Oil/Varnish Mix

Making oil more durable

by Jere Osgood

There is a basic decision to be made when choosing a finish for a piece of furniture. Would you prefer a matte oil finish or a glossy varnish or lacquer?

For many years now, a matte oil finish has been very popular because it penetrates the wood and becomes part of the surface, and because it is easy to put on. But it is not really durable, especially for often-used table tops. On the other hand, a good water and alcohol-resistant finish would mean a varnish or lacquer which is more of a surface finish, frequently glossy, and much more difficult to put on. The various varnishes or lacquers also require a fussy environment—warm, ventilated and dust-free—for application.

If you do prefer an oil finish, you have several choices—including an oil/varnish mix that I have found to be particularly effective.

Linseed oil is of course in wide use as a finish. But it has a long application time (a matter of weeks), requires continual upkeep, and is not water-resistant. Its advantage lies in the fact that it is easy to apply, though time-consuming. A ruined spot is easy to repair with a little wet rubbing, using a rag dipped in oil and thinner. It is also pleasant to use, is easy to clean up and can be put on in a dusty, slightly cool shop if absolutely necessary.

Various synthetic penetrating oils, and Watco oils in particular, are a tremendous improvement over linseed. Watco is more water-resistant and can be used on tables if they are treated with care. The other advantage is that you can deliver your work in three days, instead of the three weeks it takes for linseed. But Watco is a little hard to locate in some areas, although many of the mail-order woodworking supply houses now carry it.

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The best general finish I have had experience with is the oil and varnish mix. I can't claim to have originated it but I have pushed its use. It seems to have a long history, and variations of it are used by many furniture craftsmen because of its durability where an oil finish is needed. Its advantages over Watco are that I find it slightly more water-resistant, easier to obtain, and it has more of a body to it (but still penetrates like an oil). It doesn't need any special shop environment or equipment. A little dust or another piece being worked on nearby will cause no difficulties, though a clean, dry shop would probably be best. And the ingredients should be available at most local paint supply stores.

The piece to be finished should have all planing, scraping or sanding completed so that a later wet-rubbing step deals

only with raised grain or unevenness in the finish.

Materials needed are a pure, boiled linseed oil with no driers or additives. Parks brand is pure and is generally available, at least in the northeast. Behlen's oil is of course pure but may be harder to obtain. Pure turpentine is required; do not use mineral spirits or other substitutes. Also needed is a good-quality synthetic varnish. Try for a minimum of 50% alkyd resins (the resins are the solids) in the varnish. Use a gloss varnish so it won't contain flattening agents. The two brands I have found to be good are Valspar Gloss (50% alkyd resins) and McClosky's Ultra Spar Marine Varnish (52% alkyd resins). Clean, absorbent, lint-free rags are required—an old diaper is perfect. Also needed are 400-grit silicon carbide wet-or-dry paper for wet rubbing and a small cork or heavy felt rubbing block about three or four inches square. Mixture proportions are one part pure, boiled linseed oil, two parts synthetic varnish, and three parts turpentine. Mix a minimum of one quart the day before if possible, so it can "make" overnight.

Application steps

First day: Flood the surface of the piece using a brush or rag. If you see dry spots, apply more. Keep the surface saturated. After two hours, check for tackiness and wipe off with a rag if the mix has started to thicken. Thickening may take two hours or all day, depending on wood specie, humidity and temperature. In any case, the surface should be wiped off before being left overnight. If you let it get too tacky, it will be difficult to wipe off and will leave crusty spots.

Second day: Generally a repeat of the first application but don't apply quite so liberally and watch carefully for thickening, because there is not as much absorption by the wood. The time it takes to become tacky will be much shorter than with the first coat—even as short as an hour or less. When it does, wipe it off with a rag.

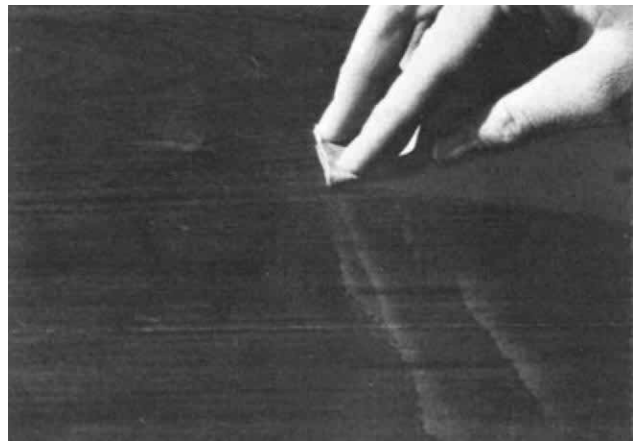
Third day: Flood the piece (or a section if it is very large) with mix and do the wet rubbing. Pour some of the mix into a pie plate or other flat dish. If there are some slightly crusty spots from the previous day, it might be better to thin the rubbing mix half-and-half with turpentine. Put a few pieces of 400-grit wet-or-dry paper in the plate to soak. Wrap one of these on the block and rub evenly back and forth, with the grain only, until the whole surface is covered and is smooth everywhere. This will flatten the raised grain, eliminate crusty spots and smooth out to an even thickness the finish that has been put on. Curved surfaces can be rubbed using a folded leather pad behind the paper. After this wet sanding or rubbing is complete, the piece should be vigorously buffed clean and dry. Do this by hand with clean rags, not with an electric buffer, because this finish does remain soft for a period of time. An electric buffer might possibly take too much of the finish off.

The piece is finished now, but with some woods I have found a slight sweating occurs, i.e., "mix" comes out of the pores. If this happens, it can be taken care of by a treatment on the fourth day—a light moistening application of mix, and then buffing it dry immediately.

You can use the wet sanding technique as a rescue for a dried or gummy oil finish at any stage. Add a lot of thinner to the mix if it is a big disaster. For wet sanding you can substitute very worn 220-grit garnet paper for the 400-grit wet-or-dry paper, but it disintegrates quickly. 4/0000 steel wool can also be used, though it tends to shed particles that can lodge in pores or comers. Damaged spots in this finish can be repaired easily by scraping the bad spot and/or wet sanding with some of the mix, depending on how bad the spot is. Then reapply more finish.

While this oil and varnish finish can't compete with the durability of a varnish or lacquer, it does meet some of the demands for a more durable oil finish.

Hickory wine locker by the author was finished with an oil/varnish mix over a three-day period.



Third-day application of oil/varnish mix involves wet rubbing with sandpaper to flatten raised grain and smooth out finish.