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Cleaning, Repairing and Reconditioning Wood Furniture

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You may have a piece of furniture that is soiled, slightly scratched and worn, but not damaged badly enough to require stripping and refinishing. You may own a valuable antique whose beauty might be enhanced but whose quality could be greatly diminished if you stripped the old finish away, or did anything more than dust the piece. You may own a piece of furniture that really needs some attention but your time or personal situation may not allow you to refinish it just now. What to do—clean it and/or recondition it? Cleaning and reconditioning may accomplish the task or will temporarily solve the problem until you can do a more thorough refinishing.

Some methods for cleaning and reconditioning are:
1. Cleaning/washing
2. Abrasion
3. Over coating
4. Reamalgamation
5. Padding
6. Patching

They are listed in order of increasing difficulty. Use the method that will require the least work to accomplish the desired result.

**CLEANING AND WASHING**

There is no best way to clean a finish. It depends on the kind of dirt. NOTE: Use a water wash sparingly—water can loosen old glues.

1. Hot Wash: Add to each gallon of hot water:
   - 2 tablespoons gum turpentine
   - 4 tablespoons boiled linseed oil

   This formula works best if it is hot enough to require that you wear rubber gloves. Wring out a soft clean cloth in the solution and wash the wood. The turpentine and hot water will clean away soil, oils, and built up waxes and polishes. The linseed oil will replace oils and actually “finish” worn or bare spots. (Linseed oil has been one of the most used finishes of the past.)
Wipe dry and buff with a clean soft cloth. This may be sufficient. Polish with lemon oil or apply a surface wax if desired. This wash works well for furniture, cabinets and wall paneling. Murphy’s oil soap or similar products can also be used to wash wood.

2. Ammonia wash. Make a solution of 20 percent household ammonia and 80 percent water. Wring clean rag and wipe furniture. Depending on the type of finish, this method may discolor or cloud the wood finish.

3. Mineral spirits wash. Moisten a clean soft cloth with paint thinner (mineral spirits) and rub soiled wood to dissolve polish, wax, oil and greasy grime.

**ABRASION**

Wax build up, finger prints, soil or scratches may require you to use an abrasion technique. Good furniture finishes are actually thick enough that you can “wear” away damage that is on the finish and has not penetrated to the wood. Sometimes the damage is only in the wax or furniture polish that is on top of the finish. A white ring is an example. It may be in the wax or polish or in the finish. Stains that are dark or black are usually through the finish and into the wood. However, the abrasion of the finish will take a high gloss finish to a satin finish and so the abrasion will need to be over the entire surface of the wood.

1. Oil and Abrasive Polish
   - New motor oil OR
   - Paraffin oil OR
   - Boiled linseed oil
   - Pumice or rotten stone or whiting (abrasive)
   - 0000 steel wool
   
   Place abrasive in a small can or jar. Place oil in a small can or jar. Dip a small pad of 0000 steel wool into the oil and then into the abrasive. Polish the furniture in small sections, rub back and forth with the grain. Adjust the pressure to the needs of the job at hand. When the defects have been removed or sufficiently repaired, wipe off the surface. Polish with lemon oil or wax with a quality wax if desired.
   
   If the piece of furniture has years of polish and wax built up you may want to wipe it off with paint thinner applied liberally to a soft clean rag before you begin the abrasion process.

2. Turpentine and Linseed Oil
   - 1/4 cup gum turpentine
   - 3/4 cup boiled linseed oil
   - 0000 steel wool
   
   Place turpentine and oil in a glass jar. Cover with a tight lid. Shake well before using. When ready to use, put hot water in a small can or jar. Pour some of the mixture on top. Dip a pad of steel wool into the mixture and rub the wood surface back and forth with the grain. When the task is completed, polish with a clean soft rag.

3. Toothpaste and Soft Cloth or 0000 Steel Wool
   
   For small or simple white spots, try toothpaste. Put a small amount of toothpaste on a clean cotton cloth or 0000 steel wool. Buff carefully with the grain of the wood. Wipe off with a clean cloth and oil or wax the surface.
OVER COATING
In some cases the wood may be in good shape but the finish may be worn out and thin with not enough left to repair by the abrasion technique. Over coating is the technique of applying a new finish over old.

