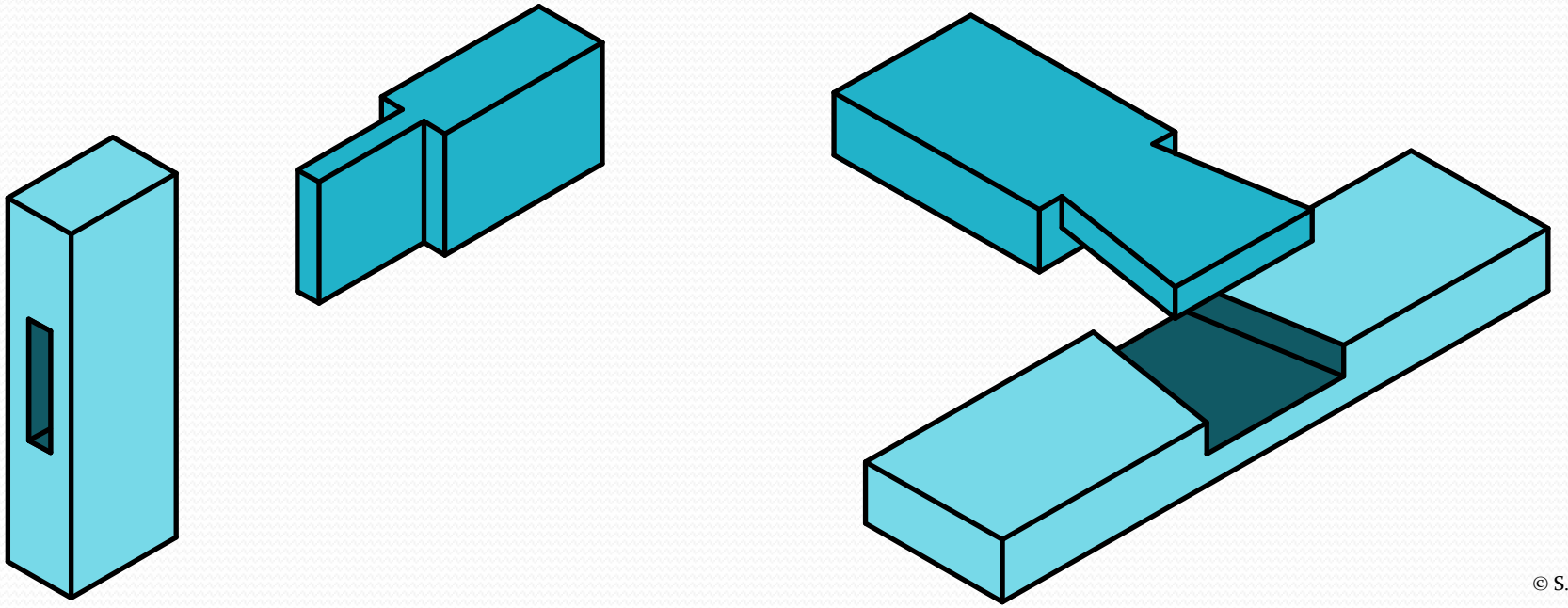
Wood Joinery

Learning Objectives

- To be able to identify the different joints.
- To be able to sketch the different joints.
- To identify appropriate uses for each joint.

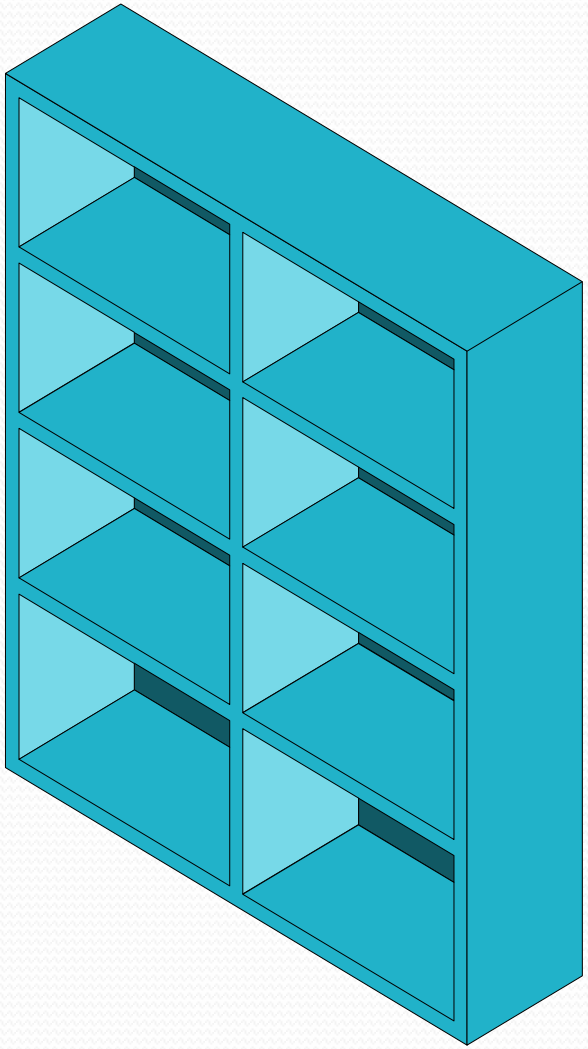
Joints

- Joints are used to join two or more pieces of timber together.
- Joints can be strengthened using glue or nails.



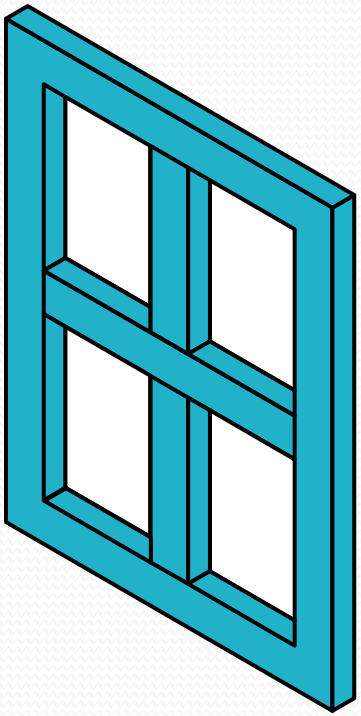
Carcass construction

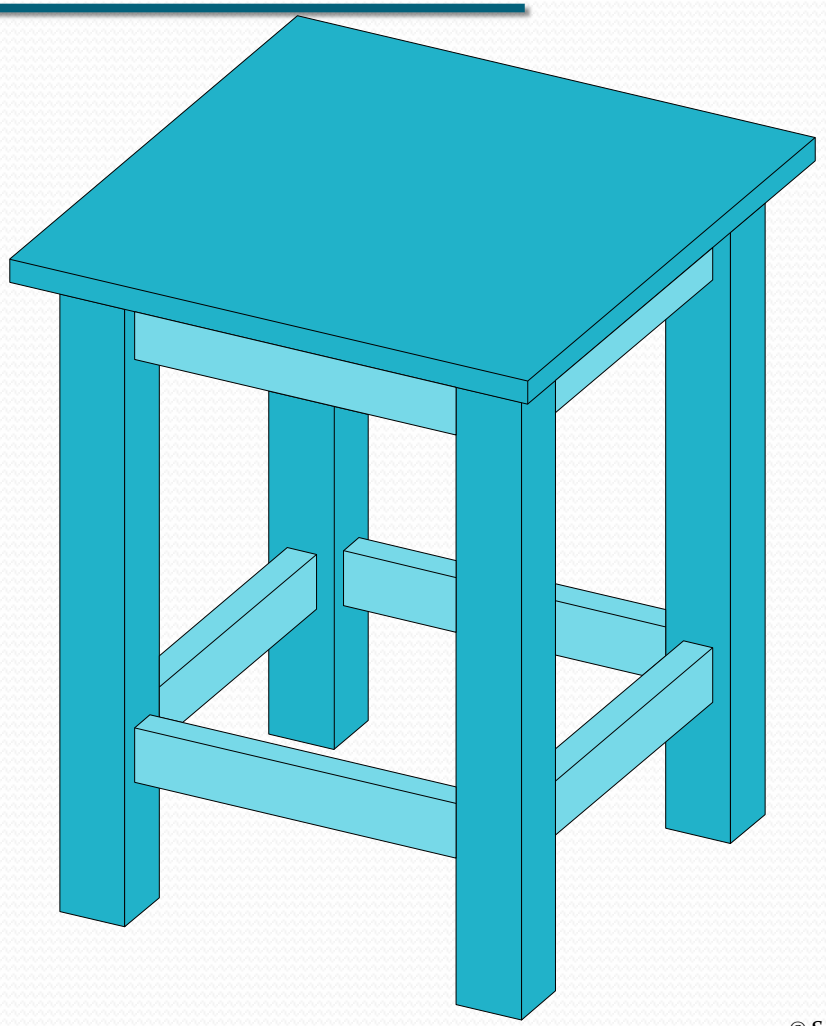
- Carcass construction is used to make box shaped artefacts



