

Chapter 7

COLORING & FILLING GUN WOODS

*Modern Preparations Make This Chore More Simple
But No Less Demanding Than In The Past*



Available in five colors, these stock dyes are capable of producing nearly any shade of color desired in a gun stock or pistol grip, ranging from a rich red to jet black. Portions may be mixed to attain the shade that is desired.

PREPARING A rifle stock or wooden pistol grips for final finishing requires far more than simply sanding and applying the final liquid stock finish. All too frequently, I have observed gun wood that some proud owner had finished himself to make it appear as though he had sanded the stock with coarse river gravel, then had applied cheap varnish with a broom!

This may sound a little far-fetched but it is true. Most of us, at one time or another, have seen otherwise beautiful stock wood that had been literally ruined during the finishing process with cheap sandpapers and varnish or lacquer unsuited for the purpose.

Finishing a rifle or shotgun stock or a set of pistol-grips made from an exotic wood into something one can be proud of requires thoughtful, diligent work. Once the wood is fully shaped and properly sanded to velvet smoothness, the real chore, of producing a piece of wood in which the beauty of the grain is fully accentuated, begins.

First, the wood itself must be taken into consideration. Does it have a porous surface? Does it have nice texture and an attractive grain? How about the color of the wood? Is it pleasing to look at or does it have a drab, dead appearance? All of these questions must be taken into consideration before any preparation is applied to the wood's surface.



To determine how the grain of a stock will look after the application of finishing oil, the author lightly swabs the raw surface of the wood with a coating of pure lacquer thinner. This shows the true beauty of the grain and helps determine whether it should undergo slight tinting with the dyes. Light swabbing with water will do the same job.



Stock sealers, fillers and finishes made by such firms as Birchwood-Casey, Dem-Bart, Lyman and others produce excellent finishes on gun wood if the directions are followed to letter. They are available in most gunshops.



Birchwood-Casey offers a complete stock-finishing kit that includes all components needed. Kits of this type are used daily by most modern gunsmiths and gun stock specialists.

Assuming a rifle stock has been given its final sanding, one wants to determine just how the coloring and grain will appear when the liquid stock preparations are applied. I long ago learned that by applying a small amount of lacquer thinner to the surface of the glassy-smooth wood, one can see immediately exactly how the surface will look when a clear stock finish such as Tru-Oil is applied.

