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**CALENDAR FOR 1938**

JANUARY							FEBRUARY							MARCH										
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S				
			1	2	3	4			2	3	4	5	6	7	8			2	3	4	5	6	7	8
5	6	7	8	9	10	11	9	10	11	12	13	14	15	9	10	11	12	13	14	15				
12	13	14	15	16	17	18	16	17	18	19	20	21	22	16	17	18	19	20	21	22				
19	20	21	22	23	24	25	23	24	25	26	27	28	23	24	25	26	27	28	29					
26	27	28	29	30	31								30	31										

APRIL							MAY							JUNE									
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S			
			1	2	3	4	5				1	2	3				1	2	3	4	5	6	7
6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14			
13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21			
20	21	22	23	24	25	26	16	17	18	19	20	21	22	22	23	24	25	26	27	28			
27	28	29	30	26	27	28	29	30	31	29	30												

JULY							AUGUST							SEPTEMBER							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
			1	2	3	4	5				1	2				1	2	3	4	5	6
6	7	8	9	10	11	12	3	4	5	6	7	8	9	7	8	9	10	11	12	13	
13	14	15	16	17	18	19	10	11	12	13	14	15	16	14	15	16	17	18	19	20	
20	21	22	23	24	25	26	17	18	19	20	21	22	23	21	22	23	24	25	26	27	
27	28	29	30	31	24	25	26	27	28	29	30	28	29	30							

OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4				1				1	2	3	4	5	6	
5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13
12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20
19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27
26	27	28	29	30	31	23	24	25	26	27	28	29	28	29	30	31				



**CALENDAR FOR 1939**

JANUARY							FEBRUARY							MARCH												
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S						
			1	2	3	4				1	2	3	4	5	6	7				1	2	3	4	5	6	7
5	6	7	8	9	10	11	8	9	10	11	12	13	14	8	9	10	11	12	13	14						
12	13	14	15	16	17	18	15	16	17	18	19	20	21	15	16	17	18	19	20	21						
18	19	20	21	22	23	24	22	23	24	25	26	27	28	22	23	24	25	26	27	28						
25	26	27	28	29	30	31								29	30	31										

APRIL							MAY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4				1	2				1	2	3	4	5	6
5	6	7	8	9	10	11	3	4	5	6	7	8	9	7	8	9	10	11	12	13
12	13	14	15	16	17	18	10	11	12	13	14	15	16	14	15	16	17	18	19	20
19	20	21	22	23	24	25	17	18	19	20	21	22	23	21	22	23	24	25	26	27
26	27	28	29	30	24	25	26	27	28	29	30	28	29	30						

JULY							AUGUST							SEPTEMBER							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
			1	2	3	4				1				1	2	3	4	5			
5	6	7	8	9	10	11	2	3	4	5	6	7	8	5	6	7	8	9	10	11	12
12	13	14	15	16	17	18	9	10	11	12	13	14	15	12	13	14	15	16	17	18	19
19	20	21	22	23	24	25	16	17	18	19	20	21	22	19	20	21	22	23	24	25	26
26	27	28	29	30	31	23	24	25	26	27	28	29	26	27	28	29	30				

OCTOBER							NOVEMBER							DECEMBER										
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S				
			1	2	3	4				1	2	3	4	5	6				1	2	3	4	5	6
5	6	7	8	9	10	11	8	9	10	11	12	13	14	7	8	9	10	11	12					
12	13	14	15	16	17	18	15	16	17	18	19	20	21	13	14	15	16	17	18	19				
19	20	21	22	23	24	25	22	23	24	25	26	27	28	20	21	22	23	24	25	26				
26	27	28	29	30	31	29	30	27	28	29	30	31												

SHEDD-BROWN U.S.A. MINNEAPOLIS

# HOME HANDBOOK



**SHEDD-BROWN**  
MINNEAPOLIS  
Calendars  
Advertising Specialties  
and Gifts

Sample of Home Handbook

Wood  
Wood, Ge.  
Wood Joints.  
Wood Screws

100 @ 27<sup>8</sup> = 27.75  
250 @ 237 = 59.25  
500 @ 222 = 111.00  
1000 @ 214 = 212.00

# THE HOME HANDBOOK

Designed especially for you, the after-hours mechanic, the do-it-yourself craftsman, this little book contains a wealth of valuable, timely information plus several pages for your special project notes. It explains a little about basic tools and common materials, and it tells how to make a few simple home repairs and improvements.

