

L3-MODULE NAME: CAPCJ301 – JOINTS

LU 1: Construct lengthening joints

LU 2: Construct widening joints.

LU3: Construct framing joints

Wooden joint are classified into three categories.

1)Lengthening joints.

2)Widening joints.

3)Angle or Corner joint.

a)Widening joint.

Widening joints are used to join narrow boards *edge to edge* to form a wider board. Once regarded as the only way of obtaining wide panels made from solid timber. These wide panels were required for carcass construction, counter and bench tops also door and wall panelling.

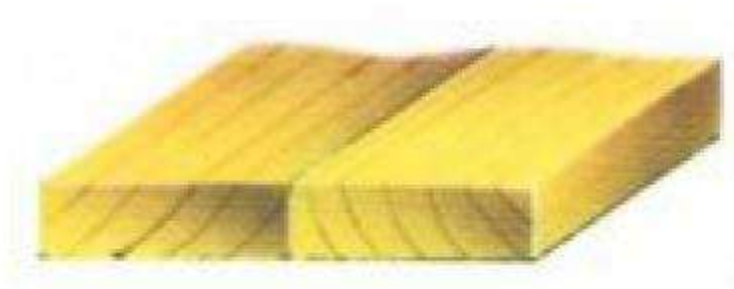
Modern "flat panel products" (particleboard, MDF) have reduced the need for widening joints. However some areas in the industry are having a revival of "colonial" designed

fitments requiring solid timber panel components. E.g.
kitchen cupboards and counter units etc.

TYPES OF WIDINING JOINTS.

Butt Joint

Boards joined using this joint must have edges planed (shot) straight and square then glued and cramped.



Tongue and Groove Joint

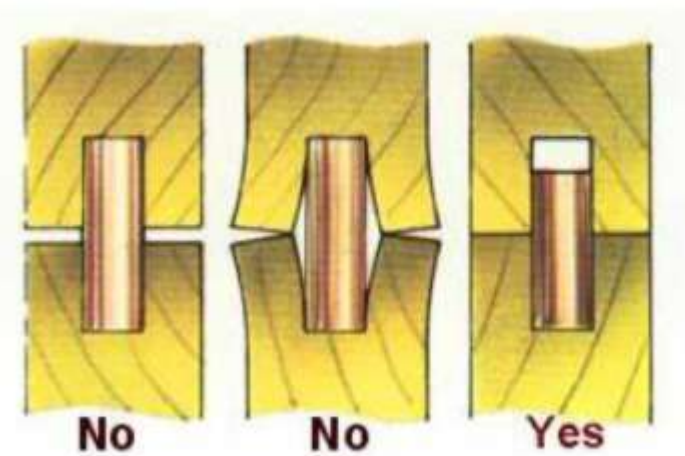
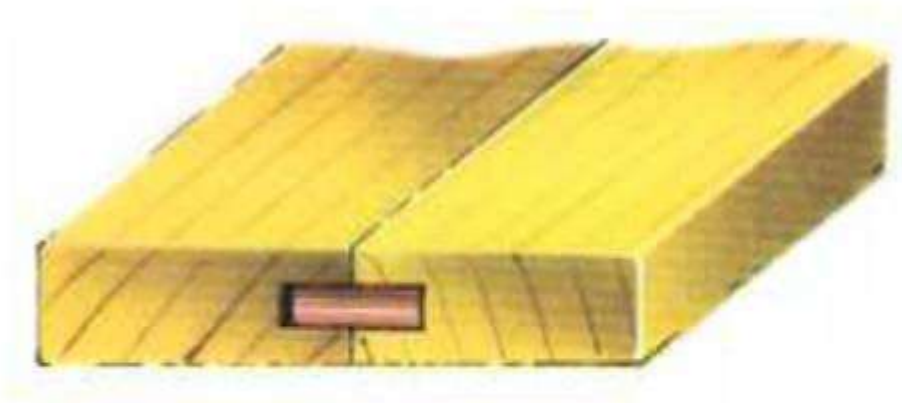
A groove is run on one piece and a matched tongue is machined on the other. Commonly used in flooring boards. If this joint is used for desk tops, etc., it must be glued.



