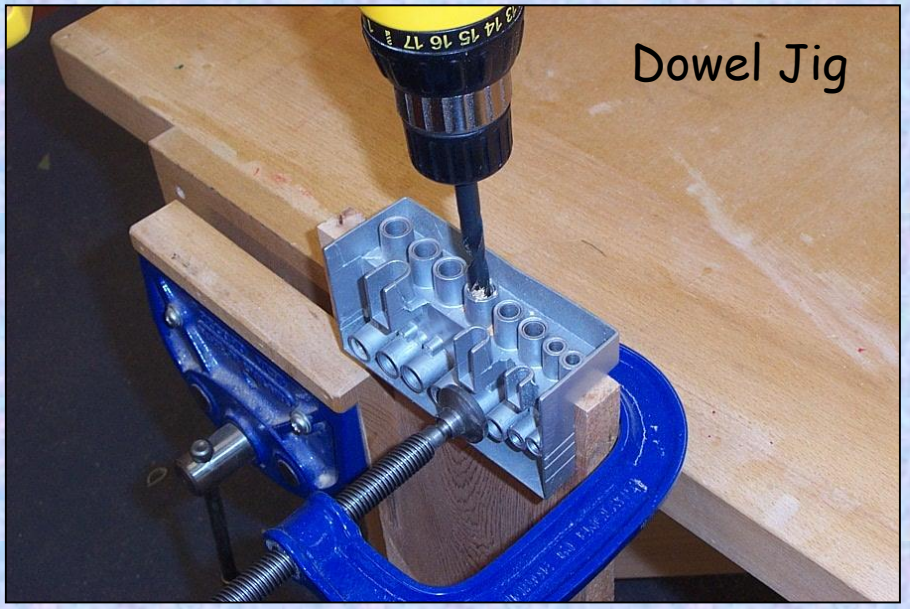

Woodwork Joints
2

Dowel Joint

"Flat Pack" Kitchen Drawer



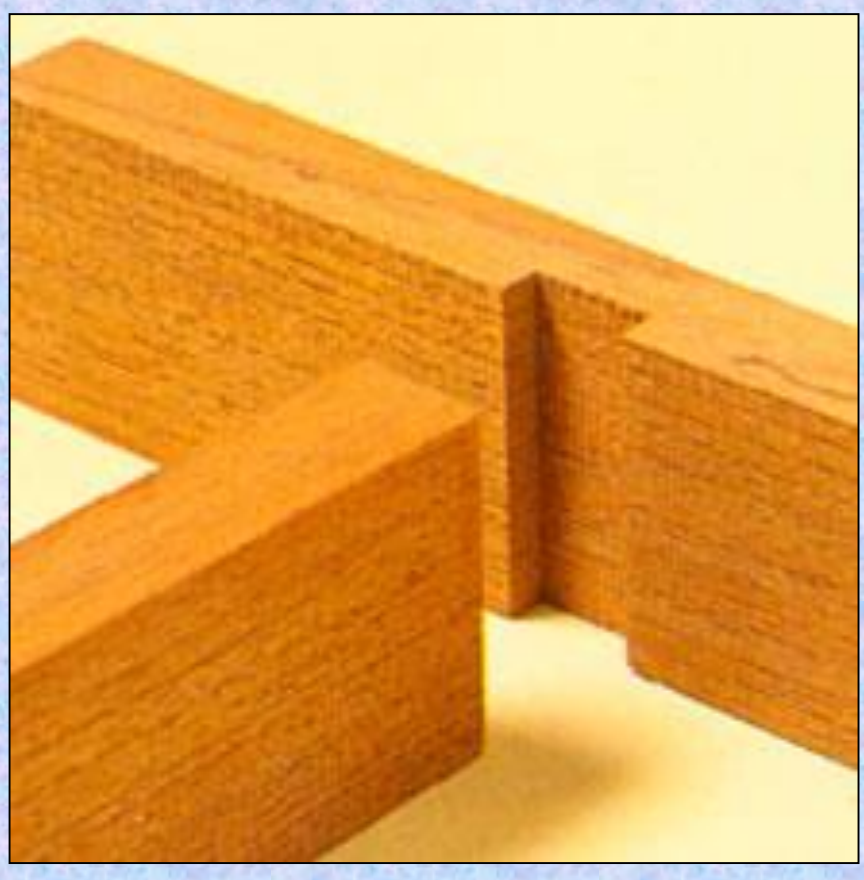
Dowel Jig

Dowel joints have now replaced many traditional joints in factory made furniture where holes can be drilled accurately by machine. Dowelling jigs are often used in the school workshop ensure greater accuracy.

Dowel pegs are generally made from Ramin and have grooves cut along the sides to allow excess glue to escape when the dowel peg is inserted into a hole.

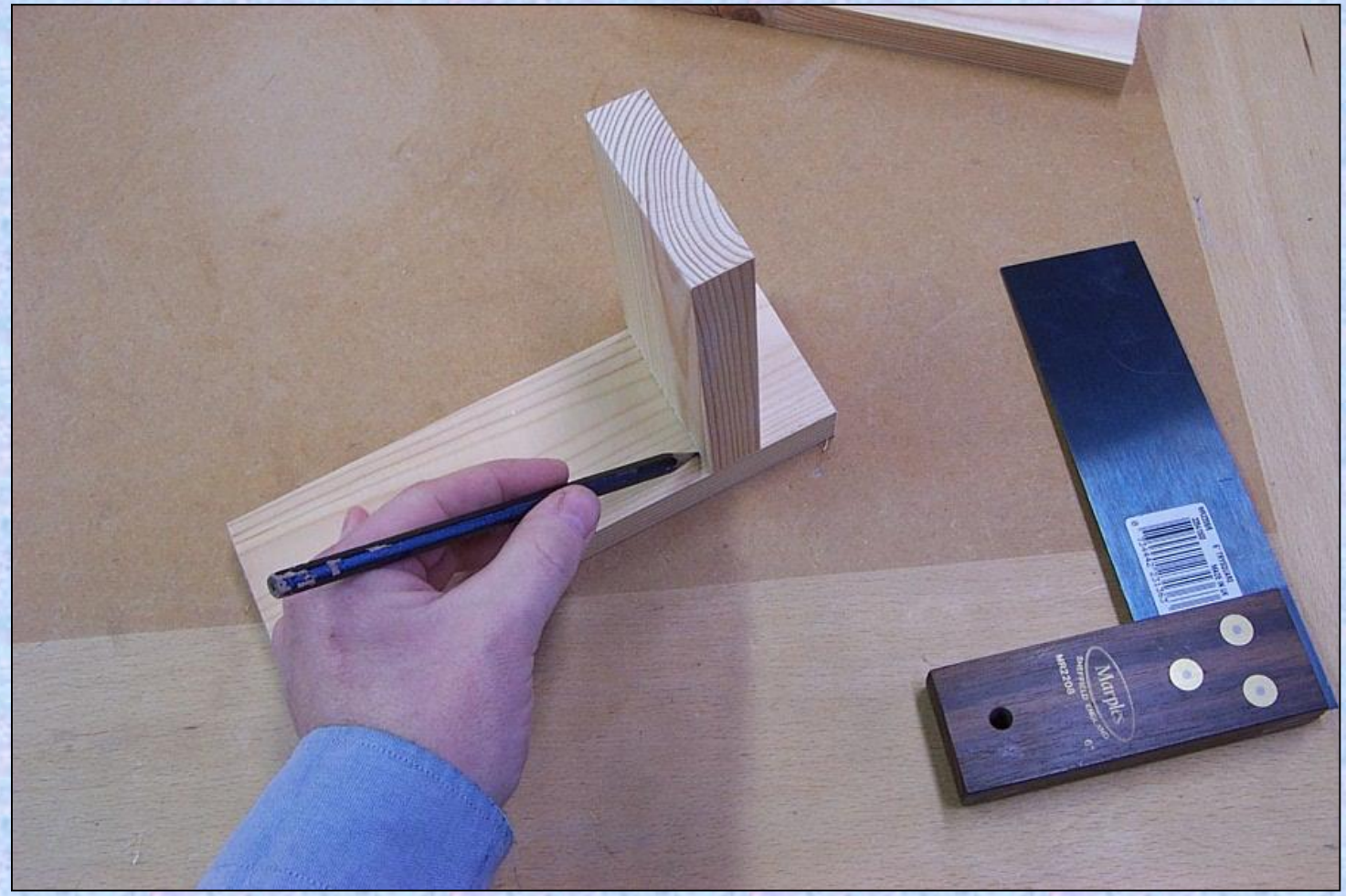
Ramin Dowel Pegs

Through Housing Joint



The Through Housing Joint is one of the simplest carcase construction joints to cut. It is generally used for shelving or in this case to give extra strength to the treads on the stepladder.

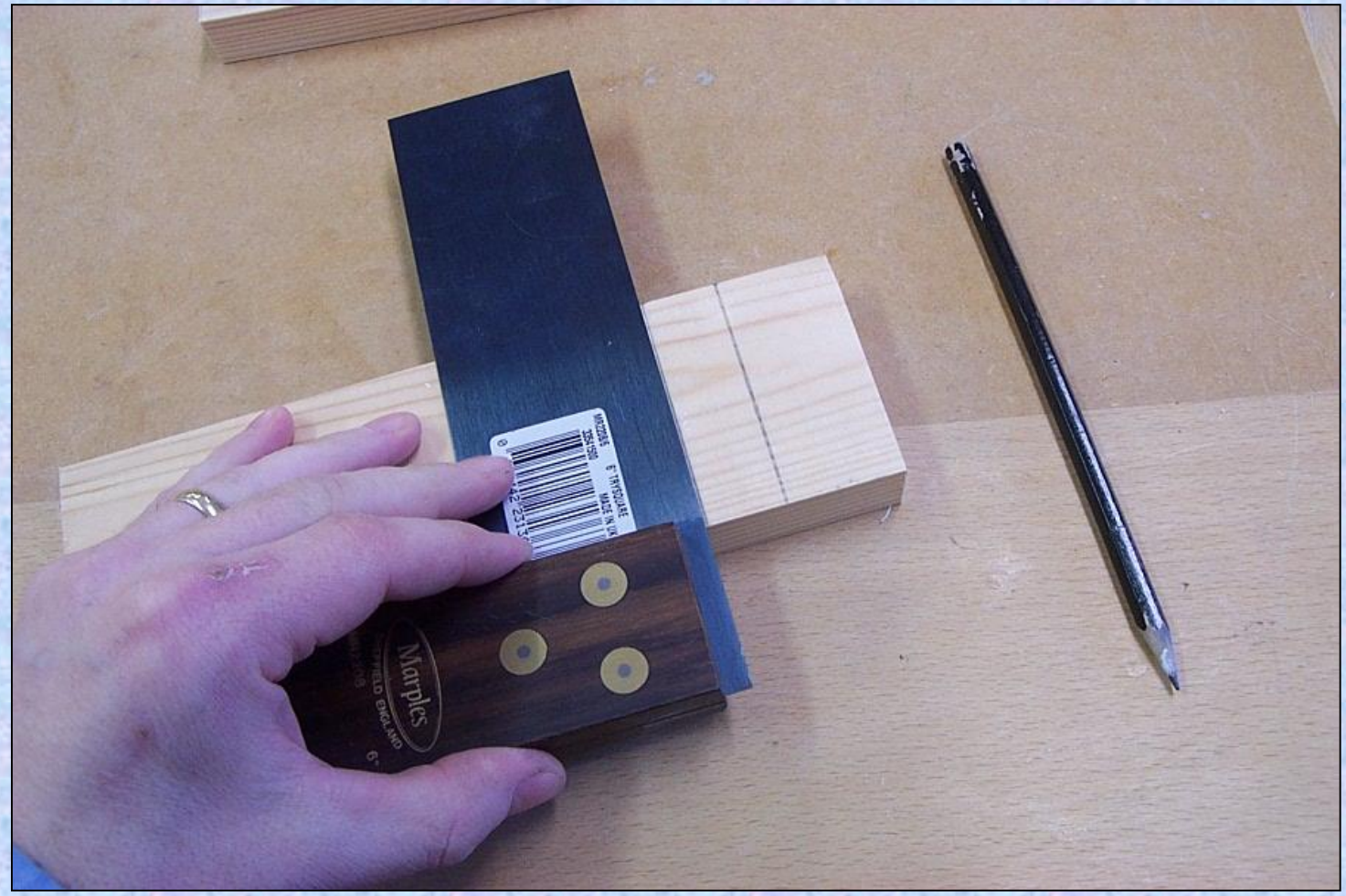
Cutting a Through Housing Joint



1) Mark the position of the joint.

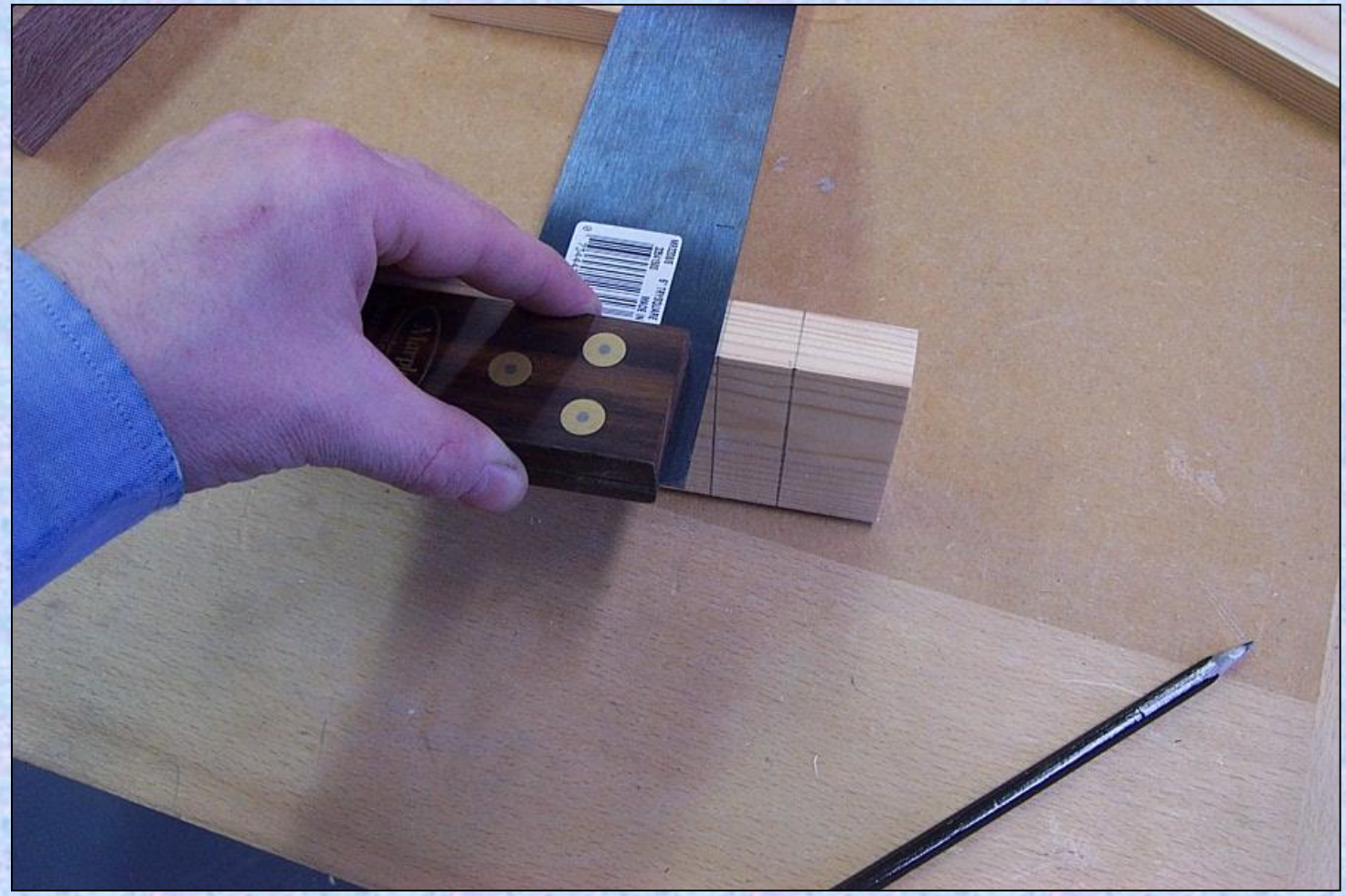
Next Joint

Cutting a Through Housing Joint



2) Use a Try Square to mark the edges of the joint.