We present it with the sincere hope that it will help you make your home more comfortable and attractive for the entire family.

Look thru it now!

—This Handbook Belongs to—

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Tel. No. \_\_\_\_\_



## LUMBER GRADES

Always buy lumber according to grades! Buy the cheapest grade that will serve your purposes . . . and don't get No. 1 Clear to make a packing crate.

### SELECT LUMBER

**1 & 2 Clear, Firsts & Seconds, or B & Better**—All about the same. Highest quality, free of blemishes. Used for finest cabinet work.

**C Select**—May have a few sound knots or minor imperfections. One side is often clear.

**D Select**—Lowest of finishing grades. A fine all-purpose wood for the workshop.

### COMMON OR BOARD LUMBER

**No. 1**—A good, general purpose wood. May have some small, but sound knots. Takes paint well.

**No. 2**—All-around utility grade. Usually used for flooring or wall paneling.

**No. 3**—May have some knot holes, a little pitch, and season checking.

**No. 4**—Lowest grade usable for general household projects. Good for temporary structures.

**No. 5**—Cheapest and poorest grade available. Suitable only for rough work, like packing crates.

S1E—surfaced one edge; S2E—surfaced two edges; S1S1E—surfaced one side, one edge; S2S1E—surfaced two sides, one edge; S4S—surfaced four sides.

## HOW TO CORRECT LUMBER DEFECTS

### CUPPING



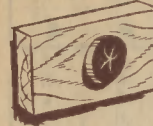
This defect can often be corrected by wetting the concave side of the board, covering it with wet rags, and letting it set over night in a warm room. The swelling usually straightens the board.

### BOWING



A warped or bowed board can be straightened by supporting it at each end, piling the center with weights (not too heavy, though), and letting it stand that way for a while.

### LOOSE KNOTS



Simply knock out the knot, coat its edge with a cellulose cement, reposition the knot, wipe off the excess cement, and allow to dry for a couple of hours.

## PLYWOOD PANELING

Here are the grades of interior fir plywood: **A** is the finest quality; **B** is smooth and paintable but may have some small knots or slight defects; **C** has small knot holes and tight knots; **D** will have larger knot holes, pitch pockets, splits, or patches.

Name	Face	Back	Uses
Interior A-A	A	A	Wherever both sides will show, especially where natural finishes are used: cabinet doors, built-ins, furniture.
Interior A-B	A	B	More economical alternate for A-A; just about as good, particularly if one side is painted or doesn't show much.
Plypanel	A	D	Standard for paneling where only one side is to show, as on walls and ceilings.
Plybase	B	D	Mostly used as backing for paneling, but also makes a good low-cost wall or ceiling.
Plyscord	C	D	Unsanded. Used mainly as backing or sheathing.

## GENERAL WOOD CHARACTERISTICS

1. Degree of Workability with Hand Tools; 2. Tendency to Warp; 3. Tendency to Shrink or Swell; 4. Relative Hardness; 5. Comparative Weight.

Wood	1	2	3	4	5
Black Ash	L	I	H	H	I
White Ash	L	I	I	H	H
Basswood	H	I	H	L	L
Beech	L	H	H	H	H
Yellow Birch	L	I	H	H	H
Eastern Red Cedar	I	L	L	H	H
Western Red Cedar	H	L	L	L	L
Northern White Cedar	H	L	L	L	L
Southern White Cedar	H	L	L	L	L
Cherry	L	L	I	H	I
Chestnut	I	L	I	I	I
Cottonwood	I	H	H	L	I
Southern Cypress	I	I	I	I	I
Rock Elm	L	I	H	H	H
Soft Elm	L	H	H	H	H
Balsam Fir	I	I	I	L	L
Douglas Fir	L	I	I	L	L
White Fir	I	I	I	L	L
Red Gum	I	H	H	I	I
Eastern Hemlock	I	I	I	I	I
Western Hemlock	I	I	I	I	I
Pecan Hickory	L	I	H	H	H
True Hickory	L	I	H	H	H
Western Larch	L	I	I	H	H
Black Locust	L	I	I	H	H
Honey Locust	L	I	I	H	H
Mahogany	I	L	I	H	H
Hard Maple	L	I	H	H	H
Soft Maple	L	I	I	H	H
Red Oak	L	I	H	H	H
White Oak	L	I	H	H	H
Ponderosa Pine	H	L	I	L	I
Arkansas Soft Pine	H	L	L	L	L
Sugar Pine	H	L	L	L	L
Northern White Pine	H	L	L	L	L
Western White Pine	H	L	I	L	I
Southern Yellow Pine	L	I	I	H	H
Yellow Poplar	H	L	I	L	I
Redwood	I	L	L	I	I
Eastern Spruce	I	L	I	L	I
Englemann Spruce	I	L	I	L	L
Sitka Spruce	I	L	I	L	I
Sycamore	L	H	H	H	H
Tupelo	L	H	I	H	H
Walnut	I	L	I	H	H

