly sold in paint stores (such as Harison Paint). If you are working with an oil based stain or paint, you can add Japan Colors. Japan Colors can be purchased from local paint stores, woodworking mail order catalogs or art supply stores.

Applying The Stain. Applying the stain is easy. Simply wipe it over the wood and then wipe off as much of the excess as necessary until you achieve the look you want. Today, pickling is usually done on open pored woods like oak, and ash. The result is very effective because most of the pigment (color) remains in the large pores and accents the overall appearance of the grain. However, such woods like pine are also pickled and can produce a beautiful look.

Once you are satisfied with the color, apply at least two coats of finish to seal in the color and protect it. Water based topcoat finishes are best to use because they have no amber tint to them like oil based finishes, therefore the finish will not yellow or change the color of the stain. Make sure the finish is either satin or flat, don't use a gloss finish because it will reflect too much light and you will not be able to see the accents in the grain very well.

OIL FINISH TIPS

The real advantage to oil finishes is that they're easy to apply. (Oil finishes include natural oils, such as linseed or tung oils, oil/varnish blends, wiping varnishes, and polymerized (Watco) oils.) But the downside is they often require regular maintenance. An oil finish leaves a thinner layer of protection than most other finishes. That's not to say that oil finishes don't protect the wood at all. It just that it doesn't take much to wear them down. Consequently, oil finishes can get dull over time.

Fortunately, oils are easy to maintain. Just add a fresh coat. You don't need to strip or sand the old finish. You don't even need the exact same finish. Almost any "oil" finish will do. First, give the piece a gentle cleaning with mineral spirits and fine steel wool. This not only takes care of the dirt, it also removes any wax or furniture polishes on the wood. If there are any small scratches, a fresh coat of oil usually hides them. The scratch is still there, it's just blended in. Of course dents and gouges will require a little more attention.

After cleaning, wipe on a fresh coat of oil. Just brush or wipe a heavy coat on the project. Let it sit a few minutes, making sure the surface stays wet the whole time. Then wipe off the excess and let it cure overnight.