

Repairing a Worn Finish Without Refinishing

Alcohol-soluble dyes bite into faded surfaces to restore color quickly

by Pinchas Wasserman



As a restorer, primarily of 20th-century furniture, one of my typical problems is how to improve an existing finish for a customer who is not ready to have the furniture stripped and refinished. More often than not, the furniture doesn't really need such drastic measures.

In cases like that, I've found alcohol-soluble dyes to be the most effective solution among the options available. These dyes receive mostly peripheral treatment in discussions about coloring wood. They are vastly more difficult to apply than oil-based pigment stains, and many of them are not as lightfast as water-soluble anilines. Yet when it comes to touching up existing finishes, I regard alcohol-soluble dyes as the premier colorant. Their capacity to bite

into a finish or sealed wood makes them uniquely suited for restoring worn finishes (see the bottom left photo).

Only your chemist knows for sure ...

Two kinds of alcohol-soluble dyes are commonly available: basic dyes and metal-complex dyes. Both may be sold as aniline dyes (see the box on the facing page). Basic dyes, available through many woodworking catalogs, are the most common and are available in a greater range of premixed wood-tone colors. Not all of these are considered lightfast. But with small areas of worn or chipped finishes, lightfastness is not that important.

Metal-complex dyes, which are manufactured by Ciba-Geigy



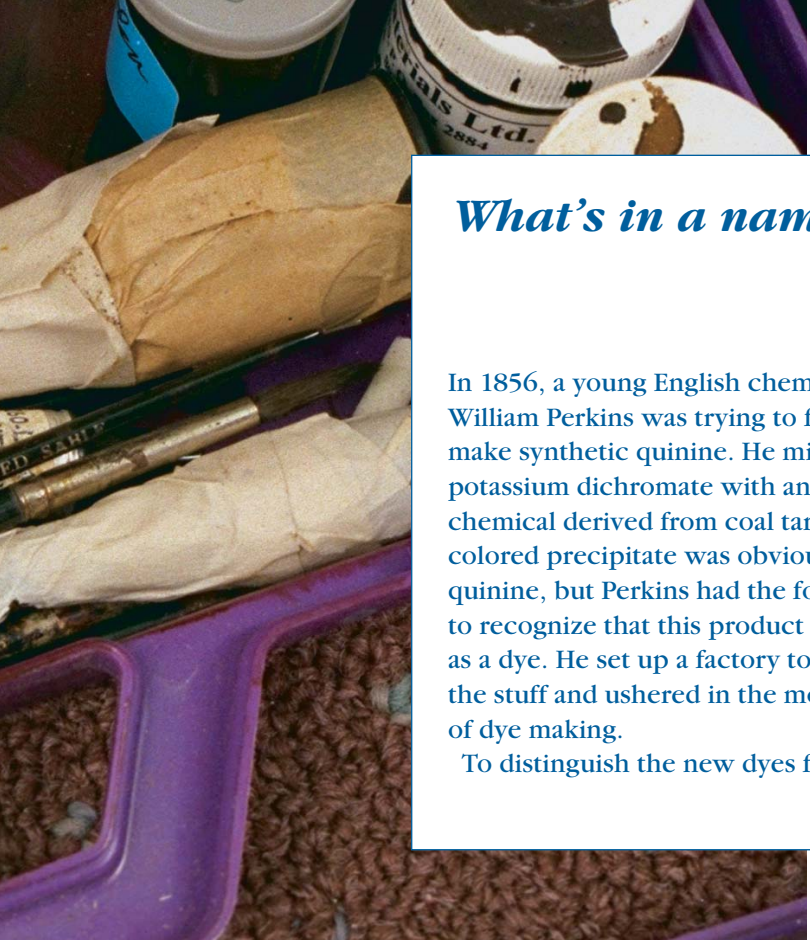
No stripping required. Working with alcohol-soluble dyes and a fine brush, the author makes repairs to this walnut desk that will be virtually undetectable.



Padding lacquer applied by cloth—Applied with a quick, buffing motion, padding lacquer blends finish repairs and seals in alcohol-soluble dyes.



