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Preparing Furniture for Refinishing

Wanda Eubank
Department of Environmental Design, University of Missouri-Columbia

Home furnishings are a major investment. According to one study, furniture ranked first on the list of household objects cherished most. With proper care, furniture can be a lifetime investment.

Wood is the most popular material used for furniture, but some woods are easily damaged or dented and others have poor finish. Refinishing makes it possible to restore existing furniture, to rehabilitate second-hand pieces and to preserve family furniture treasures. Whether you're motivated by the love of a specific piece, the need to save money or the desire to save natural resources, refinishing may be the answer.

Refinishing furniture is not difficult or expensive. Finishes and equipment are available in a variety of price ranges and success is practically guaranteed if directions are carefully followed. Successful refinishing, however, depends upon the care and thoroughness with which the old finish is removed and the surface cleaned and sanded. Careful work takes time and good finishes can't be hurried, so work leisurely and enjoy the results.

Remove old finish

Remove all parts from the furniture that are not to be refinished, such as drawer pulls, glass knobs or mirrors.

Use a good commercial paint or varnish remover. There are now wax-free products on the market that are not flammable. An average-size table or small dresser should require about one pint of remover.

It is generally not economical or advisable to make removers at home; the procedure is dangerous and the product is not always effective.

Avoid using a lye mixture because it raises the grain of the wood, discolors the wood and affects the final finish.

Apply remover as directed on the container to a small area, brushing in one direction only. When the surface appears softened and wrinkled (5 to 20 minutes), remove the finish with a putty knife, spatula or commercial scraper.

Be careful when using liquid removers or water on veneer surfaces. Too much moisture causes panels to pull and the glue to soften.

Hold the scraper at an angle to prevent gouging the wood. Use long, even strokes, following the grain of the wood, to remove the finish.

All of the old finish should be carefully removed in carved, fluted or turned surfaces. A vegetable brush, an orange wood stick or a pad of steel wool will help with turnings or grooves. A piece of twine or cord dipped in remover and pulled through fine grooves will also help. Sawdust or excelsior can be used to rub off old finish.

Rinse as directed on the container or wash with denatured alcohol or turpentine. A wax-free remover does not require washing the surface.

There are some times when the old finish does not need to be removed, and you may put a new coat of finish over the old one. In that case, first remove any wax or oil by washing with turpentine. Use sandpaper or pumice and water on the surface.

Allow the wood to dry thoroughly before the next step (24 to 48 hours).

Glue loose joints

It is best to take the pieces apart if joints are loose. Before doing this, label the parts so that they may be reassembled correctly. When pieces must be forced apart, put a heavy pad or block of wood between the hammer and the wood.

Scrape off the old glue with a knife or razor blade. Do not sand; the joint must not be reduced in size or the pores closed. Wash off old glue with steel wool and a solution of warm vinegar and water in equal parts. Dry thoroughly. If the wood surfaces to be glued are smooth, slash the surface with a knife so the glue can hold better.

Plastic resin glue is most satisfactory to use. It is waterproof, does not stain wood, handles easily and makes a strong bond. It is sold under various brand names in powder form.

After the surfaces are well cleaned and dried and the joints are made to fit each other, the glue should be spread on both surfaces in a medium thickness. Both the glue and the wood should be warm (75 to 80 degrees F).

Ease the dowels and tenons into the holes to prevent air pockets. Immediately place joint under pressure using clamps (such as a bar, cabinet or C-clamp). Protect the furniture surface under clamps with pads of cardboard or cloth. Allow to dry under pressure at least 24 hours.

Raise dents

Raise shallow dents by placing a damp woolen cloth or wet blotting paper over the depression; then hold a hot iron over the cloth until the steam swells the wood to eliminate the dent. Sand when dry. This treatment cannot be used for veneer.

Fill cracks and holes

Use stock shellac to fill cracks and holes where hardware has been removed.

If the piece of furniture is to be stained, select the shellac color and fill the holes after the stain is applied. Wet a spot on the wood with turpentine or alcohol to find out what the final color will be. The shellac will be darker in the stick, so melt some of the shellac and test its color. If the exact color is not available in the stock, you can sometimes make a match by blending two colors together.

Clean out cracks and holes and smooth the edges before filling. Melt the shellac with a heated steel knife. When hardened, shave off excess shellac level with the surface.

Remove dark spots

Remove dark spots by sanding or bleaching. Too severe treatment will remove the lovely quality that age has given the wood.

Commercial bleaches are available with clear directions.