Groove and Feather

Prepared as for a butt joint then a groove is run in both edges to be joined. A loose tongue is inserted

(plywood) into the joint which is glued and crampe.



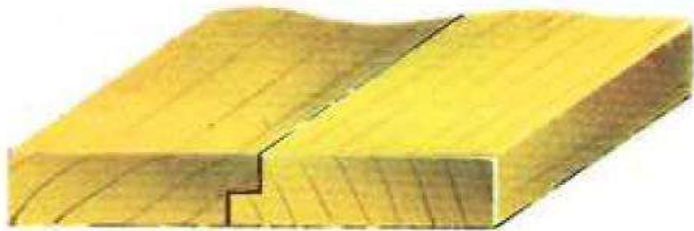
Dowelled Joint

Prepared as for butt joint. Dowels are inserted at regular intervals along the joint.

The boards are glued and cramped. Careful selection of dowel length and diameter is important.

Rebate Joint

This consists of a rebate planed on the edges of each member followed by gluing and clamping. This provides a gluing area approximately one and a half times greater than a simple butt joint. Used for table tops and shelving.

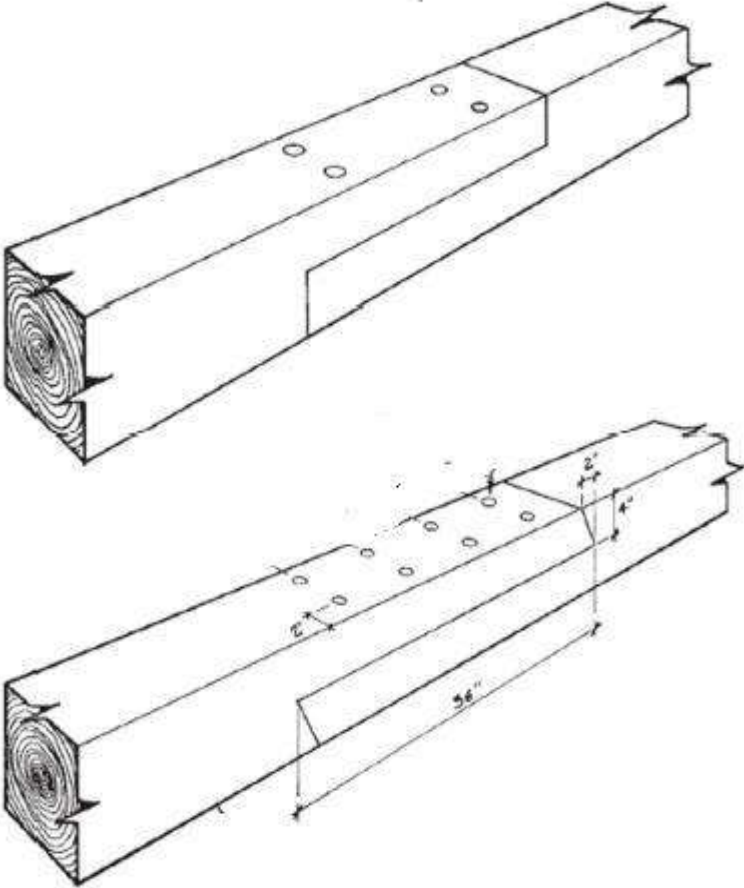