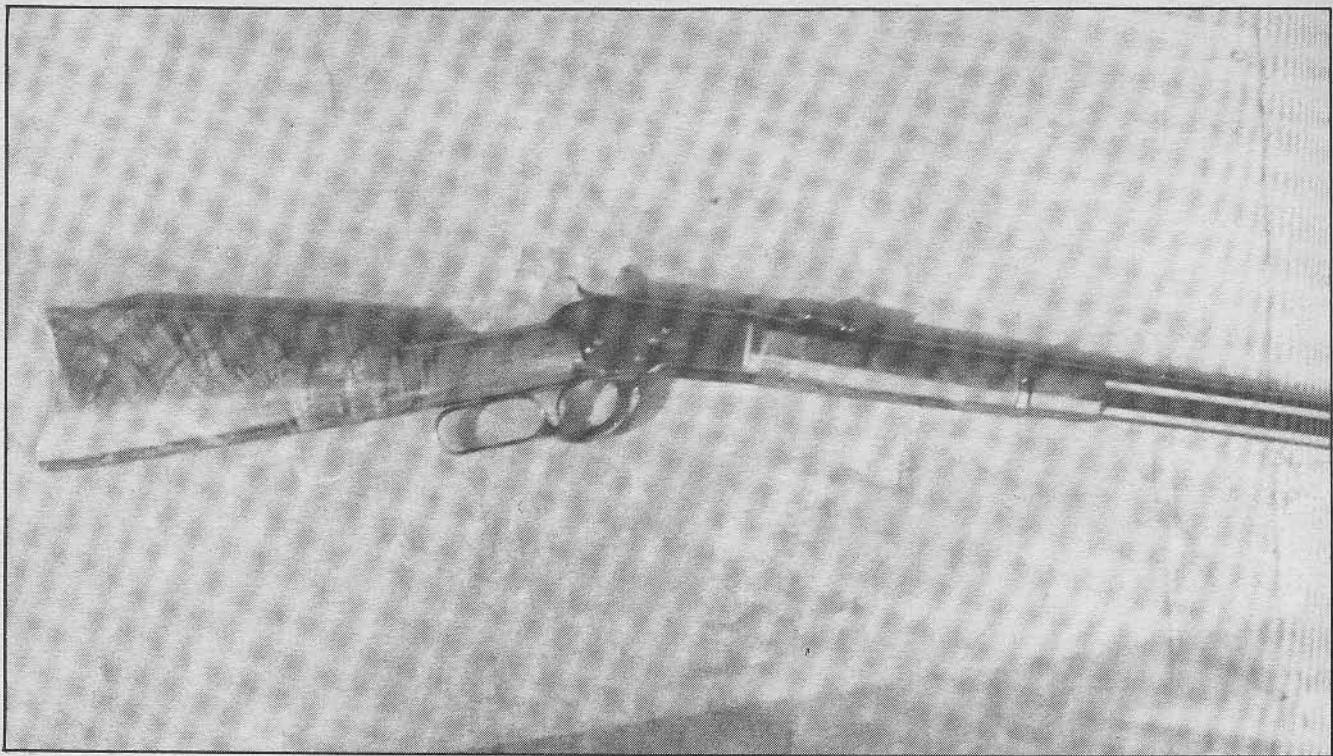
Should the wood appear too light in color, with little or no grain or mottling to result in that drab look, a coloring agent is needed to bring out or accentuate the beauty of any existing coloration the wood might have. Should the wood be too dark, then another dye might be used to make the wood's surface appear lighter.

Brownell's water-soluble stock dyes are available in five colors, Orange Concentrate II, Resorcin Brown 5-C, Nigrosine WSB, Scarlet NS and Tartrazine (yellow). These are highly concentrated stains that I have found to be more permanent than are oil stains. Each bottle of stain may be used individually or blended with any of the others to produce the specific color desired for various woods. Full instructions are on each bottle.