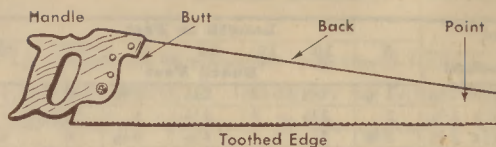
H—High I—Intermediate L—Low

## BOARD MEASURE

Size	Actual	Length in Feet						
		8	10	12	14	16	18	20
1x 2	1 1/8 x 1 5/8	1 1/8	1 3/8	2	2 1/8	2 3/8	3	3 1/8
1x 3	1 1/8 x 2 3/8	2	2 1/2	3	3 1/2	4	4 1/2	5
1x 4	1 1/8 x 3 5/8	2 3/8	3 1/8	4	4 3/8	5 1/8	6	6 3/8
1x 6	1 1/8 x 5 5/8	4	5	6	7	8	9	10
1x 8	1 1/8 x 7 1/2	5 1/2	6 3/8	8	9 1/8	10 3/8	12	13 1/8
1x10	1 1/8 x 9 1/2	6 3/8	8 1/8	10	11 3/8	13 1/8	15	16 3/8
1x12	1 1/8 x11 1/2	8	10	12	14	16	18	20
1x14	1 1/8 x13 1/2	9 1/8	11 3/8	14	16 3/8	18 3/8	21	23 1/8
1x16	1 1/8 x15 1/2	10 3/8	13 1/8	16	18 3/8	21 1/8	24	26 3/8
2x 2	1 3/4 x 1 3/4	2 3/8	3 1/8	4	4 3/8	5 1/8	6	6 3/8
2x 3	1 3/4 x 2 3/4	4	5	6	7	8	9	10
2x 4	1 3/4 x 3 3/4	5 1/8	6 3/8	8	9 1/8	10 3/8	12	13 1/8
2x 6	1 3/4 x 5 3/4	8	10	12	14	16	18	20
2x 8	1 3/4 x 7 1/2	10 3/8	13 1/8	16	18 3/8	21 1/8	24	26 3/8
2x10	1 3/4 x 9 1/2	13 1/8	16 3/8	20	23 1/8	26 3/8	30	33 1/8
2x12	1 3/4 x11 1/2	16	20	24	28	32	36	40
2x14	1 3/4 x13 1/2	18 3/8	23 1/8	28	32 3/8	37 1/8	42	46 3/8
2x16	1 3/4 x15 1/2	21 1/8	26 3/8	32	37 1/8	42 3/8	48	53 1/8
3x 3	2 1/4 x 2 3/4	6	7 1/2	9	10 1/2	12	13 1/2	15
3x 4	2 1/4 x 3 3/4	8	10	12	14	16	18	20
3x 6	2 1/4 x 5 3/4	12	15	18	21	24	27	30
3x 8	2 1/4 x 7 1/2	16	20	24	28	32	36	40
3x10	2 1/4 x 9 1/2	20	25	30	35	40	45	50
3x12	2 1/4 x11 1/2	24	30	36	42	48	54	60
3x14	2 1/4 x13 1/2	28	35	42	49	56	63	70
3x16	2 1/4 x15 1/2	32	40	48	56	64	72	80
4x 4	3 1/4 x 3 3/4	10 3/8	13 1/8	16	18 3/8	21 1/8	24	26 3/8
4x 6	3 1/4 x 5 3/4	16	20	24	28	32	36	40
4x 8	3 1/4 x 7 1/2	21 1/8	26 3/8	32	37 1/8	42 3/8	48	53 1/8
4x10	3 1/4 x 9 1/2	26 3/8	33 1/8	40	46 3/8	53 1/8	60	66 3/8
4x12	3 1/4 x11 1/2	32	40	48	56	64	72	80
4x14	3 1/4 x13 1/2	37 1/8	46 3/8	56	65 1/8	74 3/8	84	93 1/8
4x16	3 1/4 x15 1/2	42 3/8	53 1/8	64	74 3/8	85 1/8	96	106 3/8
6x 6	5 1/2 x 5 1/2	24	30	36	42	48	54	60
6x 8	5 1/2 x 7 1/2	32	40	48	56	64	72	80
6x10	5 1/2 x 9 1/2	40	50	60	70	80	90	100
6x12	5 1/2 x11 1/2	48	60	72	84	96	108	120
6x14	5 1/2 x13 1/2	56	70	84	98	112	126	140
6x16	5 1/2 x15 1/2	64	80	96	112	128	144	160
8x 8	7 1/2 x 7 1/2	42 3/8	53 1/8	64	74 3/8	85 1/8	96	106 3/8
8x10	7 1/2 x 9 1/2	53 1/8	66 3/8	80	93 1/8	106 3/8	120	133 1/8
8x12	7 1/2 x11 1/2	64	80	96	112	128	144	160
8x14	7 1/2 x13 1/2	74 3/8	93 1/8	112	130 3/8	149 1/8	168	186 3/8
8x16	7 1/2 x15 1/2	85 1/8	106 3/8	128	149 1/8	170 3/8	192	213 1/8
10x10	9 1/2 x 9 1/2	66 3/8	83 1/8	100	116 3/8	133 1/8	150	166 3/8
10x12	9 1/2 x11 1/2	80	100	120	140	160	180	200
10x14	9 1/2 x13 1/2	93 1/8	116 3/8	140	163 1/8	186 3/8	210	233 1/8
10x16	9 1/2 x15 1/2	106 3/8	133 1/8	160	186 3/8	213 1/8	240	266 3/8