Making Widening Joints

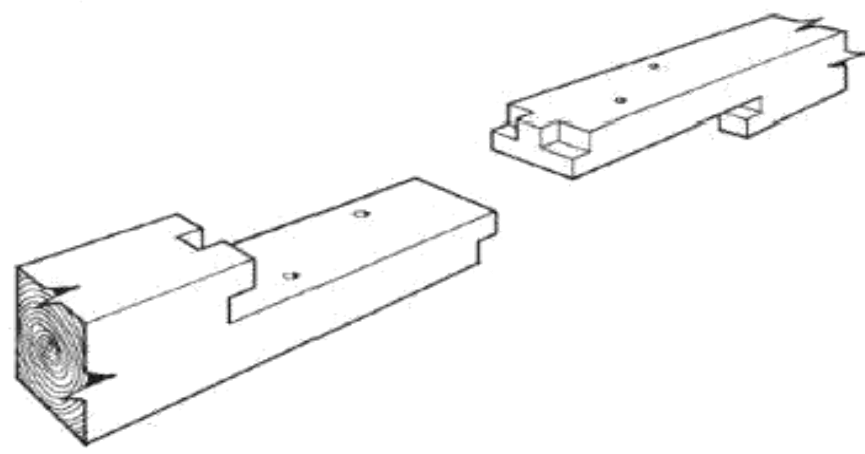
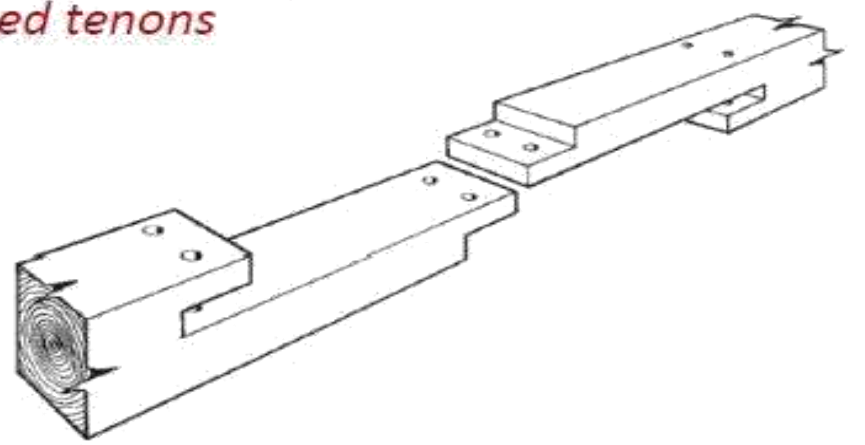
- Face grain running in the same direction so that the boards match.
- Growth ring structure alternating to reduce cupping.
- Place a locating mark across the edges of the boards to be joined.
- Cutting: Secure the boards together in the vice and plane the edges using a trying plane.
- Test by placing the boards together
- Use a straight edge to ensure the face surfaces are in the same plane.
- Hold the boards to the light and check the fit of the edges.



LENGTHENIG JOINTS TYPES.



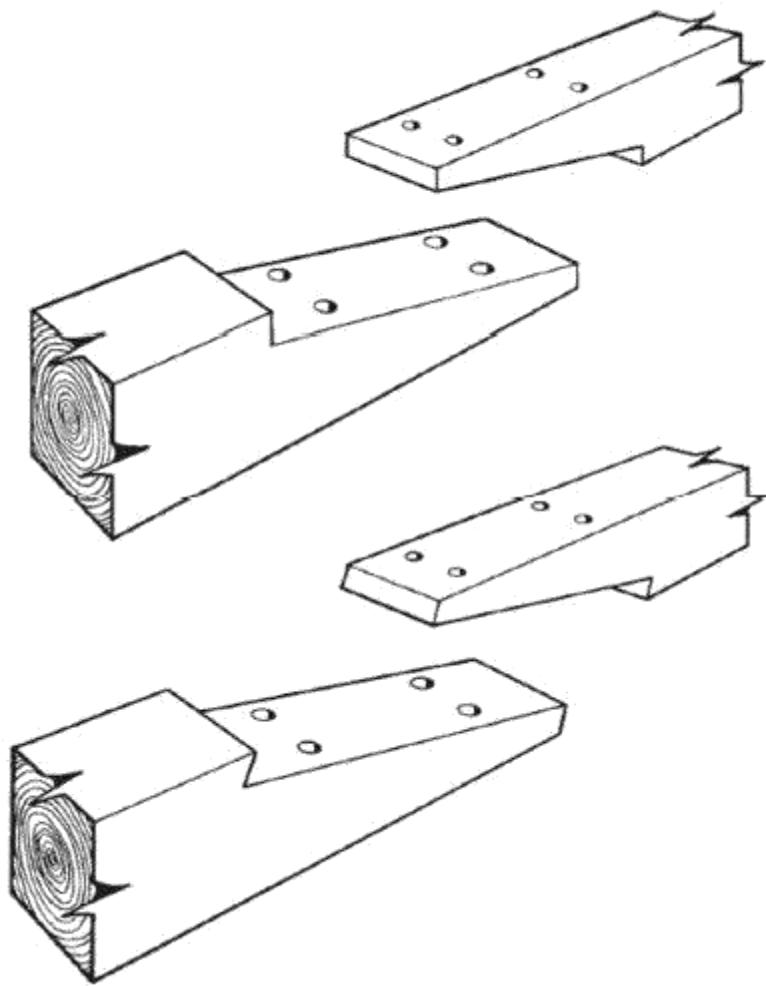
*Halved and bladed scarf
with pinned tenons*



