COMMON WOODWORKING JOINTS AND GLUES

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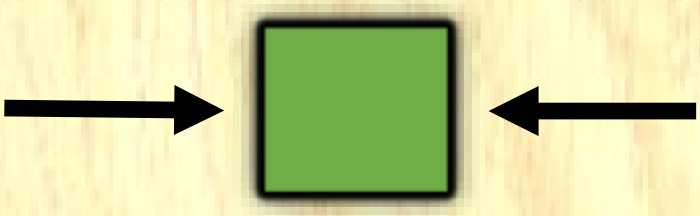
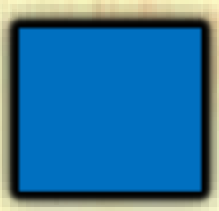
This mobile revision pdf is based on detailed work found in the JOINTS section.

Tap on the green link button below to go to the complete website section



Tap the blue button to view joints covered by this Revision PDF



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COMMON WOODWORKING JOINTS AND GLUES

1. HALVING JOINTS

2. BRIDLE JOINTS

3. MORTISE AND TENON JOINTS

4. DOVETAIL JOINTS

4. FINGER / COMB JOINTS

6. SHOULDER / REBATE / LAPPED JOINT

7. HOUSING JOINTS

8. WOOD GLUES

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CROSS HALVING

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Cross halving joints are probably the most simple of joints to mark out and cut. They are used whenever it is necessary to join two pieces of wood that cross over each other. Sometimes these joints can be seen on the strengthening rails of tables and chairs.

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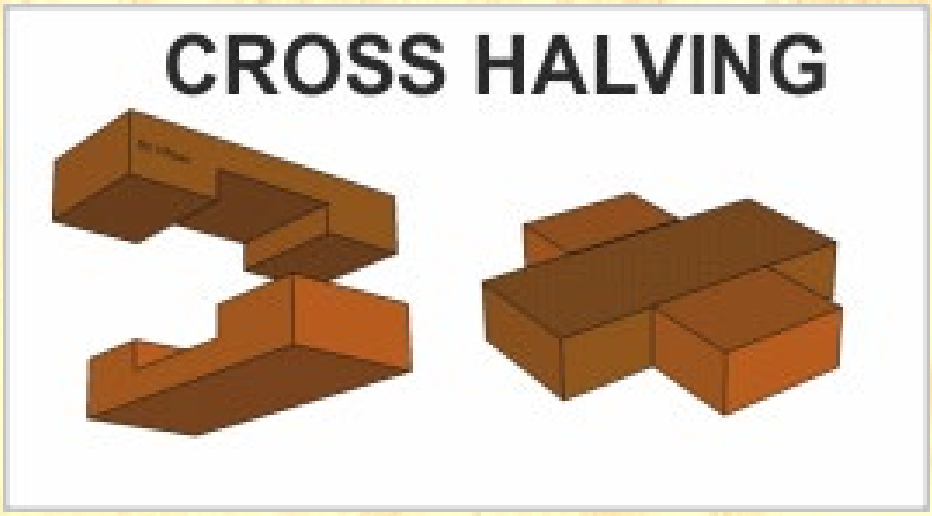

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MARKING OUT AND CUTTING - CROSS HALVING

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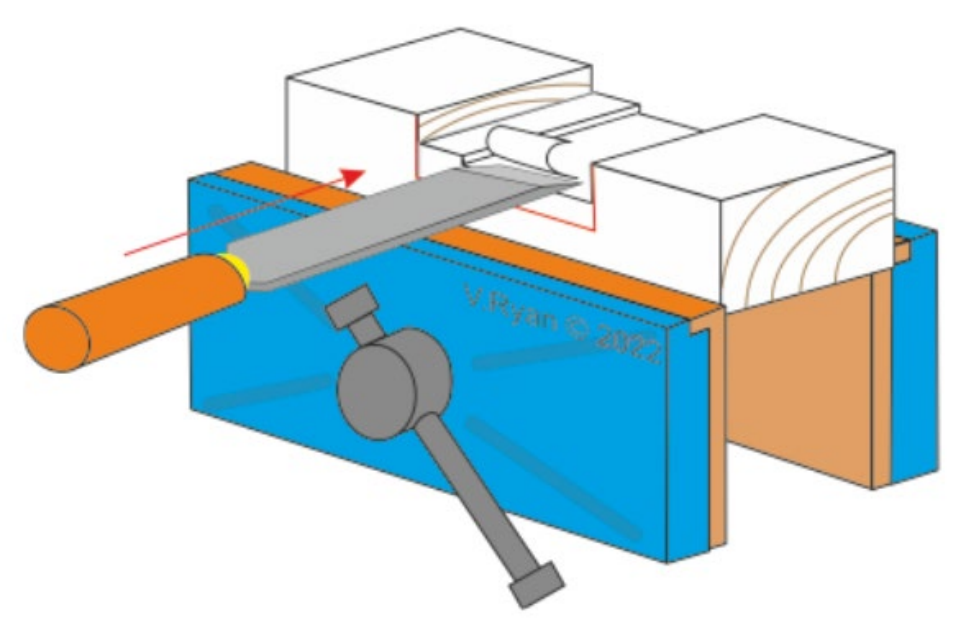

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DOVETAIL HALVING

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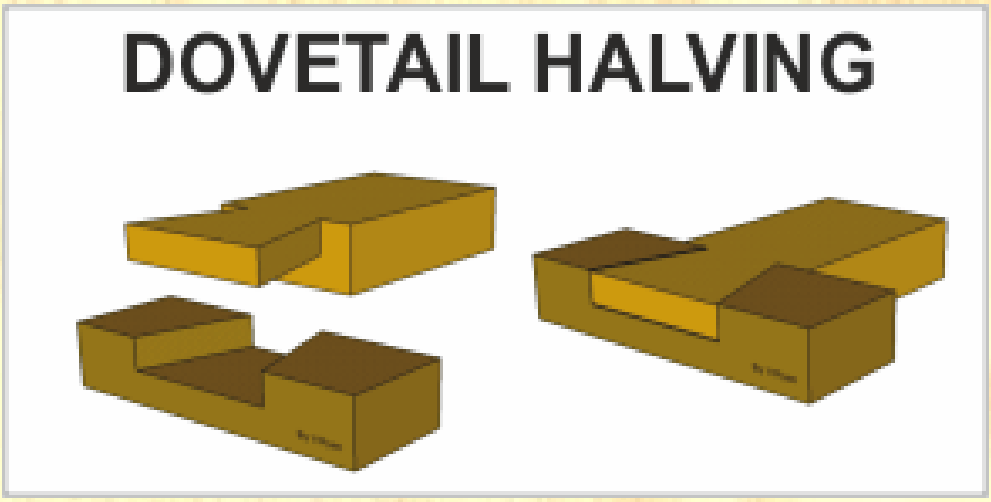
A range of halving joints exist to suit different designs. For instance, the dovetail halving joint shown below can be used where great strength is required. A joint such as this is very difficult to pull apart because of the dovetail shape of one of the pieces.

Tap the image for more information



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MARKING OUT AND CUTTING - DOVETAIL HALVING

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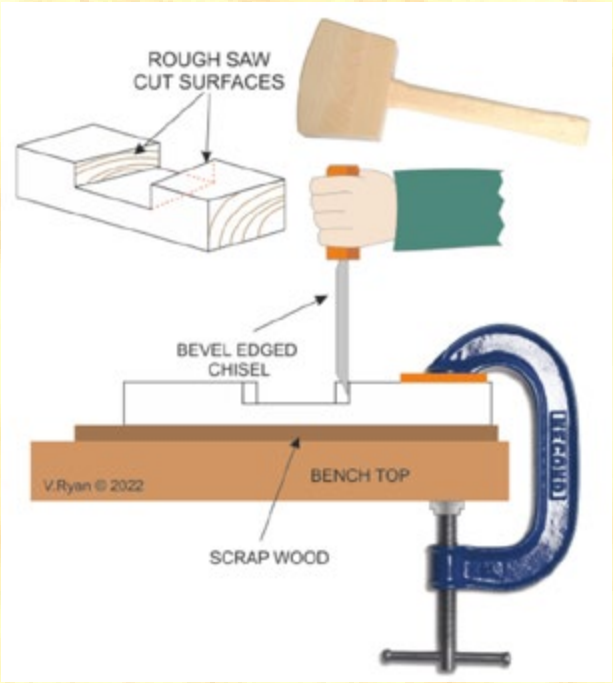

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The tee halving and half lap joints can be used where great strength is not required, they are also much easier to mark out and cut.