Begin by cleaning the surface with paint thinner or a weak solution of ammonia and water to remove soil, polishes and waxes. If the stain is worn, apply new stain. In some cases, a coat or two of oil based stain buffed into the wood with 0000 steel wool and wiped with a clean cloth is enough finish.

If stain has been applied, let it dry thoroughly. Apply a thin coat of a clear finish. It is best if you apply the same kind of finish that was used originally, i.e., shellac over shellac or varnish over varnish, etc. The least successful method is any synthetic varnish over shellac. The most successful is penetrating oil/resins over oil/resin finish.

Always test a small amount of finish over a hidden part of the furniture.
If a surface finish has been applied (not a penetrating oil finish) when it is thoroughly dry, wipe it with very fine steel wool and apply paste wax.

REAMALGAMATION
Reamalgamation is a process in which the damaged finish on wood is dissolved with a solvent for the original finish and then reapplied as the finish. If this process is well done it will be beautiful. It does not destroy the “patina” of the wood that has come with age, care and use and is often prized.

First you must determine what the finish is because the correct solvent must be used to dissolve the finish. Test solvents in a hidden place. Finishes will dissolve in their own solvent.

<table>
<thead>
<tr>
<th>FINISH</th>
<th>SOLVENT</th>
</tr>
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<tbody>
<tr>
<td>Shellac</td>
<td>Denatured alcohol</td>
</tr>
<tr>
<td>If the furniture was built before 1920 and has its original finish, it’s probably finished with shellac.</td>
<td></td>
</tr>
<tr>
<td>Lacquer</td>
<td>Lacquer thinner</td>
</tr>
<tr>
<td>Used on commercially made furniture because it dries so rapidly</td>
<td></td>
</tr>
<tr>
<td>Varnish</td>
<td>Difficult to dissolve. Try lacquer thinner or commercial stripper.</td>
</tr>
<tr>
<td>Not usually found unless the piece was custom or handmade or previously refinished.</td>
<td></td>
</tr>
<tr>
<td>Penetrating Oils</td>
<td>Lacquer thinner or commercial stripper.</td>
</tr>
<tr>
<td>This finish will probably never need to be reamalgamated because it is so easily and effectively over coated. (See previous section.)</td>
<td></td>
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</tbody>
</table>
For any method, clean the furniture with paint thinner or turpentine. Begin reamalgamation by dipping steel wool or a brush into the appropriate solvent and applying it to the wood surface. Get the surface wet as quickly as possible before solvent evaporates. Brush and/or rub and reapply solvent until all defects disappear. Apply more solvent to the finish and smooth the reamalgamated surface with long light strokes, working with the grain. When the surface is dry, buff it with 0000 steel wool to remove any rough spots. Apply a good paste wax. It should look like new.

There are some “amalgamators” on the market which are solvents for most finishes. The Mohawk Company has one called “Amalgamator.” Formsby’s is called “Furniture Refinisher.” There are several other brands available. Polyurethane finishes cannot be reamalgamated.

**Padding**

This method is often used by professionals to repair valuable furniture and is called “French Polishing.” Padding is a technique in which a new finish is applied over an old one using a tightly rolled pad of soft cotton cloth and “padding lacquer” such as Pad-Lac available in Constantines Wood Workers catalog.

Make sure the wood is clean. Prepare the padding cloth by rolling a soft clean piece of cloth fabric large enough to fit in your hand. Dip the pad into a bowl of padding lacquer and squeeze it to remove any excess liquid.

Stroke the damaged surface with a moistened pad, using small up and down rocking motion with your hand and wrist. The padding cloth must be kept moving because the solvents in “padding lacquer” dry so quickly that a resting pad will leave impressions of the fabric on the wood. Start padding motions gently to wet the surface and then increase pressure to generate heat that will help lacquer dry. Continue adding padding lacquer to the cloth and move around the project until finished. Rub the wood surface with the pad for at least 15 minutes to make sure lacquer is dry.