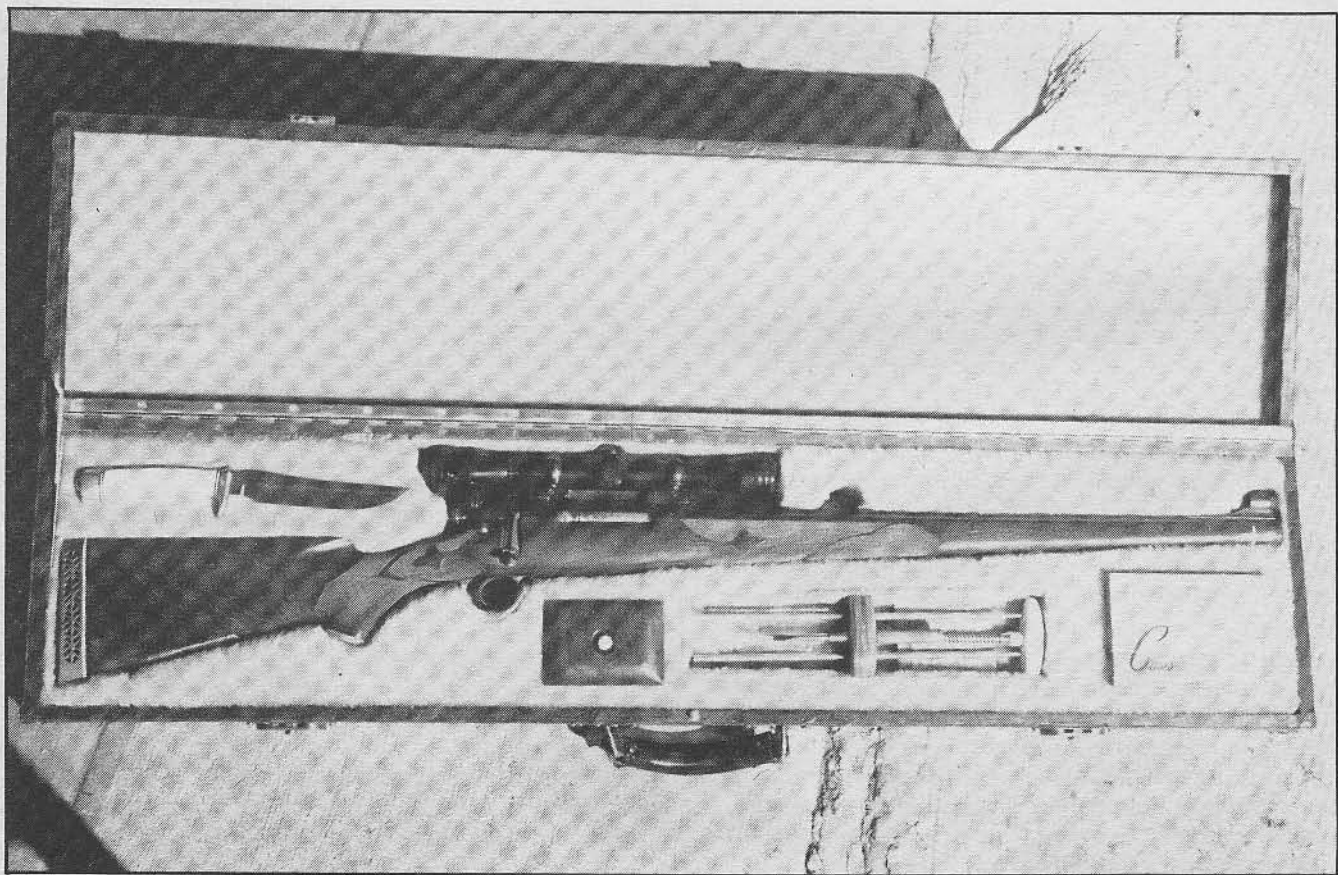
These dyes are unsurpassed for darkening maple or for lightening dark walnut. In combination, they are capable of giving the craftsman exactly the color he wants to any stock woods, from a dark, almost ebony look, to the dark rich reds found only on the finest gun stocks. The proper use of these dyes can make a cheap piece of walnut look like an expensive piece of wood.