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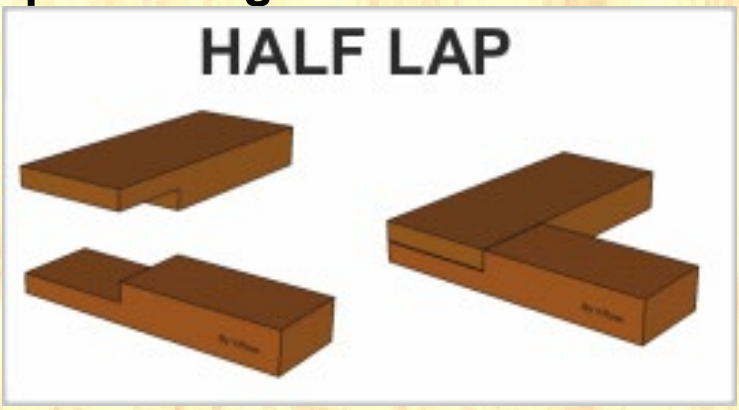

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MARKING OUT AND CUTTING – HALF LAP

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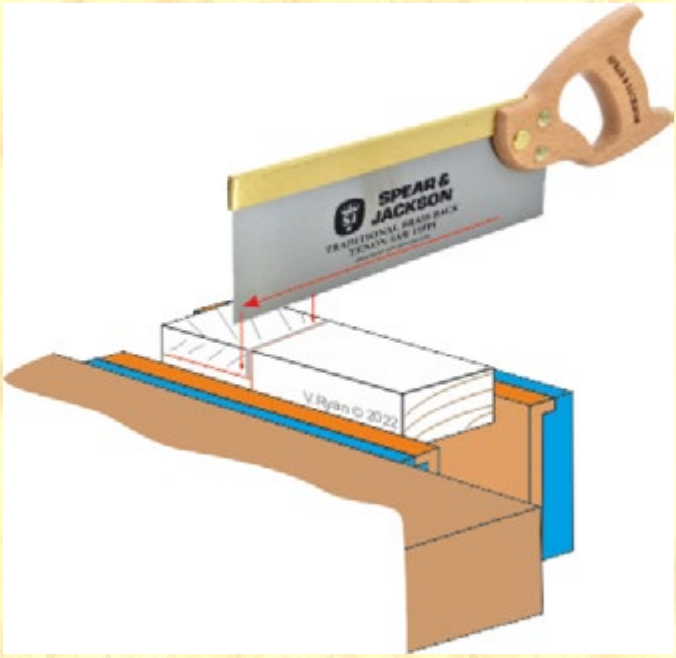

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MARKING OUT AND CUTTING – T-HALVING

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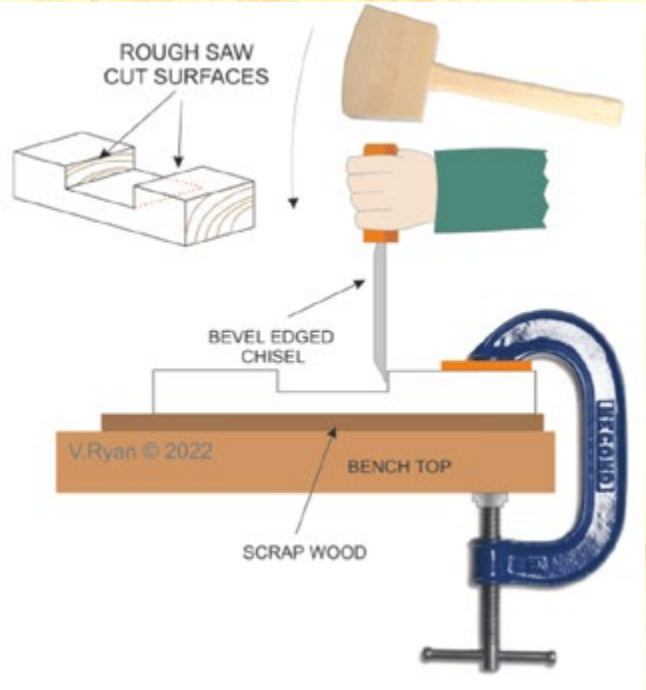

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MITRE CORNER HALVING JOINT

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This joint is suitable for the corners of frames and gives a 45 degree angle when viewed from one side, as seen below.
This is the side usually put on view.

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HOW TO MARK OUT AND CUT A MITRE CORNER HALVING JOINT

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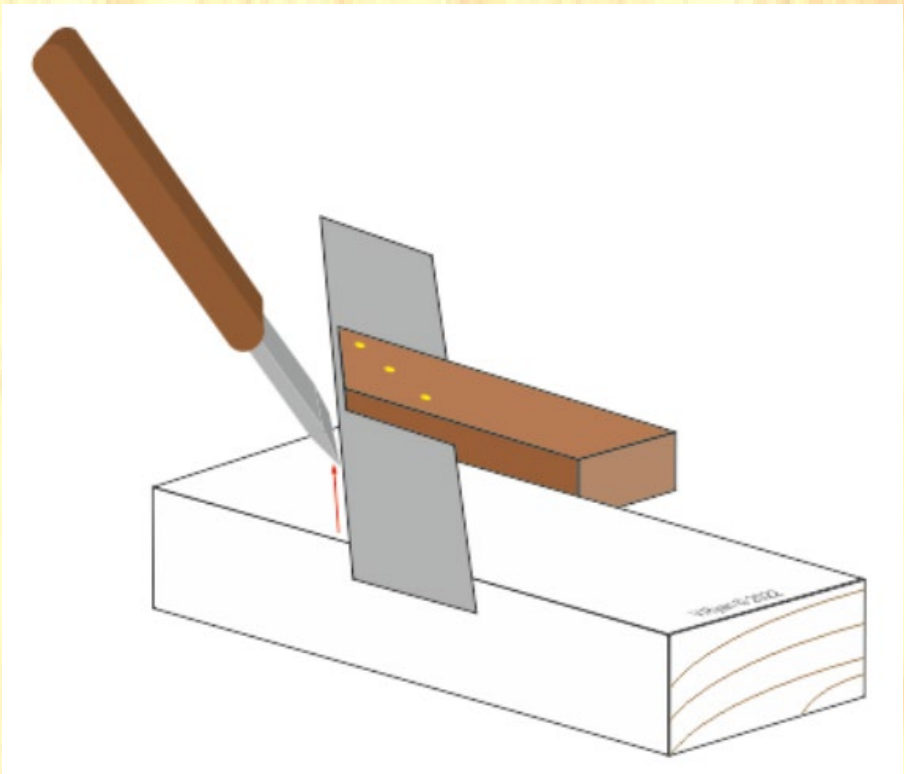