Cutting a Through Housing Joint

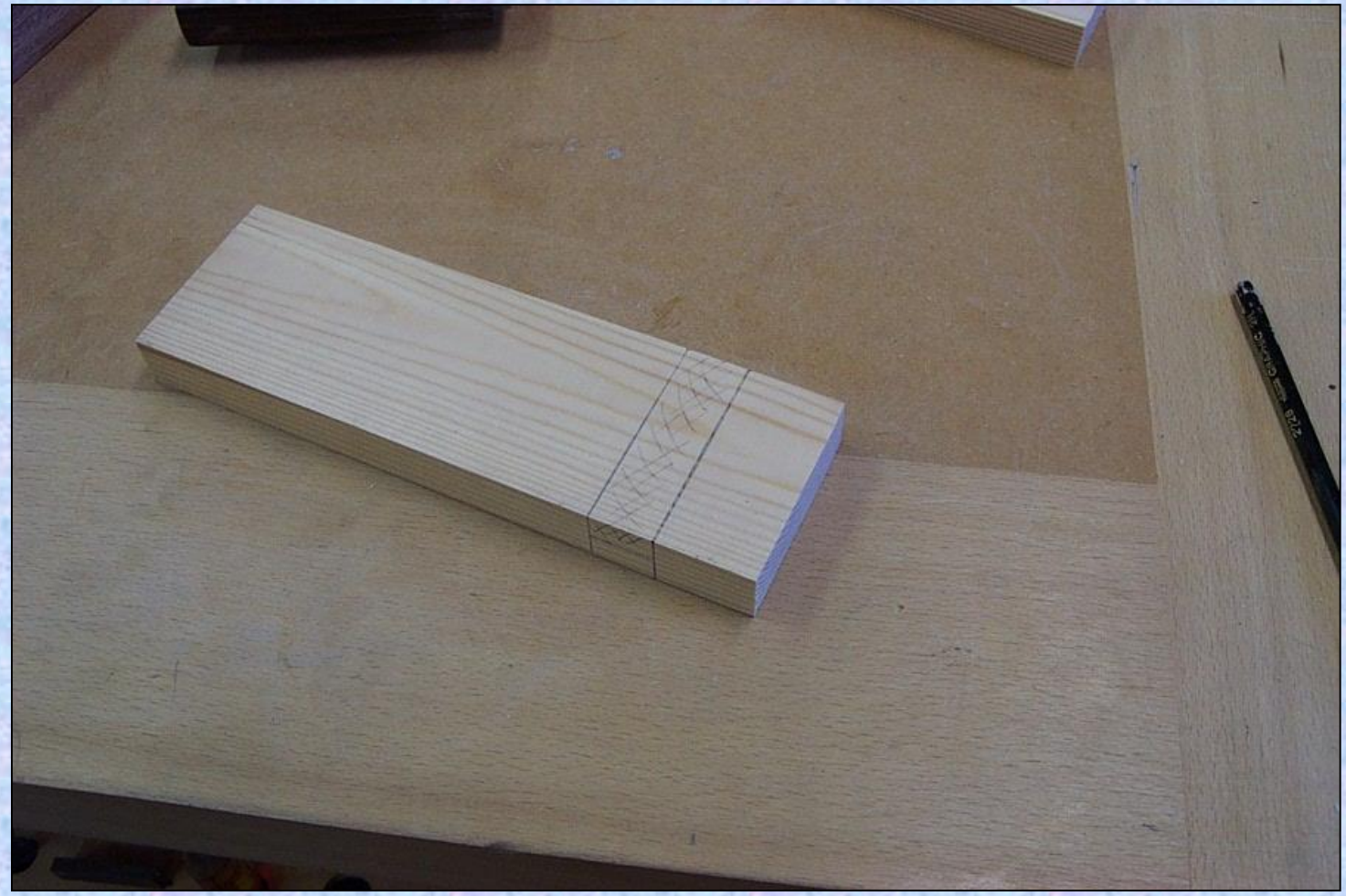


3) Square round both edges

Cutting a Through Housing Joint

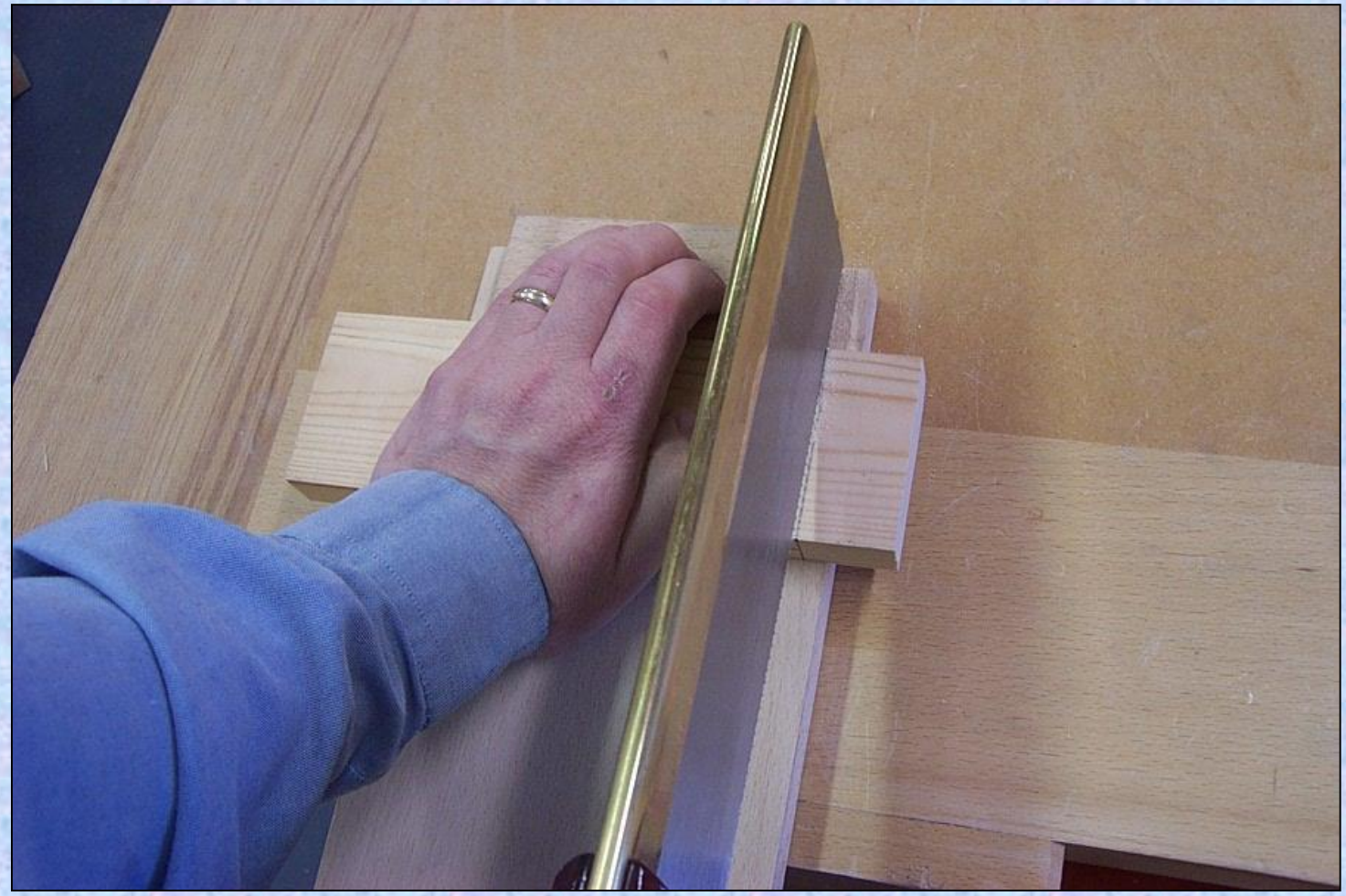
4) Set your Marking gauge ½ the thickness and mark the depth of the joint.

Cutting a Through Housing Joint



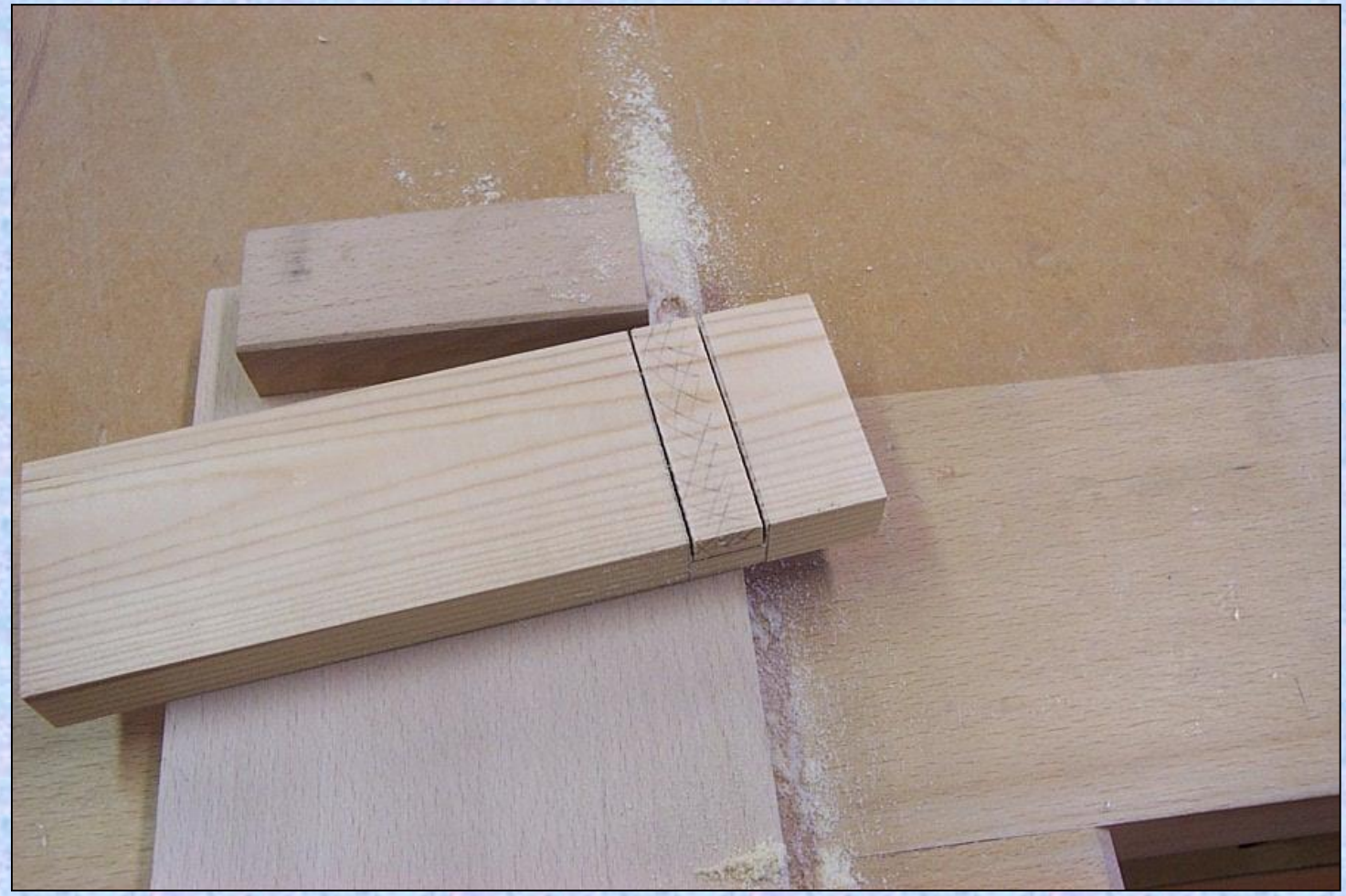
5) Mark on the waste wood.

Cutting a Through Housing Joint



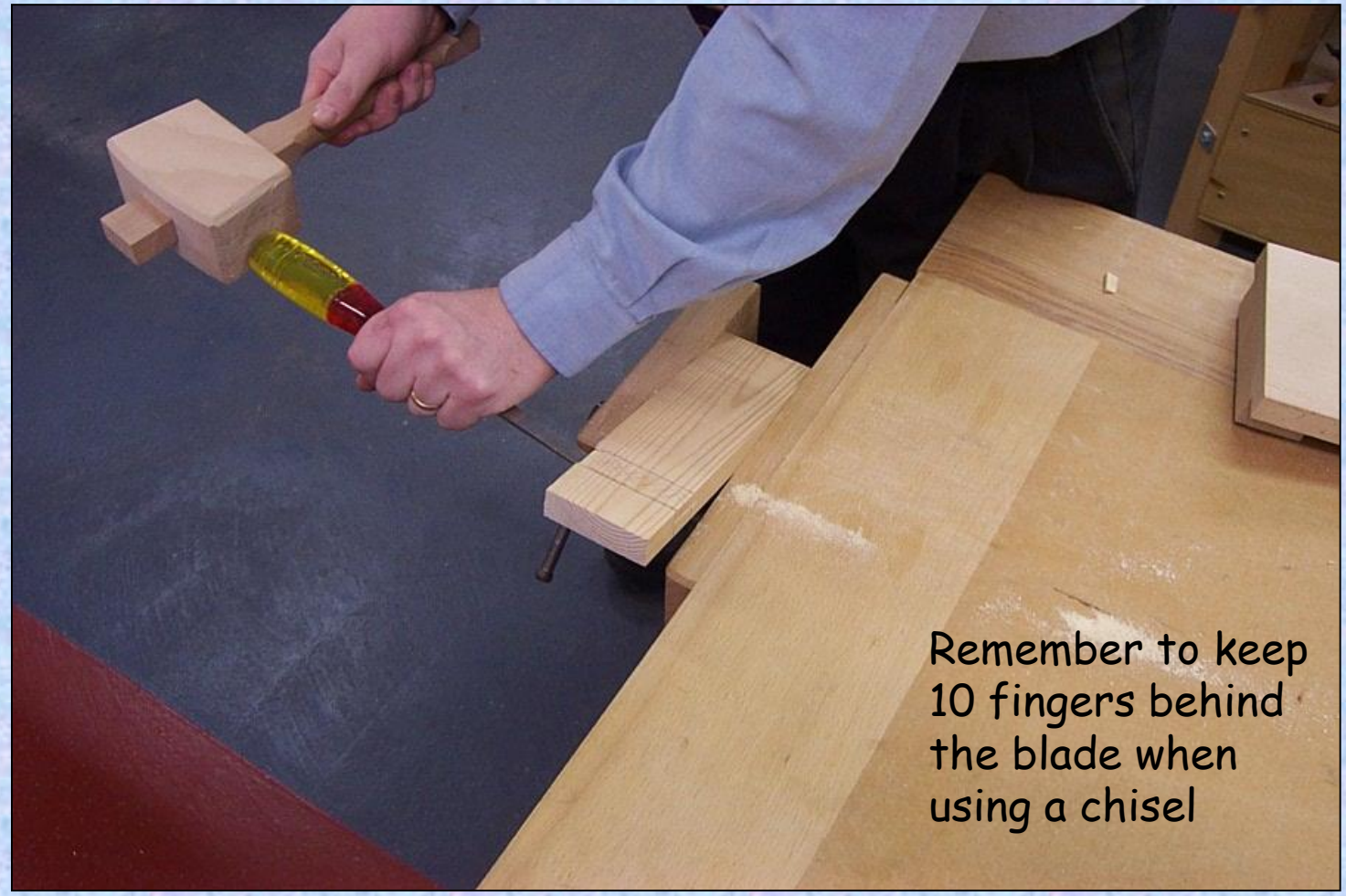
6) Use a Tenon saw to cut on the waste wood side of the lines.

Cutting a Through Housing Joint



7) Take care to make sure you cut as near as you can to the lines.