Frame construction

- Frame construction is used to make artefacts such as furniture and windows.

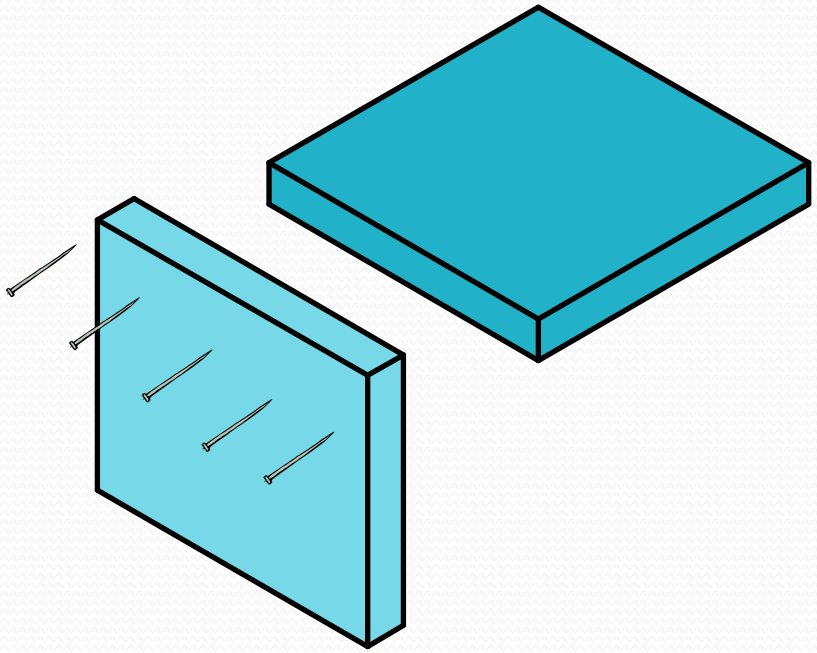




Butt Joints

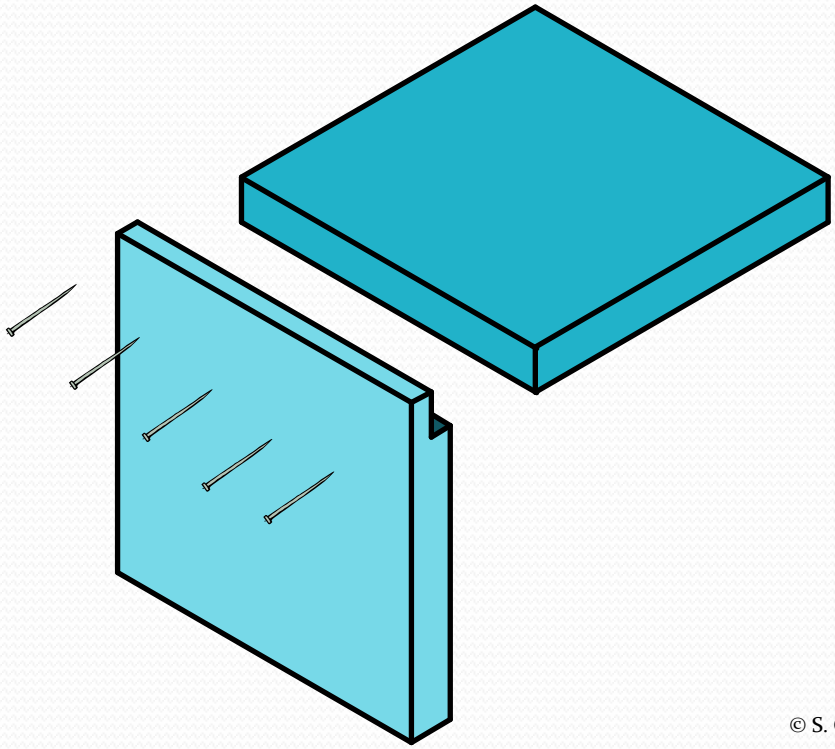
Butt Joint

- This is a very simple joint to make
- Two pieces are glued together, and can be strengthened using nails or screws
- It is used in carcass construction



Rebated Butt Joint

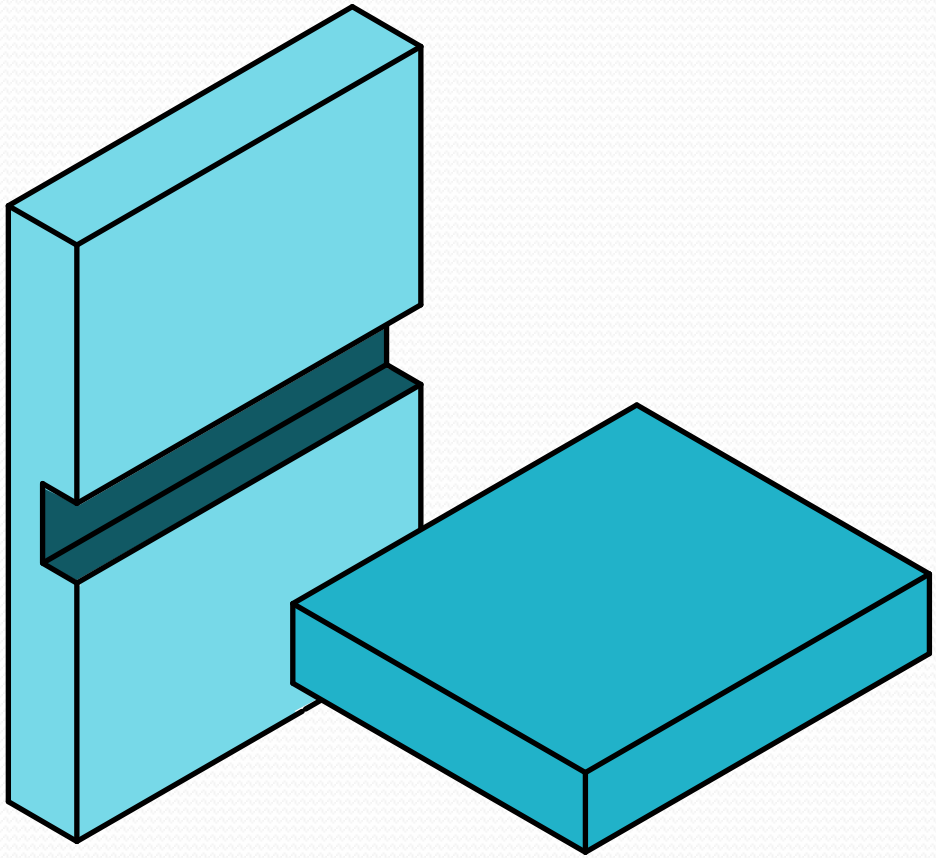
- This is joint is stronger than a regular but joint because there is more gluing area
- It can also be strengthened using nails or screws