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BRIDLE JOINTS

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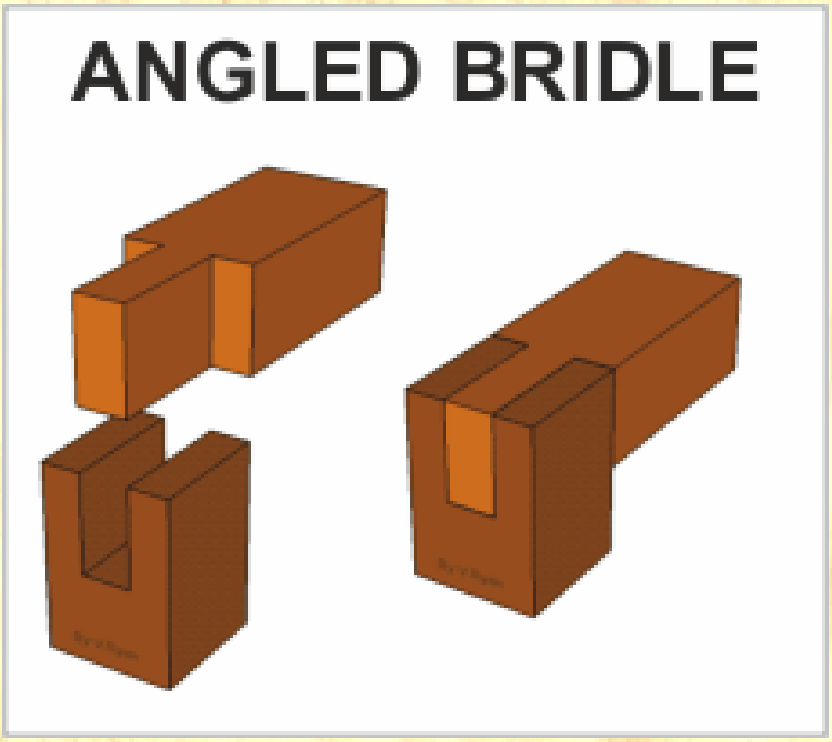
The next two 'BRIDLE JOINTS' are used when a light frame is needed and strength is not the main requirement. For example, a picture frame. One part of the joint fits into the other part and is glued permanently in position. The angled bridle joint can be used a substitute for a mortise and tenon joint, again if strength is not important.

Tap the image for more information



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BRIDLE JOINTS

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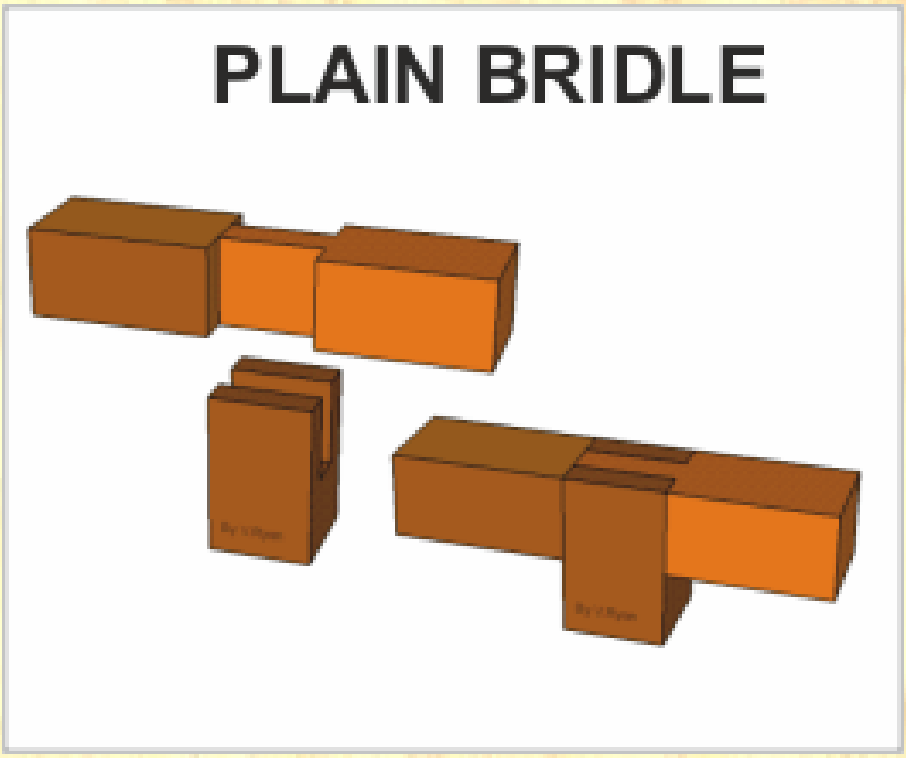

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PLAIN MORTISE AND TENON

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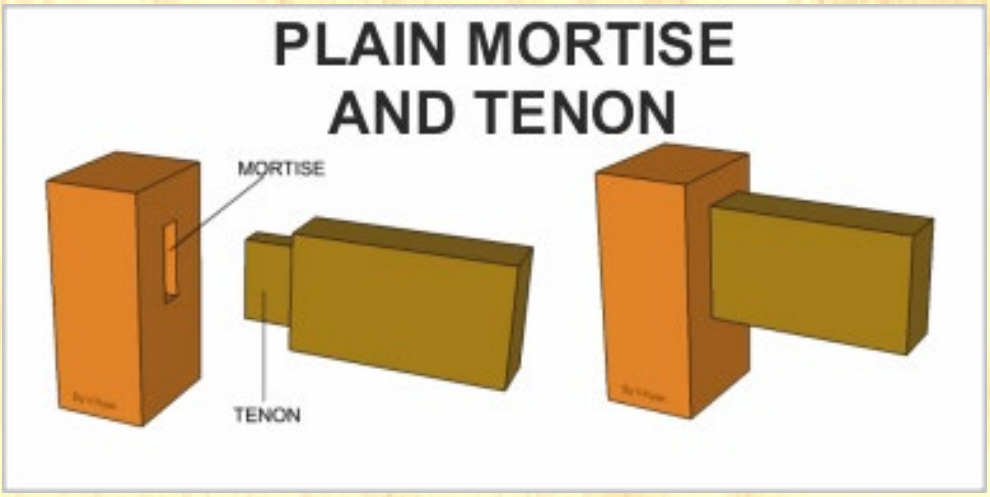
One of the most common joints used for joining the rails and legs of tables, chairs and other type of furniture is the Mortise and Tenon joint. A large range of mortise and tenon joints exist and the most simple of these is shown below. The tenon is the part that fits into the mortise.

Tap the image for more information



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WEDGED MORTISE AND TENON

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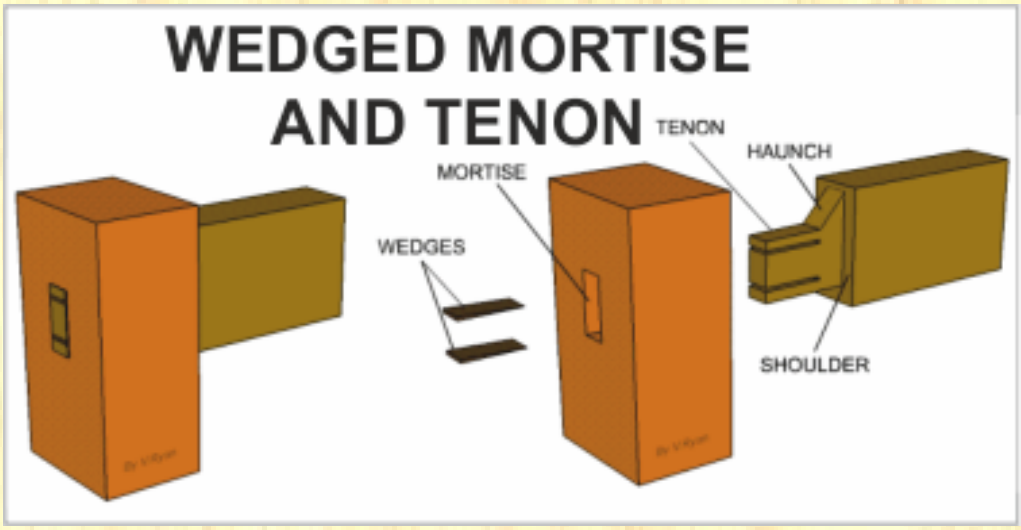
The Wedged Mortise and Tenon joint is extremely strong because the tenon passes all the way through the mortise and is wedged at the other side. However, the Wedged Mortise and Tenon is more difficult to mark out and cut and requires much more technical skill.

