

## **SANDING-IN. THE STOCKMAKER'S SECRET** **by Walt Cunningham**

The marble-like finish found on most professionally finished stocks is the product of a process known to the gunsmithing trade as "sanding-in".

First, a word of advice: before handling the stock wood, at every step of this process, your hands must be thoroughly washed to remove any trace of oils, human or otherwise.

Upon completing the last dry sanding of a stock using 220 grit paper, wet down the stock with a clean, water saturated piece of cotton towelling. Using a torch or heat gun, quickly and carefully dry the wet stock. Don't linger on any one area or you'll scorch the surface. This "whiskers" the wood, leaving filaments of wood fibre sticking up from the surface. These fibres are the basis of the filler material produced by this method.

There are a number of proprietary finishes on the market, but for this process we'll choose Phil Pilkington's Classic Stock Finish (obtainable thru Brownell's), which seems to produce as good as, or better finishes than any on the market. Pilkington's is a polyurethane formula with walnut stain mixed in. I have used other commercial poly finishes in various colourings utilizing this method, including Minwax Fast-Drying Polyurethane, and all work well.

**IMPORTANT! DILUTE** the finish as it comes from the container **IN THE RATIO OF ONE PART FINISH TO TWO PARTS MINERAL SPIRITS.**

This solution is flooded over the stock surface with a one-inch natural bristle brush until it won't accept anymore. The entire surface should be shiny wet. Be sure there are no dull areas, especially at end-grain areas. This first step ensures deep penetration into the wood. Hang the stock in the drying cabinet and forget it for **TWO DAYS**. Thus dried, the whiskered fibres are hardened on the surface and the sanding-in process now begins.

Using 320 grit wet-or-dry paper (cut with scissors into 1 1/2" squares and backed by a squared rubber eraser), the stock is wet sanded with the same 1 to 2 solution of finish. Wet sanding produces a filler of fine wood powder and finish material, which is the secret of this process. Details like cheek piece fluting, shadow lines etc. are sanded utilizing various backing devices - - pieces of hydraulic tubing stuffed with wood doweling, small wedge shaped wood blocks etc.

This first (and each subsequent) sanding takes a time period of about 30 minutes or so. Wet sand the stock over every section with scrupulous attention to detail, using plenty of solution.

Now go back over the entire stock, using the fingers to re-wet the entire surface with solution. Set the stock aside for about ten minutes until it is slightly tacky.

The next step is to rub the filler material into the pores. Paper towelling (the stuff usually found in men's room rollers) has proven to be excellent for this. Crumple up 2 or 3 one-foot lengths and, using a circular motion rub over the surface until most of the filler material has been rubbed in or off. Don't polish the surface. The surface will still appear dull after the first wet sanding, but after two or three more applications, dramatic results will show.

After each application, the stock is allowed to dry for 24 hours. The surface will not be tacky enough to be affected by airborne dust, so this is not a concern.

The third wet sanding with 320 grit should fill the pores, however each piece of wood has its own characteristics, so if after careful examination, there are still unfilled pores, additional sandings with 320 grit might be required. The process should be continued until all pores are filled, each sanding separated by 24 hours' drying time.

Repeat the process with 400 grit paper, allow 24 hours' drying time, and finally repeat again using 600 grit paper. This last step requires the use of soft cotton cloth instead of paper towelling, and instead of rubbing in a circular motion, rub with the grain until all traces of the filler mix is removed. At this point the piece will have a fine hand rubbed sheen. Subsequent rubs with rottenstone and oil may be required to satisfy a customer who prefers a high gloss finish, but if possible try to talk him out of that.

Well, I know it sounds like a lot of time and work, and is not reasonably applicable to large cabinets and such, but for small pieces, the finish is extraordinary. I've used it on small tables, hatchet handles, kitchen knives and many other small items. Try it, you'll like it!