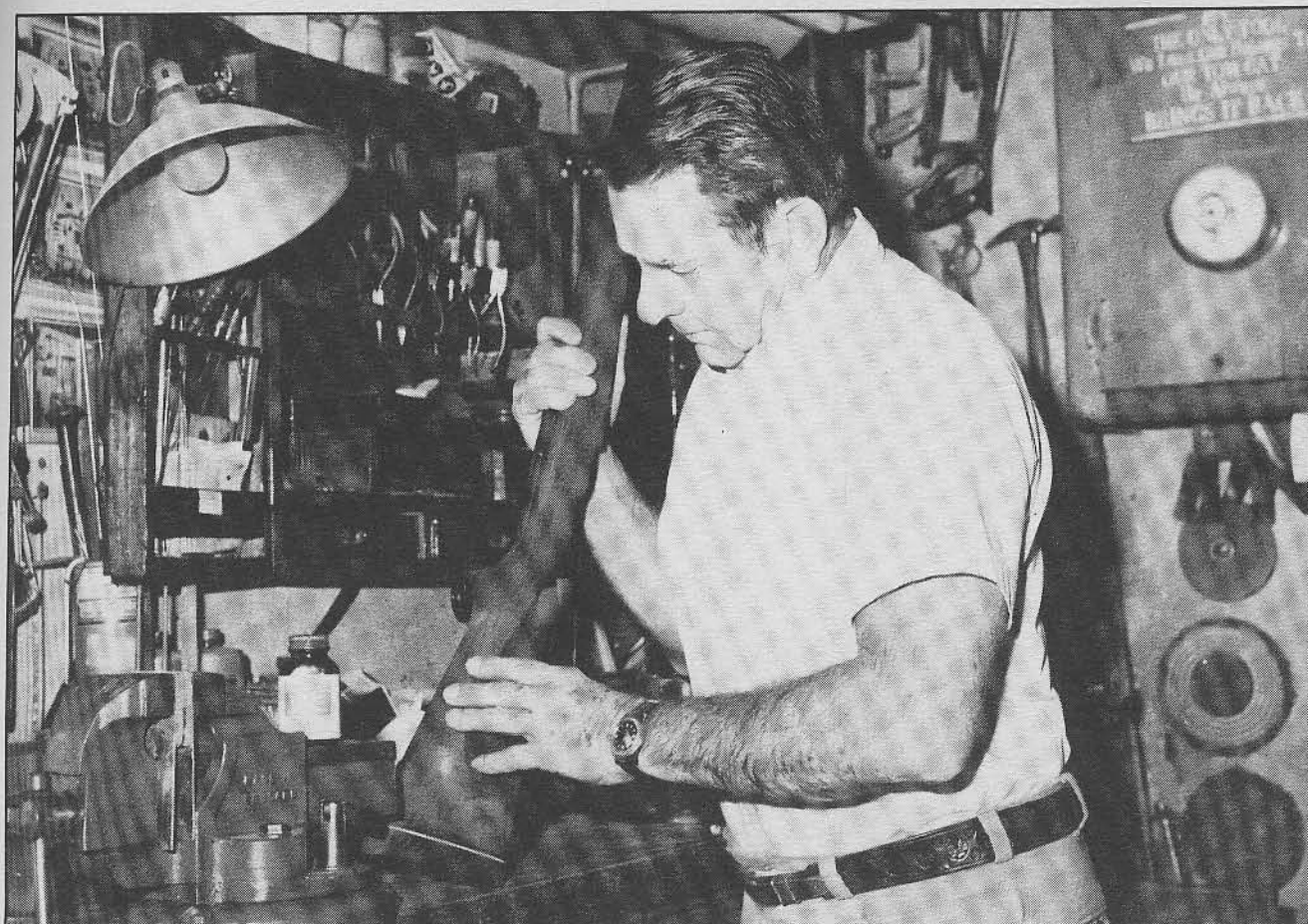
In using these dyes, one will note that the water base will have a tendency to raise the grain. This grain must be sanded smooth, using an extra-fine garnet paper. Allow the dye to dry thoroughly to determine the exact color it produces. As a rule, the more coatings applied, the darker will be the final coloration. Using these dyes requires a certain amount of experimentation until the right color is attained. Each piece of stock wood will create slightly different problems due to the texture of the wood. Like so many phases in gunsmithing, it is a matter of trial-and-error experimentation until total satisfaction is achieved.

Any number of superb stock finishing preparations are available to the home gunsmith or hobbyist. For the most part, these are the same preparations used by professional



Aged and obsolete rifles and carbines can be restored by complete refinishing or replacement of the wood. This Model 1892 Winchester carbine had been give a new Fajen stock and forearm by the author and the metal reblued. The highly figured grain in both pieces of walnut has been brought out by application of Tru-Oil to wood. (Below) The photo does not do justice to the glass-smooth surface and exceptionally fine grain in this custom-built rifle stock. Hand-finished with Tru-Oil, the stock still retains its beauty despite many tough hunt trips.





Being applied by hand by the author, the stock filler will seal and fill all objectionable pores in the wood. This, in turn, will lead to the perfect glass-like surface that is attained when finishing oil is applied to the stock.

gunsmiths. However, there will always be those who will go to the local paint store for a can of floor varnish to apply to a freshly sanded gun stock. One who is serious about his work should stick to finishes developed specifically for gun woods.

Available at most gun shops of any size are the stock finishing preparations produced by Birchwood-Casey, Dem-Bart, Lin-Speed and several other manufacturers. As a rule, these finishes and fillers are available in 2½-ounce bottles and are sufficient for several full rifle stocks or dozens of pistol grips. Also available are complete finishing kits that include all of the needed materials to finish several stocks. These kits provide fillers, oils, applicators, several grades of sandpaper and steel wool as well as service and polish cloths.