Tap the image for more information



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DOWELLED MORTISE AND TENON JOINTS

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A piece of dowel rod is drilled through the mortise and the tenon. This helps keep the joint together even when it is under great pressure. This is used as a joint on chairs and other pieces of furniture so that the joints do not break apart when extra weight is applied.

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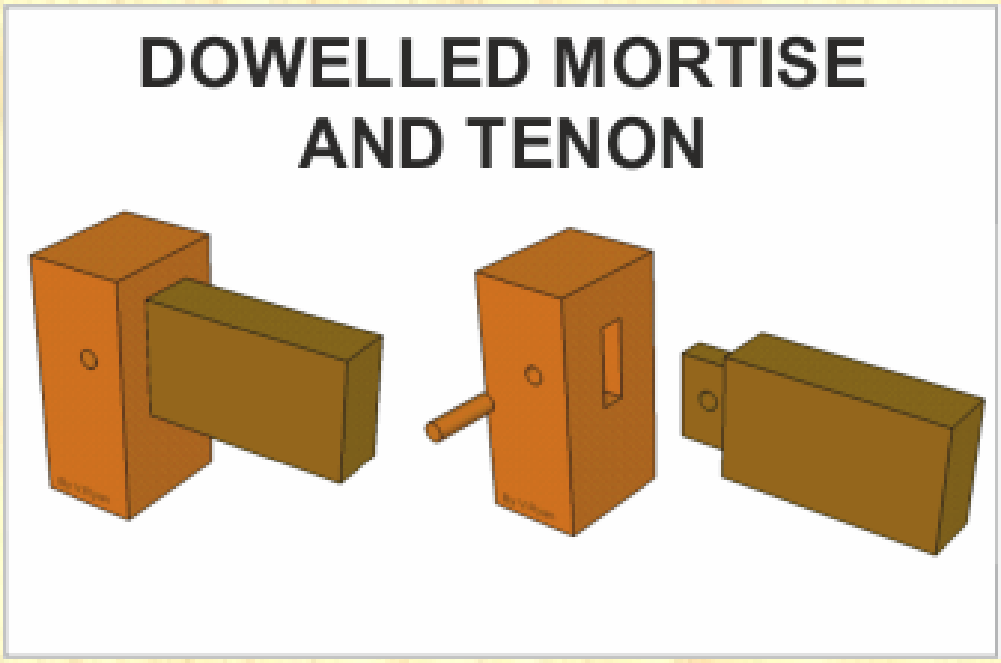

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DOUBLE DOWELLED JOINT

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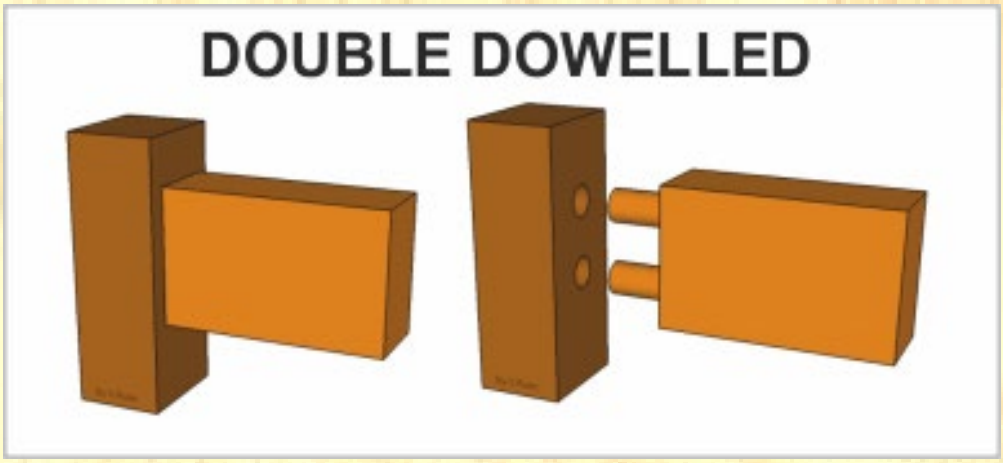
Below another way in which dowels can be used to form a joint. Modern pieces of furniture are often jointed in this way. It is a permanent method but it is not the strongest joint as the parts can eventually pull apart, especially as the joint becomes old. However, it is a quick to do and saves precious time.

Tap the image for more information



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TWIN / DOUBLE MORTISE AND TENON JOINTS

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This is a very strong mortise and tenon because the two tenons give a greater gluing area than a single tenon. It is used where great strength is required at a joint.

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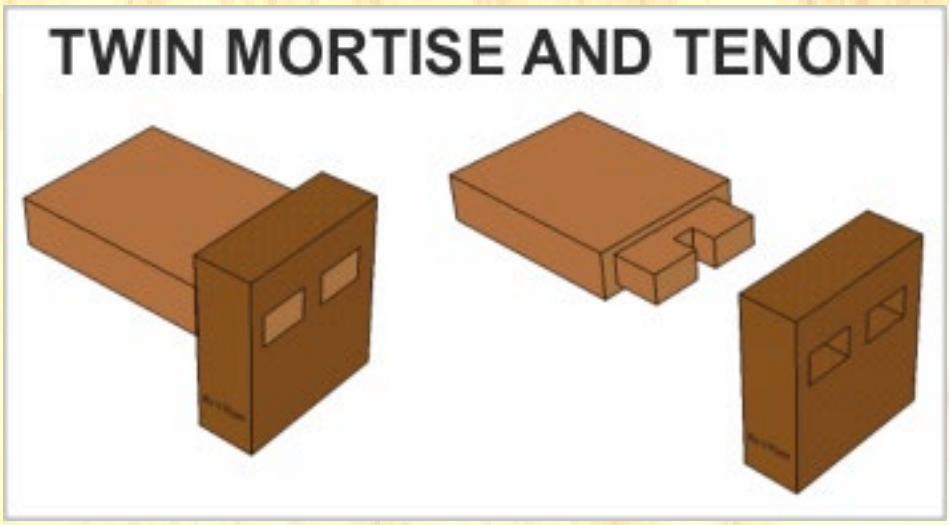

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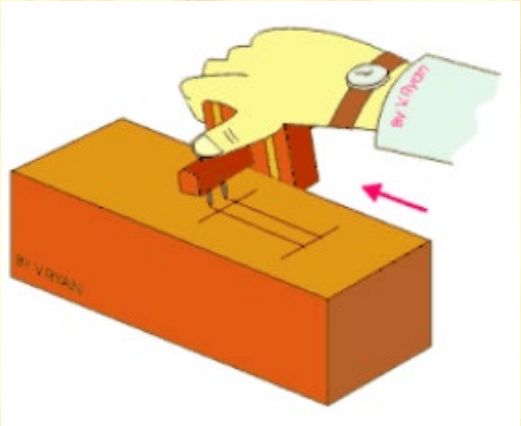
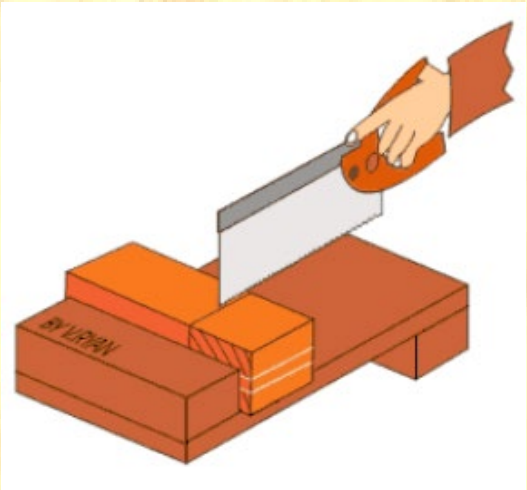
TAP ON THE LINKS BELOW FOR MARKING OUT AND CUTTING MORTISE AND TENON JOINTS





