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REFINISHING WOOD FURNITURE

The Bureau receives numerous requests from the public for information on how to refinish furniture, particularly around the home. The purpose of this letter circular is to present general information on the subject, especially for the amateur.

The finish on wood furniture may be conveniently grouped in two classes: I - Opaque Finishes and II - Transparent Finishes.

I - Opaque finishes are paints. When the old finish is only disfigured by adhering dirt, the surface can be cleaned and roughened with No. 1 sandpaper, wiped clean with a cloth moistened with turpentine and repainted with the desired kind of varnish vehicle paint. If the coating is cracked or flaking off, the safest plan is to remove the old finish.

The old finish may be removed by either of the following general types of removers: (1) organic solvent type and (2) alkali type. The organic solvent type remover usually consists of a mixture of alcohol, benzol and acetone to which is added a small amount of paraffin. This type of remover is highly inflammable, and all residual paraffin must be removed by cleaning the wood surface with a cloth pad saturated with either turpentine, mineral spirits, or alcohol before applying the new finish. It does not injure the wood and it is generally preferred. The alkali type remover consists of a 5 percent (approximately) solution of caustic soda (concentrated lye) with or without the addition of a small amount of unslaked lime. This type of remover will raise the grain of the wood, often discolor it and unless well washed out of the wood may injure new coats of either paint or varnish.

One coat of a varnish vehicle priming paint can be followed by eggshell flat finish varnish vehicle paints which may give the desired appearance, but if desired a gloss enamel paint can follow the flat finish coat.

II - Transparent finishes include a variety of varnishes, lacquers, oils, wax, etc.

Since wood darkens with age, it is often desirable to bleach it.

The common bleaches for wood are sodium hypochlorite or hot saturated solutions of oxalic acid. However, there are a number of commercial bleaches available which are used in connection with wood finishing, including the popular maple finishes. The popularity of blond finishes for furniture has encouraged several new developments in bleaching compounds, treatments and coatings designed to produce permanently attractive light-colored finishes at reasonable cost.

If the wood, either natural or bleached, is to be stained or filled, this operation should take place before applying the varnish. Stain is usually applied directly to the clean, bare wood. After this is dry, the filler is applied. For open-grained wood, such as oak, paste wood filler is used. The manufacturer's directions should be followed. On close-grained wood, such as maple, a liquid wood filler may be used or the varnish may be applied directly. Sometimes a "sealer", for example a thin coat of shellac varnish, is applied after staining and filling.

The following is a typical finish on dining and living room furniture, bedroom suites, etc.:

- 1 coat of stain
- 1 coat of filler (on open-grained wood)
- 1 coat of shellac
- 2 or more coats of varnish

Finishes used on kitchen furniture, etc., may be as follows:

- 1 coat of stain
- 1 coat of sealer (shellac for example)
- 1 coat of varnish

For dull and mission finishes, the following may be used:

- 1 coat of stain
- 1 coat of shellac
- 1 coat of dull drying varnish

Oleoresinous varnishes of the polishing, rubbing or cabinet type are considered satisfactory for refinishing. These varnishes dry to a high gloss finish and should not dull or obscure the grain of the wood. Dull, matt or velvety sheen finishes may be obtained by rubbing to varying degrees the dried varnish film with a paste of pumice or rottenstone in either oil or water. Varnishes which dry to a lusterless or dull finish may be procured in paint stores.

Linseed oil mixed with turpentine and drier may be used quite satisfactorily for refinishing. The pores of the wood are filled with successive applications of the mixture. The excess coating of oil should be wiped off at the end of approximately one hour, and several days' drying time allowed between applications. Such a finish may then be waxed to produce a soft velvety sheen.

For filling cracks and holes in the least noticeable way, furniture men use stick shellac which resembles sealing wax in appearance and is sold in a variety of colors at the larger paint stores.

The whitish and misty cast that sometimes appears on varnished furniture may be removed by wiping with a mixture of one tablespoonful of cider vinegar in a quart of water, rubbed on with a soft cloth in the direction of the grain and wiped dry. White marks made by hot dishes may sometimes be removed by applying turpentine, allowing it to remain a few minutes, then wiping it dry. Rubbing the mark lightly with linseed oil and powdered rottenstone may be helpful.

American Woods.— The Forest Products Division, Forest Service, Department of Agriculture, Washington, D. C., can furnish a leaflet giving names of the important United States woods, giving first the names adopted by the Forest Service, botanical names in parentheses and then trade names frequently used where such names differ from the Forest Service names. The Forest Products Division also can furnish up-to-date information on the most important woods listed in the above-mentioned leaflet, and can give information about the important furniture woods that do not grow in the United States.

Old Furniture.— Many well-made and originally beautiful pieces of old furniture have been so completely changed in appearance by the frequent application of paint, varnish, dirt, etc., as to bear little resemblance to the original. One of the best sources of information on refinishing these valuable old pieces is contained in Refinishing Old Furniture by Florence E. Wright, Bulletin 295, Cornell Bulletin for Homemakers, published and distributed by New York State College of Agriculture, Ithaca, New York.

The following list of reference books on wood finishing including graining, staining, marbling, polishing, varnishing, shellacking, etc., may be helpful:

The Expert Wood Finisher, by A. A. Kelly, sold by the National Painters Magazine, 59 John Street, New York City.

Painting and Wood Finishing, by W. S. Lowndes, sold by David McKay Co., Philadelphia, Pa.

Coloring, Finishing and Painting Wood, by A. C. Newell,
sold by the Manual Arts Press, Peoria, Ill.

Wood Finishing, Plain and Decorative, by F. N. Vanderwalker,
sold by Frederick J. Drake & Co., Chicago, Ill., and the
National Painters Magazine, 59 John Street, New York City.

Graining, Ancient and Modern, by W. E. Wall, sold by the
American Paint Journal Co., St. Louis, Missouri.

Furniture Finishing, Decoration and Painting, by A. B.
Pattou, and C. L. Vaughn, sold by Frederick J. Drake
& Company, Chicago, Ill.

Refinishing Old Furniture, by Florence E. Wright,
Bulletin 295, New York State College of Agriculture,
Ithaca, New York.