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# LAKE CHARLES WOODWORKERS CLUB, INC.

John Marcon, President

Bob Ferguson, Treas. & Newsletter Editor

AUGUST 1997

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## MEETING HIGHLIGHTS

The July meeting was held at the Calcasieu Public Library with 23 persons attending.

Our speaker was Buddy Robison of Cal Cam Cabinets who brought us new insights into the nature of rotary cutting devices.

Do you know what a hook angle is, or understand cutting and relief angles? Well, Buddy helped us to come to grips with the terminology and to appreciate the characteristics of the equipment we use. He discussed shapers, planers, saw blades and router bits and pointed out their commonality and some misconceptions.

Although our experience with a cutting angles may have its foundation in chisel sharpening (John Marcon gave us a good tutorial on the subject at an earlier meeting), where a 30 degree angle is used for soft woods and 25 degrees for hard woods, for rotating equipment cut quality improves when there is a shift from a shearing to a scraping action. Thus a cutting angle over 20 degrees is not recommended except for special conditions. The included table on page 2 demonstrates the angles considered appropriate for a variety of woods.

Buddy Robison discussed the proper cutting angles for molding cutters and planers and the technique used to modify standard knives to achieve these angles. He also included comments on

- planner speed to achieve desired smoothness,
- hook angle for carbide rotary saws, and
- router bit profiles.

For those who would like to learn more about this subject, the book entitled "Knife Grinding & Woodworking Manual" by Charles G. Monnett, Jr. can be purchased from the

Charles G. G. Schmidt & Co., Inc.  
301 West Grand Ave.  
Montvale, NJ 07645-1869  
1-800-544-2447 or 1 201 -391-5300

## CHRISTMAS TOYS

Joe DeBeir provided cutout patterns for use in making puzzles. Extra copies are available from Bob Ferguson, the newsletter editor. The president noted that sets of wooden blocks are very popular with children and suggested that individuals may wish to make these items.

All participating members are reminded that any toy must be made so that it does not provide a hazard to a child. This requires that sharp edges or points be removed and that there not be any very small parts which a child could swallow (under 1 3/4" in diameter).

## FOR SALE

Dudley Harvey still has a few items for sale which include the small tools, special items and a variety of good woodworking books (listed separately).

**Skill 16" Scroll Saw w/bench \$110.00**

Please contact Dudley Harvey at 478-9058

## NEXT MEETING

August 9, 1997, @ 9:00 am at the  
Calcasieu Parish Public Library  
301 W. Claude  
Lake Charles, LA

**Subject: - Plywoods & Lumber  
Grading**

## FUTURE MEETINGS

Sept. 13 - Finishes & Antiques  
Oct. 22 - Wed. Evening - A Demo  
of DeWalt Power Tools  
Nov. 8 - Toys Work Session



## CUTTING ANGLES

( For Kiln Dried Wood )

Ash	15	Hickory	5
Basswood	10	Mahogany	10
Beach	10	Maple	5
Birch	10	Oak	10
Cedar	5	Oak Qtr.	10
Cherry	10	Pine Yel.	20
Chestnut	5	Pine White	25
Cottonwood	5	Pine Ponderosa	25
Cypress	5	Poplar	30
Elm Hard	0	Redwood	5
Elm Soft	5	Spruce	20
Fir	10	Sycamore	5
Gum	20	Walnut	5
Hemlock	15		

## SHOW AND TELL

A significant part of membership in the Lake Charles Woodworkers Club is participating in the total club effort. There are several ways to accomplish this:

1. You could host a meeting in your shop (provided it is large enough), or you could help us to find a more permanent location which would permit demonstrations as well as lectures.
2. You might be a speaker on a subject on which you have knowledge and experience, or you might demonstrate a special tool or woodworking technique.
3. You could help us locate and obtain a person who could put on a program for us.
4. You can share with the club members by participating in our Show & Tell times. Show us some of your creations or tell us of a special tool or experience which might be helpful to a fellow club member.
5. Volunteer to help with some of the many tasks which are required to support the functioning of this growing organization.

Call John Marcon or one of the other officers and volunteer your support. Your offer will be appreciated and you will receive tremendous enjoyment through the increased involvement.

## SANDPAPER

The August 1997 issue of **Fine Woodworking** contained an article by Strother Purdy entitled "**Making Sense of Sandpaper**" which contains much useful information, some of which is covered below (*obviously in a somewhat superficial manner*). If you do not already receive the publication, you might wish to borrow someone's copy.

- Swarf, the fine dust-like particles generated by sanding.

- The nature of abrasive particles.
- Open coat versus closed coat.
- Non-loading or steartated papers.

## ABRASIVE MATERIALS

**Aluminum oxide** is a sharp and blocky mineral. It is the most common, all-purpose woodworking abrasive. It is the only abrasive material that fragments under the heat and pressure generated by sanding wood. This friability is highly desirable because as you sand, its cutting edges are constantly renewed, staying sharp and cutting longer than other minerals. Aluminum oxide is considered the longest lasting and most economical mineral. Unfortunately, there is considerable variability in the particle hardness and some of the cheaper sandpapers may not perform as expected.