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DOVETAIL JOINT

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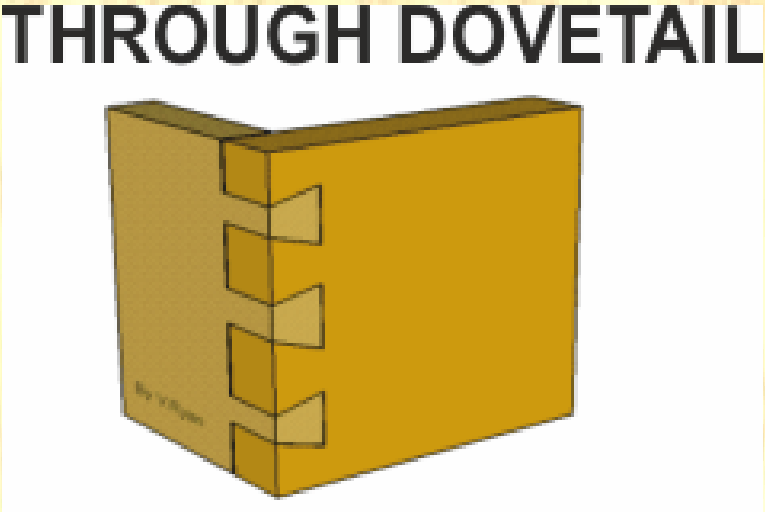
A very strong because of the way the ‘tails’ and ‘pins’ are shaped. This makes it difficult to pull the joint apart and virtually impossible when glue is added. This type of joint is used in box constructions such as draws, jewellery boxes, cabinets and other pieces of furniture where strength is required.

Tap the image for more information



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LAPPED DOVETAIL JOINT

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This type of dovetail joint is often used for drawers where the joint can only be seen from one side. The joint is very strong as are all dovetail joints. This type of joint is sometimes used as the joint for book cases and cabinets.

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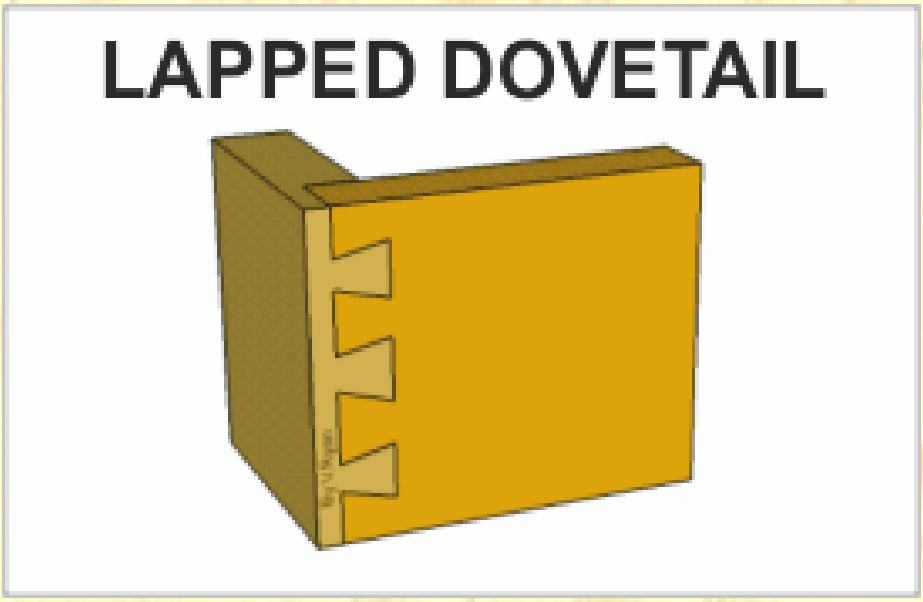

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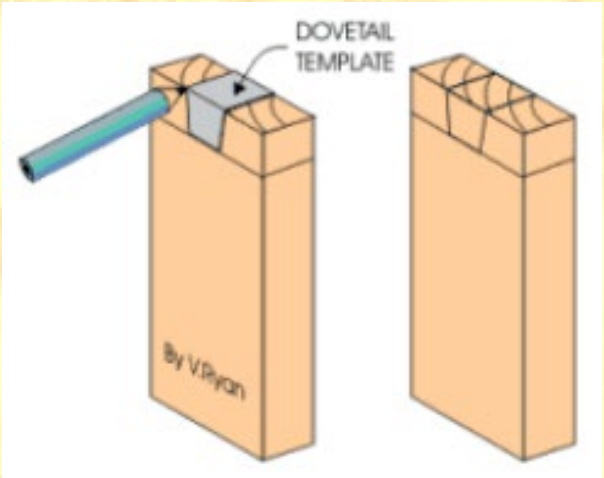
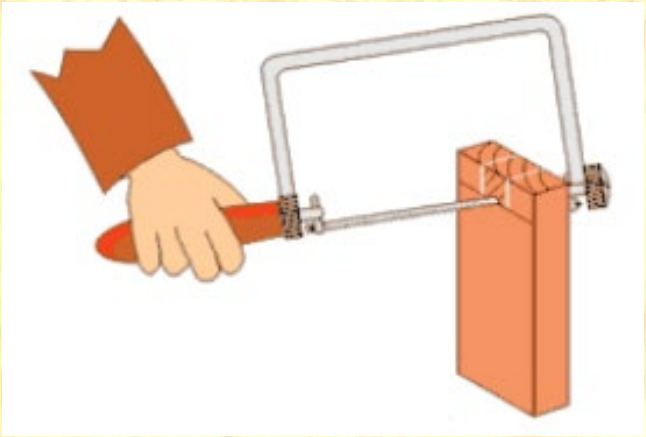
TAP ON THE LINKS BELOW FOR MARKING OUT AND CUTTING A SINGLE DOVETAIL JOINT





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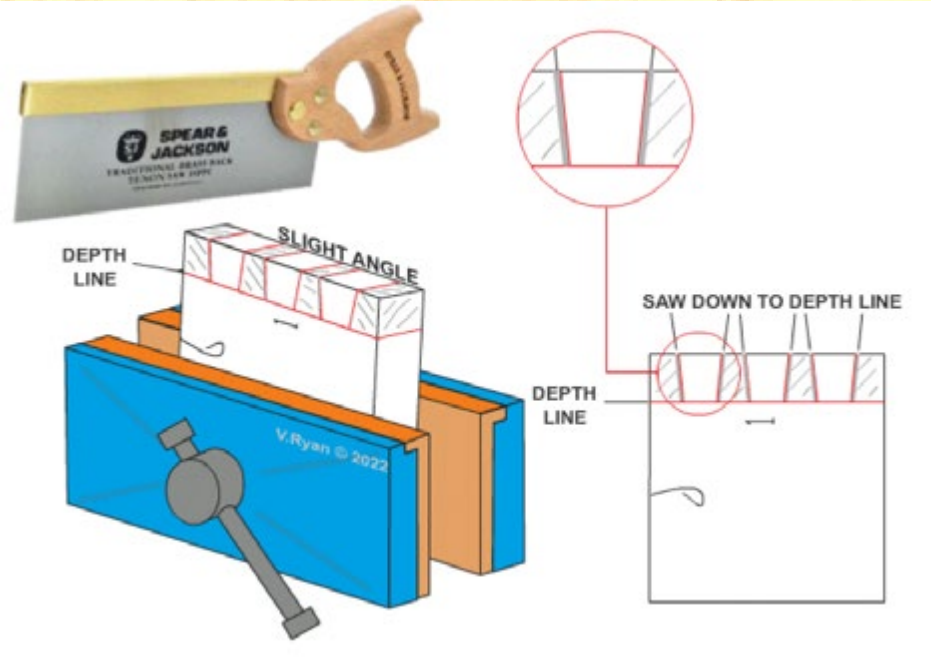
TAP ON THE LINKS BELOW FOR MARKING OUT AND CUTTING, MORE COMPLEX DOVETAIL JOINTS



