

THE NEW BEST OF FINE WOODWORKING

Traditional Finishing Techniques



A Traditional French Polish

BY SEAN CLARKE

I became hooked on French polishing at age 15, when I apprenticed with a large firm of period furniture makers in London. I instantly wanted to pursue this incredible art form, and for the following three years I learned all aspects of the craft by studying under master French polishers.

The aim of this technique, developed in France around 1820, is to use as little material as possible to gain the most effect. It's a traditional hand finish that involves working several coats of shellac deep into the wood fibers, and the effect is one of exceptional depth and clarity. Because it is of moderate durability, a French-polished surface is best suited for display rather than hard use. But in my mind, no other finish can compare when it comes to illuminating the natural beauty inherent in wood.

As you would expect with a finish technique that is nearly 200 years old, there are many variations in the recipe, with each claiming to be the true French polish. This version has served me well for the past 18 years.



Before You Polish, Prepare the Surface

Because French polishing magnifies imperfections, good surface preparation is imperative. Begin by sanding all surfaces up to 320-grit paper. Clean off the dust, then evaluate what the finished color of the piece will be by wiping the surfaces with a cloth soaked in denatured alcohol. The Georgian-style side table shown on p. 101 was built using Honduras mahogany for the legs and frame, but the drawer, with its highly figured Cuban mahogany veneer, and the single-piece mahogany top were both salvaged from antiques beyond repair. The alcohol revealed that the legs had a pinkish hue, but the top was more orange, and the drawer front was a dark brown.

To pull the colors together, I used a mixture of water-based powdered aniline dyes: red mahogany and golden-amber maple. I applied the dye full strength to all parts of the piece except for the drawer front, where I diluted the stain. Finally, I wiped on a coat of English brown oak stain over the piece to kill the orange hue. Before you apply a stain to a piece with an inlay, apply a 2-lb. cut of super-blond shellac to the inlay using a small artist's brush to seal it, ensuring that it retains its contrast with the rest of the piece. Let everything dry.

Whether or not you stain the piece, next brush a coat of boiled linseed oil on the whole piece, then let it sit for an hour before wiping it down with a clean cloth. The oil penetrates the wood and gives maximum illumination to the fibers. Then let the piece cure for five to seven days.

Apply the First Coat of Shellac

Lightly scuff-sand all surfaces with 320-grit self-lubricating paper to knock down any raised grain and dust nibs. Next, apply a

coat of super-blond shellac (2-lb. cut) to seal the dyed and oiled surface and to provide a base on which to build the finish. Be sure to use the paler super-blond shellac at this stage; a deeper-colored shellac can cause color lines and a streaky effect. I use a large-capacity badger-hair mop brush to apply the shellac to every part but the top, where I use a piece of folded cheesecloth. Apply two or three coats in the direction of the grain, then leave the workpiece to dry for a couple of hours. (I work in southern California; if you live in a more humid region, extend the drying times, as needed.)

Brush on a Pore-Filler/Glaze Mixture

Because a French-polished finish requires a uniformly smooth surface, the pores of open-grained woods, such as mahogany, need to be filled. I combine this step with a colored glaze that both harmonizes and ages the appearance. I mix my own glaze so that I can control both the color and the consistency. For this table I used the following recipe: three heaped teaspoons of burnt-umber dry pigment; one heaped teaspoon of vegetable black dry pigment; four heaped teaspoons of fine-grade pumice; 1 oz. of gold size; and 4 oz. of turpentine. Turpentine extends the shelf life of the mixture, whereas mineral spirits tends to form a gel. You can adjust the pigment colors, but do not add more pumice than pigment, which can lead to specks of gray pumice showing up in the grain.

Brush the filler/glaze mixture onto a small section at a time, then wipe it off with a clean cloth. Use a circular or figure-eight motion to remove the bulk of the liquid, then wipe across the grain to deposit more into the pores. If an area dries and becomes difficult to remove, dampen the clean cloth with turpentine. As the photo of the filled top shows (see the fourth photo

The Language of French Polishing

It is perhaps appropriate that many of the English terms for the different stages of French polishing are double entendres, a legacy perhaps of generations of master polishers embellishing the process with a mystique it doesn't deserve.



Rubber

THE TERM HAS NOTHING TO DO WITH LATEX but is derived from the method of using this tool to rub on thin layers of shellac. The exterior, known as the linen, can either be made from this fabric or more commonly from a 100% cotton sheet. The interior can be any kind of absorbent material, which also gives this tool its other name of tampon.



Bodying Up

THE STAGE WHERE THE BULK OF THE SHELLAC IS APPLIED to the piece is called bodying up. The rubber can either be used in a padding motion to avoid pulling away a previous layer of stain or in a swirling or figure-eight pattern. Raw linseed oil is used to lubricate the rubber and prevent it from sticking to the shellac.