## HAND SAWS



On a good saw the blade thickness tapers from toothed edge to back, and from butt to point along back . . . but toothed edge is same thickness along entire length!

## THE CROSS-CUT SAW



This type saw is distinguished by its sharp-pointed, knife-like cutting teeth. It's designed for cutting across or against the wood grain . . . here are some tips on its use.

1. If work is too large for vise, support it on two, equal height saw horses. Cut outside area they occupy to avoid having the wood pinch the saw and cause splits.



2. If nature of work permits, it's best to have wood grain placed as shown to avoid possible splintering.



3. Start saw cut, or kerf, near butt of saw with a few short and slow strokes back and forth. Use your thumb as a guide, but be careful!



4. Here's proper position for cross-cut sawing . . . note imaginary line thru saw, arm and shoulder would be slightly to left of saw blade . . . also note left knee on work. Use full length strokes pivoted at shoulder and elbow without twisting body. Slight pressure on both forward and back stroke is good practice as a cross-cut saw actually cuts both ways!



5. For best results maintain a 45° angle between saw and face of work.



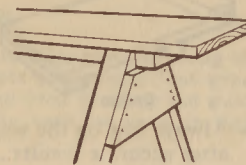
## THE RIP SAW



CUTTING TEETH

This type saw is distinguished by its square, chisel-shaped cutting teeth. It's designed for cutting along or with the wood grain . . . here are some tips on its use.

1. Small work should be held in a wood vise; medium cuts on larger boards may be made on a saw horse as shown; and lengthy cuts should be made with board supported between two equal height saw horses.



2. Start the cutting with short back strokes begun at the tip of the saw where the teeth are closer together. Use your thumb as a guide . . . but be careful!



3. Here's proper position for rip sawing . . . note that head is well above work so as to get a good line on saw blade and marking . . . note also that right knee is on work (compare with cross-cut sawing). Use long, full length strokes . . . and don't use any downward pressure on the back stroke as a rip saw cuts only on the forward stroke.



