



Foundations of Woods

**Project Book 1-Chapter 6:
Materials and Fasteners Used in
Projects**

May 14, 2020



9-12 Foundations of Woods
Project Book 1-Chapter 6 : [May 14, 2020]

Objective/Learning Target:

Students will learn about different power tools used for fastening and finishing and how to use them properly.

MATERIALS AND FASTENERS USED IN PROJECTS

What You Now Know

How to safely and effectively operate many common power tools

That a variety of materials are used by carpenters

What You Will Know

What materials are commonly used in the carpentry trade

What fasteners are commonly used in the carpentry trade

LUMBER

PINE

- GRAIN IS STRAIGHT, FINE, AND SMOOTH
- EASY TO CUT AND MACHINE

DOUGLAS FIR

- COLOR RANGES FROM WHITE TO YELLOW-BROWN
- EASILY NAILED, SCREWED, OR GLUED

CEDAR

- RESISTANT TO ROT AND DECAY

OAK

- HARD AND DENSE

LUMBER DEFECTS

LUMBER DEFECTS

KNOTS-SLIGHTLY DISCOLORED OVALS OR CIRCLES

PITCH POCKETS-DISCOLORED AREA

CHECKS-SHORT SEPARATIONS ALONG GROWN RING

SPLITS-SEPARATIONS COMPLETELY THROUGH THE BOARD

DEFECTS CAUSED BY IMPROPER STORAGE

WARP-CURVE ALONG THE FACE, EDGE, OR LENGTH

BOW-WARP FROM END TO END ALONG FACE

CROOK-WARP FROM END TO END ALONG EDGE

CUP-WARP FROM EDGE TO EDGE ALONG FACE

TWIST-WARP ALONG THE LENGTH AND ACROSS THE FACE

ENGINEERED WOOD PRODUCTS

PLYWOOD

-THIN LAYERS OF WOOD GLUED AND STACKED TOGETHER AT RIGHT ANGLES

ORIENTED STRAND BOARD

-LAYERS OF THIN WOOD SHAVINGS

PRESSBOARD

-DENSE PANEL PRODUCT MADE FROM WOOD FIBERS JOINED UNDER HEAT AND PRESSURE

FASTENERS

Nails

- Thin, straight metal shaft with a point at one end
- Nail sizes – 2d to 20d
- Nail points – sharp, rounded, or blunt point
- Nail heads – flat or concave, various sizes
- Nail lengths – 1" to 3 1/2"

FASTENERS AND ADHESIVES

Brads

- used to avoid splitting the grain of the wood

Screws

- cylindrical fasteners with spiral threads

- threads bite into the material

- twisted into wood or other material

Adhesives

- used to bond materials

- yellow wood glue