Cutting a Through Housing Joint

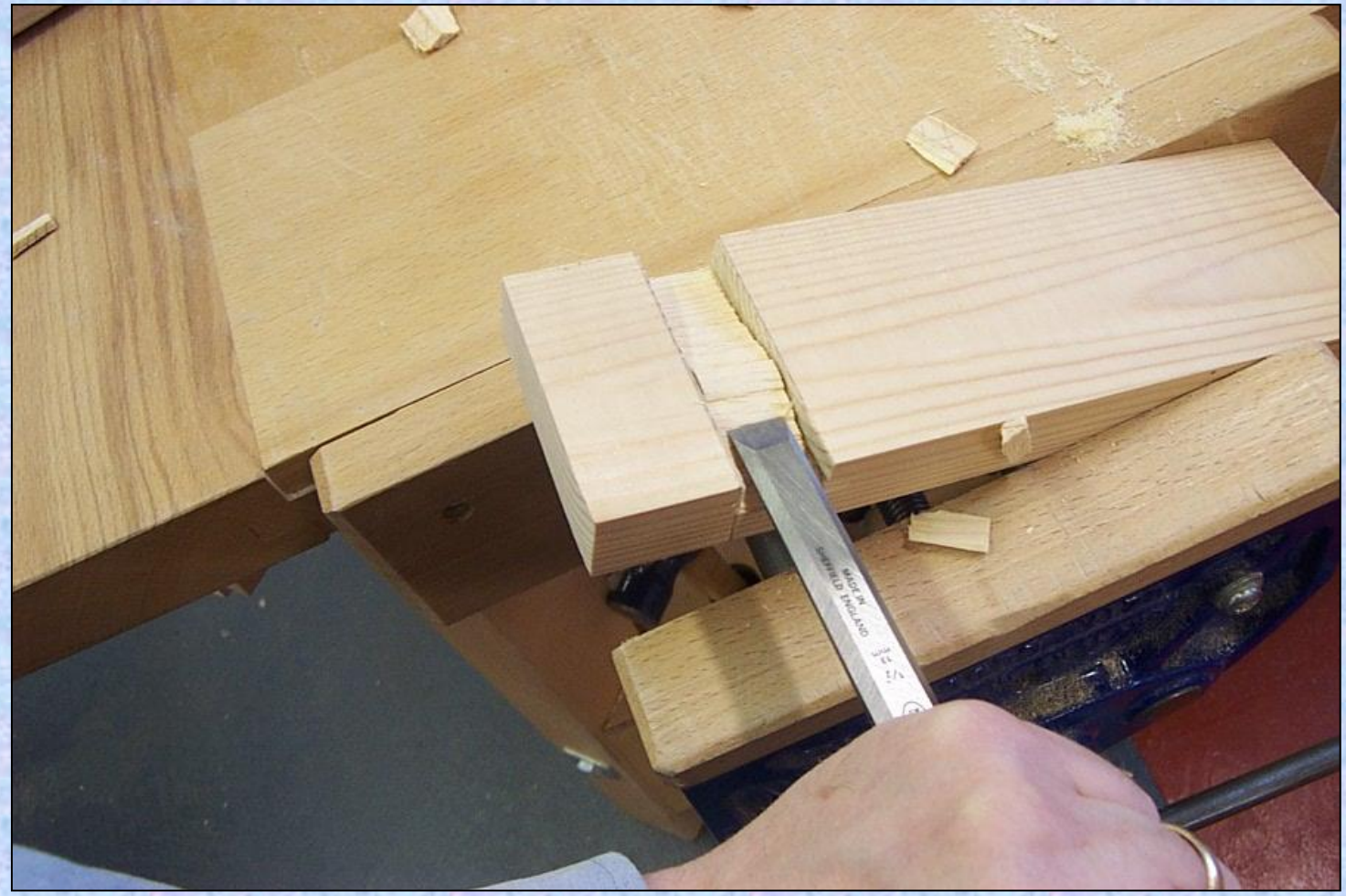


8) Using a Bevel Edged Chisel (flat side up) carefully cut one side of the joint

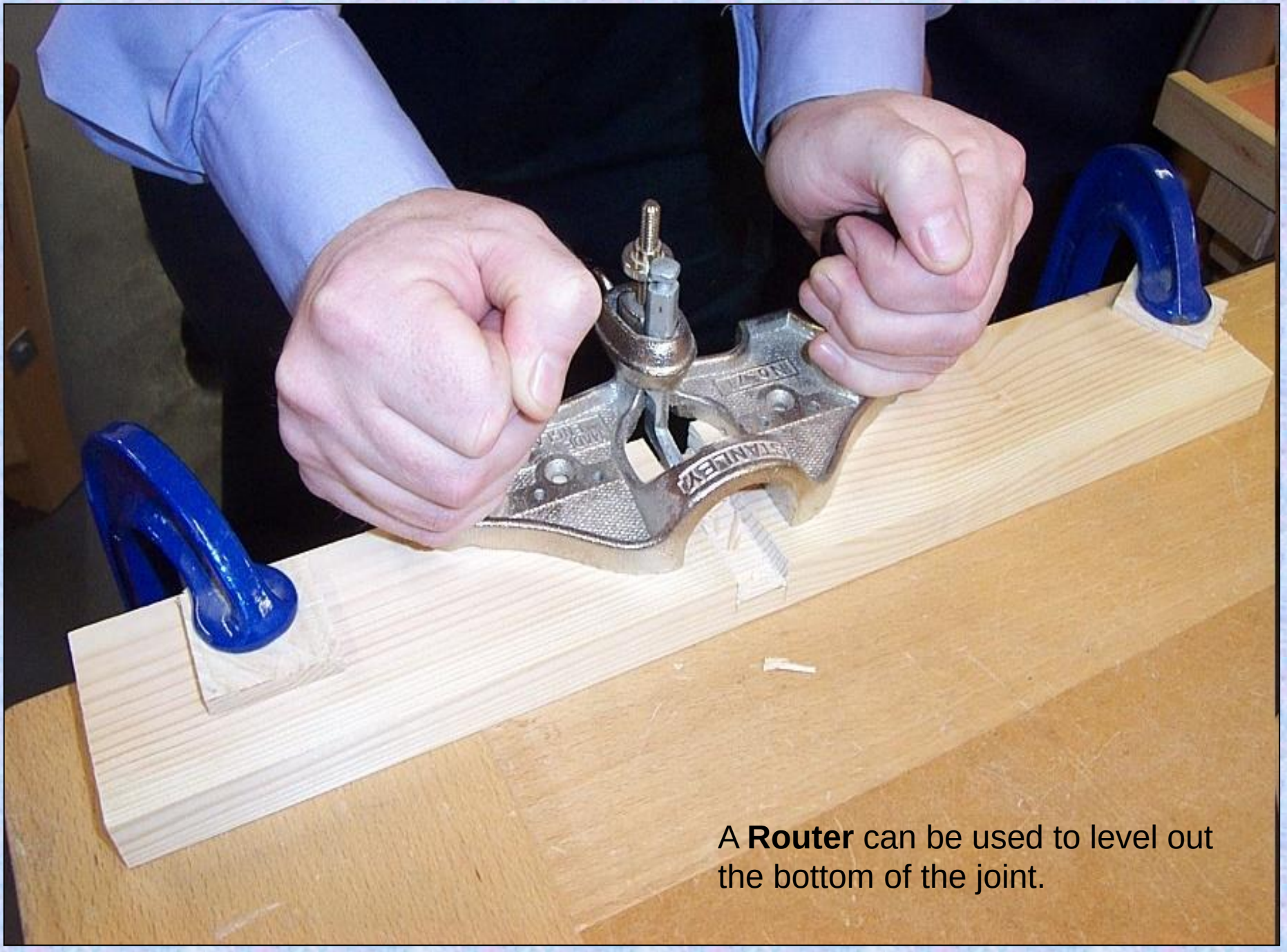
Cutting a Through Housing Joint

9) Turn the wood round and use the same technique to cut the second half of the joint.

Cutting a Through Housing Joint

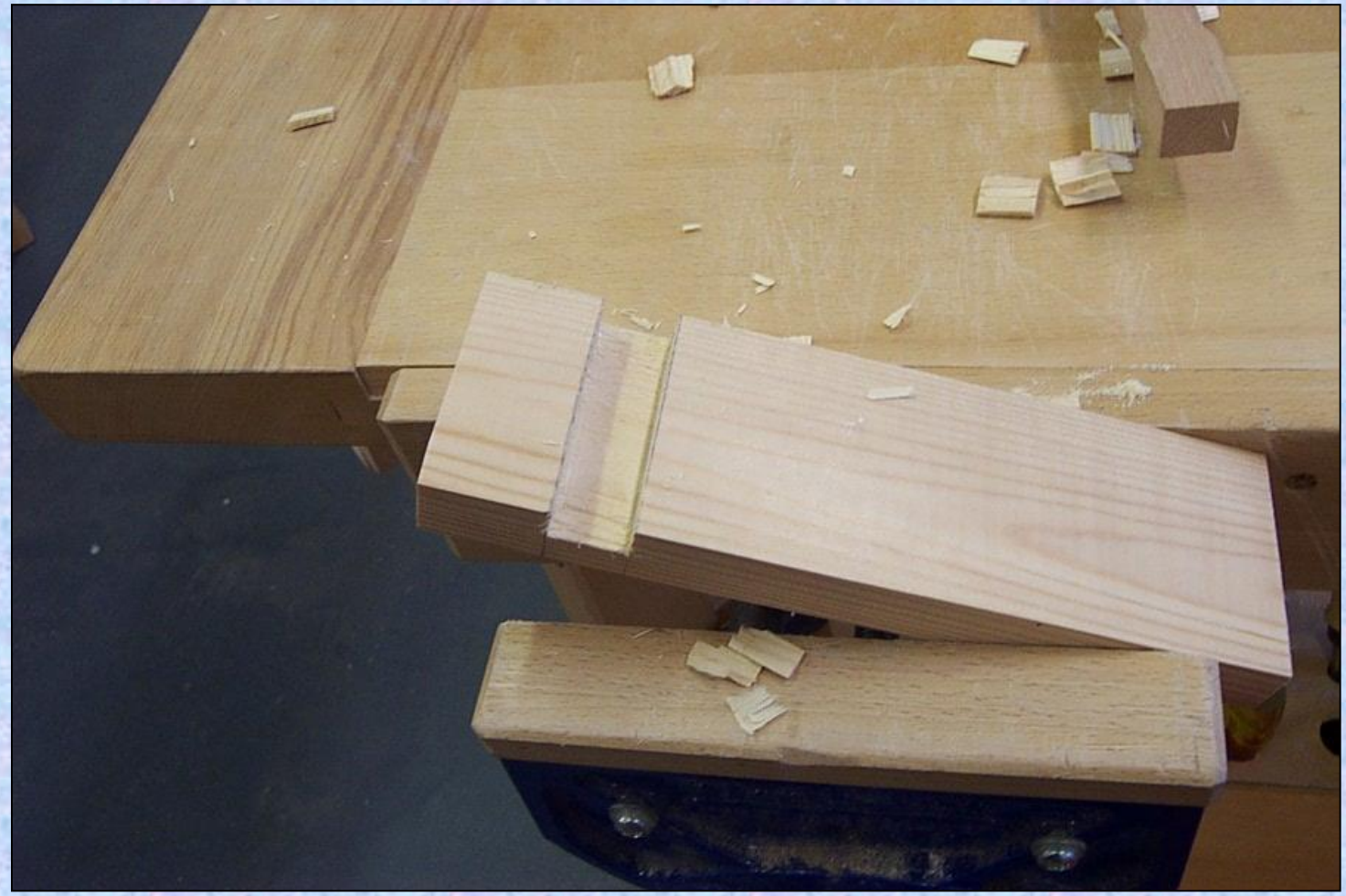


10) Now use a Bevel Edged Chisel (flat side down) to remove the high ridge in the centre of the joint.



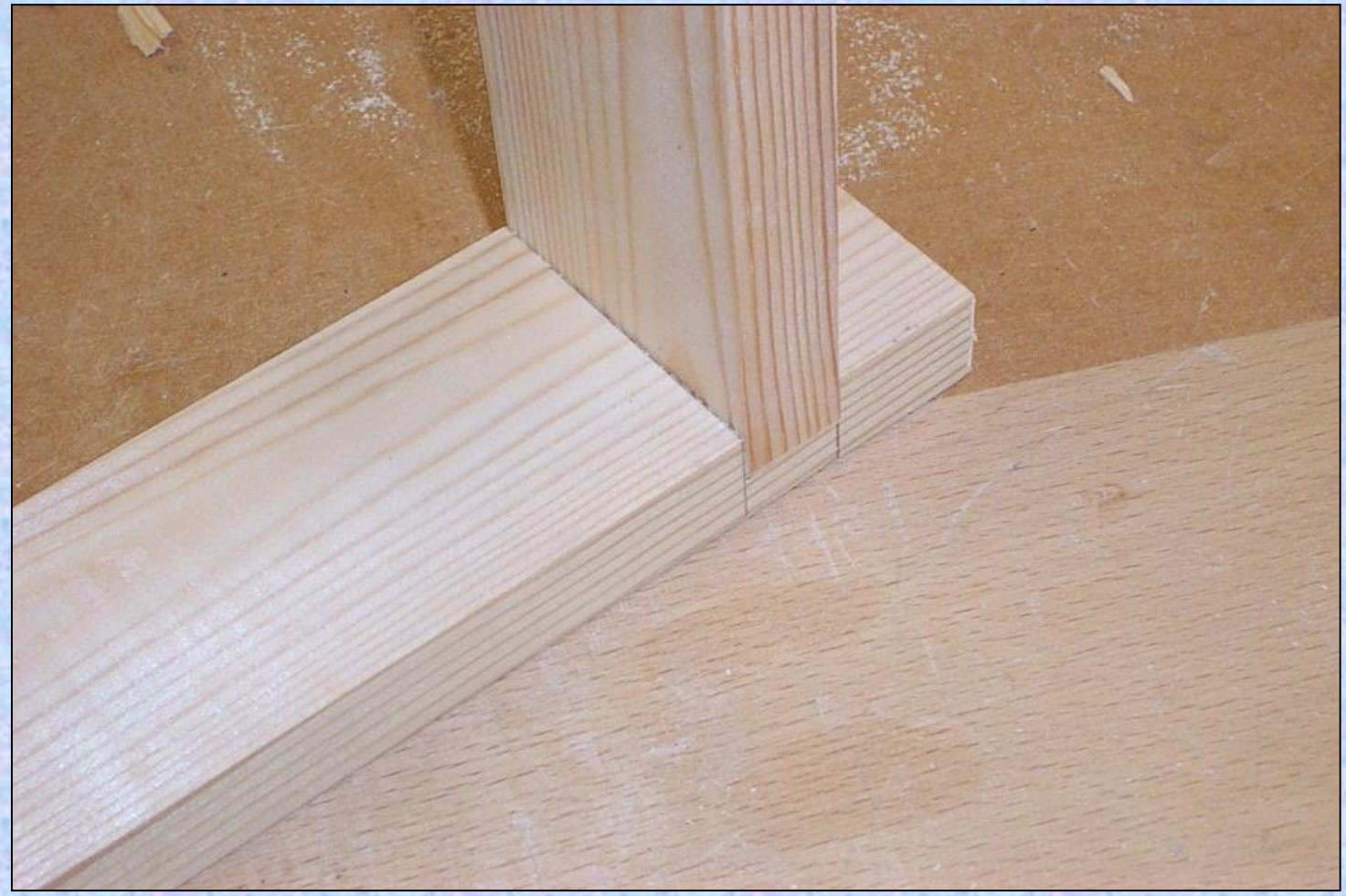
A **Router** can be used to level out the bottom of the joint.

Cutting a Through Housing Joint



11) The joint should now be ready for fitting.

Cutting a Through Housing Joint

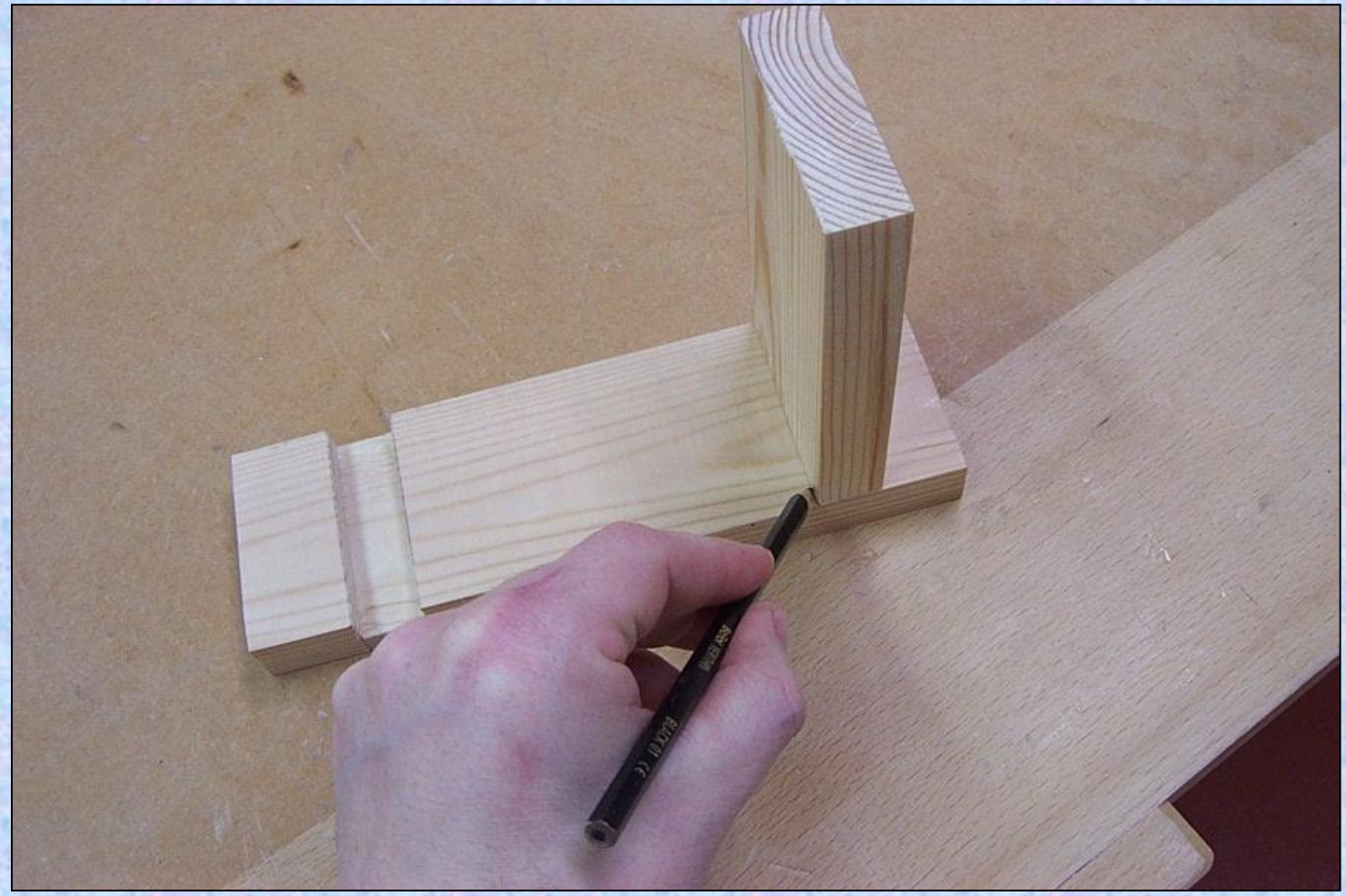


12) Fit the Joint together.