4. When rip sawing a long board, after the saw cut has gone a few feet, it may close sufficiently to cause the saw to bind. To avoid this simply insert a wedge or screwdriver at the start of the cut.



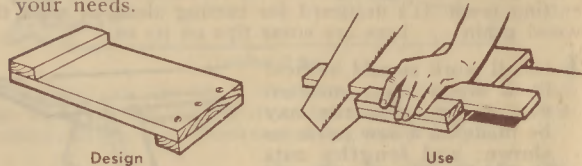
5. For best results maintain a 60° angle between saw and face of work. For real thin board sawing this angle may be reduced to 45°.



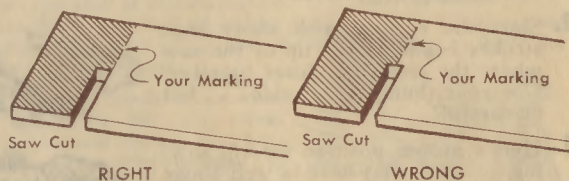
## GENERAL POINTERS

1. The first step toward good sawmanship is accurate and careful measurement and layout work. Always use a good try square and marking gauge. For relatively rough work, pencil markings are satisfactory, but for accurate work you should use a scratch awl or knife blade.

2. All pieces to be sawed must be held securely! Oftentimes small work may be held securely enough just by hand. A bench hook is a great convenience for this purpose. Dimensions, of course, may be varied to fit your needs.

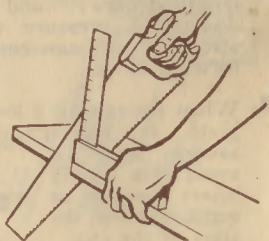


3. Always saw on the waste side of your marking if you're after accurate results . . . never saw right on the line.



4. Always use as long saw strokes as possible. Short ones utilize only the middle section of the blade and cause uneven wear . . . they also cause the saw to get dull quicker.

5. To help you make a good right angle cut, check the saw blade frequently during the cut with a try square.



6. When cutting old wood or doing repair work sawing, always check the lumber thoroughly to be sure there are no nails in the way.

7. Saws must be stored carefully so their cutting teeth do not come in contact with other tools or saws. Hanging them on wall nails is an effective system. To prevent moisture from ruining and rusting a saw, keep a film of light oil on the blade all the time; at the first sign of any rust, rub it off immediately with fine emery cloth and oil. You can also increase the useful life of a saw by keeping it sharp all the time.

## CIRCULAR SAWS

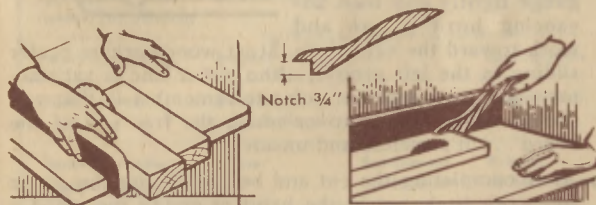
A power-driven circular saw is the basic machine in any woodworking shop . . . it's the king of power tools! If you haven't one now, you're probably planning to get one as soon as possible . . . so this information will be of considerable interest to you!

### RIPPING

1. Starting a ripping cut—one made lengthwise along the grain of the board—is a simple procedure. Just grasp the wood with both hands and feed it along the guide fence into the saw blade. Be sure to keep it tight against the guide fence.



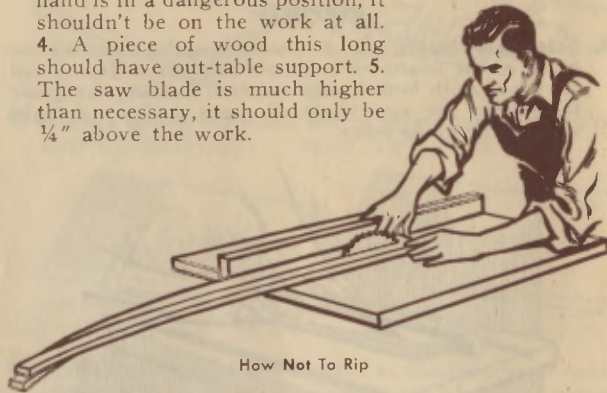
2. When you get fairly close to the blade, remove your left hand and finish that cut with your right . . . providing it is wider than 3"! If the cut is narrower, use a "push stick" to finish the cut. A good "push stick" can be made by notching half of a wooden clothes hanger.