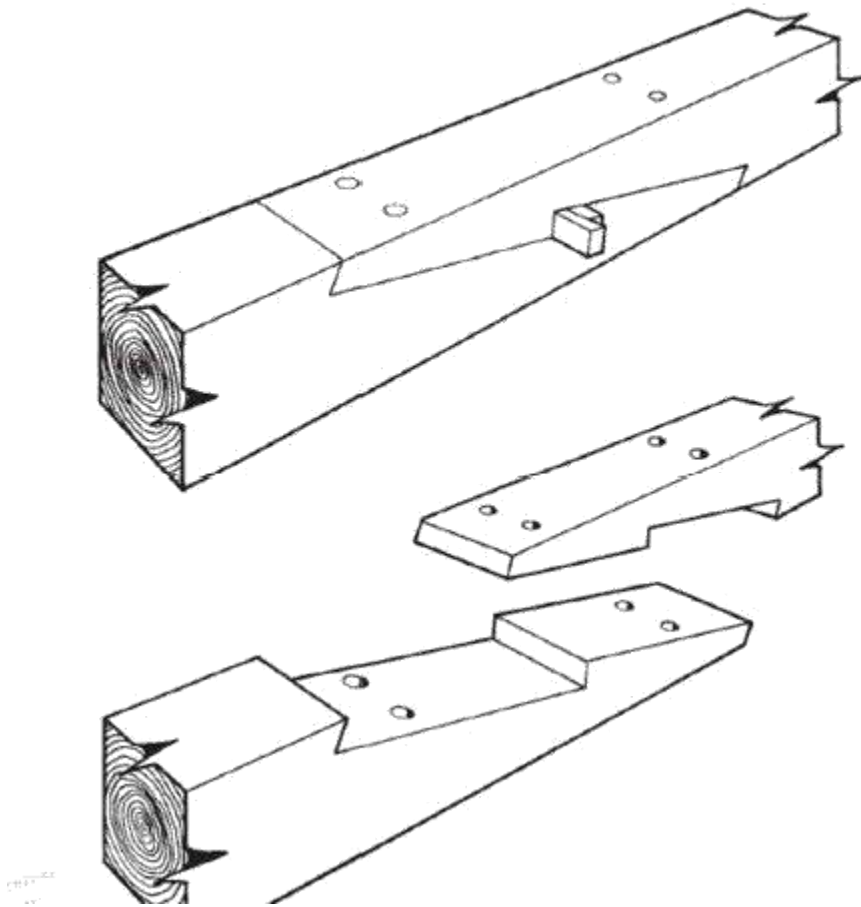
Halved, bladed and coggged scarf



Splayed scarf joint (the lapped surfaces are sloping).



Splayed, Undersquinted and Wedges



3. Construct framing joints