Stopped Housing Joint

The Stopped Housing Joint is again used in carcase construction generally where you want to hide the front edge of the joint

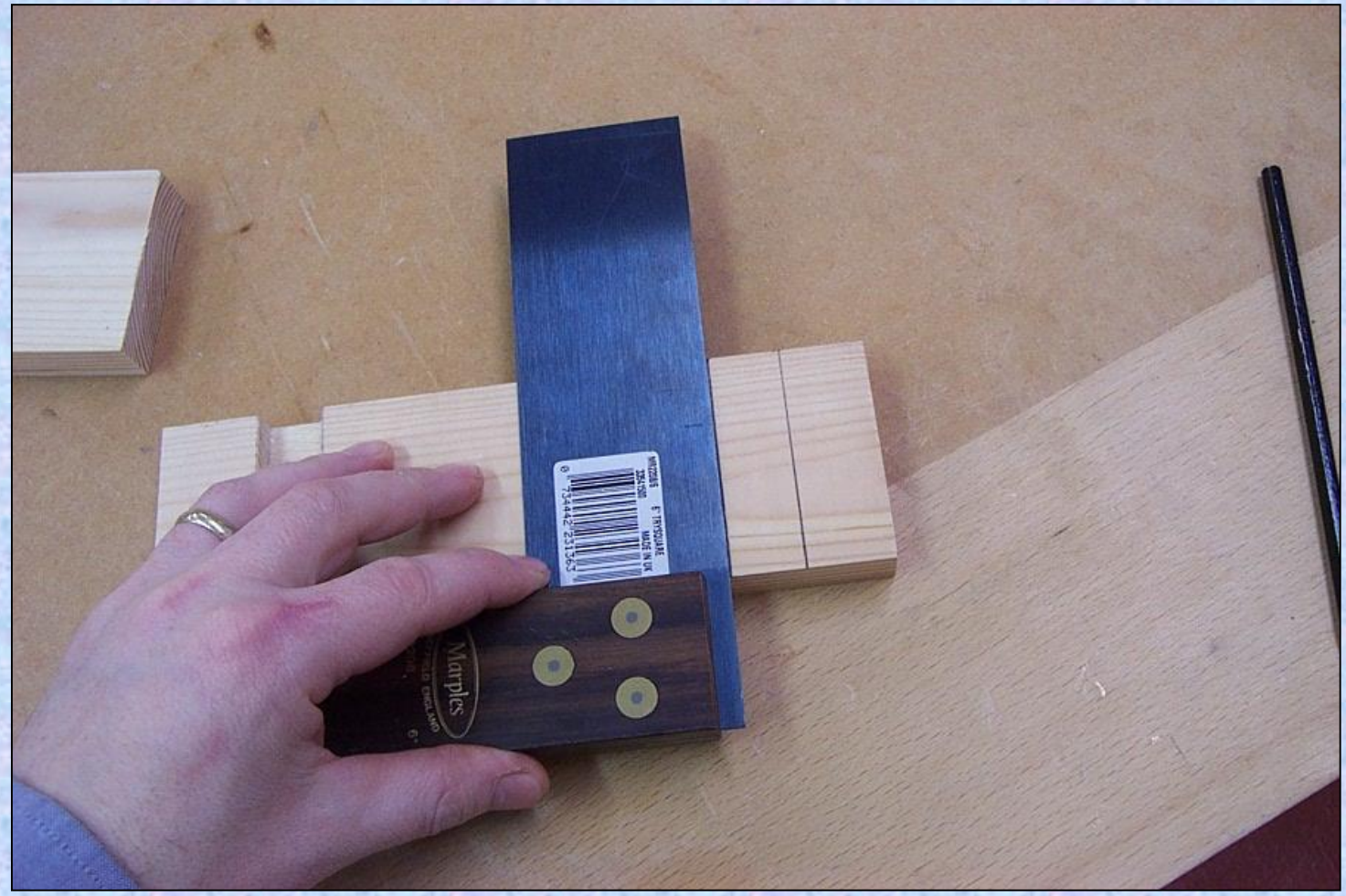
Cutting a Stopped Housing Joint



1) Mark the position of the joint

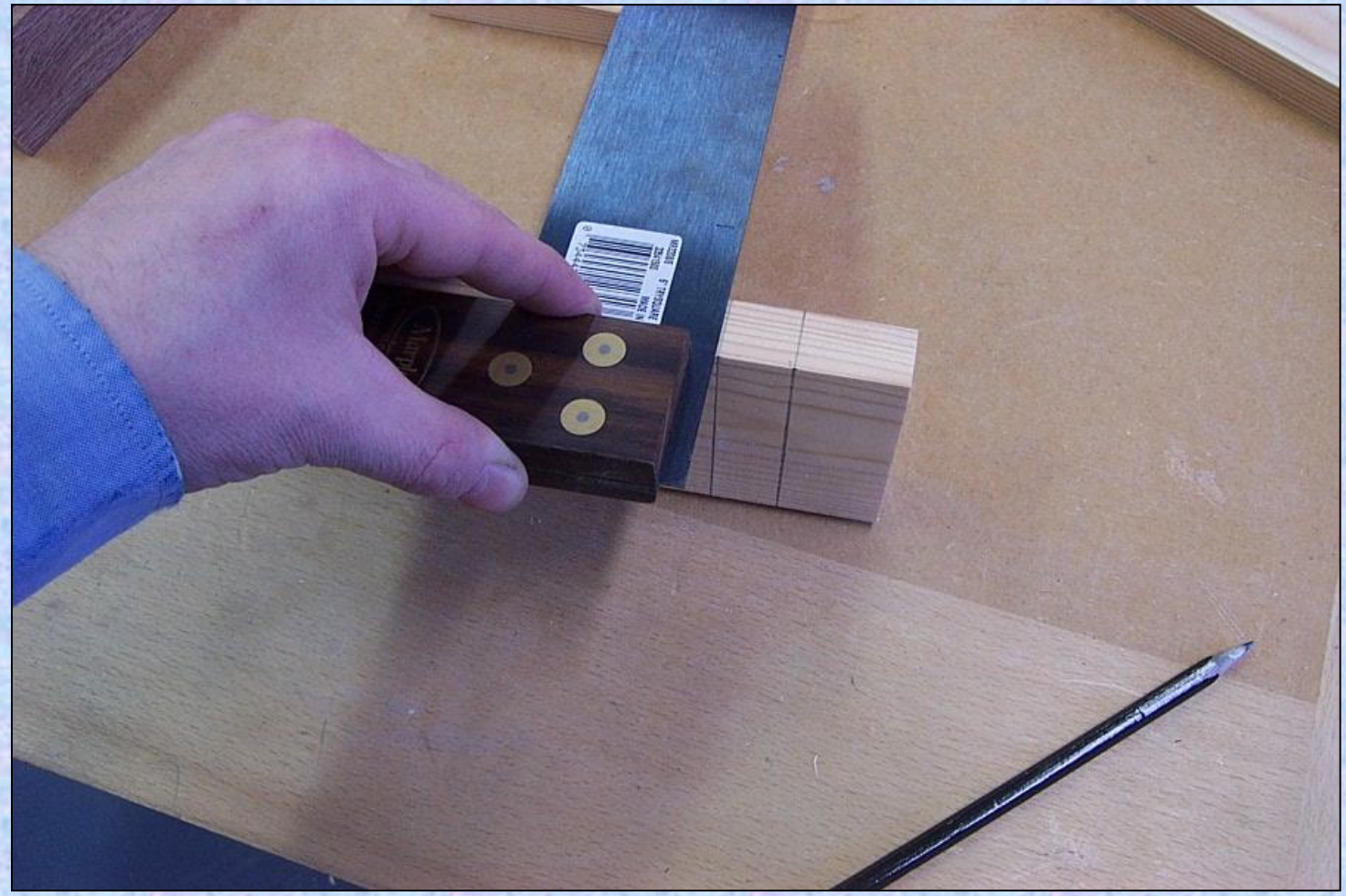
Next

Cutting a Stopped Housing Joint



2) Use a Try Square to mark the sides of the joint.

Cutting a Stopped Housing Joint

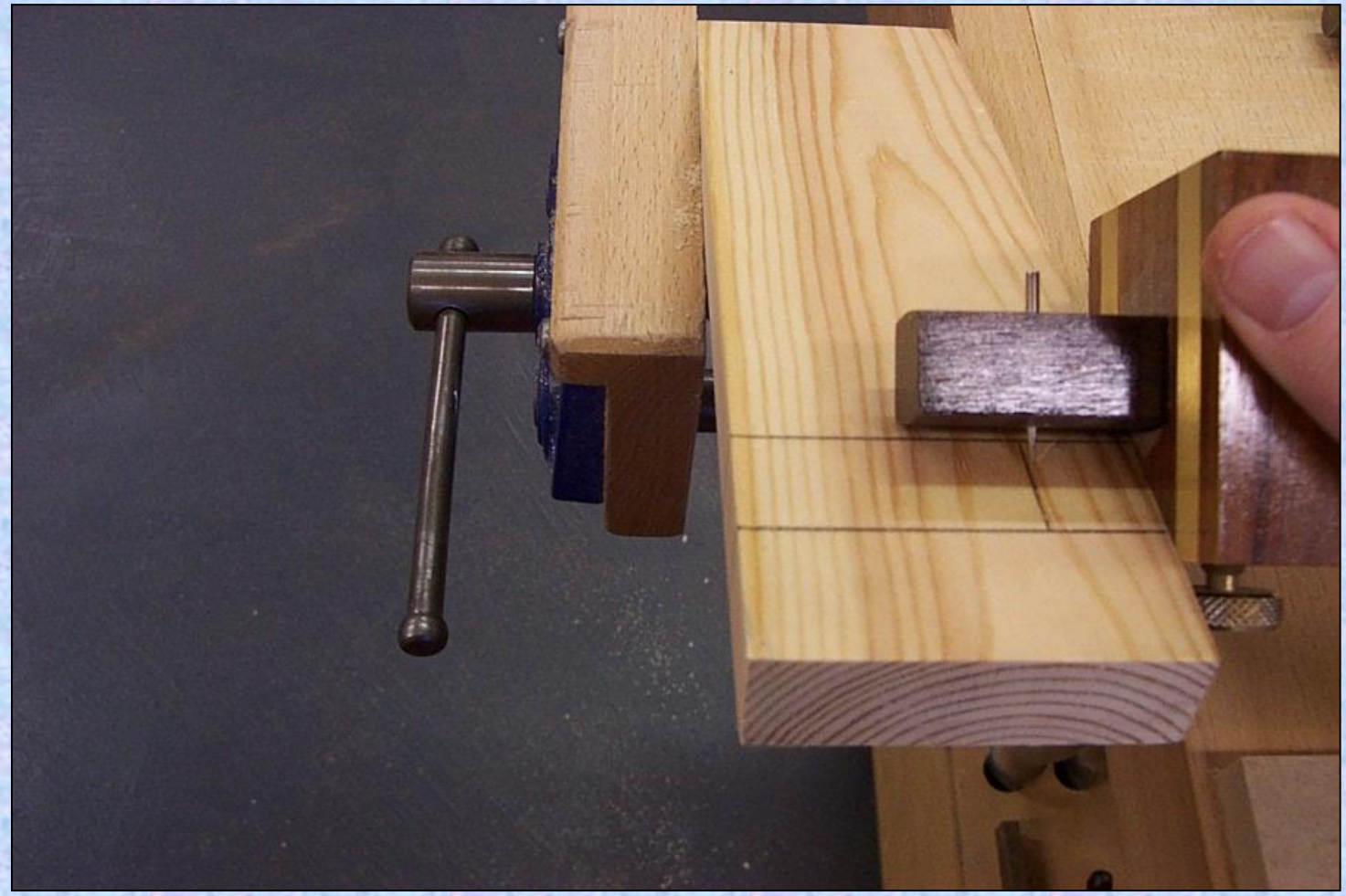


3) Square round both edges

Cutting a Stopped Housing Joint

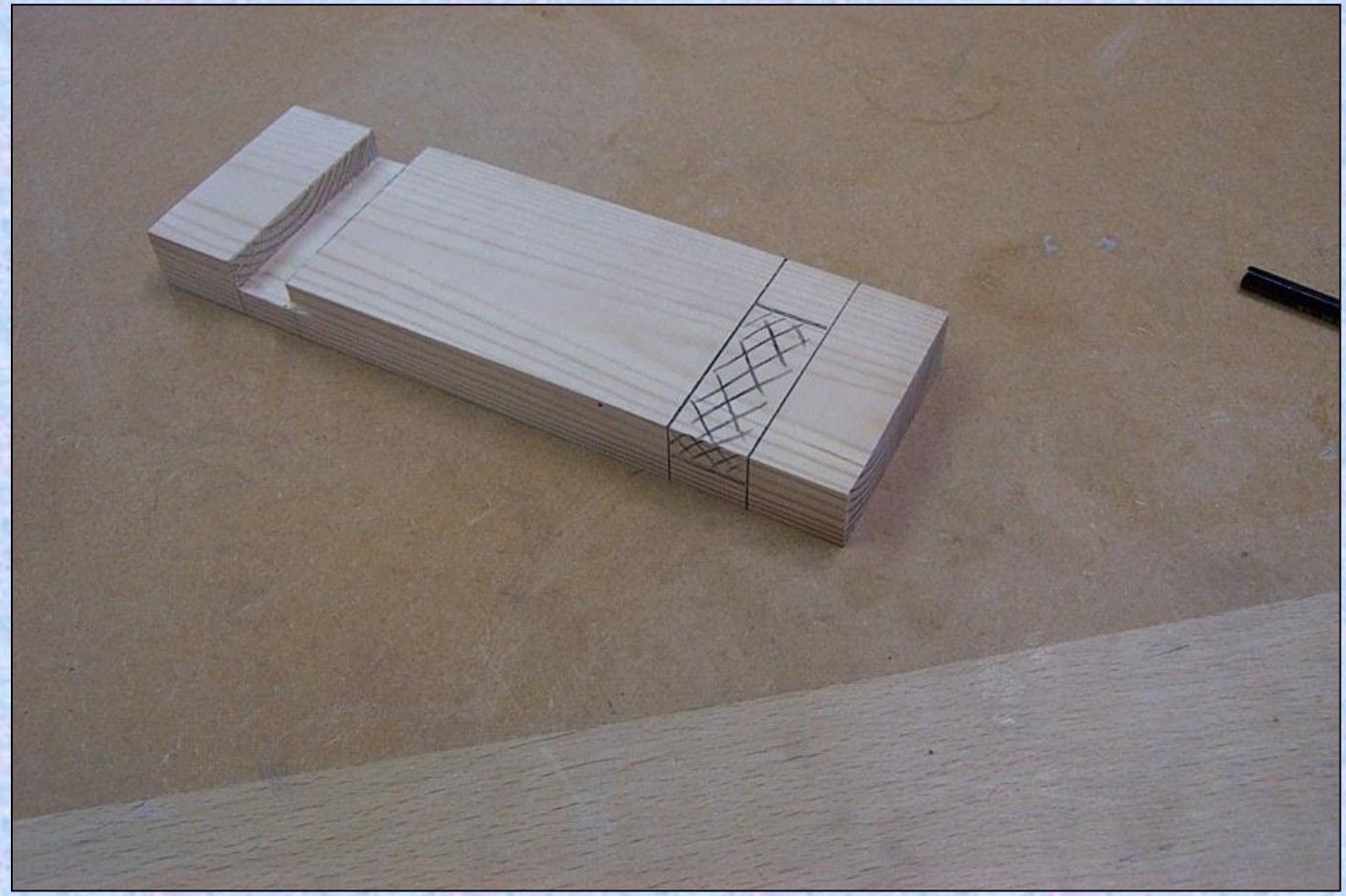
4) Gauge the depth of joint on back edge only

Cutting a Stopped Housing Joint



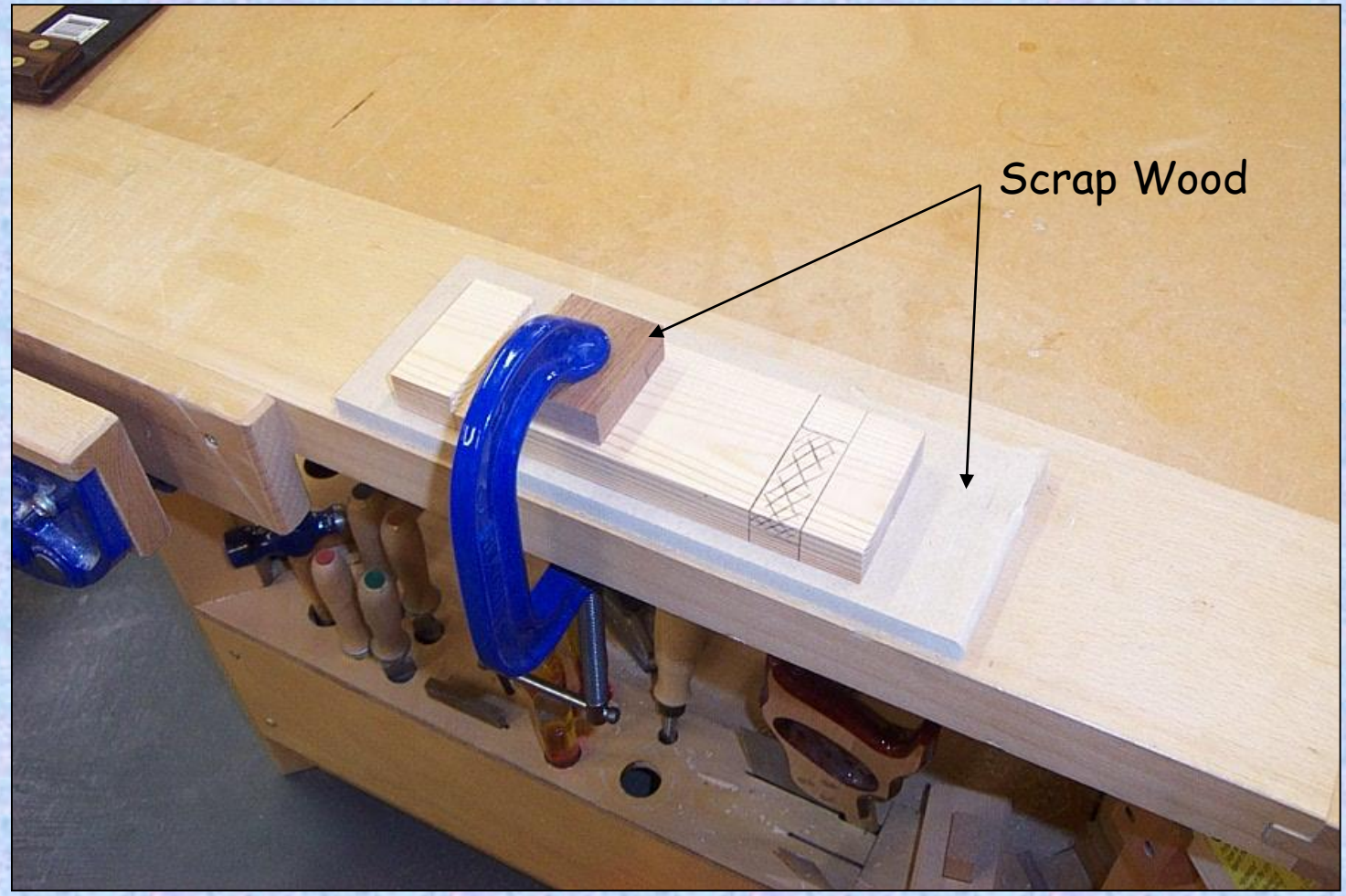
5) Mark on the front edge of the joint.