3. Short and medium length pieces may be finished simply by pushing them right off the table. Long pieces should be supported on out-tables or rollers to keep them from tipping up before the cut is finished; they are often pulled thru from the back side of the saw. If the waste stock is of such a size that it doesn't fall off the saw table by itself, be very careful that you don't touch it until the saw has stopped completely.



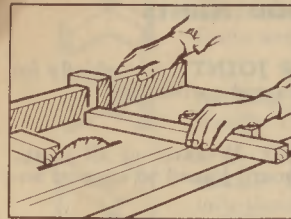
4. Here's a sketch with five common sawing errors . . . can you spot 'em? Watch these points carefully! 1. Half-rolled sleeves or other loose clothing is dangerous around any machinery. 2. The ripping cut is less than 3" wide so the work should have been fed with a "push stick." 3. The left hand is in a dangerous position, it shouldn't be on the work at all. 4. A piece of wood this long should have out-table support. 5. The saw blade is much higher than necessary, it should only be 1/4" above the work.



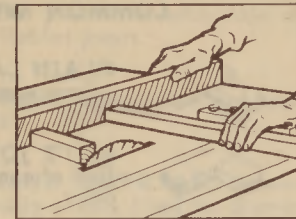
How Not To Rip

### CROSSCUTTING

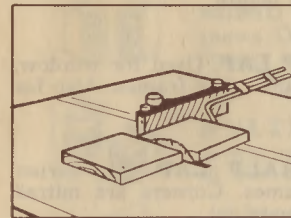
1. Crosscutting — sawing a board against its grain — is done simply by holding the work up against the miter gauge tightly and then advancing both gauge and work toward the saw blade. Most woodworkers prefer sliding in the left groove, altho either one is satisfactory. A most important point to remember is that you should never hold onto or touch the free end of the board . . . it's useless and unsafe!
2. After completing the cut and before pulling the gauge and work back, get in the habit of giving the wood a little sidewise squeeze to shift it slightly away from the saw blade. Don't touch the waste piece until the saw has stopped.
3. When you must cut several pieces to the same length, make use of a mechanical stop gauge. It is very important to remember that this stop should never bind the free end of the board!



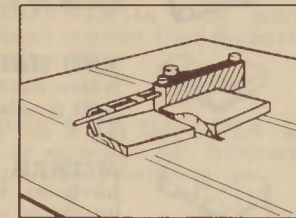
RIGHT



WRONG



RIGHT



WRONG

### CIRCULAR SAW BLADES

The Job	First Choice	Second Choice	Third Choice
Heavy crosscutting, such as studs and timbers for building	8-tooth, carbide-tipped	cutoff	flat-ground combination
Heavy ripping	8-tooth	rip	combination
Light ripping	8-tooth, carbide-tipped	8-tooth or rip	combination or planer
General woodwork-ing and furniture	planer	flat-ground combination	8-tooth, carbide-tipped
Fine cutoff and mitering thin stock	smooth trimmer or miter blade	planer	combination
Plywood and hardboard	8-tooth, carbide-tipped	combination	planer (will dull fast)
Plastics, soft metals	nonferrous-metal-cutting		

## COMMON WOOD JOINTS



**PLAIN LAP JOINT.** Used chiefly for splices, angles and corner laps.



**BUTT JOINT.** Weakest of all joints. End of one board joined to edge of another.



**HALF LAP SPLICE.** For joining two pieces to add length.



**END HALF LAP.** Used for window, screen door and other frames. Also for light panels.



**MITRED HALF LAP.** For corner joints on frames. Corners are mitred instead of square cut.



**CROSS HALF LAP.** For lapping two pieces that cross each other. Adds strength.



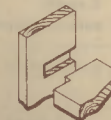
**MIDDLE HALF LAP.** The favorite "T" joint for attaching cross members to frame.