Housing Joints

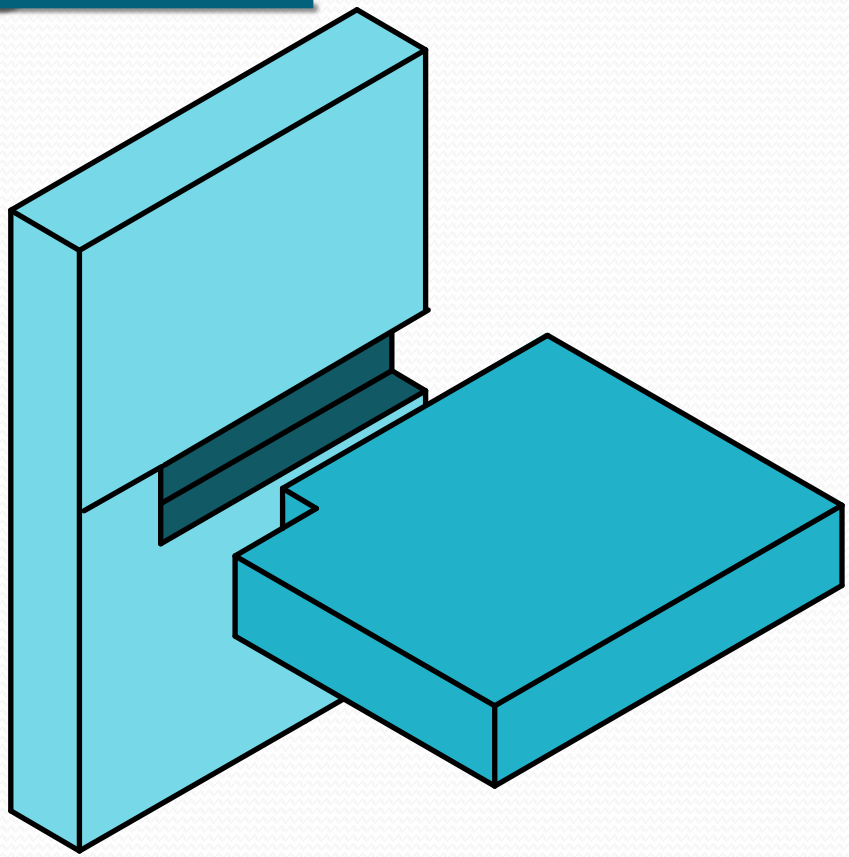
Housing Joint

- This is a strong joint and it is used for shelves or for dividers
- It can be strengthened using panel pins and glue.



Stopped Housing Joint

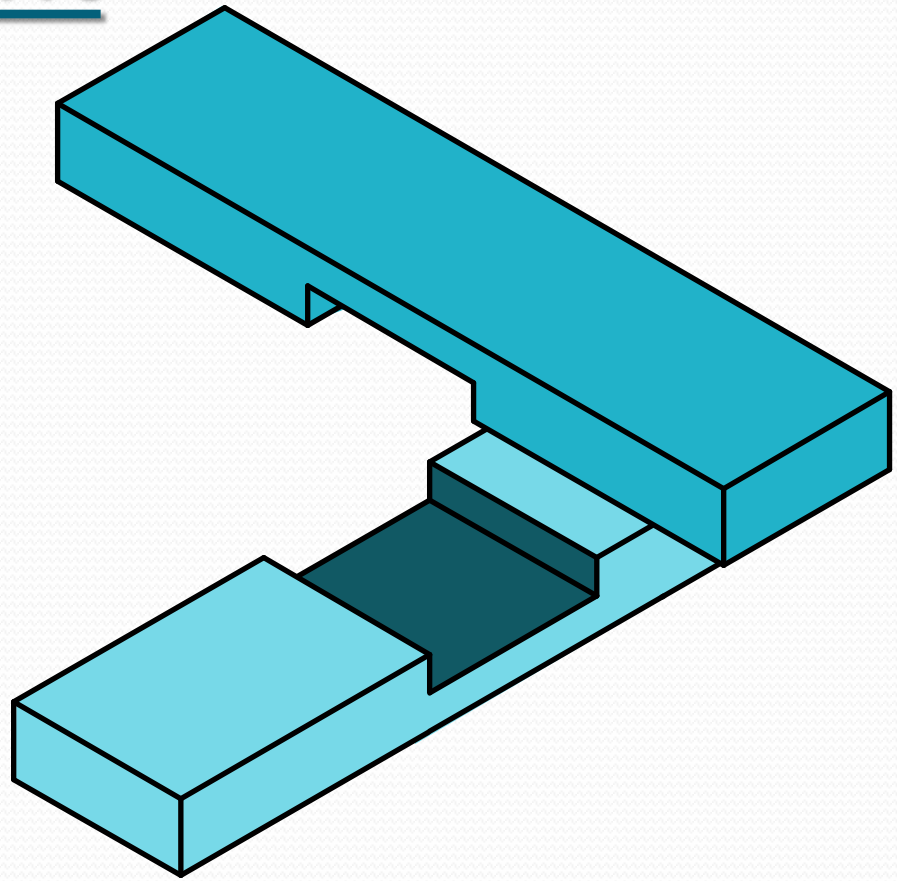
- This joint is also used for shelves or for dividers
- The only advantage of this methods is that the joint is hidden
- It can also be strengthened using panel pins and glue.



Halving Joints

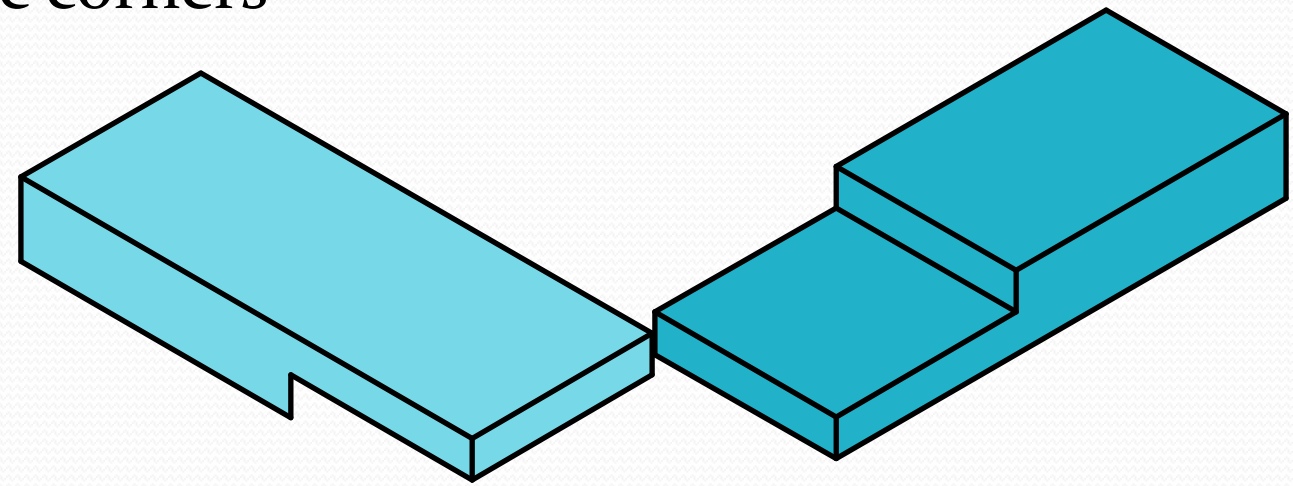
Cross halving joint

- This is a simple joint to make
- However, it can be pulled apart easily
- It is used in frame construction