Cutting a Stopped Housing Joint



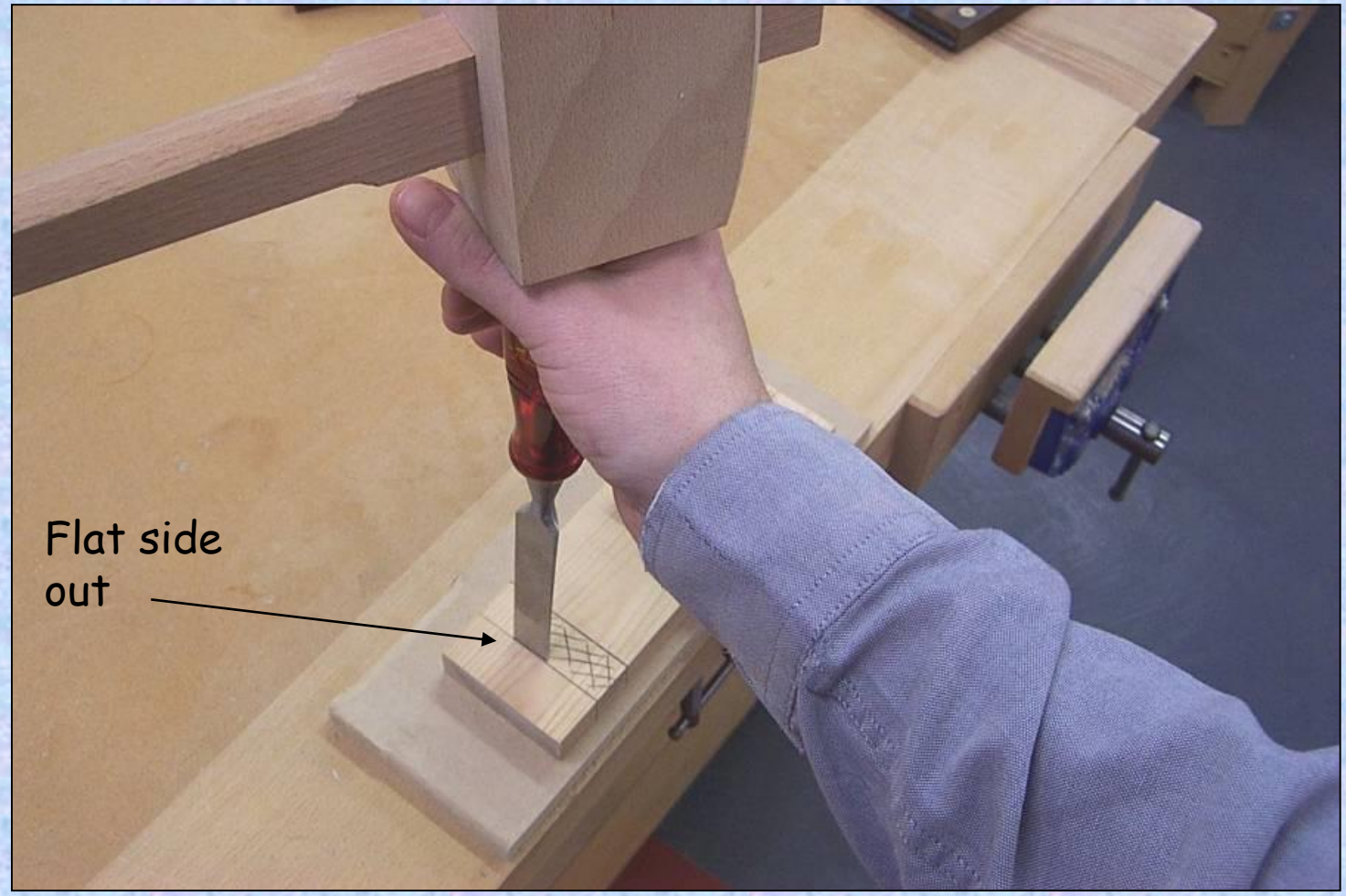
6) Mark on the waste wood

Cutting a Stopped Housing Joint



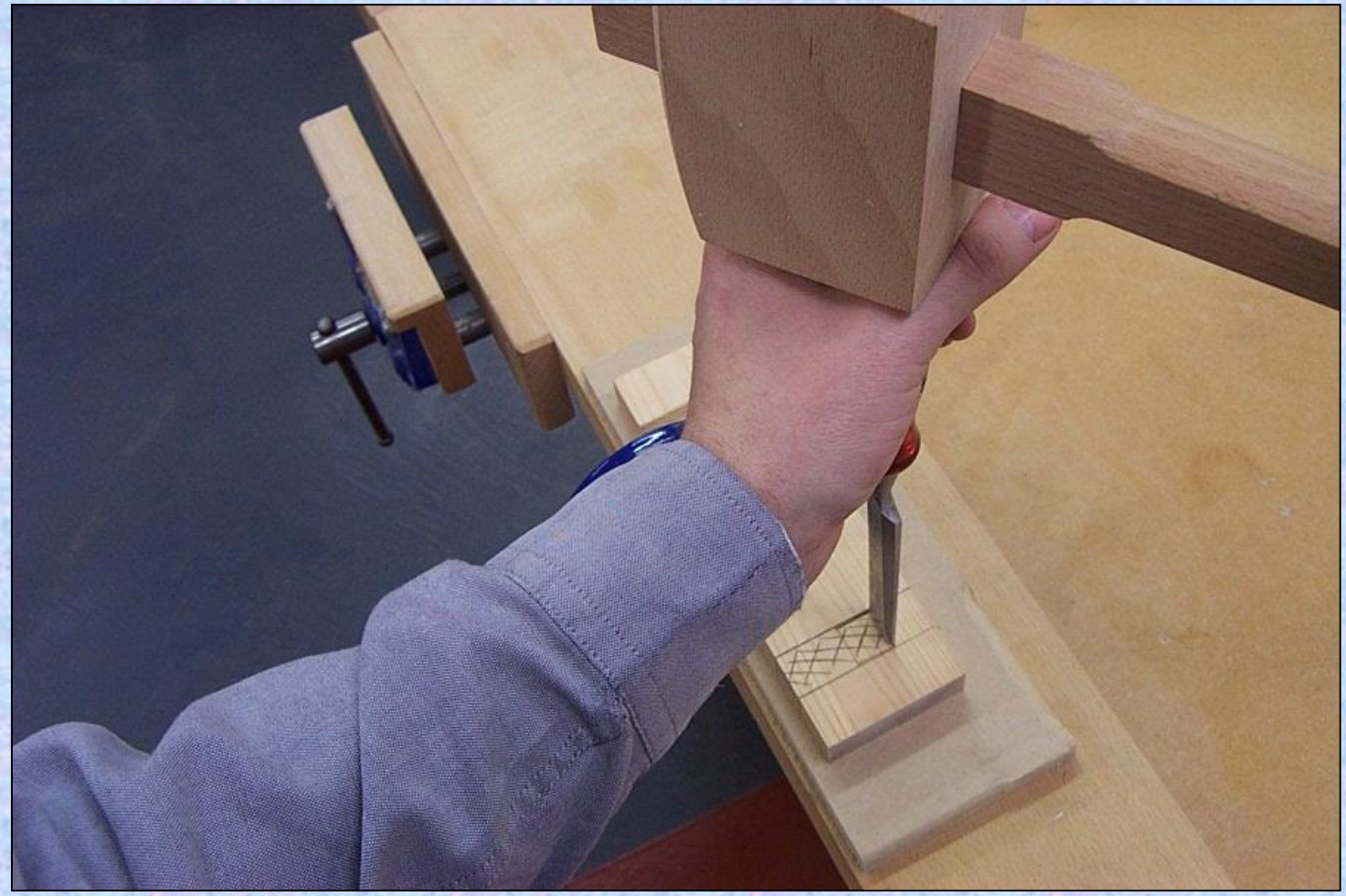
7) Use a G Cramp and scrap wood to fix the workpiece to the desk

Cutting a Stopped Housing Joint



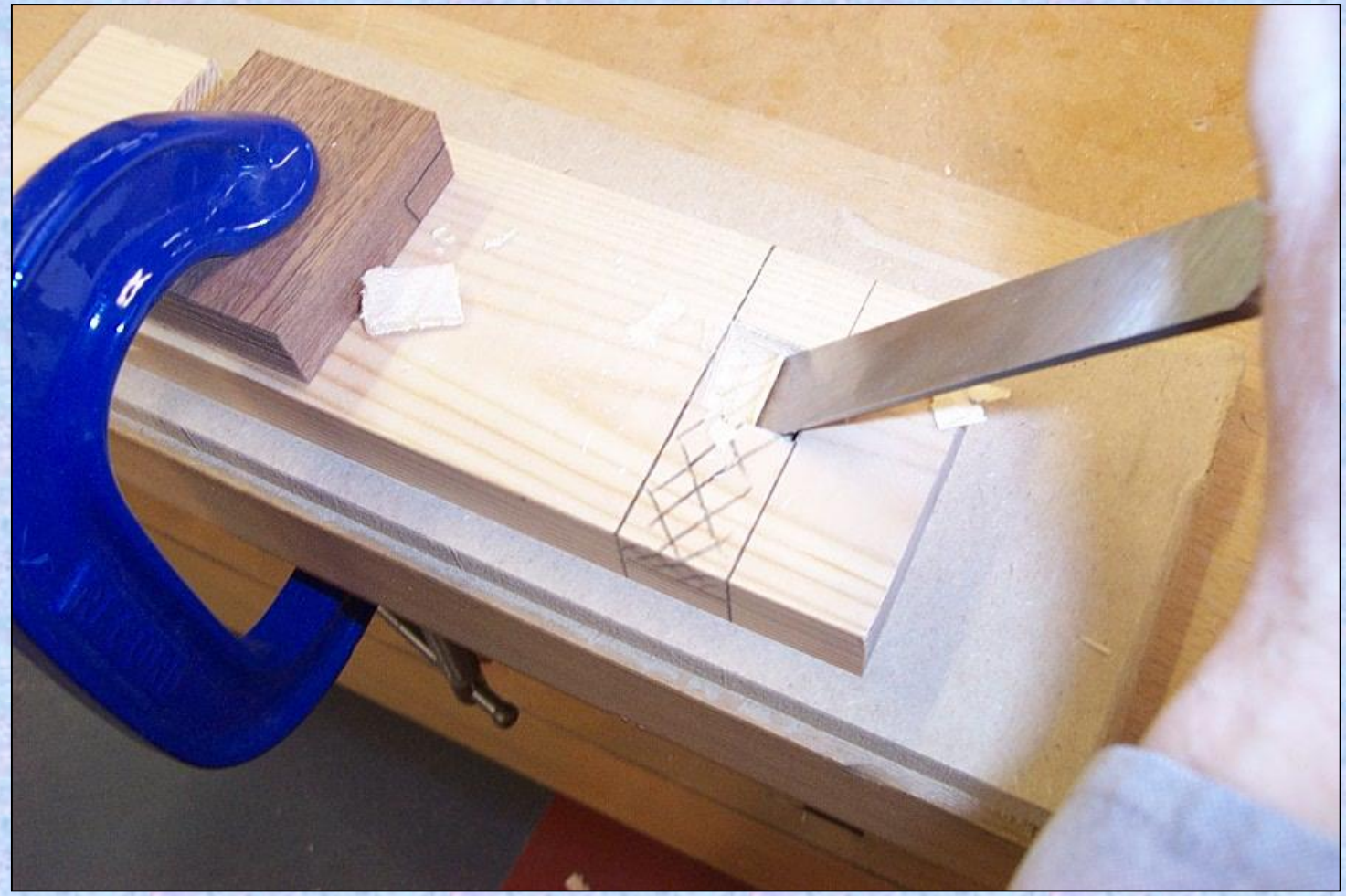
8) Use a Bevel Edged Chisel to cut a square slot at the front of the joint. (Remember to keep 10 fingers behind the blade)

Cutting a Stopped Housing Joint



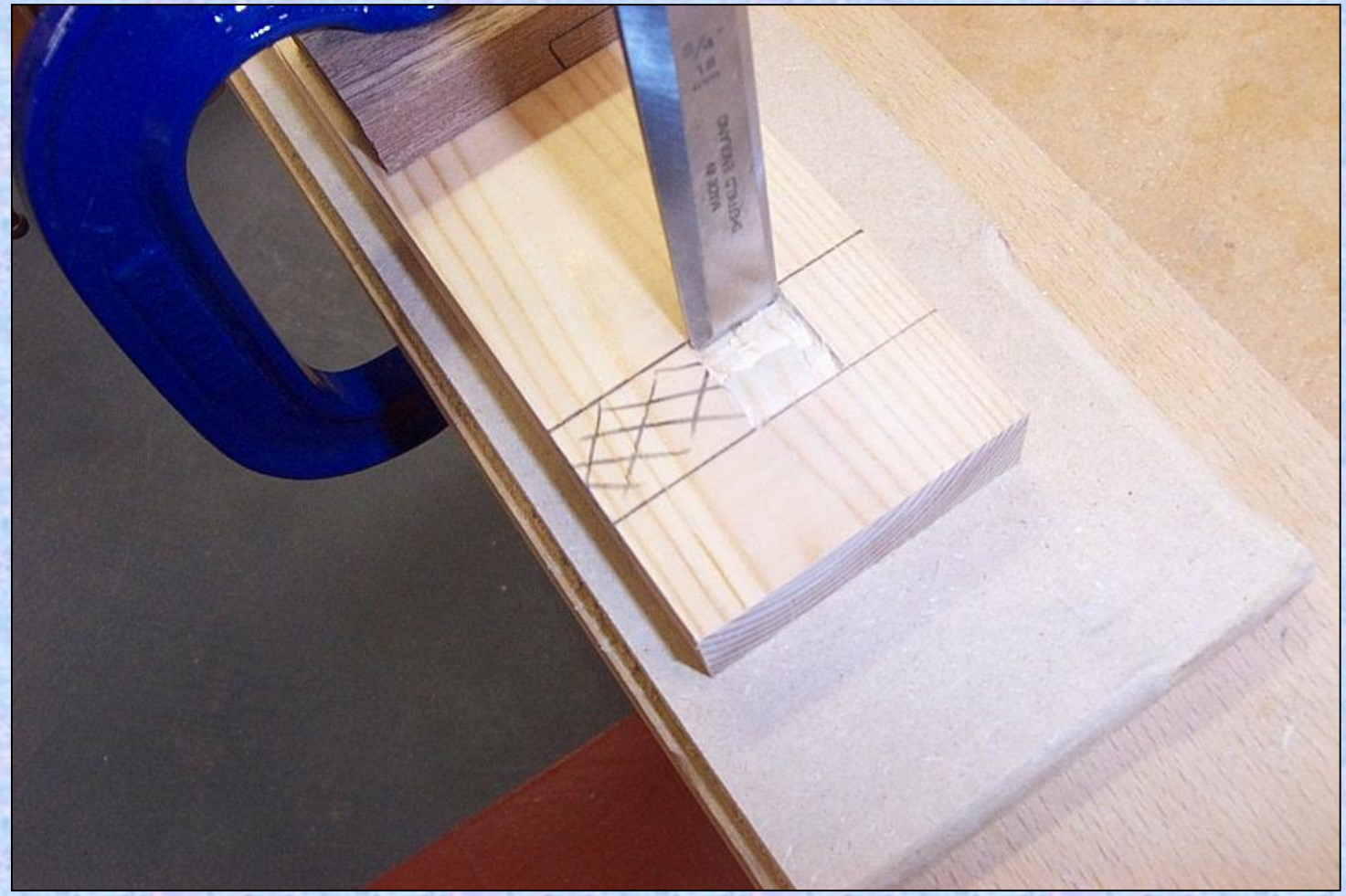
9) When chiselling with the grain remember to tap lightly to avoid the risk of splitting the wood.