The padding finish will be quite glossy. If you desire a dull finish, or one with less shine, rub with 0000 steel wool and apply paste wax.

**Patching**

Patching is used to repair large scratches, gouges, burns, etc., in the surface. This method is often used when there is a surface blemish on an otherwise undamaged finish.

**1. Shellac-Stick Patching**

If shellac sticks are not available in your local paint or hardware store, they may be purchased from mail order supply firms. You will want to practice the technique on a wood scrap before repairing furniture.

- Shellac sticks in color of wood
- Alcohol lamp or some way to heat spatula and shellac stick
- Artists spatula or grapefruit knife
- 400 grit waterproof abrasive paper
- Paraffin rubbing oil (car oil will do)

Heat the spatula and the tip of the shellac stick. Apply the melted shellac to damage area and smear into place with spatula. If shellac cools too fast, reheat spatula and smooth shellac.
When damage has been repaired and shellac has cooled, shave off excess with sharp razor blade. Sand with 400 grit paper lubricated with the oil. Touch up the spot with padding lacquer.

2. Wax Stick Patching

Wax sticks are readily available and come in many colors. (I have even used crayons and they work well.) Colors can be blended.

Spatula or knife
A heating source to melt stick. (There are special refinishers hot patching knives available.)

Heat wax and let it drip into damaged area. Leave slight excess rounded on top. Use a hot spatula blade to work into blemish and to make it even with surrounding surface. If necessary, smooth it up with the razor blade.

If the repaired area will receive any wear, cover it first with a coat of shellac, which makes it possible for other finishes to adhere, and then a coat of varnish or lacquer.

COMMON SPOTS, DEFECTS AND POSSIBLE CURES

1. White Spots, Rings, and Blushing

White spots are caused from moisture damaging the polish or wax layer of the finish. Some finishes can turn white just from moisture in the air. (This will not happen in most of arid Utah.) The whiter the area, the deeper into the finish the moisture penetration.

Cure: Choose an abrasion cure, one of these will cure most white spots and rings. Apply wax or polish with lemon oil.

2. Dark Spots and Rings

Dark spots are more serious than white spots and indicate water has penetrated into the wood. This kind of damage does not happen in a short time. It has probably been caused by a flower pot or something very moist being left on the wood for several days.

The damaged area will probably need to be stripped, the stain bleached with oxalic acid and refinished. If the whole piece of furniture does not require refinishing, be sure to protect it very carefully while you repair the damage. Repair the whole surface where the damage is found (i.e., table top, etc.). If you attempt to repair only the spot you will be left with a larger damaged spot. This can be true of all repair methods. NOTE: If you cannot find oxalic acid at the hardware store, try the drug store. It comes in crystals which are dissolved in warm water for use.

If oxalic acid doesn’t remove the stain, you may try household bleach, or a two solution wood bleach found at the hardware store. Two-part wood bleach will take all color from wood, so be very careful. Some sources say oxalic acid is very dangerous, others say it is mild and safe.

3. Steaming

On raw wood (stripped or unfinished wood) dents are easily removed by holding a hot iron over a damp cloth which has been placed on the dent. Wool fabric works very well because it holds lots of moisture without dripping or running. The steaming fills the wood fibers and causes them to swell and fill the dent. Steam as long as necessary to fill the hole. The fibers will usually swell a little above the surface. It is very important to let the raised wood dry thoroughly before sanding or the entire bruised area may come out. On finished furniture, you may have to remove some of the finish or puncture damaged area with pins to allow the penetration of steam.
Repair finish by over coating, reamalgamation or padding.

**Scratches and Hairline Cracks**

1. Small scratches and cracks—try one of the following:
   a. Rub with a walnut meat.
   b. Rub with Old English or similar stain filled furniture polish.
   c. Rub with matching color shoe polish.
   d. Rub with matching oil base wood stain.
   e. Paint with matching crayon.
   f. Paint with matching color felt tipped pen.
2. Alligatoring and hairline cracks—usually caused by swelling and shrinking of finish:
   a. Reamalgamate the finish.
   b. Repair polyurethane finish by over coating with another varnish.
   c. Buff in a coat of matching stain using 0000 steel wool.
3. Deep scratches, missing wood.
   a. Use a patching method.