When a stock is fully sanded, the wood has a pleasing coloration and is ready for final finishing, the next need is a stock filler. This compound will fill the minute pores in the wood and prepare the surface for the final oil finish. This filler is applied with a soft cloth, rubbing both lengthwise and crossgrain. Make certain that the entire outer surface

of the stock is well covered and the filler fully rubbed into the grain. Allow the filler to dry for several hours, then with a soft cloth, carefully remove the excess filler. This is done by rubbing across the grain so as to not disturb the filler that adheres to the pores of the wood. Remove all of the filler adhering to the surface of the wood only, but do not overrub; this will only remove the filler from the pores of the wood defeating the purpose.

After a thorough coating, the filler is allowed to dry for several hours, then should be buffed lightly by hand with a soft cloth. The stock is now ready for the final finish: application of the stock oil.

At this point, make absolutely certain that there is no wood dust from sanding in the air or in the vicinity where the oil is to be applied. This can make all the difference in whether the dried finish will be glassy smooth or ends up with a surface covered with minute bumps.

Two methods may be used to apply the oil finish. Birchwood-Casey produces an aerosol spray solely for stock finishing which contains Tru-Oil or the Tru-Oil may be applied with the fingers directly from the bottle. Regard-

less of which method is favored, a perfect finish is possible if care is taken to apply the oil in extremely thin coatings, allowing each to dry thoroughly before the next application. One should allow at least twenty-four hours for thorough drying at seventy degrees following the final coating. Then the entire surface can be treated lightly with stock rubbing compound followed by a coat of wax.

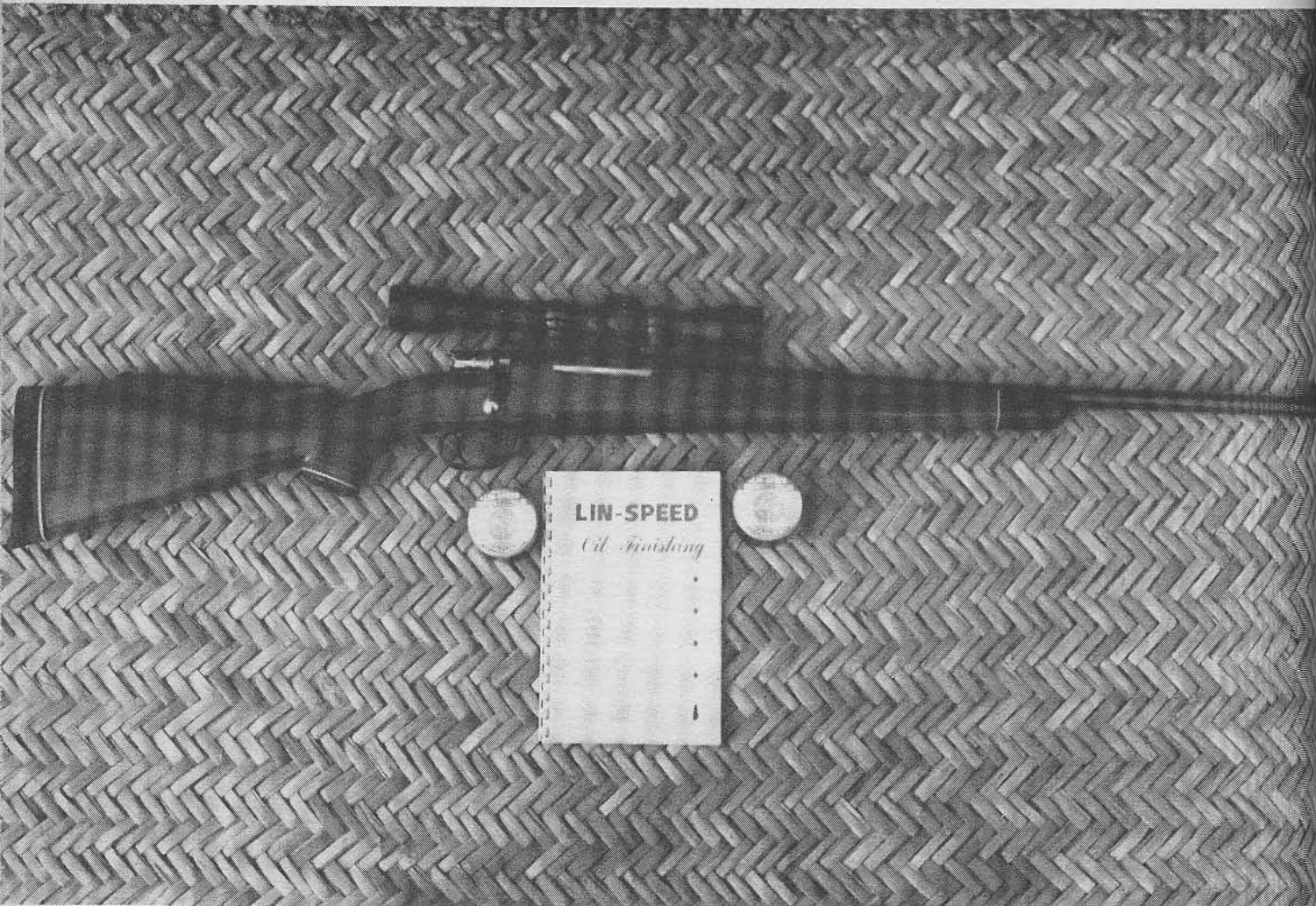
Refinishing or rejuvenation of an older stock follows the same basic procedure as for a new stock. However, if the older stock is badly scratched or marred, it must be sanded thoroughly and existing dents or dings removed by steaming. Provided the surface has only minor scratches, an older stock may be brought back to almost new appearance by thoroughly rubbing the surface with stock rubbing compound in some cases. This usually will remove minor scratches and discoloring dirt which might be on the surface. Again, waxing following use of the rubbing com-