An oxalic acid solution may be made using 1 ounce (2 tablespoons) oxalic acid powder or 2 ounces (4 tablespoons) oxalic acid crystals to 1 pint of warm water. Apply the solution with brush, cloth or sponge. Let stand 10 to 20 minutes. Repeat as necessary. Wash with ammonia solution (1 tablespoon ammonia to 1 quart water) or with a solution of 2 tablespoons borax dissolved in a pint of water. Rinse with clear water. **Caution: Oxalic acid is poison.**

Household laundry bleaches (sodium hypochlorite) will bleach most woods several shades lighter, with the exception of oak, which may turn slightly darker and brown. It will change the color of the dark streaks in poplar to the yellow green color of the rest of the wood, but it will not effectively bleach the yellow green.

Sand

Much of the beauty of the finished wood will depend upon sanding. The finish you choose will not cover up scratches and dents. In fact, the finish magnifies blemishes of any kind.

The correct grade of abrasive must be selected for best results. On smooth wood start with fine; on rough wood start with medium. Then continue with successively finer abrasives.

Garnet paper is better for all-round household use. It is reddish in color and costs a little more than flint, but it is harder and sharper, so lasts longer.

Smooth the surface by sanding with the grain of the wood when the wood is dry. Cover adjoining cross grain sections of the wood before sanding.

When sanding flat surfaces, it is convenient to wrap the sandpaper around a small block of wood or a blackboard eraser in order to ensure even pressure.

For grooves and crevices, fold squares of sandpaper in quarters. Folding the sandpaper over itself will keep it from slipping. You can use fine steel wool although it may discolor some woods such as oak. Emery cloth torn in strips is excellent for smoothing deep turnings when used shoe-shine fashion.

Wipe the sand dust from the surface frequently with a cloth dampened in turpentine. Be

sure the wood is smooth as glass.

Stain

Stain brings out the beauty of the wood and helps match varying shades of wood. If your wood has a nice natural color or if the stain has not been removed, you will not need to use stain. Remember that any type of clear finish will darken the wood somewhat and magnify the beauty of the grain and wood pattern.

Oil stains are easy to apply and allow for better color control. Walnut and mahogany colors mixed in varying proportions will produce most of the desired shades. Varnish stain is not recommended.

Be sure to test the stain because woods vary greatly in character. Soft woods absorb stain and darken quickly, while hardwoods do not darken readily. Some woods, especially fir plywood, have both extremely hard and soft portions. When stained, they will show contrasts of light and dark that are not pleasing. To avoid this, apply a penetrating seal to the entire surface before staining. End grain surfaces are very absorbent and should be sealed with a mixture of 5 parts alcohol to 1 part clear shellac.

Test on a hidden part of the furniture. Wipe off with a soft cloth in the direction of the grain. If too dark, add turpentine to the stain and test again. Repeat the application if the shade is not dark enough. A built-up color is clearer and softer than a one-coat job. As a rule, amateurs use stains too liberally.

When the shade appears satisfactory, apply the stain evenly to small areas at a time. Wipe off with a soft cloth with the grain of the wood. Allow the stain to dry 48 hours. Seal to prevent the color from mixing with the final finish and rub with fine sandpaper.

Sealers

Some stains, especially dark colors, should be sealed to prevent them from bleeding into the finish. You can use a ready-mixed sealer available at paint and hardware stores. Check the label to be sure the sealer is compatible with the finish you plan to use. You can also make a sealer from the final finish you plan to use.

- Varnish — Mix one part varnish with one part turpentine.
- Shellac — Make a sealer of one part white shellac (4 pound cut) with eight parts denatured alcohol. Be sure to check the date on the shellac label. Old shellac will not dry properly.
- Linseed oil — Mix one part linseed oil with three parts gum turpentine.
- Tung oil — Dip a piece of nylon hose in tung oil. Wipe on the wood and immediately wipe off the excess.
- Brushing lacquer — Brush on some lacquer and immediately wipe it off.

Applying a sealer

Note: Not for tung oil or brushing lacquer.

- Apply a thin coat of sealer with a brush. Brush slowly with the grain. It will soak in according to the hardness of the wood.
- Keep the surface wet with the sealer for 10 to 15 minutes by applying more coats as each soaks into the wood.
- Wipe off all excess sealer with a nylon hose or a soft, lint-free cloth.
- Allow 24 hours for drying.
- Lightly smooth the surface with fine sandpaper or 000 steel wool.
- Remove any dust by wiping with a tack cloth.

Do a quality check

Much of the final finish depends on how well the surface has been prepared. Ask yourself these questions:

- Have necessary repairs been made?
- Is the surface:
    - Clean?
    - Smooth?
    - Old finish removed?
    - Cracks and holes filled?
    - Sanded smooth as glass?
    - Filler used on open-grain woods?
    - If it is stained, was only enough used to enhance the beauty of the wood?

References

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