**Silicon carbide** is black and iridescent, and the grains are star-shaped. Unlike aluminum oxide, there is only one kind of silicon carbide. It is harder and sharper than most aluminum oxides, making it the better choice for cutting hard materials, such as finishes, paint, plastic and metal. Though it is a friable mineral, it is so hard that sanding wood will not cause it to fragment and renew its cutting edges.

**Ceramics** come in a wide variety of shapes, from blocks and heavy wedges to flake-like shards. They're all more common than other abrasive minerals, but all of them are very tough and very aggressive. Like silicon carbide ceramics are not friable, and do not renew their cutting edges when sanding wood. they are, however, the best choice for hogging off stock, roughing out shapes and removing finish and leveling uneven boards. For this reason they are generally available only in coarse-grit cloth belts for stationary and portable sanders.

**Garnet** is the only natural abrasive mineral still widely used for woodworking. Like aluminum oxide, it is blocky in shape. Unlike aluminum oxide, it is non-friable, not very tough and dulls quickly. this is not necessarily a defect. The softer cut of a garnet paper, though slow, will produce the smoothest finish of all abrasives within a given grit size. Because it is so soft, garnet will not leave pigtail-like scratches the way an aluminum oxide will when used on a random orbit sander. Garnet is an excellent choice for final sanding end grain and blotch-prone wood. Also, because of its tendency to burnish wood -close off pores- makes stain penetrate more evenly though less deeply.

## ABRASIVE GRADING

Did you realize that there we have three major abrasive grit-grading systems? In North America the **Coated Abrasives Manufacturers Institute** regulates the U.S. Standard Scale (CAMI). The CAMI-graded



sandpapers simply have numbers, such as 320, printed on them. The rating indicates the number of abrasive particles per square inch.

The Europeans have the **P-scale**, regulated by the **Federation of European Producers Association (FEPA)**. These abrasives are identified by the letter P in front of the grit size, such as P320.

Finally, there is the micron grading system (used in Canada) where the grit is identified by the letter mu, as in 30 $\mu$ , which indicates the average size of the abrasive particle.

<b>CAMI</b> (U.U. Std.)	<b>FEPA</b> (P-Scale)	<b>Micron</b> $\mu$
1,200		5
1,000		9
800		
600	1,200	15
500	1,000	
400	800	20
360	600	
		30
	500	
	400	
320		40
	360	
280		45
	320	50
	280	
240		60
	220	
220		
180	180	
		80
150		
	150	
	100	
120		
	120	
100		150
	100	
		180
80		
	80	
	60	
60		
	50	
50		
	40	
40		

Books available from Dudley Harvey's collection. Prices \$0.50 to \$14.00 .

### HOW TO BOOKS

- Handtool Handbook - DeCristoforo
- Complete Book of Power Tools DeCristiforo
- Routing & Shaping - Rodale Book
- You Can Whittle & Carve
- How to Build Fences & Gates
- How to Build Patio Roofs
- How to Build Decks
- How to Build Outside Projects
- How to Use Handtools
- How to Plan Your Home Workshop
- Guide to Sharpening
- Router & Jig Techniques
- Complete Router Workshop
- Household Repairs
- Be Your Own Plumber
- Small Appliance Repair Guide
- Drafting Made Simple
- Cabinetry (Hardcover - new)

### CARPENTRY

- Carpentry - DeCristoforo
- Fundamentals of Carpentry #1
- Fundamentals of Carpentry #2
- Roof Construction & Rafter Lengths
- Basic Carpentry
- ABC of the Steel Square
- Audel's Carpentry Guide #2
- Audel's Carpentry & Building
- Concrete & Masonry Projects
- Blue Book of Math
- Math Made Simple

### PLANS & PROJECTS

- New Yankee Workshop
- Country Furniture
- Contry Woodworking Craft Book
- Building Early American Furniture
- Creative Woodturning
- Advanced Woodworking & Furniture Making
- Simple Colonial Furniture
- Popular Science Woodworking Projects
- Making Musical Instruments
- Contemporary Woodworking Projects
- Making Wooden Toys
- Toys You Can Build
- Forgotten Arts (Wooden Toys)



## SHARE MAGAZINES

Dudley Harvey plans to bring his collection of the Woodsmith magazine to the next meeting and offer them (free) to members. In addition to special tips & techniques, these books contain detailed plans for a wide variety of woodworking projects, one of which you just might be interested in undertaking.

If you have older copies of other magazines, you also might wish to share them with club members.

Lake Charles Woodworkers Club  
c/o Bob Ferguson  
2326 22nd Street  
Lake Charles, LA 70601

## TOOL TIP : FINE SCRAPER

What do you do about a hair or a speck of dust or a bristle from a brush in a dry finish? How can you get that stuff off without ruining the finish? Use a utility blade knife.

But don't cut the stuff off -- scrape it off. When using a fresh utility knife blade like a scraper, most types of imperfections can be corrected. To use a blade as a scraper, first let the surface dry at least 24 hours. Otherwise you risk pulling the finish off the wood.

Then, to remove hairs and bristles, hold the blade in your fingers like a cabinet scraper. Now lightly scrape with the grain until the flaw is removed and the finish is smooth. Since the scraper blade doesn't have a "hook" on the edge like a cabinet scraper, it removes very little material on each pass.

The procedure also works for removing runs in the finish. Gradually wear down the surface -- don't try to cut the runs off. If you're going to try this, first grind the sharp points off the ends of the blade so you don't accidentally gouge the finish.



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