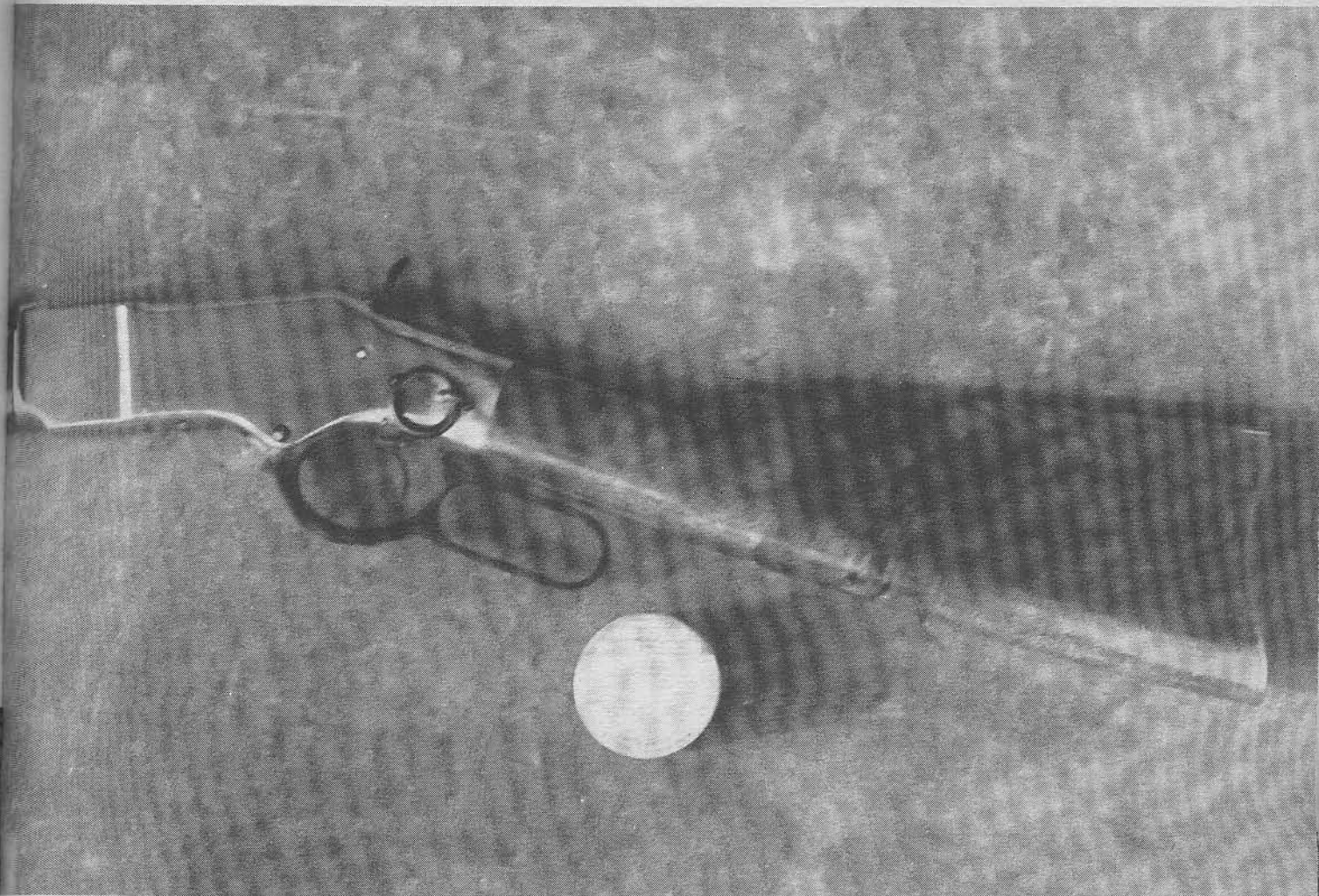
pound usually will turn an otherwise drab-looking old stock into one of beauty.