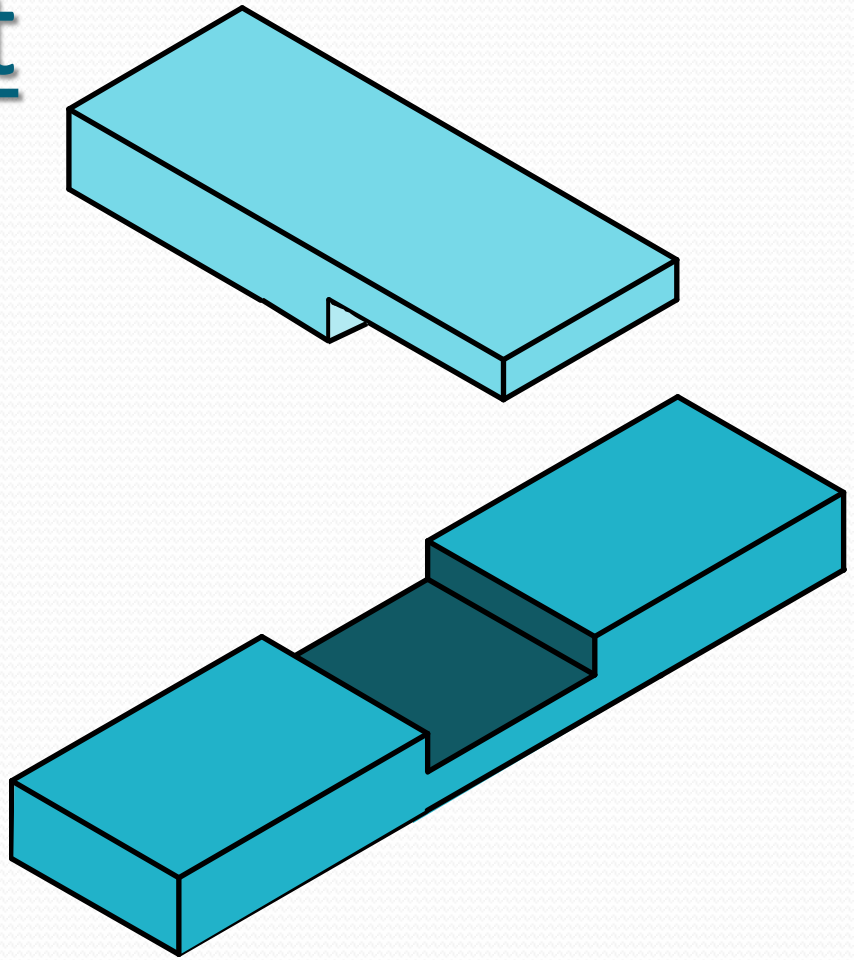
Corner Halving Joint

- This is a simple joint to make
- However, it can be pulled apart easily
- It is used in the corners of frames



Tee Halving Joint

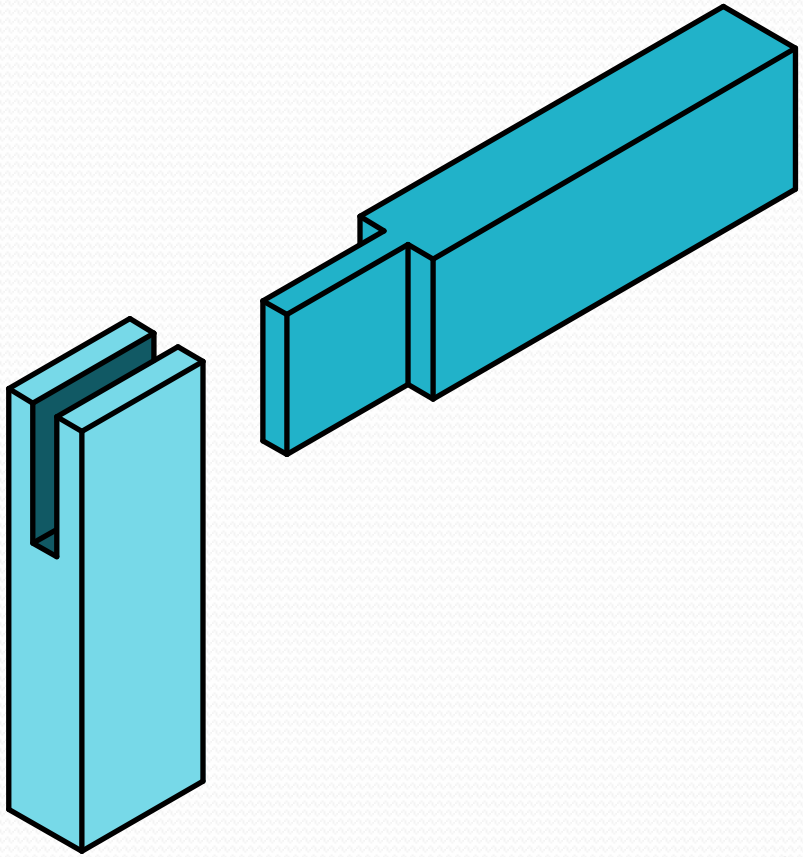
- This is a simple joint to make
- However, it can be pulled apart easily
- It is used in frame construction



Bridle Joints

Corner Bridle Joint

- This is a very strong joint
- It has a large glue area
- It is used in frame construction, particularly in tables and chairs