**RABBET JOINT.** End grain concealed from front. Used for making drawers.



**DADO JOINT.** A grooved joint cut across grain. For partitions, shelves, etc.



**STOPPED DADO JOINT.** End of one board notched, groove cut part way through to conceal it from front.



**DOVETAILED DADO JOINT.** Stronger than simple Dado. Requires careful cutting and fitting.



**END DADO JOINT.** Combination of Dado and Rabbet joints.



**MITRE JOINT.** Conceals ends of both boards. Cut at 45°.



**HALF BLIND DOVETAIL.** Dovetails show only at side. Used for drawer fronts.



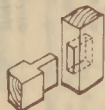
**BLIND DOVETAIL.** Only mitre shows. Difficult to make. Used for finest drawer construction.



**MULTIPLE END DOVETAIL.** When two or more dovetails are wanted. For extra strong construction.



**PLAIN MORTISE AND TENON.** Tenon extends through mortise. Used in making panels.



**BLIND MORTISE AND TENON.** Same as plain, except tenon extends part way through.



**OPEN MORTISE AND TENON.** For frames. Can be used instead of half Lap Splice for lengthening board.



**SINGLE THROUGH DOVETAIL.** More secure than Mitre or Rabbet when joining narrow pieces.



**DOWEL JOINT.** Pieces are anchored by dowel pins, and glued. For fine cabinet work.



**GLUED JOINT.** A Butt joint braced by block. For joining panels, table tops, etc.



## GLUE FACTS

Type Glue	Suitable For	Not Suitable For	Advantages
<b>Liquid, Animal and Fish</b>	furniture and cabinet work, general woodwork items for indoor use only.	outdoor furniture or anything likely to be exposed to water or dampness.	easy to use, sets quickly, light color, strong, fills cracks and gaps in poor joints, resists heat and mold.
<b>Powdered Casein</b>	general woodwork, especially good for oily woods like yew, teak, yellow pine, lemon.	outdoor furniture, pieces subject to mold-producing conditions, or acid woods unless staining isn't important.	strong, fairly water resistant, works up well in cool locations, fills cracks and gaps in poor joints.
<b>Resorcinol</b>	outdoor furniture, boats, and any items that are likely to be soaked with water.	work that must be done at temperatures below 70°.	very strong, waterproof, fills cracks and gaps in poor joints.
<b>Polyvinyl</b>	model and hobby work, small wood assemblies and mending, paper, leather.	anything requiring resistance to stress or water, or high temperature, work involving metal parts.	always ready to use, at any temperature, colorless, quick drying.
<b>Plastic Resin</b>	furniture, veneering, work exposed to dampness.	oily woods, poorly fitting joints, especially if unclamped.	completely waterproof, very strong, leaves light colored joint.
<b>Flake Animal</b>	large quantity woodwork, furniture, indoor pieces.	anything that is to be used or stored in damp areas.	fills cracks and gaps in poor joints, leaves light colored joint.

Type Glue	Disadvantages	Application	Working Temperature	Drying Time	
				Softwood	Hardwood
<b>Liquid Animal and Fish</b>	not water resistant, must be warmed if used in cool location.	spread on both surfaces, allow to get tacky before joining pieces.	sets best above 70°.	12 hrs.	24 hrs.
<b>Powdered Casein</b>	subject to mold, stains woods dark, must be mixed before each use, liquid life is 6-8 hours only.	plan job so glue can be applied, pressure applied, and parts aligned within 15 minutes, apply thick film, wipe off excess.	any temperature above freezing is satisfactory, but the warmer the better.	2 hrs.	4 hrs.
<b>Resorcinol</b>	powder and catalyst must be mixed very carefully, has a dark color, life of mix is only 3-4 hours.	apply thin film to both sides, clamp immediately.	must be 70° or warmer, sets faster at 90°, a heating lamp will speed up setting up to 150°.	8 hrs.	10 hrs.
<b>Polyvinyl</b>	good only for light work, has high cold flow after setting.	comes ready to use, apply and put under pressure at once.	any temperature above freezing is satisfactory, but the warmer the better.	20 min.	30 min.
<b>Plastic Resin</b>	requires a heavy clamping pressure, must be mixed for each use, liquid life is only 3-4 hours.	mixed to consistency of heavy cream, apply thin coat to one side only.	must be 70° or warmer, sets best at 90°.	4-6 hrs.	5-7 hrs.
<b>Flake Animal</b>	inconvenient for quick or occasional use, must be used hot (not over 150°).	for best results warm joints with lamp, coat pieces and assemble quickly before glue jells.	must be 70° or warmer.	12 hrs.	24 hrs.