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FINGER / COMB JOINTS

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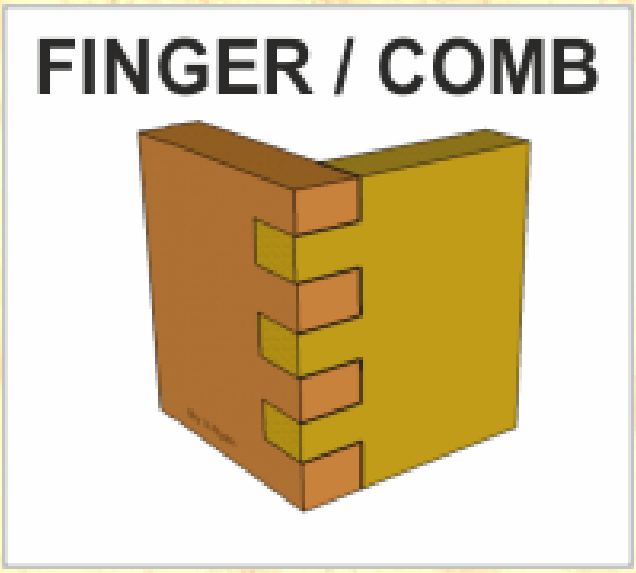
Below is an example of a ‘finger’ or ‘comb’ joint. Ideal for box constructions and suitable for use with natural woods such as pine and mahogany or even manmade boards such as plywood and MDF. Strong especially when used with a good quality glue such as PVA (woodworkers adhesive) or cascamite.

Tap the image for more information



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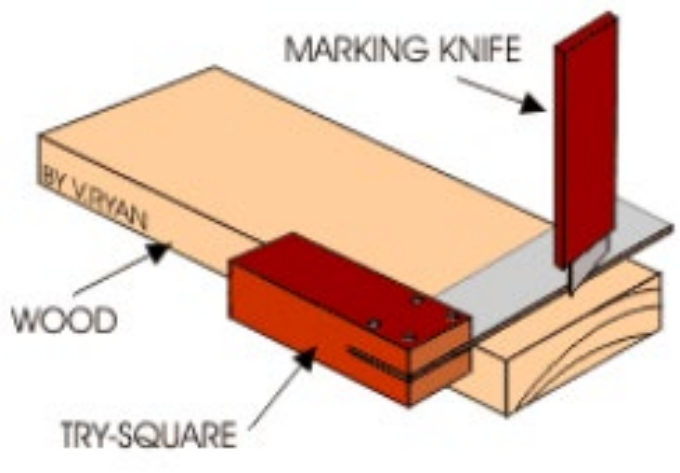
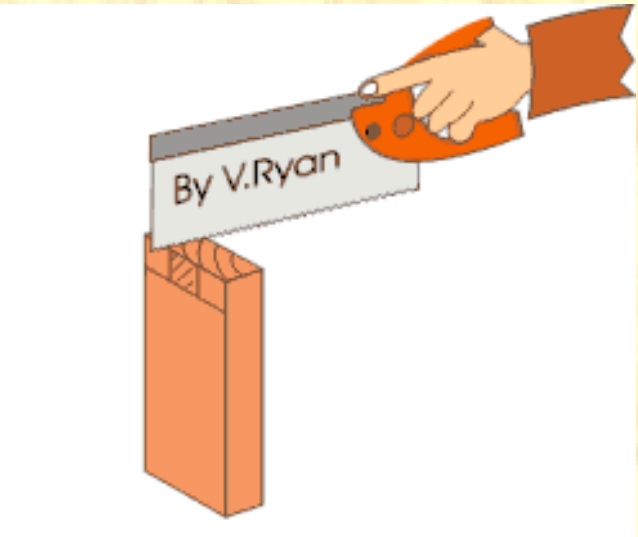
TAP ON THE LINKS BELOW FOR MARKING OUT AND CUTTING FINGER JOINTS





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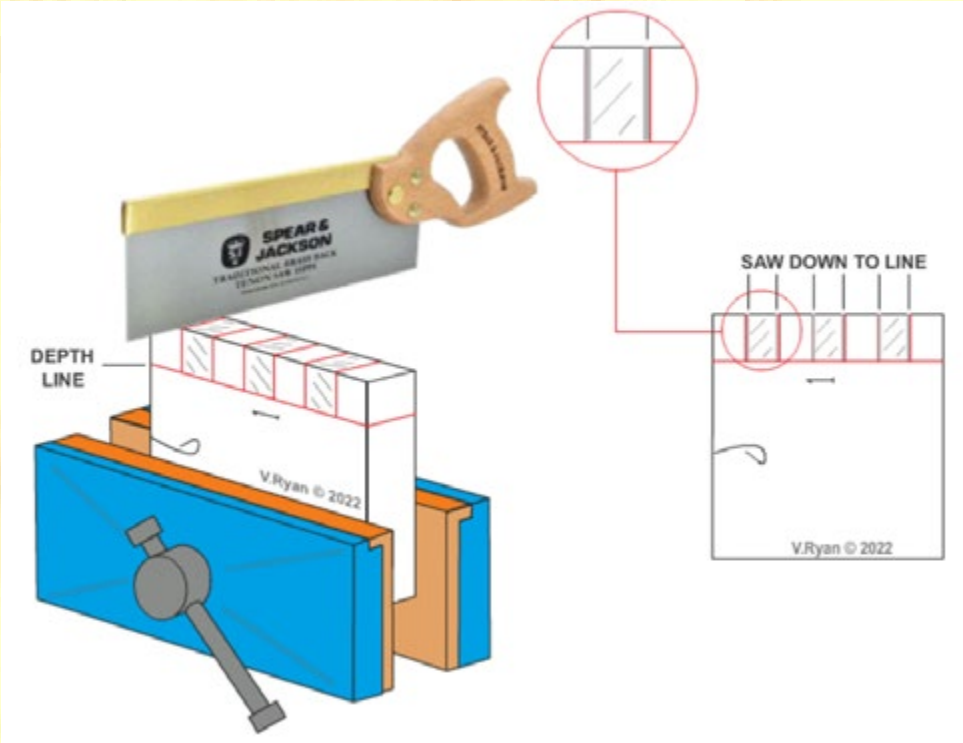
TAP ON THE LINKS BELOW FOR MARKING OUT AND CUTTING MORE COMPLEX FINGER JOINTS



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SHOULDER / REBATE / LAPPED JOINT

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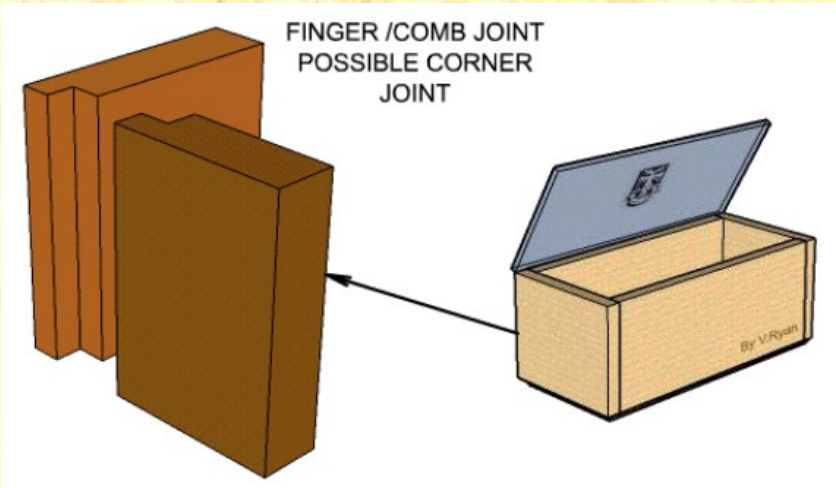
The shoulder or lapped joint is very common and is used for furniture and box constructions such as jewellery boxes. The shoulder can be seen clearly, this is usually planed using a rebate/shoulder plane or combination plane. This type of joint is often seen as a corner joint.