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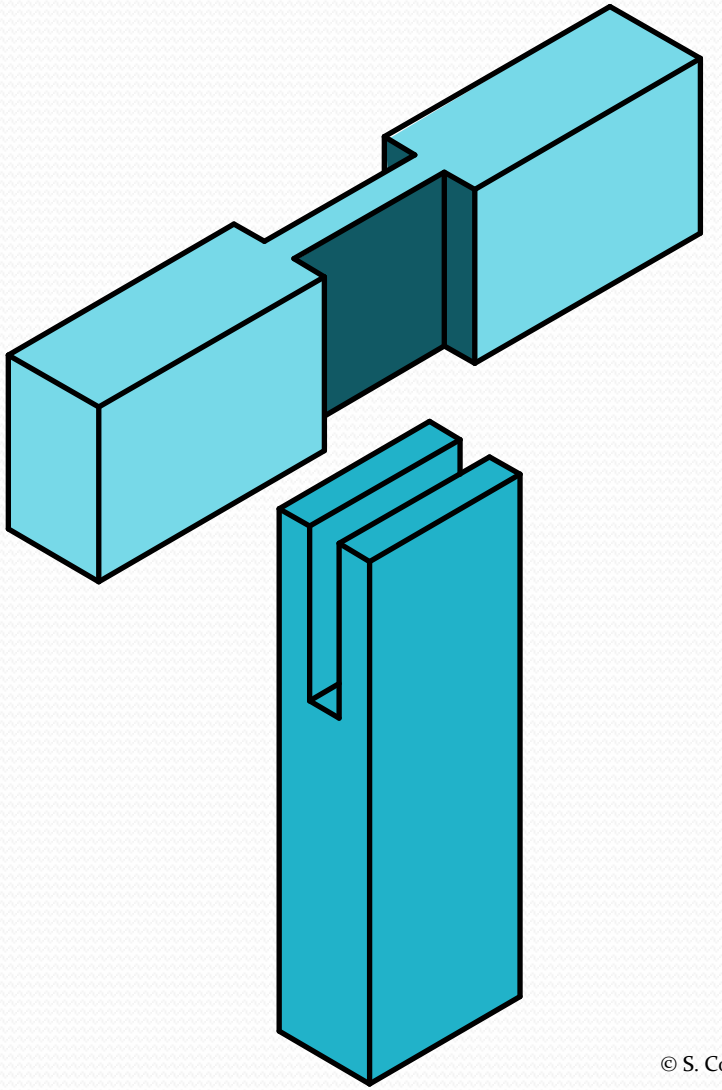
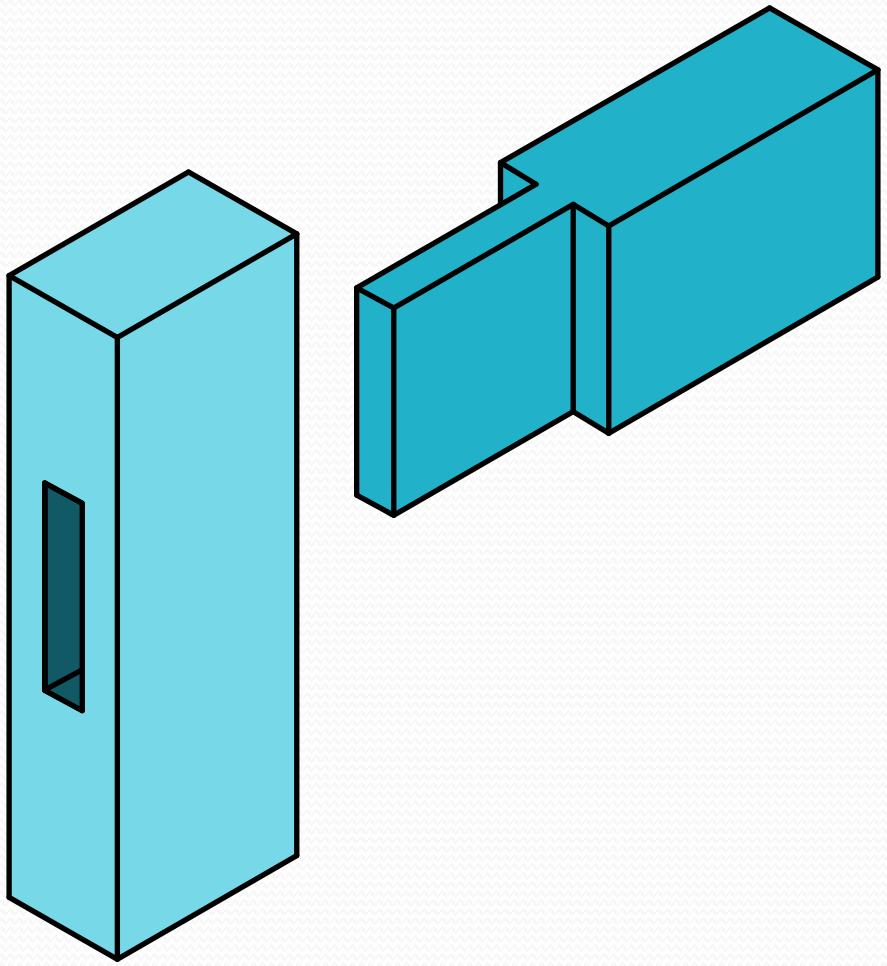


Mortise and Tenon Joints

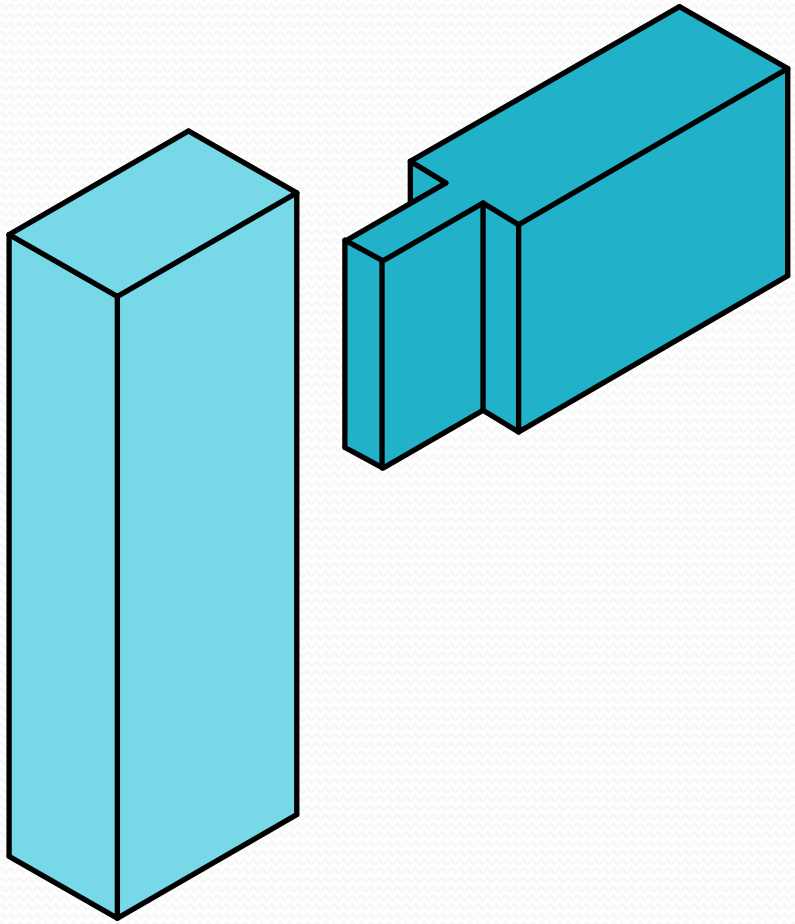
Mortise and Tenon Joint

- This is a very strong joint
- It has a large glue area
- It is used in frame construction, particularly in tables and chairs
- The tenon, and the mortise are usually 1/3 the width of the timber



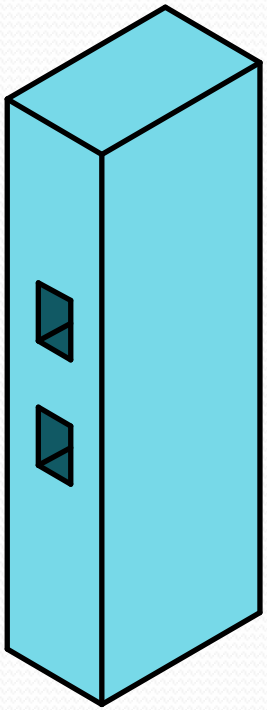
Stopped Mortise and Tenon Joint

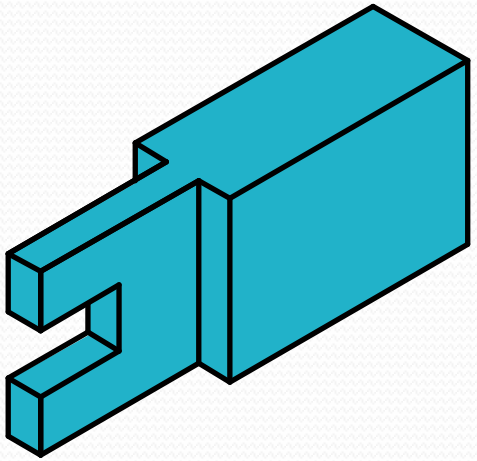
- This is a very strong joint
- It has a large glue area
- The advantage of this method is that the joint can be hidden
- It is used in frame construction, particularly in tables and chairs
- The tenon, and the mortise are usually 1/3 the width of the timber