Floating

FLOATING IS THE PROCESS OF APPLYING SHELLAC with the rubber in straight strokes with the grain. The purpose is to achieve a firm base on which to build the body of the finish.



Spiriting Off

THE ACTUAL POLISHING STAGE of French polishing is called spiriting off. The oil used to body up is removed by rinsing the linen of the rubber in alcohol and then lightly floating the rubber across the surface. The alcohol not only removes the oil, but it also melts the top layer of shellac, creating a smooth, high-gloss surface.

Surface Preparation Is Crucial

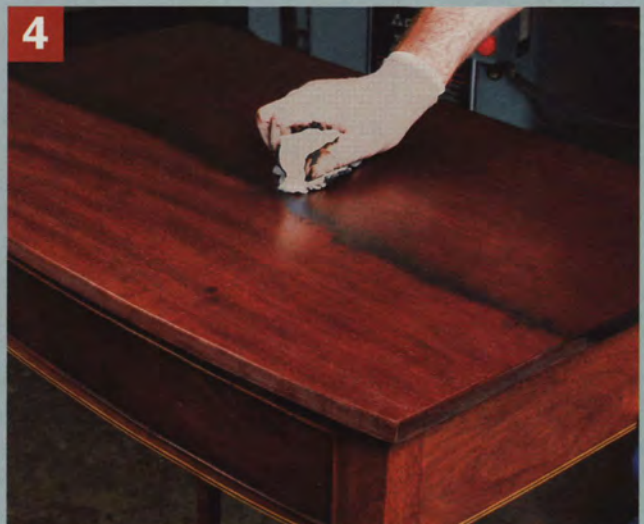


1 Brush on a coat of boiled linseed oil, let it soak in for an hour, and then wipe off any surplus. The oil takes at least five days to dry.

2 Using a large-capacity badger-hair mop, apply super-blond shellac in the direction of the grain.

3 Use an old brush to apply a pore-filler/glaze mixture. Because the mixture sets up fast, work on small sections at a time.

4 Work quickly before the filler dries to produce a smooth surface.



on the facing page), the glazed area is smoother and has the dark appearance of a mahogany antique.

Rub all surfaces with 0000 steel wool to remove any excess filler. In addition, wrap a turpentine-dampened cloth around a block and rub the surface to further remove any filler from the tabletop and deposit it in the pores.

There is one final step before the actual polishing can begin. After forming a rubber (see the sidebar at right), use it to float a coat of buttonlac (2-lb. cut) across the entire workpiece. Floating refers to the process of applying shellac in straight strokes with the grain. This seals in the pore filler, while the darker buttonlac deepens and enriches the color.

Polishing Starts by Bodying Up the Finish

Let the piece dry overnight, then start building up the successive shellac coats, a process called bodying up. Still using the 2-lb. cut of buttonlac, brush a couple of coats onto every part of the table but the top. Charge the rubber with shellac, then flick a few drops of raw linseed oil onto the tabletop. The oil serves as a lubricant, allowing the rubber to float smoothly across the surface, laying down coats of shellac without abrading the previous coats. I use raw linseed oil because it has a longer cure time. If the finishing needs to stretch into several days, the oil remains workable.

Apply the shellac by moving the rubber in circles and figure-eight patterns using light to moderate pressure. Recharge the rubber, as necessary, until the finish begins to build. Brush another coat onto the rest of the table, then let the piece rest for an hour.

The last thing to do is sand the piece to remove any remaining imperfections. Flick a few drops of raw linseed oil onto some 320-grit sandpaper. The oil serves as a lubricant. Use a light touch, and avoid breaking through the finish at the edges.

The Right Rubber for the Job

Every French polisher has a favorite design of rubber. If you have a preference, stick with it. For a table this size, I cut a cotton bed sheet roughly 8 in. square, removing any hems. I then cut a piece of cotton cloth approximately 6 in. square and folded it into a wad roughly 2 in. wide and 3 in. long, with a blunt point at one end.

Charge the wadding with denatured alcohol to increase its absorbency, then squirt shellac onto one surface of the wadding. Place this surface down into the center of the cloth, bring each corner of the cloth to the center, maintaining the point on one end, and twist the ends of the fabric together. Use this twist of fabric as a grip for the rubber. It is critical that the fabric be very smooth against the wadding, because this is the surface that does the polishing. Smack the rubber against the palm of your hand so that the shellac penetrates the cloth. Then you are ready to begin French polishing.



START WITH A CLEAN SHEET. Use a white 100% cotton bed sheet as the exterior, or linen, of the polishing rubber. Cut off any hemmed edges of the sheet. The cloth encloses a wadded piece of cotton.

