

## NATIONAL HARDWOOD INSPECTION RULES.

The Chicago Hardwood Lumber Exchange called a meeting of hardwood lumber dealers for the 8th of April last, the chief object being to adopt a system of uniform grading. The meeting resulted in the formation of the National Hardwood Lumber Association, comprising the markets of Cincinnati, Memphis, St. Louis, Chicago, Racine, Milwaukee and Minneapolis, and it is expected that other markets will also become identified with the organization. Uniform inspection rules for the grading of hardwood lumber were adopted, and in view of the importance of the subject, we give some of the rules below:

**STANDARD GRADES.** The standard grades of hardwood lumber are firsts, seconds, commons and culls, except as otherwise specified. When firsts and seconds are combined as one grade, there shall be at least 33 1/3 per cent. of firsts. Lumber below the grade of culls shall be classed as mill culls.

**STANDARD LENGTHS.** The standard lengths are 6, 8, 10, 12, 14, 16, 18 and 20 feet, except as otherwise specified. Most lumber is handled in lengths of 10, 12, 14 and 16 feet. Odd lengths, such as 9, 11 and 13 feet, shall be measured back to the next even length, except when otherwise specified. In the grade of firsts and seconds the lengths are from 10 to 16 feet, but there must not be over 10 per cent. of 10 foot lengths, unless otherwise stated.

**STANDARD THICKNESS.**—The standard thicknesses of lumber are 3/8, 1/2, 3/4, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

**STANDARD DEFECTS.**—One knot 1 1/4 inches in diameter. Two sound knots not exceeding in extent or damage 1 1/4 in. knot. One inch of bright sap, except when otherwise specified. One straight split, not exceeding in length, in inches, the surface measure of the piece in feet, except as otherwise specified. Worm or grub holes not exceeding in extent or damage one 1/4 inch knot, except as otherwise specified. Ordinary season checks are not considered defects. Black stains, heart shakes, rots, dote and unsound knots over 1 1/4 inches in diameter are considered serious defects, reducing to a grade lower than firsts and seconds.

In the following rules all widths and lengths mentioned shall be inclusive.

**SPECIAL INSPECTION.** Log run means the full run of log with mill culls out. Common and better means the full run of the log with culls and mill culls out. Merchantable means the full run of the log with mill culls out, and that the common and better shall be measured full and culls one-half.

**INSPECTION OF LUMBER SAWED FOR SPECIFIC PURPOSES.**—Lumber sawed for specific purposes, such as axles, bolsters, tongues, reaches, etc., must be inspected with a view to the adaptability of the piece for its intended use, because in most cases it cannot be used for other purposes. Such stock shall be inspected clear and culls.

## MAPLE.

Grades: Firsts, Seconds, Commons and Culls.

Widths, 3 inches and up.

Lengths, 6 to 16 feet.

Thicknesses, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

Bright sap is no defect.

Firsts shall be 8 inches and up wide, 12, 14 and 16 feet long, and free from all defects, except in pieces 10 inches and over wide, which may have one sound standard defect.

Seconds shall be 6 inches and over wide, 10 to 16 feet long. Pieces 6 and 7 inches wide are clear. Pieces 8 and 9 inches wide may have one standard defect. Pieces 10 and 11 inches wide may have two standard defects or their equivalent. Pieces 12 inches and over wide may have three standard defects or their equivalent.

Commons are 3 inches and over wide, 8 to 16 feet long; 3 and 4 inch pieces must have one face clear and two square edges; 5 inch pieces one face clear. Pieces 6 inches and over wide must work three-fourths clear in not over two pieces.

Culls are three inches and over wide, 6 to 16 feet long, and include all lumber not equal to the grade of common that will work one-half clear without waste, in not to ex-

ceed three pieces. Pieces 3, 4 and 5 inches wide must be sound.

Maple strips are 2, 4, 5 and 6 inches wide, 6 to 16 feet long.

Grades: Clear, Commons and Culls.

Clear strips are 10 to 16 feet long and must show one face clear and two good edges.

Commons are 8 to 16 feet long, not to exceed 20 per cent. shorter than 12 feet, and will admit of one standard defect showing on both faces.

Culls are 6 feet and over long and shall work one half clear in not more than three cuttings. No cutting to be less than 2 feet in length.

## ROCK ELM.

Grades: Firsts, Seconds, Commons and Culls.

Lengths, 6 to 16 feet.

Widths, 4 inches and over.

Thicknesses, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

Bright sap is no defect.

Firsts and seconds are 4 inches and up wide, 8 to 16 feet long, not to exceed 20 per cent. shorter than 12 feet; 4 and 5 inch pieces must be clear. Pieces 6 inches and up wide must be sound and work 80 per cent. clear in not more than two pieces. The grade of firsts and seconds must have 25 per cent. of clear lumber, 6 inches and up wide and 10 feet and up long. Straight splits the width of the piece will be admitted into the grade of clear.

Commons must be 4 inches and up wide, 6 to 16 feet, not to exceed 20 per cent. shorter than 12 feet, and must work two-thirds clear in not more than three pieces.

Culls must not exceed 40 per cent. less than 12 feet, and work 50 per cent. clear in not more than four pieces.

## SOFT ELM.

Grades: Firsts, Seconds, Commons and Culls.

Lengths, 6 to 16 feet.

Widths, 3 inches and over.

Thicknesses, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

Bright sap is no defect.

Firsts are 8 inches and over wide, 12, 14 and 16 feet long and free from all defects, except in pieces 10 inches and over wide, which may contain one sound standard defect.