Twin Mortise and Tenon Joint

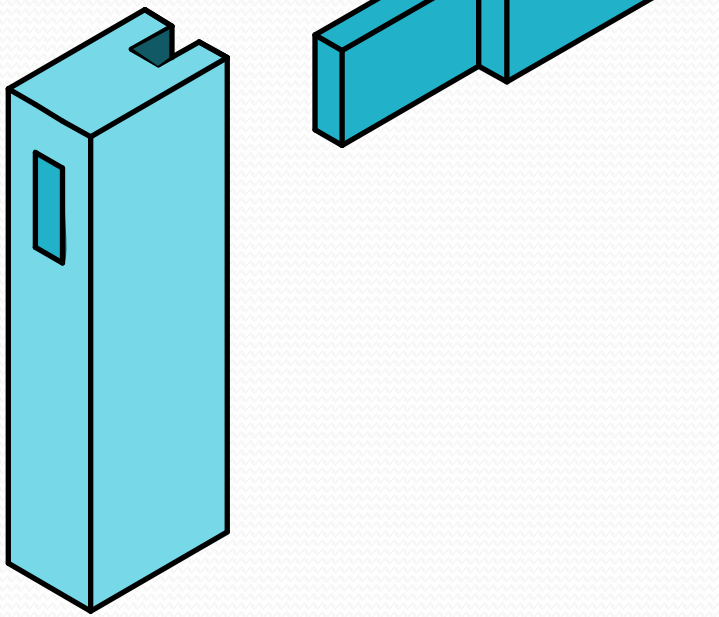
- This is a very strong joint
- It has a large glue area
- This method is used for joining very large sections together (such as the sections of a door)
- It is used in frame construction, particularly in tables and chairs





Haunched Mortise and Tenon Joint

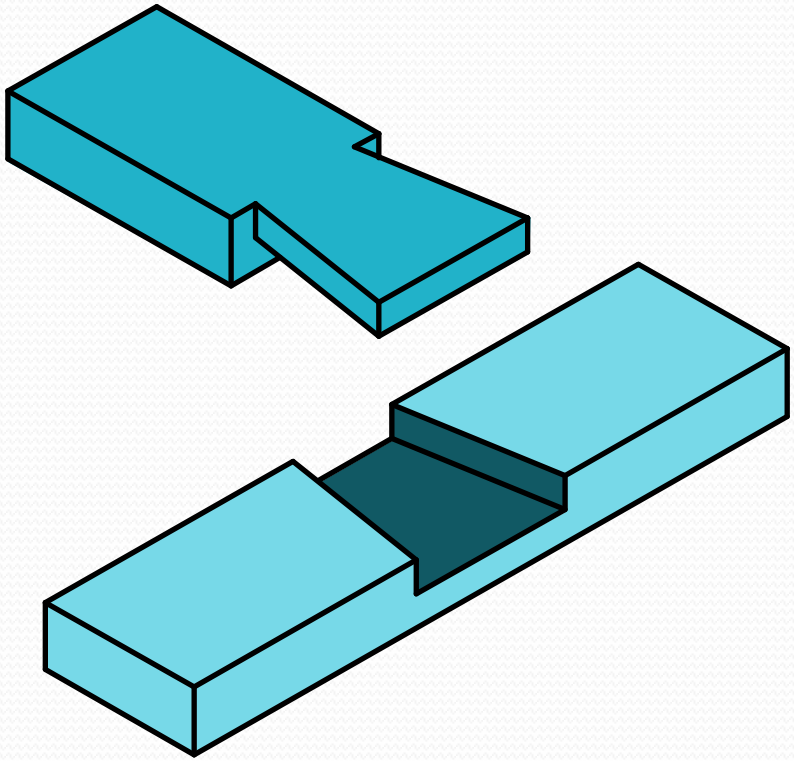
- This is a very strong joint
- It has a large glue area
- This method is used for tables and chairs. The haunch increases the glue area and stops the two pieces twisting
- It is used in frame construction, particularly in tables and chairs
- The tenon, and the mortise are usually 1/3 the width of the timber



Dovetail Joints

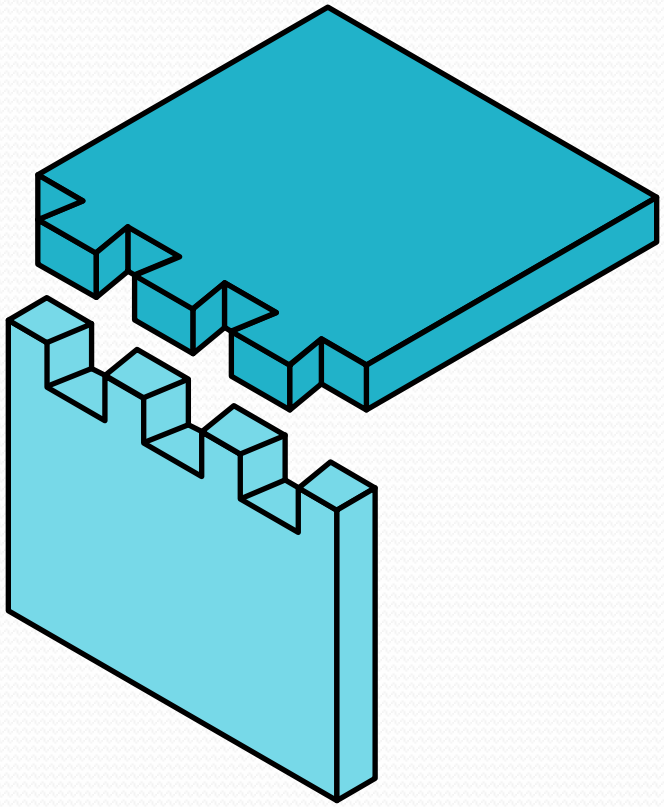
Dovetail Halving

- The dovetail halving is a strong and decorative joint
- All dovetails are very strong in tension.
- The dovetail halving joint is used in frame construction



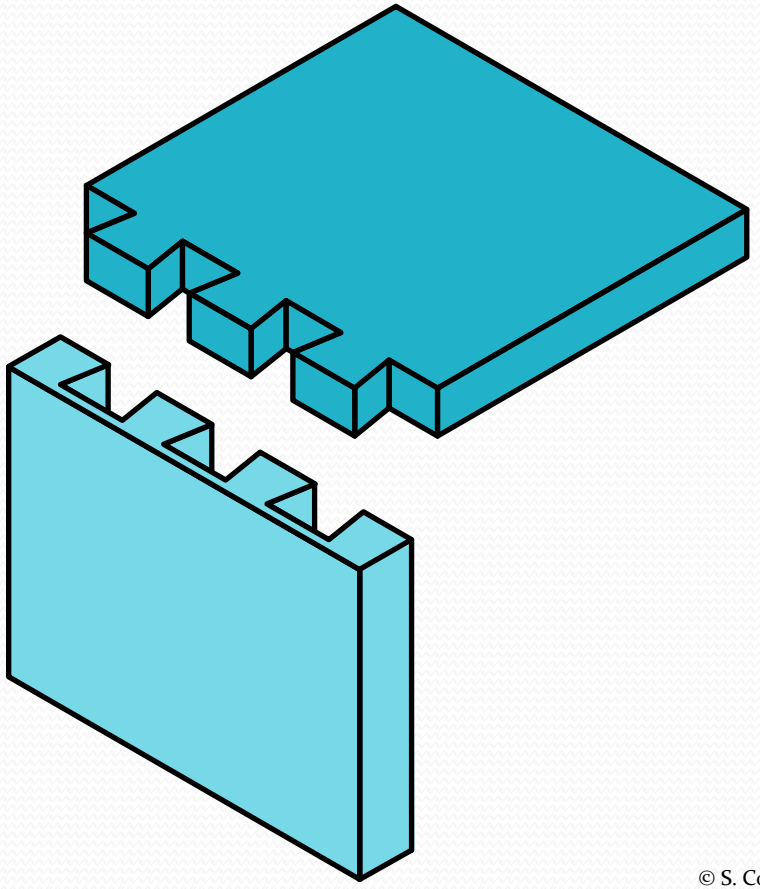
Through Dovetail Joint

- The through dovetail is a very strong and decorative joint
- It can be challenging to make
- The dovetail is very strong in tension.
- The through dovetail joint is used in carcass construction