Tap the image for more information



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SHOULDER / REBATE / LAPPED JOINT

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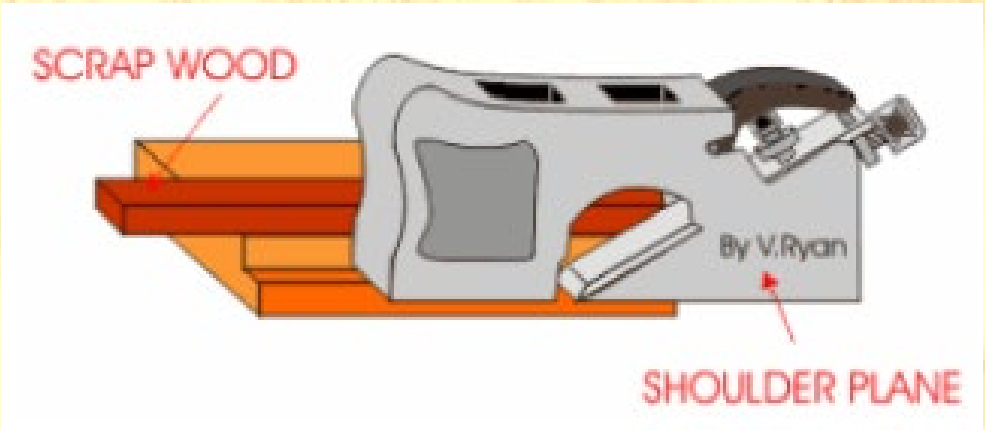
Tap the image for information and exercises on marking out and cutting a lapped joint



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THROUGH HOUSING JOINT

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A ‘Through Housing’ joint is composed of a grooved piece, into which a board / second piece fits (see beow). It is a relatively simple and effective glued joint. It is the most straightforward of a number of housing joints.

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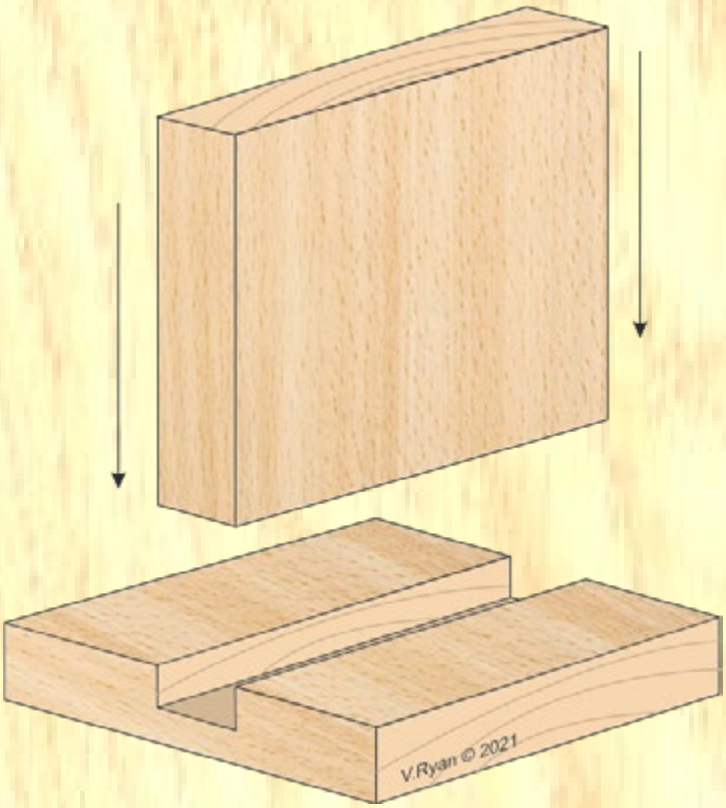

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STOPPED HOUSING JOINT

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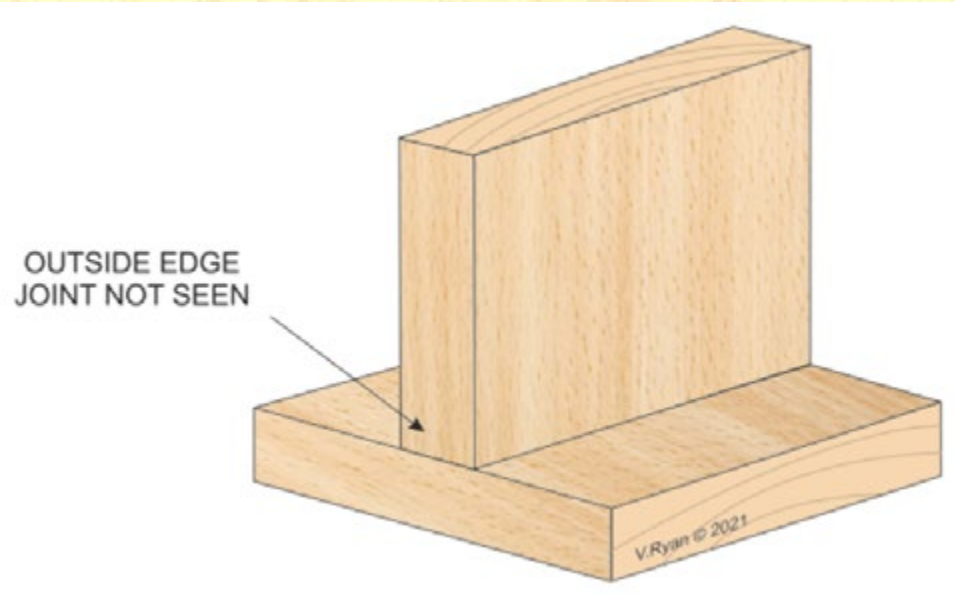
A stopped housing joint, is slightly more complicated than a through housing joint. The advantage of this housing joint is that it is no seen on the outside edge, because the housing stop short and is consequently hidden.
This type of joint is ideal for shelving and panels.

Tap the image for more information



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THE BAREFACED HOUSING JOINT

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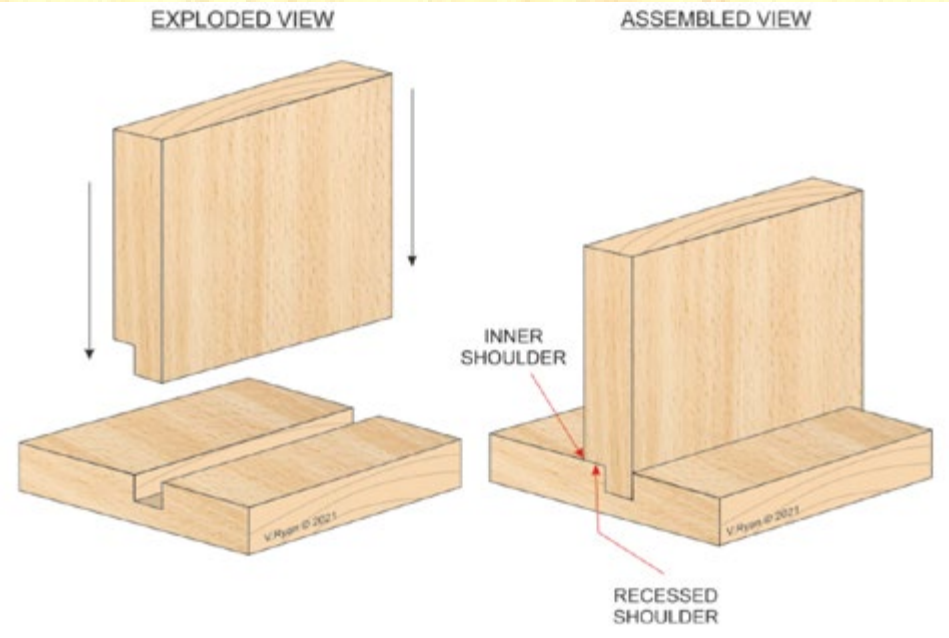
A barefaced housing joint, is similar to a typical through housing joint, except is has a recessed shoulder. It is slightly more complicated to mark out and cut. The advantage of this joint, is that it gives the appearance of a more accurate inner shoulder. Used for shelves and divides in cabinets and desks.