Cutting a Stopped Housing Joint



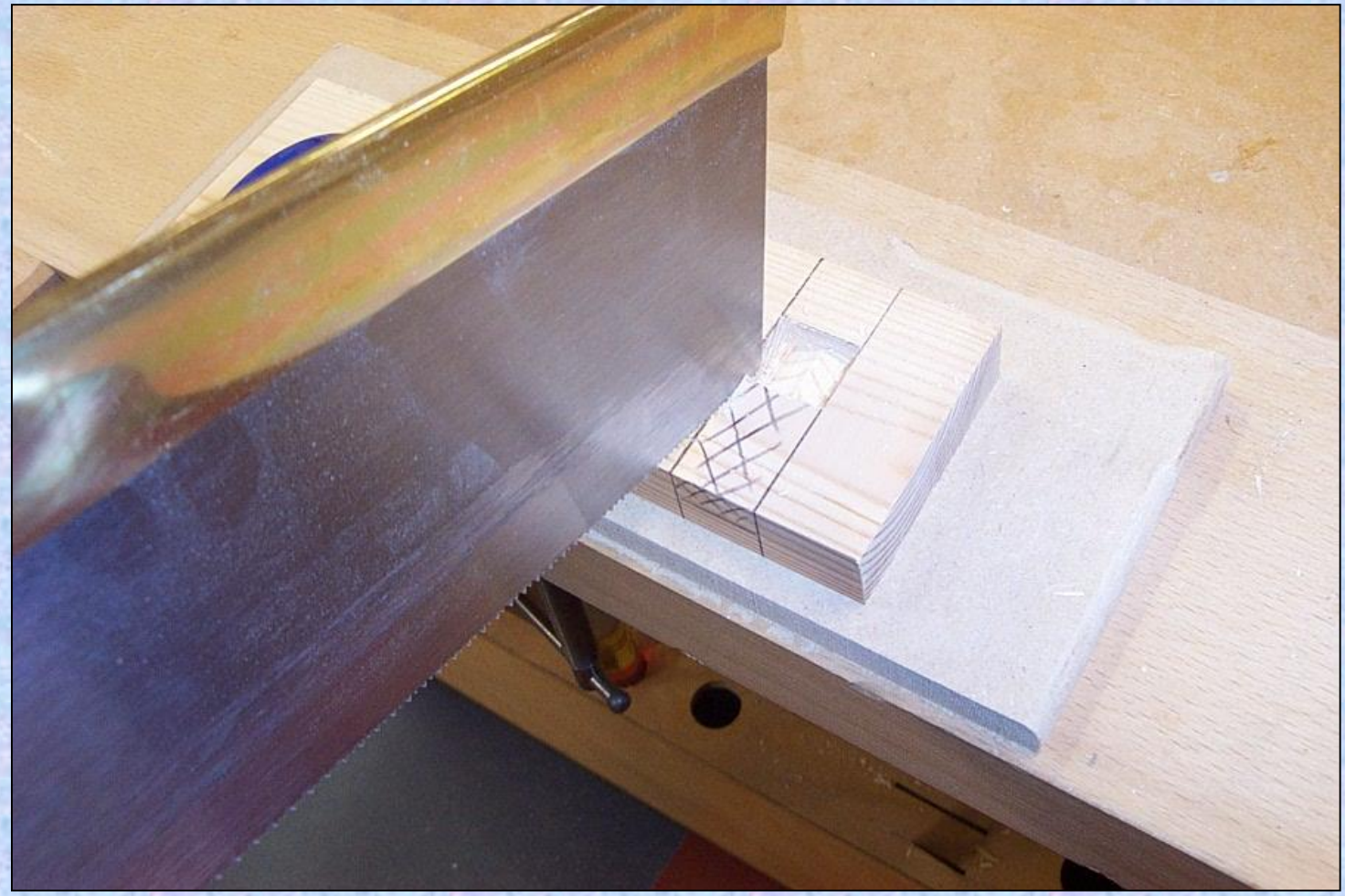
10) Carefully chisel out a square

Cutting a Stopped Housing Joint



11) Repeat this process until you are ½ way through

Cutting a Stopped Housing Joint

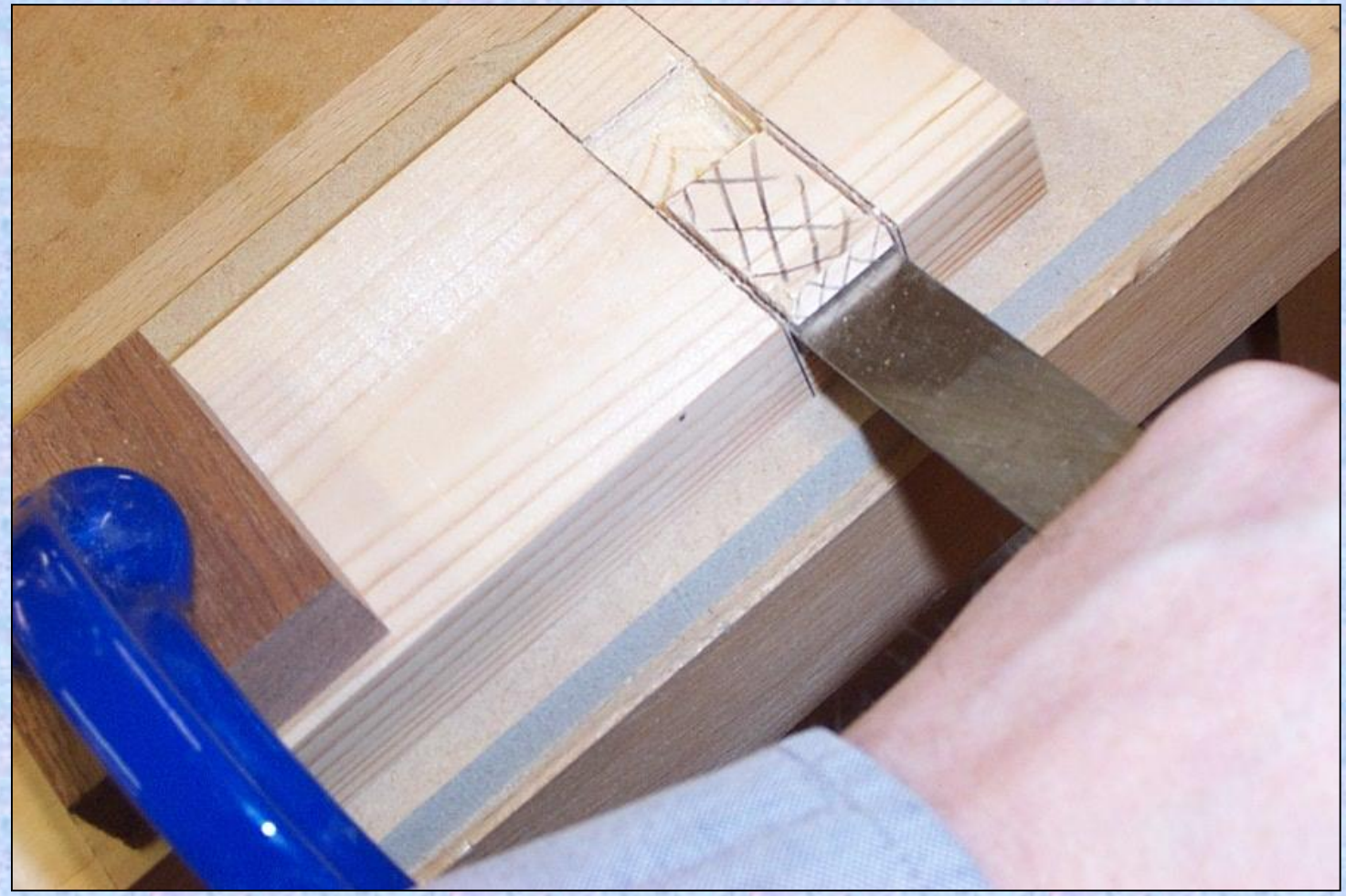


12) Use a Tenon Saw to carefully cut the sides of the joint.

Cutting a Stopped Housing Joint

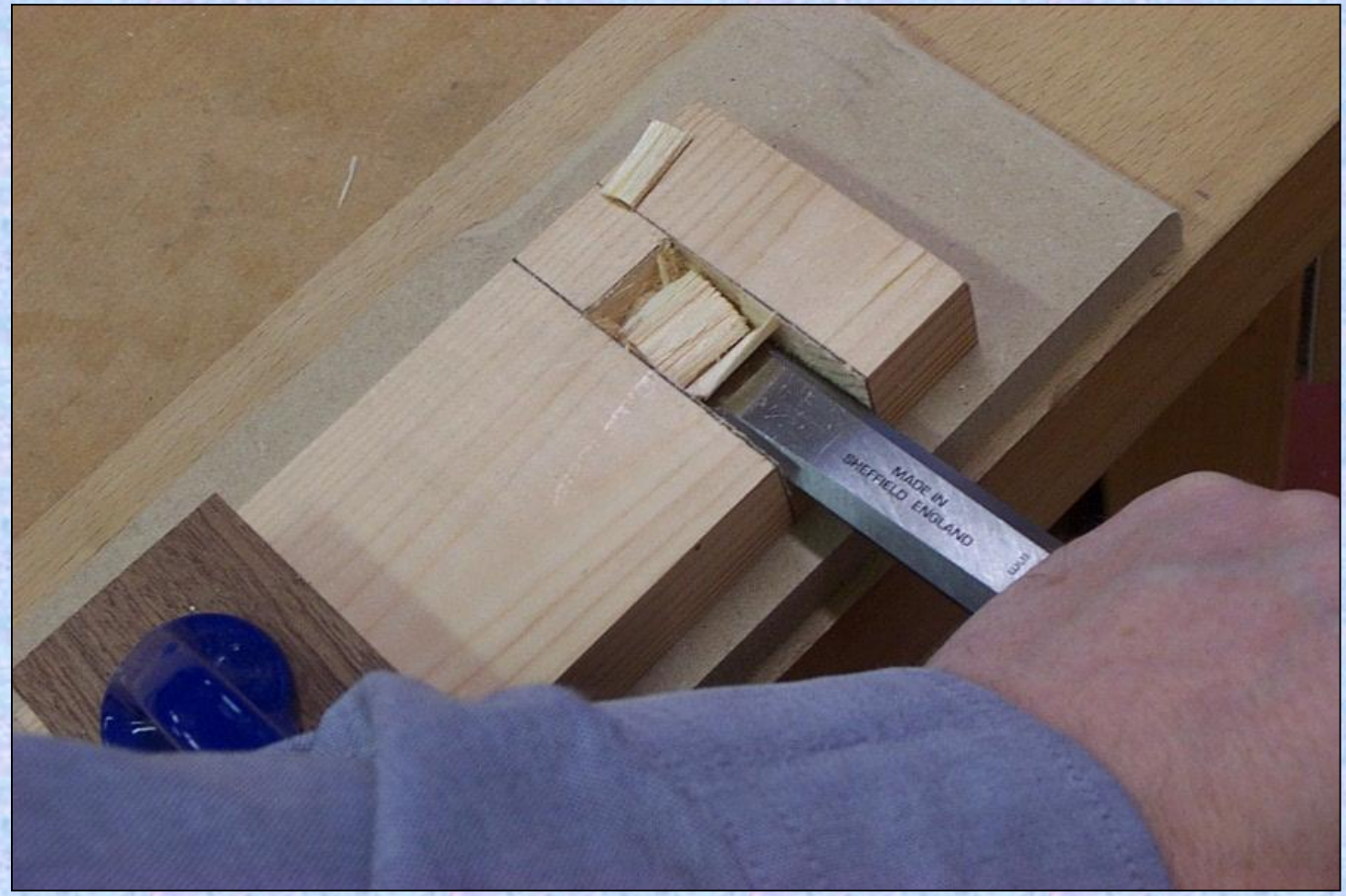
13) Cut both sides (just inside the line)

Cutting a Stopped Housing Joint



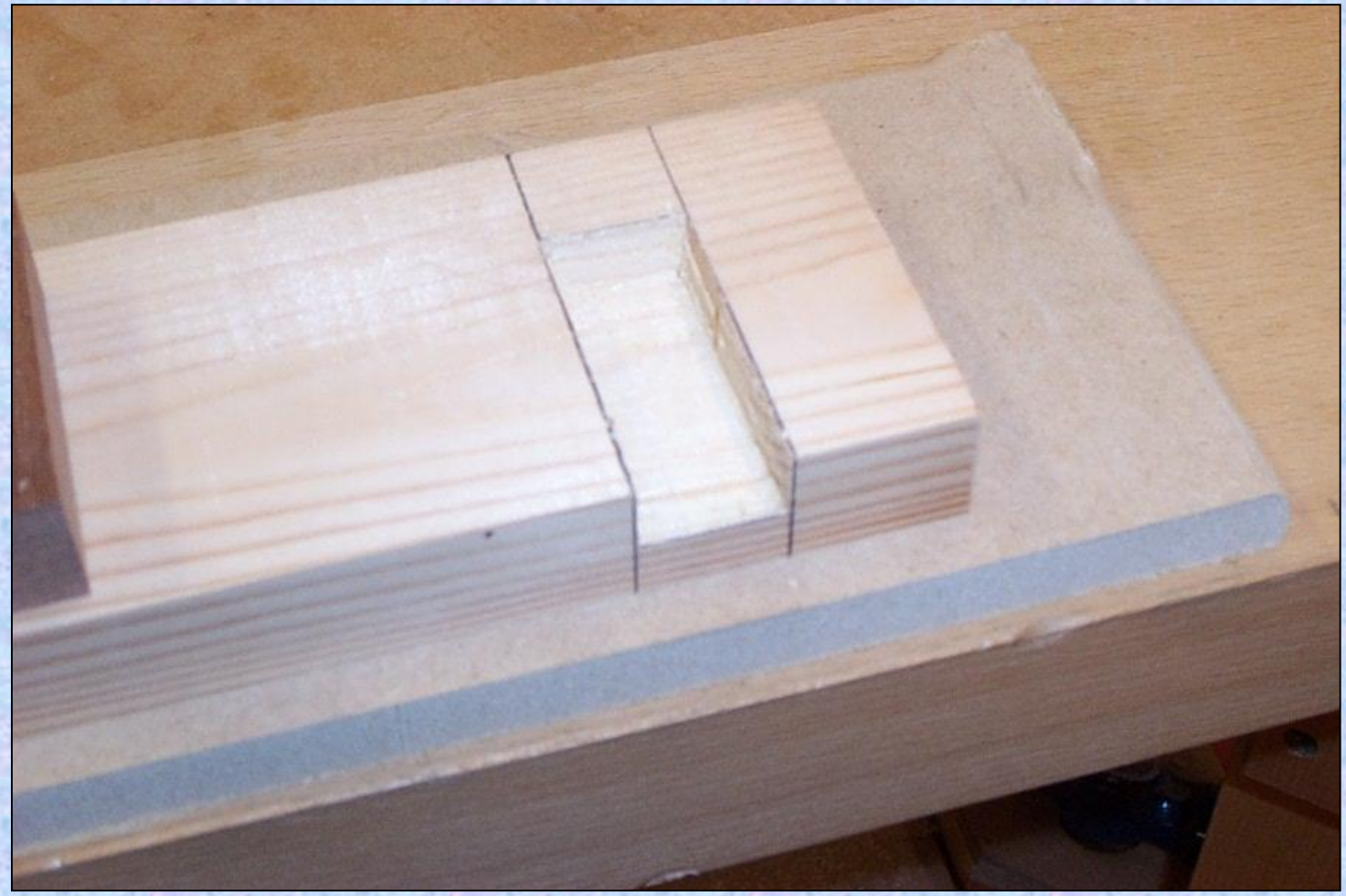
14) Use a Bevel Edged Chisel (flat side up) to remove the bulk of the waste wood.

Cutting a Stopped Housing Joint



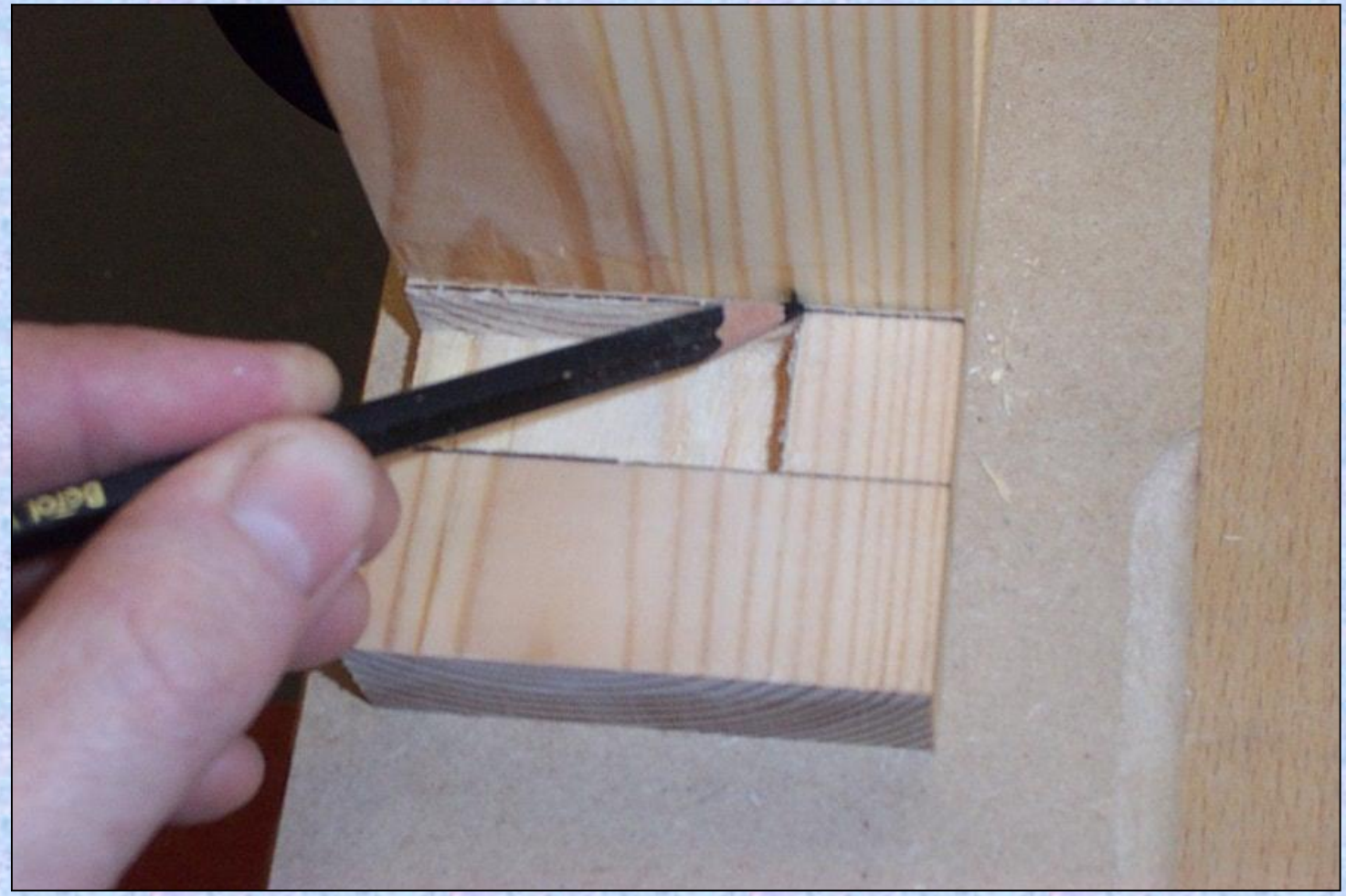
15) Finally use the Bevel Edged Chisel face down to finish the bottom of the joint.