CHARGE THE RUBBER. The shellac should be applied directly to the wadding before the rubber is used and each time it needs recharging. When not in use, store the rubber in an airtight container to prevent it from drying out.



WRAP THE RUBBER CAREFULLY. The cloth should be wrapped tightly around the wadding to form a smooth surface on the bottom that will do the polishing.

Build the Finish in Layers



- 1** To apply the shellac, use a brush on all areas but the tabletop.
- 2** Polish the top with the rubber, using light to moderate pressure, and keep the rubber moving in circles and figure-eights.
- 3** Add a few drops of raw linseed oil to 320-grit paper to prevent it from biting into the finish.
- 4** The sandpaper is rubbed across the tabletop using the heel of the hand rather than wrapped around a block to lessen the chance of cutting through the finish on a high spot.
- 5** After sanding the piece, resume building the shellac finish. This time use the rubber on the whole table, not just on the top, to create a smoother surface.
- 6** For rubbing out the finish, unroll the steel wool so that you don't cut through the finish.

Now resume bodying up the tabletop, this time using the rubber on the legs and drawer front as well as on the tabletop. Flick the linseed oil directly onto the rubber when working on smaller areas, such as legs.

Remove the Oil by Spiriting Off

The polishing part of a French polish is variously called spiriting off or stiffing off. This step removes the previously applied oil, which if left on would leave white traces in the cured finish. The aim is to remove the oil without displacing the coats of shellac.

First wash out the cloth of the rubber in denatured alcohol, then wring it so that it is not dripping wet. Charge the wadding with

a 1-lb. cut of buttonlac and rewrap the rubber. It is fine to go straight from bodying up to spiriting off without letting the finish rest.

Float the rubber across the surface of the table in straight strokes with slightly less pressure than when bodying up. The cloth of the rubber will start to pick up the oil in the finish. After going over the whole piece, rinse out the cloth in alcohol, but do not add shellac to the wadding. Float the rubber across the surface again and again, regularly rinsing out the cloth, which will become progressively drier. When you don't see any more oil being collected and the sheen has become an even gloss, stop and allow the piece to dry overnight.



Rub Out and Compound the Finish

Your personal preference for final appearance decides the next step. For a high-gloss look, the finish must be rubbed out using 2,000-grit wet-or-dry sandpaper. I used the paper dry on the legs, the frame, and the drawer front of the table shown here, but on the top I used water as a lubricant. With a very light touch, sand in the direction of the grain and concentrate on not burning through the finish at the edges. Then apply a polishing compound in a circular motion using a clean cloth.

If you prefer a more satin level of gloss, rub the surface with 0000 steel wool. For the small areas of the table, I tore a strip of

wool down the middle and folded it into a small pad that fit my hand. For the tabletop I used a larger wad to distribute the pressure more evenly and to prevent the steel wool from becoming clogged. With this method, always rub the steel wool in the direction of the grain.

Last, Add a Coat of Wax

Because I have always had a preference for an aged appearance to reproduction furniture, I like to add the step of “blacking in” to the wax polishing. I make my own blend of polish using the following recipe: one teaspoon of vegetable black pigment; 1 oz. of slow-set gold size; 4 oz. of Kiwi Bois paste wax; and enough turpentine to

Sources

Easy Leaf Products

(slow and fast gold size)

800-569-5323

www.easyleaf.com

Homestead Finishing

(black pigment)

216-631-5309

www.homesteadfinish-

ing.com

Hummer Capital Inc.

(Kiwi Bois wax)

800-552-0052

www.hummercap.com

A Homemade Aging Process



A BLACK-WAX RECIPE. The author makes his own wax polish and combines it with gold size and black pigment to give the table an aged luster.



BRUSH ON THE BLACK WAX. Using a cheap brush, apply the wax in corners and crevices, at the bottom of the legs, and in any white pores left by the steel wool.



INSTANT AGING. The author leaves the greatest concentration of the black wax in the edges of the cock beading and on the apron below the tabletop overhang. He wipes a thin layer onto the rest of the surfaces.

dissolve the wax and make the finish easy to apply with a brush. If you prefer, you can leave out the black pigment. The gold size acts as a binder to make the pigment adhere to the finish when it dries.

Apply it to corners, crevices, feet, and any light spots. Then rub it with a clean cloth to blend it into the rest of the workpiece. To my eye it gives character and

re-creates the soft waxed luster of a piece of furniture that has been taken care of for 250 years.

SEAN CLARKE and his wife, Angela, who helped in the preparation of this article, are the owners of Clarke Co. in Valencia, Calif., specializing in the restoration and refinishing of antiques.