Squirrel-hair brushes for blending large areas of color—Keep brushes soft and supple with occasional dips in denatured alcohol.



What's in a name? The story behind aniline dyes

by Jeff Jewitt

In 1856, a young English chemist named William Perkins was trying to find a way to make synthetic quinine. He mixed acidified potassium dichromate with aniline, a chemical derived from coal tar. The bluish-colored precipitate was obviously not quinine, but Perkins had the foresight to recognize that this product had potential as a dye. He set up a factory to manufacture the stuff and ushered in the modern era of dye making.

To distinguish the new dyes from the older,

natural dyes that were still widely used, the terms *aniline dye* and *coal-tar color* were applied to these products. Back then, the principal ingredient in most dyes was aniline. Although, aniline may or may not be used in the process today, the term *aniline dye* has stuck and is used loosely to refer to the entire class of synthetic dyes.

Jeff Jewitt restores furniture and sells dyes through Homestead Finishing Products in North Royalton, Ohio.

and BASF (see the sources of supply below), are less common, more expensive (not that you'll need much for touch-up work) and more resistant to fading. For practical purposes when touching up finishes, there is not a great difference between the two. Both are excellent, powerful dyes.

Mix dyes with alcohol and shellac, and apply small amounts with a brush or cloth

After mixing dyes with denatured alcohol, I combine the solution with a finish resin. I prefer shellac because it is less toxic and easier to manipulate than lacquer. If I make a mistake when applying the finish, it's relatively easy to remove with alcohol, provided the dyes are used on top of the finish and not on raw wood. The denatured alcohol in the finish may damage the surrounding surface, but that is easily repaired by applying padding lacquer and rapidly buffing the surface with a lint-free rag (see the bottom center photo on the facing page). Alcohol-soluble dyes also can be used to tint lacquer, which is a good choice if the repair area is large. I've had good luck with a brushing lacquer such as Deft's clear gloss. It dries relatively slowly.

Typically, I often use less resin for the initial coloring, then topcoat with a greater proportion of resin. First I dissolve the dye in pure alcohol, and then I add shellac in small amounts. I use mostly super blond shellac that I mix from dry flakes. It seems to work on both light and dark finishes. Zinsser's premixed clear shellac (available in most hardware stores) is a less expensive substitute, and its water and wax content is not a factor in touch-up work. Buttonlac, less refined than orange or blond shellac, is good for dark finishes and adds a little opacity to a dye. Alcohol dyes are transparent. If you need true opacity in a stain, you must turn to pigment powders, Japan colors or glazing stains to do the job.

I apply alcohol dyes in one of four ways: with a brush, a padding cloth, felt or an airbrush. Pointed red sable brushes, no. 2 and no. 4, are my most-used brushes for fine detail work. For larger areas, I use squirrel-hair polisher's mops, no. 4 and no. 8, the smaller being the more useful (see the bottom right photo on the facing page).

To match an existing finish, orange and blue-black dyes will suffice to create many of the common furniture browns. The steady addition of small amounts of black will lead you through maple browns to walnut. Often, the addition of yellow or red will swing the color one way or another. Try out your dye and shellac mix on a small area, and topcoat it to see how it will look. The topcoat will make the color look bolder and darker. □

Pinchas Wasserman often travels to client's homes to restore furniture. He lives in Lakewood, N.J.

Sources of supply

The first two companies on this list are manufacturers, and the rest are suppliers of dyes and/or brushes.

BASF, Mount Olive, N.J.; (800) 669-2273

Ciba-Geigy, Newport, Del.; (302) 992-5600

Homestead Finishing Products,
North Royalton, Ohio; (440) 582-8929

Liberon/Star Supplies, Mendocino, Calif.; (800) 245-5611

Olde Mill Cabinet Shoppe, York, Pa.; (717) 755-8884

Pearl Paint Co., New York, N.Y.; (800) 451-7327

W.D. Lockwood Co., New York, N.Y.; (212) 966-4046