Cutting a Stopped Housing Joint



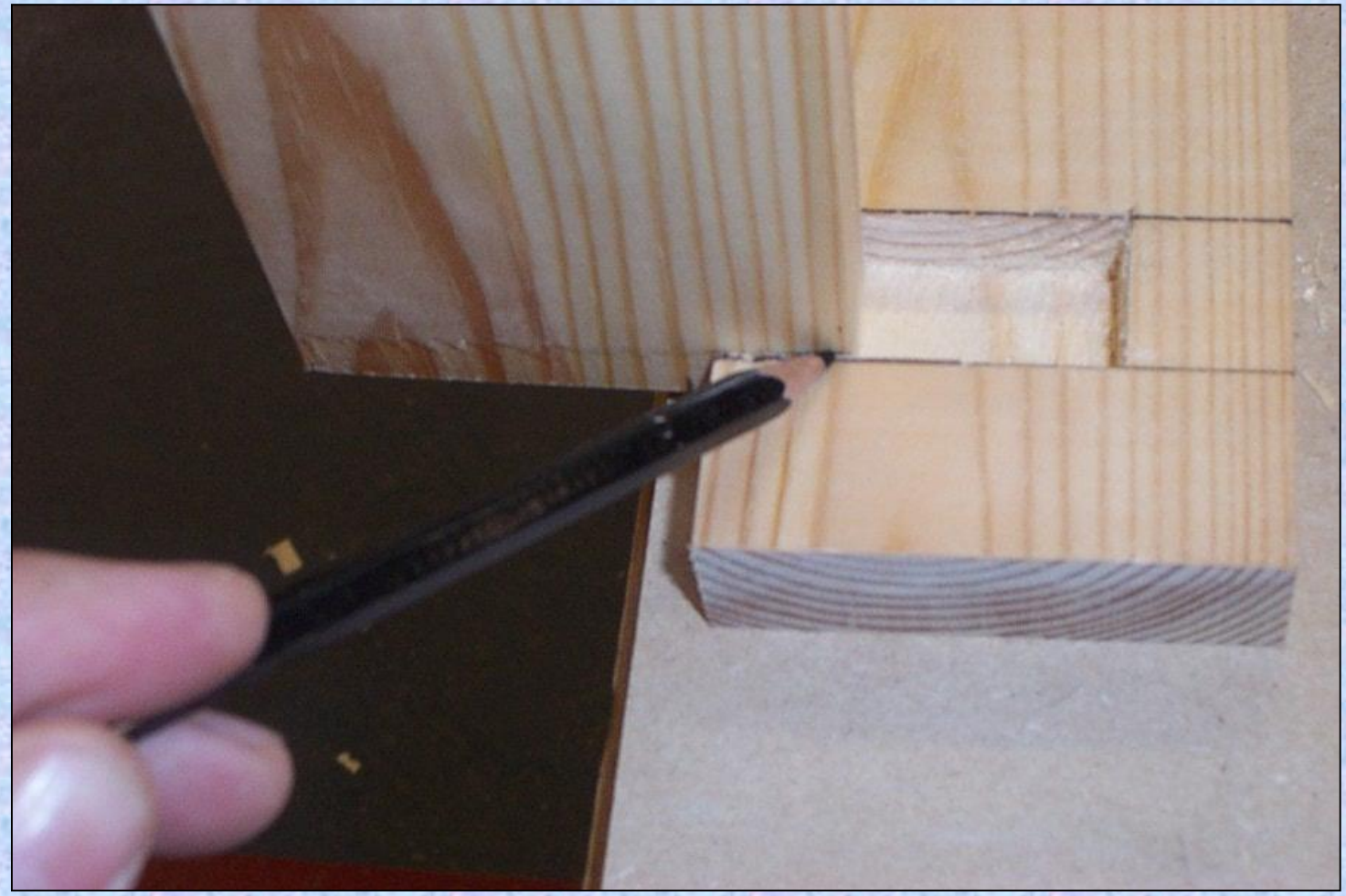
16) When finished the pencil lines you used to mark out the joint should be just visible.

Cutting a Stopped Housing Joint



17) Next mark out the length of the joint.

Cutting a Stopped Housing Joint



18) And the depth

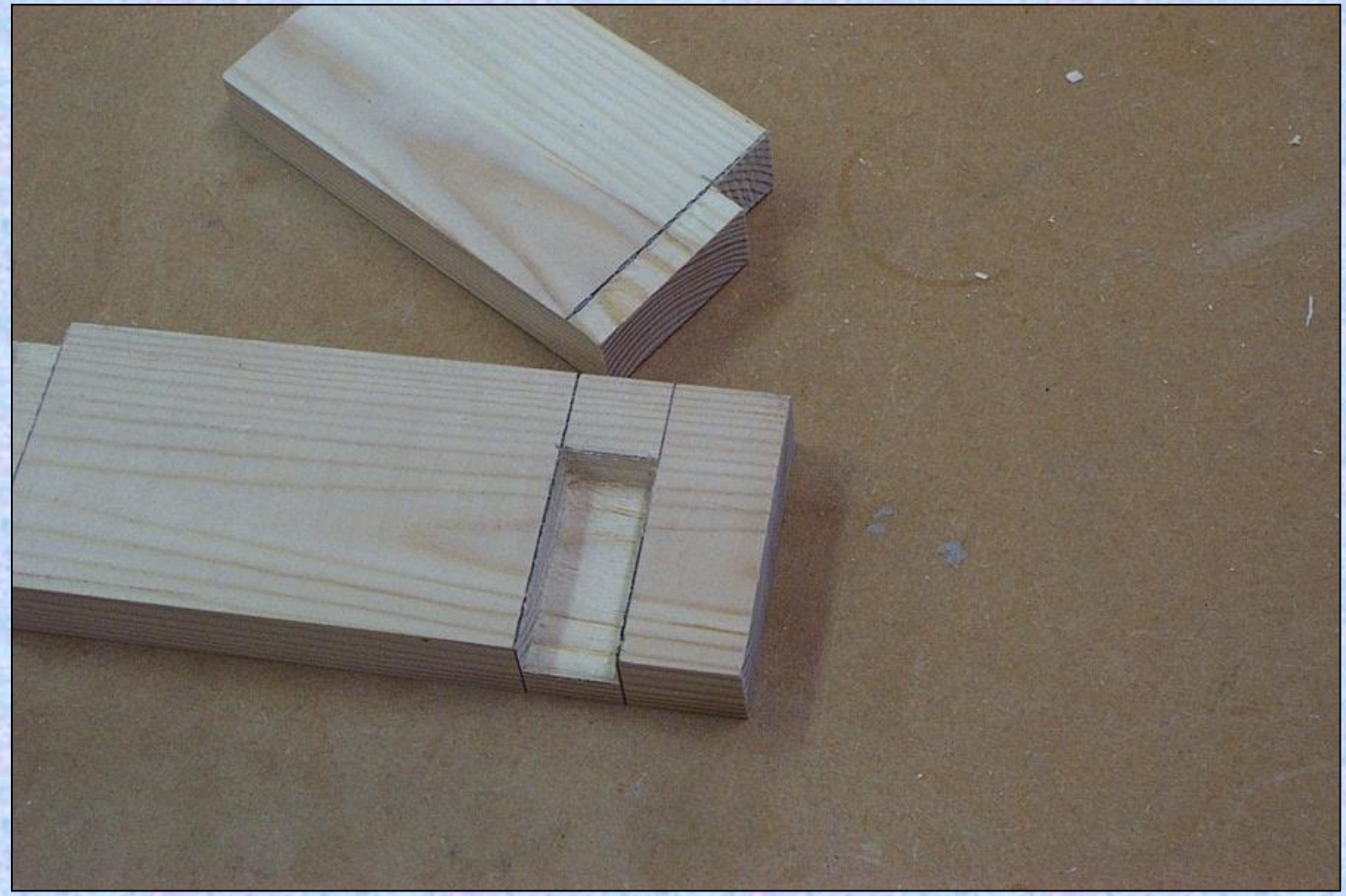
Cutting a Stopped Housing Joint

19) Use a Try square to mark out the joint as shown above.

Cutting a Stopped Housing Joint

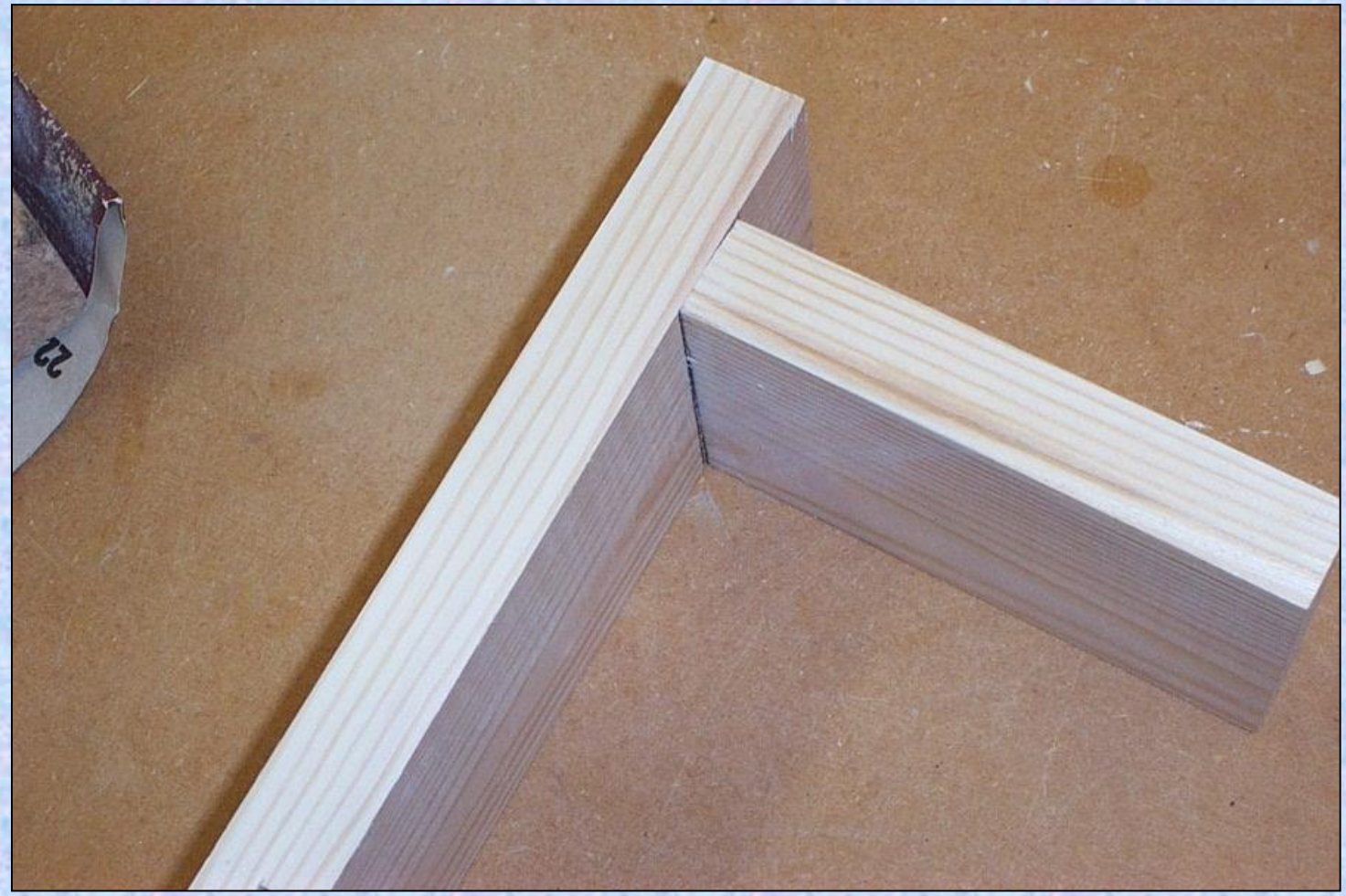
20) Remove the waste wood with a Tenon Saw.

Cutting a Stopped Housing Joint

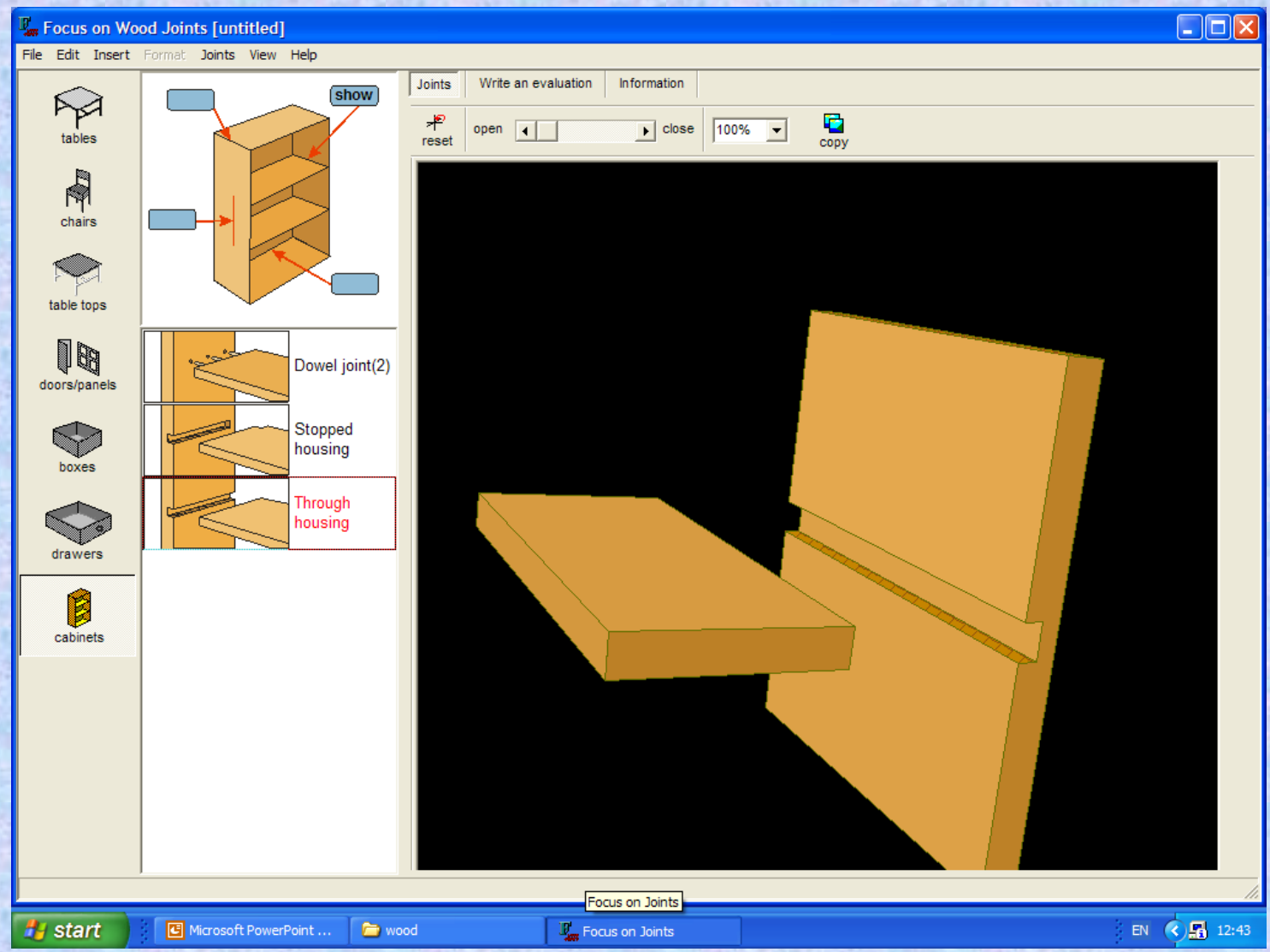


21) Fit the joint then clean off all pencil marks.