The secret of stock finishing — other than proper sanding — lies in allowing the final finish sufficient drying time. In too many cases, the finish is not allowed time to set up and dry hard before the rubbing compound is used. When this occurs, the finish usually is so poor that a thorough sanding again is necessary.

As in most professions, there are countless little tricks of the trade in gunsmithing. One that I discovered for myself some years ago was that some advertisements can be fact instead of fiction. On the bottle of Tru-Oil is the printed statement that "the filler is in the finish." Somewhat dubious at the time, I tried straight Tru-Oil on a piece of raw walnut, flowing it on smoothing and thinly. Sure enough, the pores of the wood were filled completely with just two thin coatings of the oil. No filler was used whatsoever. The

Mauser rifle with its tiger-striped stock was finished with Lin-Speed stock finishing oil to produce a tough, scratch-resistant surface and greatly enhance the grain of the wood. Lin-Speed and Tru-Oil are gunsmiths' favorites.





Stock and forearm of this Model 1866 Winchester carbine were refinished with careful sanding, filling, then an application of Lin-Speed stock finishing oil. Note the outstanding grain configuration brought out by the treatment.

same results can be duplicated, I found, with Lin-Speed oil stock finish. I have used both for years and never have found fault with either.

Prior to the introduction of the superlative stock finishes and preparations available to the gun enthusiast today, it was necessary for the gun craftsman to concoct his own brews of stock oils and finishes. A gunstock sometimes took weeks and even months to attain the desired finish with home-brewed oils and countless hours of hand rubbing.

I can remember concocting stock oils by mixing powdered rosin, varnish, shellac, Japan driers and boiled linseed oil, then heating this mixture until the powdered rosin would melt and become fluid. This mixture was applied to the wood as hot as the hands would tolerate, then rubbed in

for hours. The stock then was allowed to sit and dry for at least twelve hours before another coat was applied.

This method often required as many as twelve coats in order to produce an almost rock-hard durable finish and could take as much as a month of hard work. Today the same results can be attained in only a few hours with modern preparations. The modern gunsmith never had it so good!

Another secret to good stock finishing is patience. Never rush any phase of this job. Be sure the stock is thoroughly and properly sanded to a satiny finish. As suggested, apply the final finishing oils in a dust-free area, then allow to dry for at least a day. You only want to do this job once. Try for perfection the first time. If you attempt to rush the effort, you are looking forward to a complete resanding of the stock.