Tap the image for more information



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SINGLE SIDED DOVETAIL HOUSING JOINT

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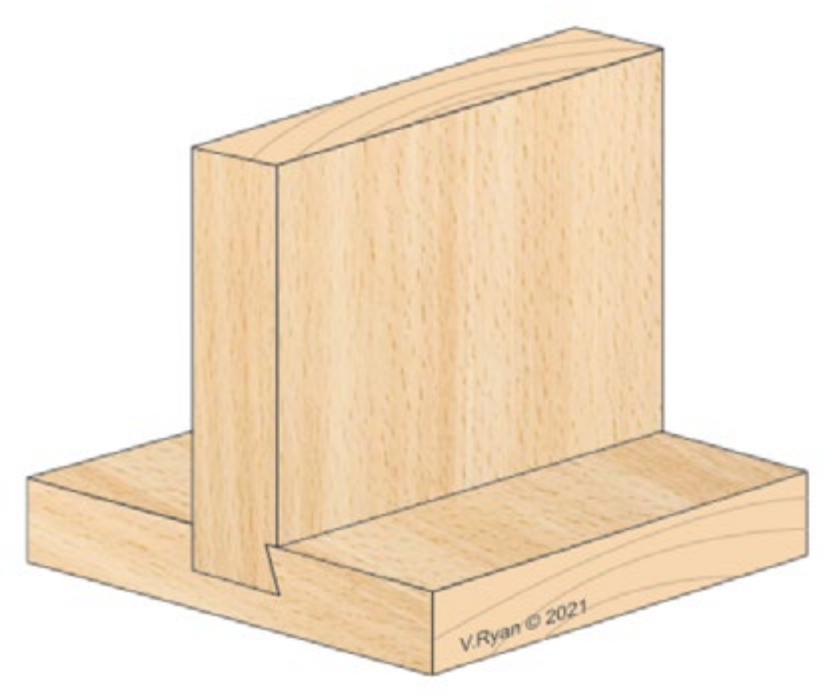
A single sided dovetail housing joint, is stronger than a through and stopped housing. The angled dovetail prevents the joint pulling apart.
This type of joint is ideal for shelving and panels..

Tap the image for more information



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MORE DOVETAIL HOUSING JOINTS

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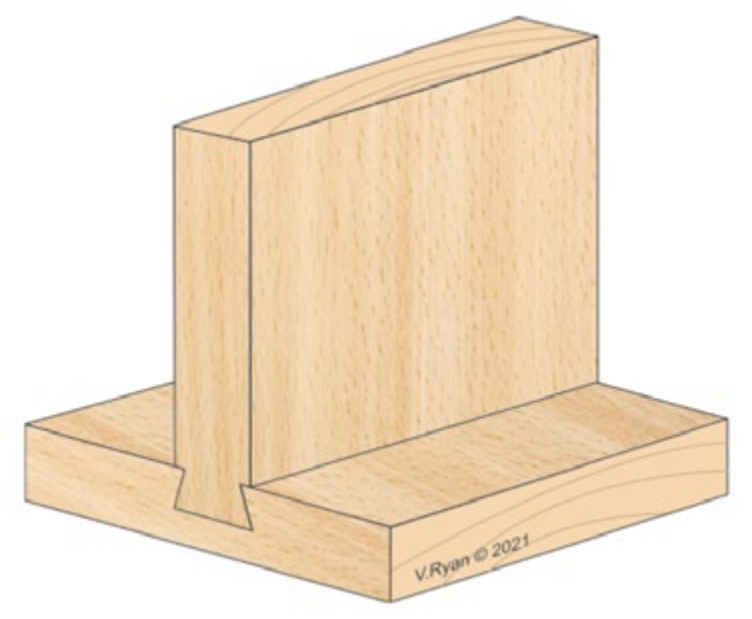
Follow the link for:

STOPPED SINGLE SIDED DOVETAIL HOUSING JOINT

DOUBLE SIDED DOVETAIL HOUSING JOINT

STOPPED DOUBLE SIDED DOVETAIL HOUSING JOINT

Tap the image for more information



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PVA GLUE

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P.V.A. (Polyvinyl Acetate) is a popular glue. It is supplied in a plastic container and can be used straight away. PVA is suitable of a wide variety of woods. (Polyvinyl Acetate also known as, PVA and PVAc). It is probably the most common wood glue, used extensively in furniture manufacture and construction. It is a synthetic resin.

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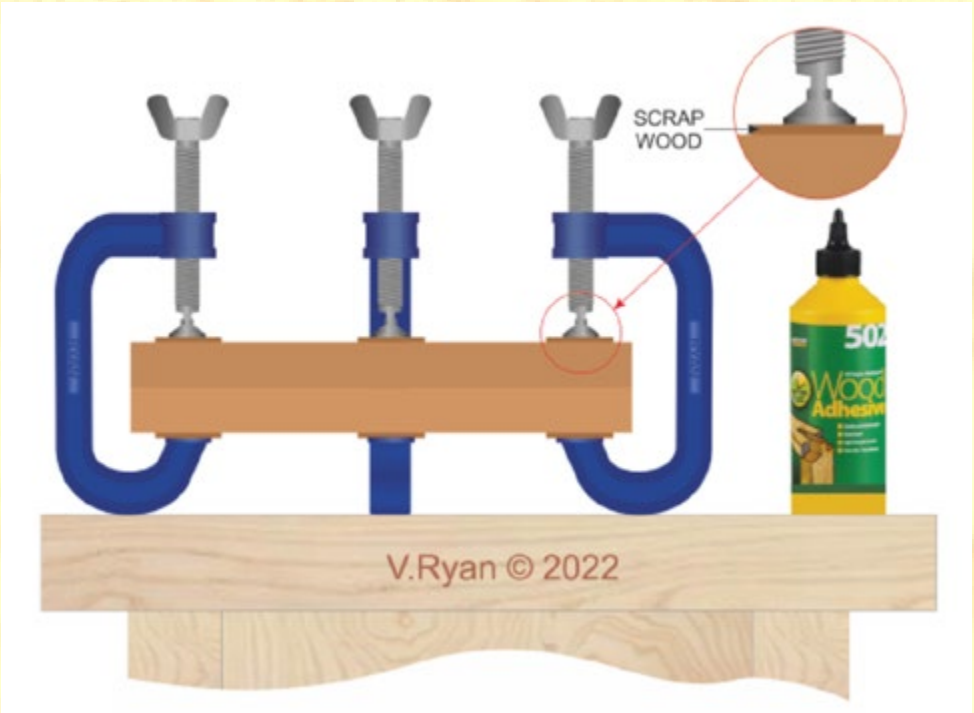

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CASCAMITE

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Cascamite is a waterproof glue and is probably the must effective glue of all. It is a white powder and is resin based and should be mixed in a glass or plastic container, two parts water to one part cascamite. It must be stirred thoroughly until it becomes a smooth/creamy paste. Cascamite is a quality glue and is suitable for all furniture especially if used outside as it resists rainwater.

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