**Scars, Gouges, Burns**

1. Patching
   If the damage is caused by burning, scrape all of the burned area away before patching.
2. Remove old finish and refinish the wood.

**Worn and Thin Finishes**

   Clean. If the stain is also worn away, restain to match surrounding area, and overcoat with a new finish.

**Abused, Worn and Scratched**

1. Padding
   Try repairing with padding technique.
2. Complete refinishing.

   Remember to assess the soil, spot or damage and use the simplest and easiest method that will accomplish the task.
   Follow cleaning method with a rub down of good quality lemon oil polish (available in many brands) or wax.
   Work safely. Use protective gloves and eye glasses when using any chemical or method to clean or repair wood. Be sure to work in a well-ventilated area!

**Sources Used for Cleaning and Repairing Outline**

7. Constantines Wood Workers Catalog, 1-800-253-WOOD.
8. Many years of personal experience and teaching by the author.

**Recipes for Cleaners**

**Furniture Cleaner/Conditioner**

**Ingredients:**
1. 1/4 cup gum turpentine
2. 3/4 cup boiled linseed oil
3. Hot water

**Mixing:**
Mix 1 and 2 together in a glass bottle with a tight lid. Store until needed. Shake well before using. Work in well ventilated room. Pour hot water (3) into an empty tuna fish can. Pour the turpentine and linseed oil mixture (1 and 2) over the surface of the hot water. Do not stir. Dip cloth or 0000 steel wool into the oily mixture floating on the surface of hot water. Rub on small area of the wood surface. Avoid excess moisture on places that have been glued. Use toothbrush on carved areas and grooves. For areas that appear to have a buildup of dirt, dip 0000 steel wool into the cleaner and rub lightly with the grain of the wood. Then dip fresh cloth into clear, warm water, wring the cloth out and wipe the surface. Polish or wax. Do not reheat remaining mixture. Discard.

**Furniture Cleaner/Conditioner**

**Ingredients:**
1. Paraffin oil or new car oil
2. 0000 steel wool
3. Pumice or whiting
4. Clean soft cloths
5. Good quality furniture polish (lemon oil)

**Directions:**
Put pumice in a saucer or container. Dip steel wool in oil and then in pumice. Rub and clean a small area of the soiled furniture. Wipe area with soft cloth. Repeat until furniture piece is cleaned. Polish the entire piece with lemon oil polish and soft cloths.

**Furniture Polish, Oil and Wax**

**Ingredients:**
1. 1 quart mineral oil
2. 2 tablespoons Camauba wax or bees wax

**Mixing:**
Put 1 and 2 in the top of a double boiler and heat until 2 melts and can be mixed with 1. Then cool and store in glass or plastic bottles.
**Furniture Polish, Lemon Oil**

Ingredients:  
1. 1 quart mineral oil  
2. 1 tablespoon lemon extract  

Mixing: Stir 2 into 1, store in glass or plastic bottle.

**Furniture Beauty Treatment**

Use this to clean and restore wood furniture (not paint or shellac). It will disguise scratches, remove dullness, and restore oils.

In the top of an old double boiler or in a two-quart can, add:  
3 tablespoons boiled linseed oil (buy it as such)  
2 tablespoons turpentine  
1 quart hot water

Place over hot water until the moisture is as warm as a gloved hand can stand. For best results, provide a means for keeping the solution hot while it is being used. Dip in a soft, clean cloth into the solution. Lift it out and squeeze until it does not drip. Go over an area no larger than about 1 by 2 feet, redipping the cloth in the hot solution, squeezing it until it does not drip, and washing until the area is clean. Follow immediately with a clean, dry, absorbent cloth until all oil is removed. Boiled linseed oil allowed to remain on the wood will become tacky. Continue until the entire piece has been cleaned. The solution not only cleans woods, it also protects the finish. The hot water and turpentine removes the soil and the boiled linseed oil lubricates the wood, thus preventing hairline checks in the finish. It also makes checks already in the wood less noticeable.