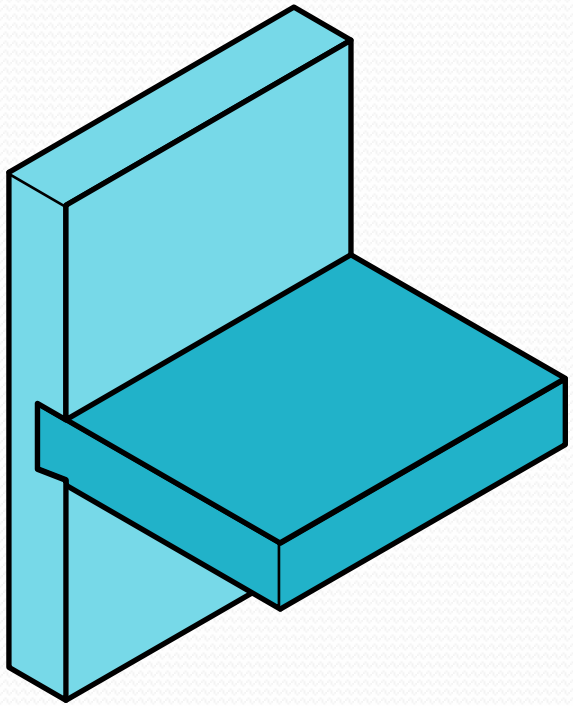
Lapped Dovetail Joint

- The through dovetail is a very strong and decorative joint
- It can be challenging to make
- The dovetail is very strong in tension.
- The through dovetail joint is used in carcass construction



Dovetail Housing Joint

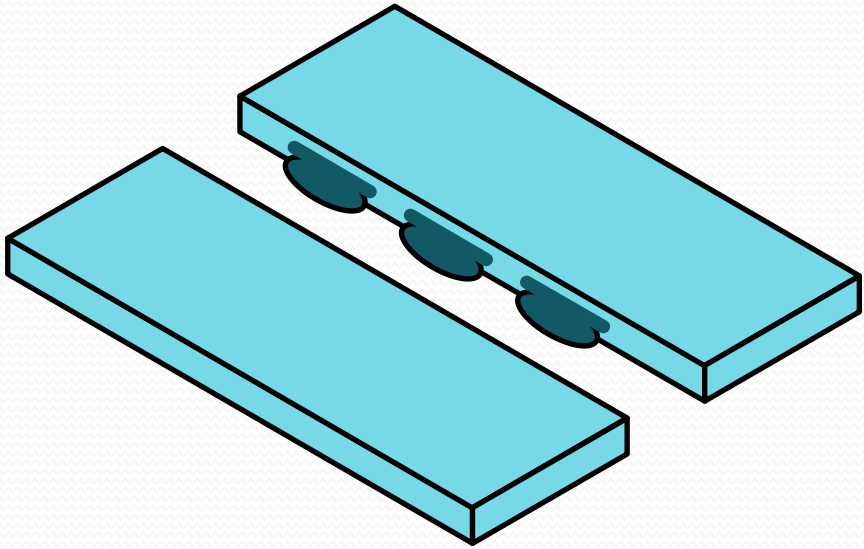
- The through dovetail is a very strong and decorative joint
- It can be challenging to make
- The dovetail is very strong in tension.
- The through dovetail joint is used in carcass construction as a shelf or as a divider



Edge Joints

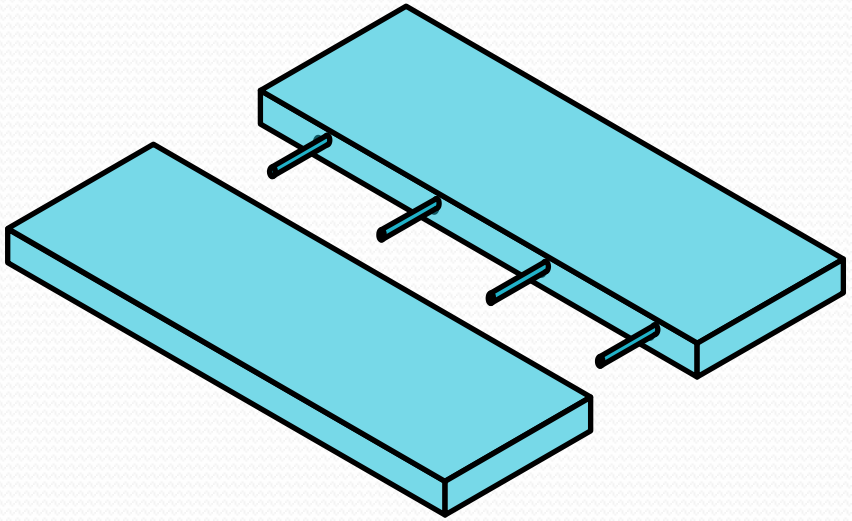
Biscuit Joint

- This is a simple and effective method of joining two boards together to make a wider board
- Glue is placed in the holes and the biscuit is inserted
- The glue causes the biscuit to swell, adding strength to the joint.
- The pieces are held together in clamps until the glue dries



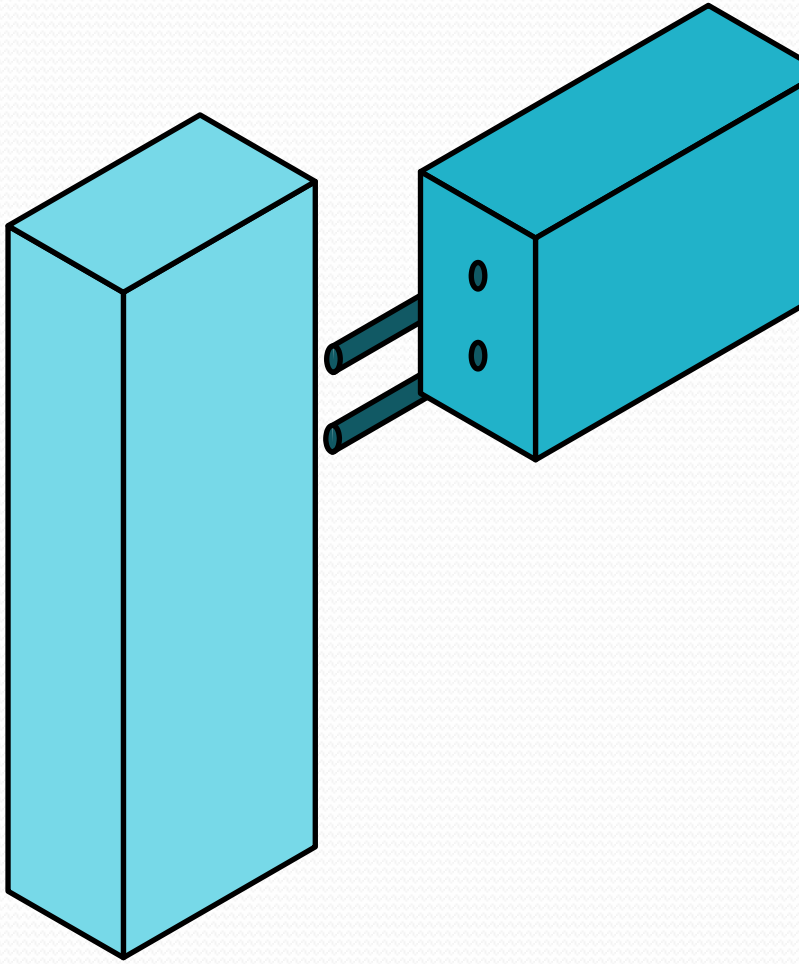
Dowel Joint

- This is a simple and effective method of joining two boards together to make a wider board
- Glue is placed in the holes and the dowels are inserted
- The pieces are held together in clamps until the glue dries