Seconds are 6 inches and over wide 10 to 16 feet long. Pieces 6 and 7 inches wide are clear. Pieces 8 and 9 inches wide may have one standard defect. Pieces 10 and 11 inches wide may have two standard defects or their equivalent. Pieces 12 inches and over wide may have three standard defects or their equivalent.

Commons are 4 inches and over wide, 8 to 16 feet long. Four inch pieces must have one face clear and two square edges. Pieces 5 inches wide must have one clear face. Pieces 6 inches and over wide must work three-fourths clear in not over three pieces.

Culls are 3 inches and over wide, 6 to 16 feet long, and include all lumber not equal to the grade of common that will work one-half without waste of sound cuttings in not more than three pieces.

**NOTE.** Black spots or streaks are serious defects, and inspectors shall be careful in estimating their damage. If they are excessive they will reduce the piece one or more grades.

## BEECH.

Grades: Firsts, Seconds, Commons and Culls.

Lengths, 6 to 16 feet.

Widths, 3 inches and over.

Thicknesses, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

Bright sap is no defect.

Firsts are 8 inches and over wide, 12, 14 and 16 feet long, and free from all defects, except in pieces 10 inches and over wide, which may have one sound standard defect.

Seconds are 6 inches and over wide, 10 to 16 feet long. Pieces 6 and 7 inches wide are clear. Pieces 8 and 9 inches wide may have one standard defect. Pieces 10 and 11 inches wide may have two standard defects or their equivalent. Pieces 12 inches and over wide may have three standard defects or their equivalent.

Commons are 3 inches and over wide, 8 to 16 feet long, 3 and 4 inch pieces must have one face clear and two square edges, 5 inch pieces one face clear. Pieces 6 inches and over wide must be of sound character and work three-fourths clear in not more than two pieces.

Culls are three inches and over wide, 6 to 16 feet long, and include all lumber not equal to the grade of common that will work one-half clear, not to exceed three clear cuttings. No piece to be less than 3 inches wide nor less than 2 feet long. Pieces 3, 4 and 5 wide must be sound.

## BIRCH.

Grades: Firsts, Seconds, Commons and Culls.

Lengths, 6 to 16 feet.

Widths, 3 inches and over.

Thicknesses, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

Bright sap is no defect.

Firsts are 8 inches and over wide, 12, 14 and 16 feet long, and free from all defect, except in pieces 10 inches and over wide, which may have one sound standard defect.

Seconds are 6 inches and over wide, 10 to 16 feet long. Pieces 6 and 7 inches wide are clear. Pieces 8 and 9 inches wide may have one standard defect. Pieces 10 and 11 inches wide may have two standard defects or their equivalent. Pieces 12 inches and over wide may have three standard defects or their equivalent.

Commons are 3 inches and over wide, 8 to 16 feet long, 3 and 4 inch pieces must have one face clear and two square edges, 5 inch pieces one face clear. Pieces 6 inches and over wide must be of sound character and work three-fourths clear in not more than two pieces.

Culls are 3 inches and over wide, 6 to 16 feet long, and include all lumber not equal to the grade of common that will work one-half clear, not to exceed three clear cuttings, no piece to be less than 3 inches wide nor less than two feet long. Pieces 3, 4 and 5 inches wide must be sound.

Red birch shall be not less than 75 per cent. red on one side. Four and 5 inch strips shall have one face all red. Otherwise the grade shall be governed by the rules of ordinary birch.

## BASSWOOD.

Grades: Firsts, Seconds, Commons and Culls.

Lengths, 6 to 16 feet.

Widths, 3 inches and over.

Thicknesses, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

Bright sap is no defect.

Firsts are 8 inches and over wide, 12, 14 and 16 feet long and free from all defects, except in pieces 10 inches and over wide, which may contain one sound standard defect.

Seconds are 6 inches and over wide, 10 to 16 feet long. Pieces 6 and 7 inches wide are clear. Pieces 8 and 9 inches wide may have one standard defect. Pieces 10 and 11 inches wide may have two standard defects or their equivalent. Pieces 12 inches and over wide may have three standard defects or their equivalent.

Commons are four inches and over wide, 8 to 16 feet long. Four inch pieces must have one face clear and two clear edges. Pieces 5 inches wide must have one clear face. Pieces 6 inches and over wide must work three-fourths clear in not over three pieces.

Culls are 3 inches and over wide, 6 to 16 feet long, and include all lumber not equal to the grade of common that will work one-half without waste, of sound cutting, in not more than three pieces.

**Note.**—Black spots or streaks are a serious defect, and inspectors shall be careful in estimating their damage. If they are excessive they will reduce the piece one or more grades.

## ASH.

Grades: Firsts, Seconds, Commons and Culls.

Lengths, 6 to 16 feet.

Widths, 3 inches and over.

Thicknesses, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

Bright sap is no defect.

Firsts are 8 inches and over wide, 12, 14 and 16 feet long, and free from all defects, except in pieces 10 inches and over wide, which may contain one standard defect.

Seconds are 6 inches and over wide, 10 to 16 feet long. Pieces 6 and 7 inches wide are clear. Pieces 8 and 9 inches wide may have one standard defect. Pieces 10 and 11 inches wide may have two standard defects or their equivalent. Pieces 12 inches and over wide may have three standard defects or their equivalent.

Firsts and seconds 18 feet and over long will admit of 3 inch widths.

Firsts and seconds will admit of 10 per cent. or 10 foot length.

All tapering lumber 20 feet and over long to be measured one-third of the distance from the narrow end.

Commons are 5 inches and over wide, 8 feet and over long. Five inch pieces must have one face clear. Pieces 6 inches and over wide must be of sound character and work three-fourths clear.

Culls are 3 inches and over wide, 6 feet and over long, and include all lumber not equal to the grade of common that will work one-half without waste.