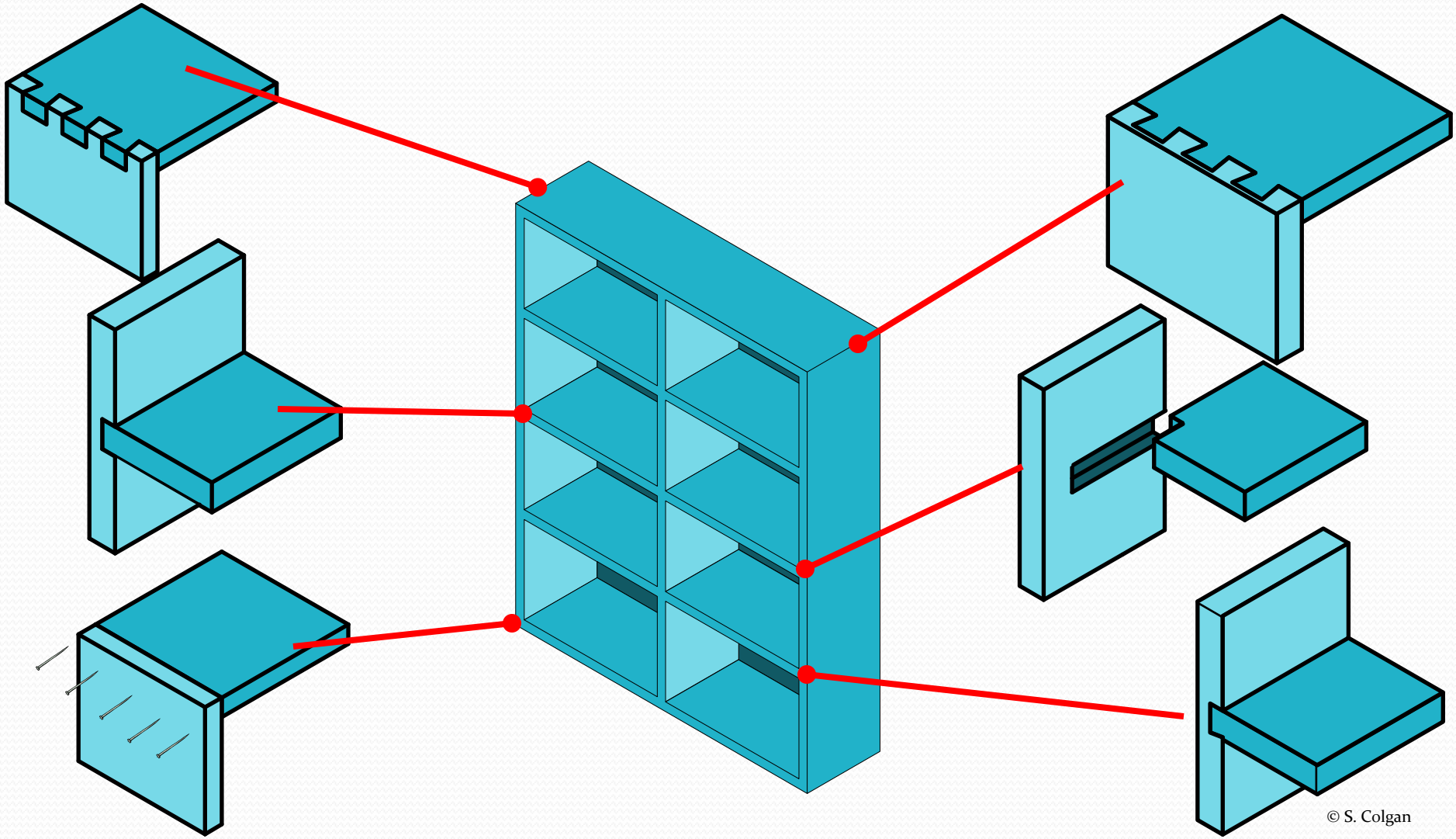


Dowel Joint

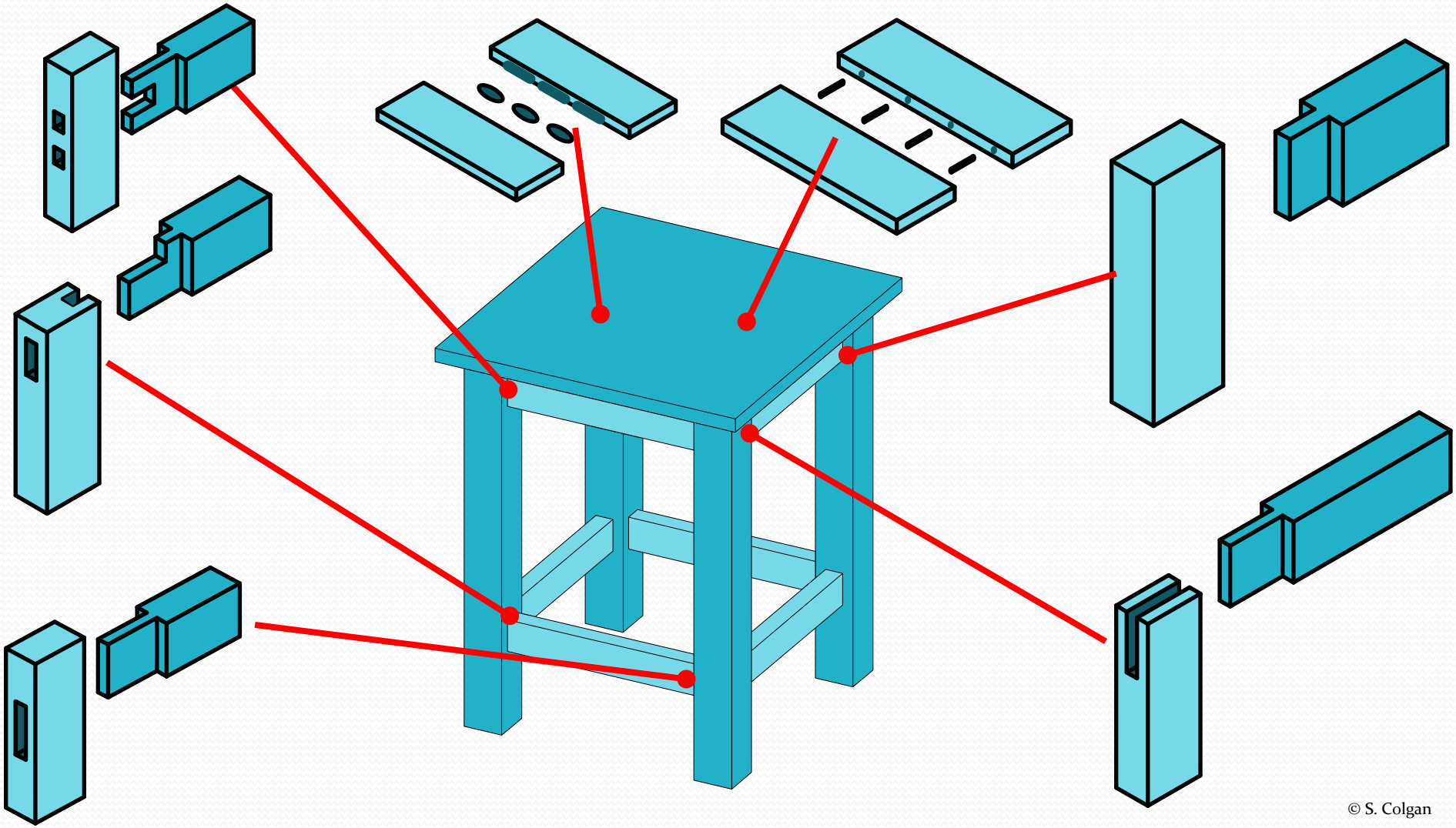
- This is a simple and effective joint
- However the joint is not very strong in tension as it has a small glue area
- It is used in frame and carcass construction



Examples where joints are used



Examples where joints are used



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