Cutting a Stopped Housing Joint

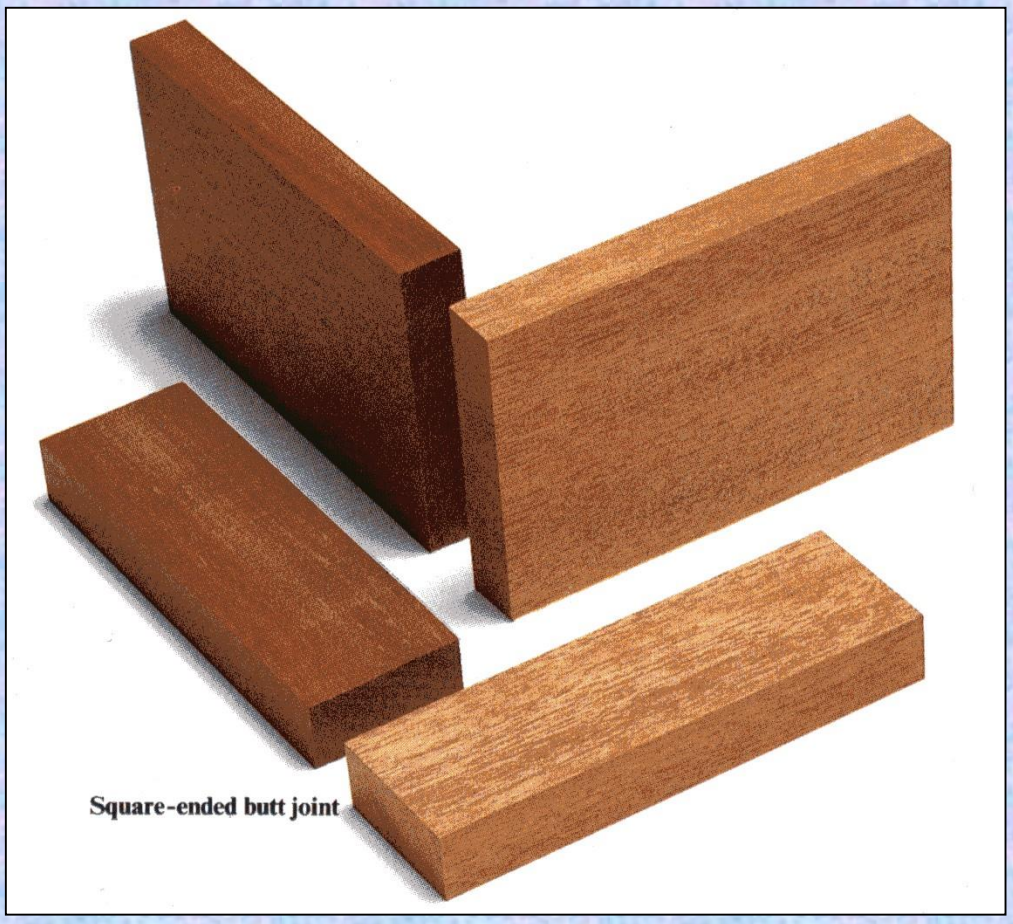


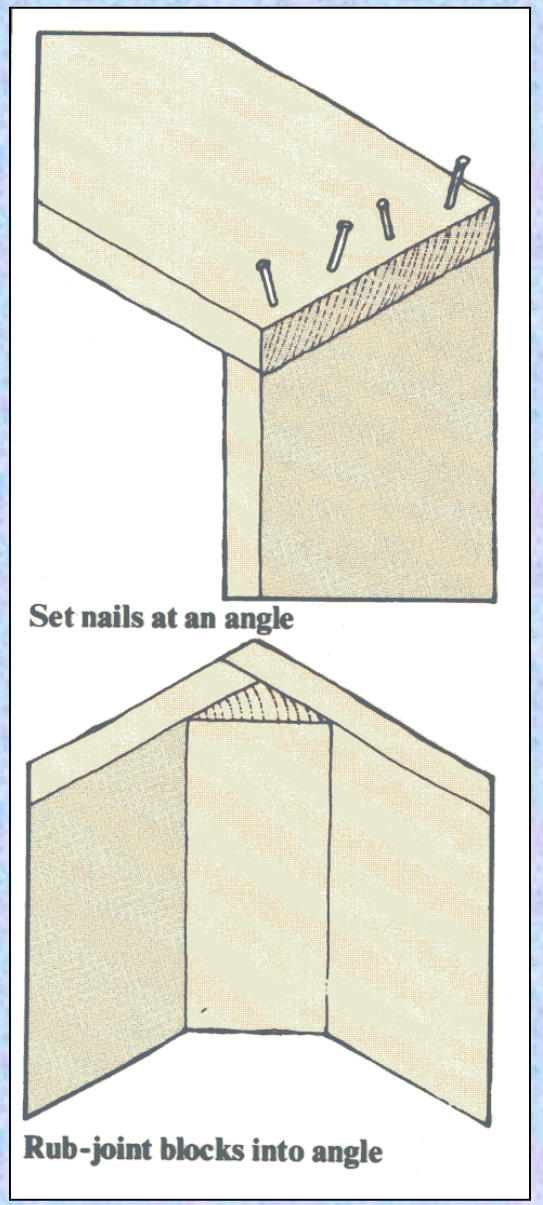
The completed joint



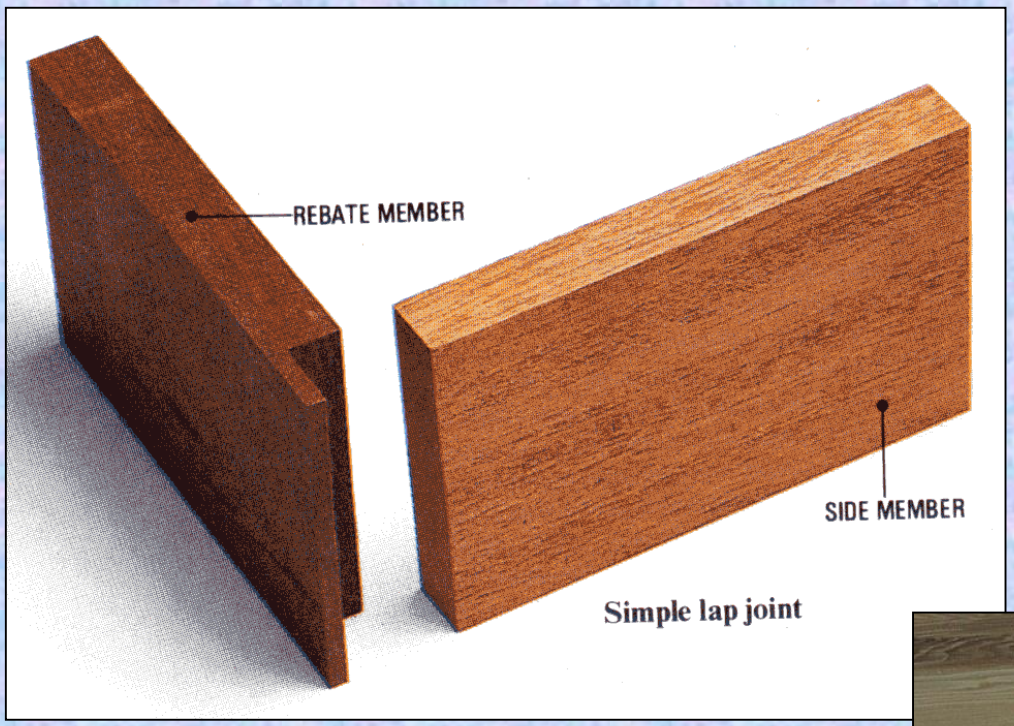
For further information on these, or any other woodwork joints use the "Focus on Wood Joints" software

Butt Joint



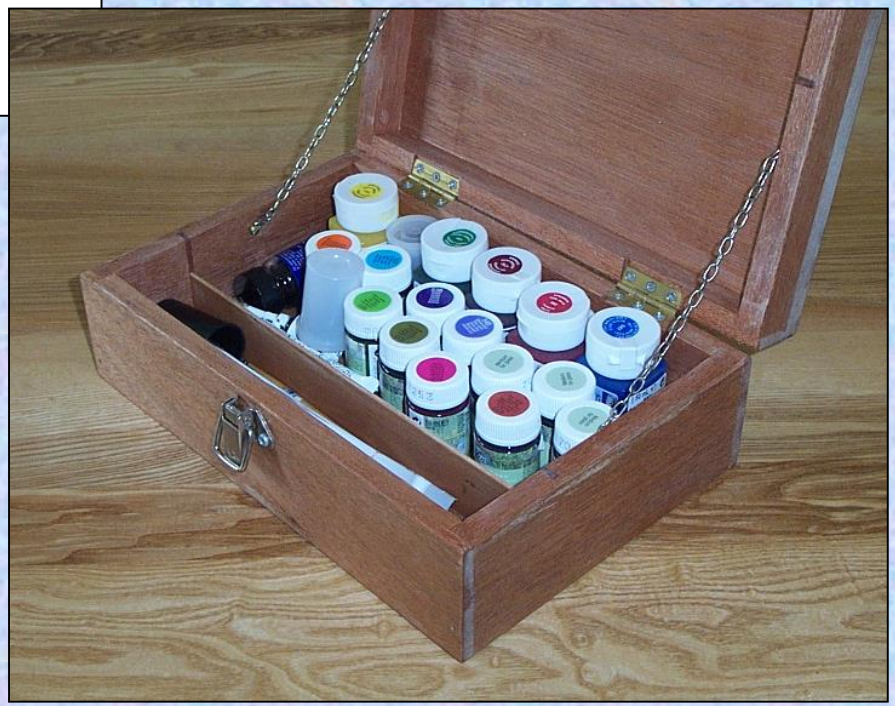


The **Butt Joint** is the easiest woodwork joint to make. It is useful for simple box construction and can be strengthened with **dovetail nailing** or using **joint blocks**

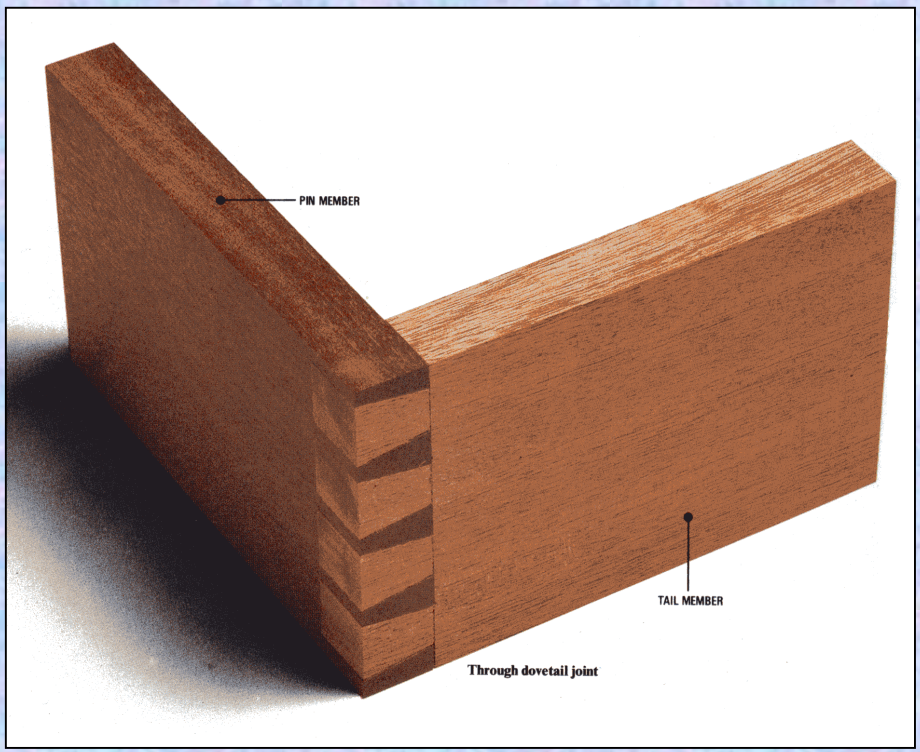


Rebate Joint

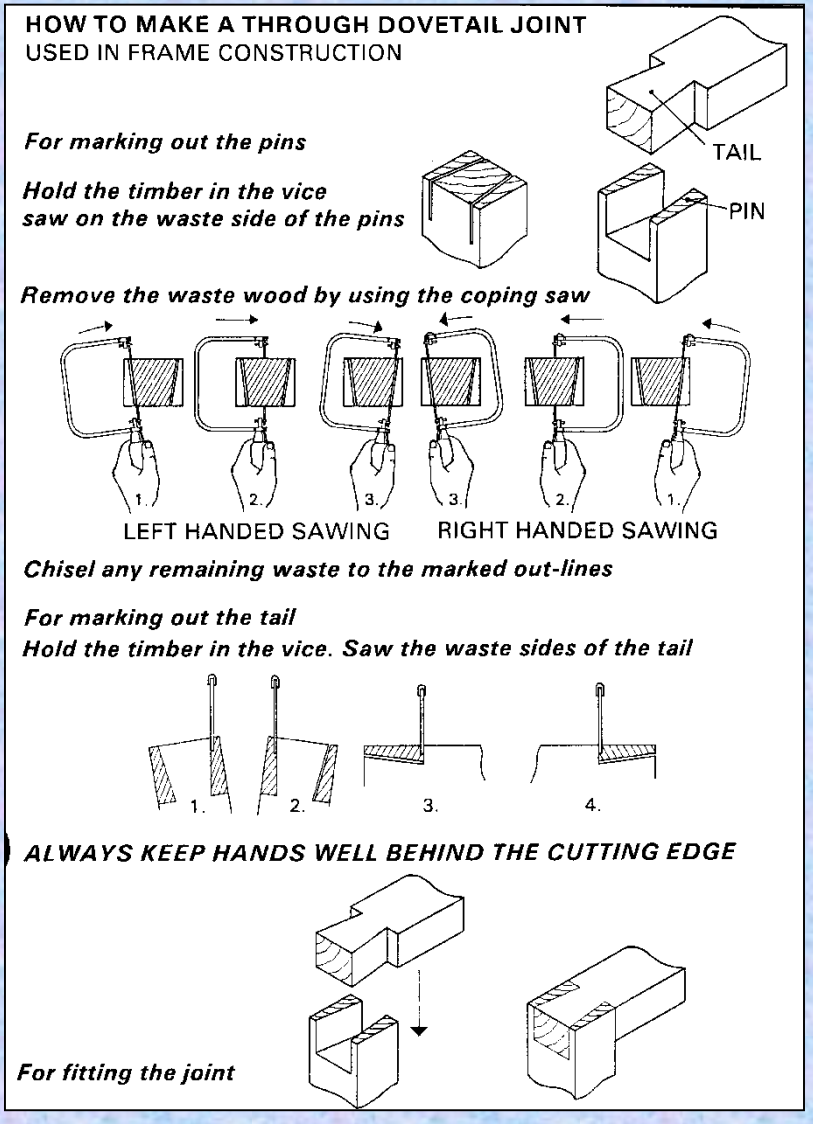
The **Rebate Joint** is suitable for simple box construction as shown in the picture on the right. It is much stronger than a simple Butt Joint.



Through Dovetail Joint



The **Through Dovetail Joint** is the strongest corner joining option. Traditionally this joint was used in drawer manufacture. While the joint looks good and gives a strong mechanical joint it is more difficult to cut.



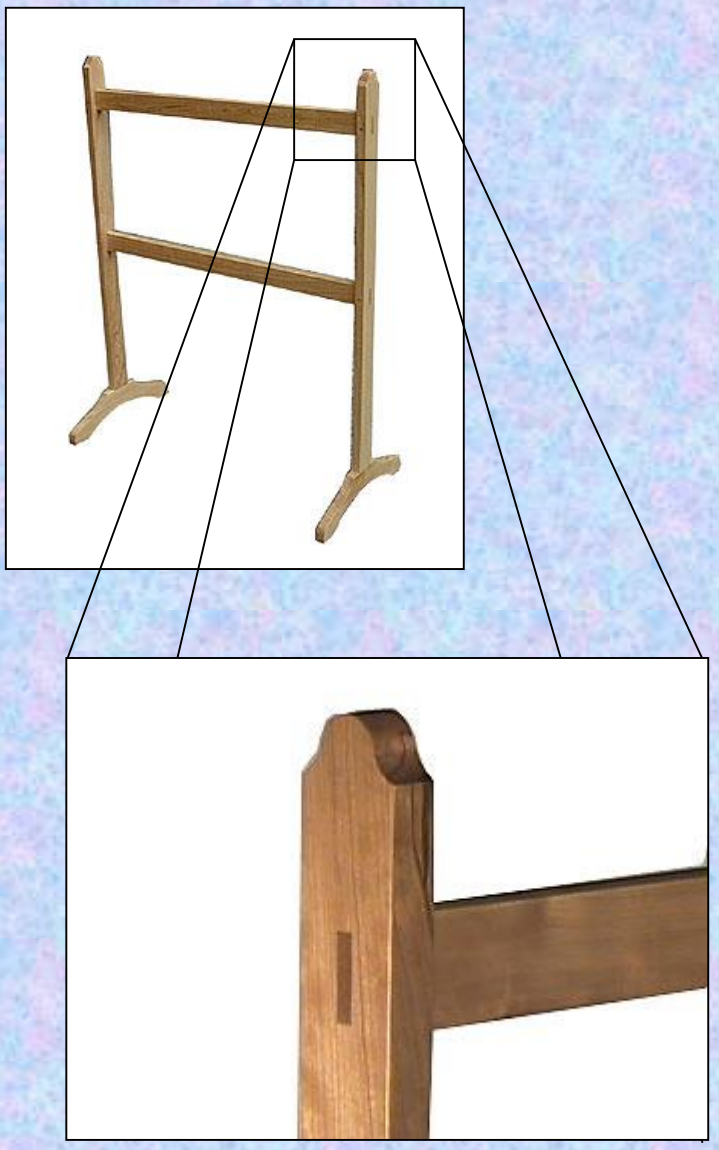
Joints 3

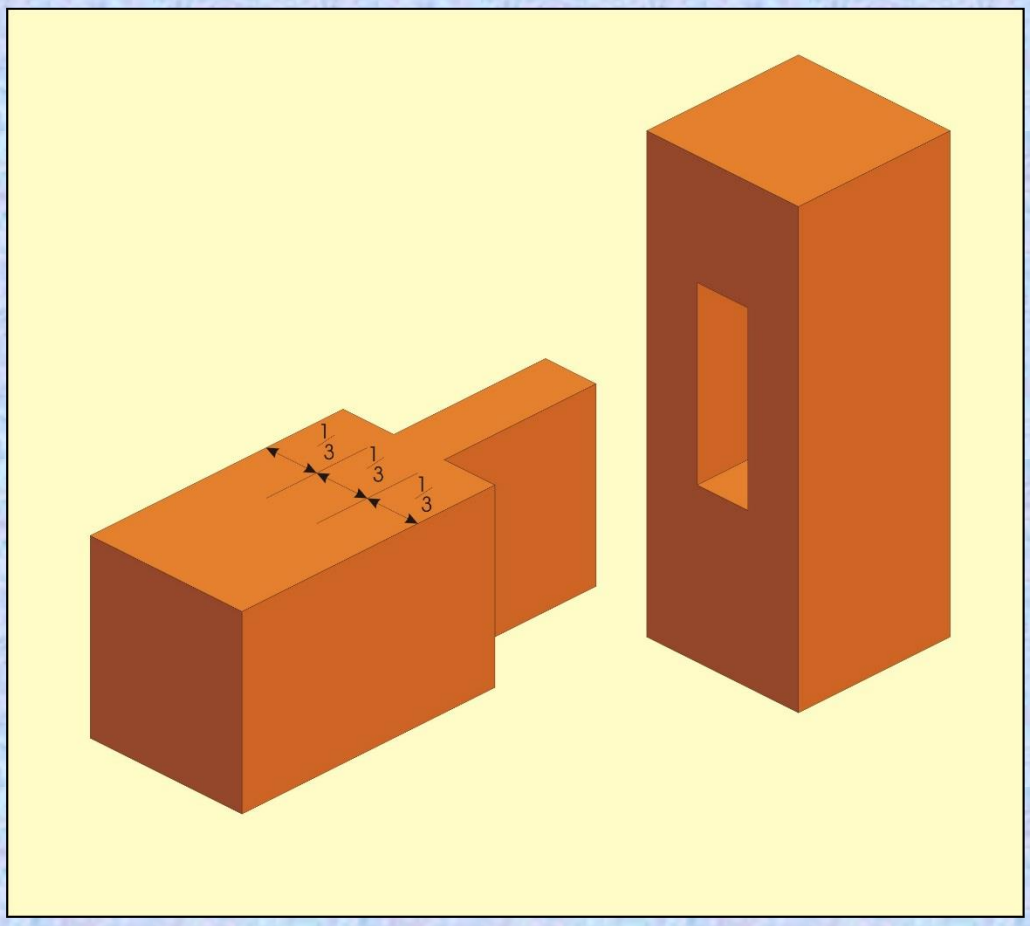
Mortise
&
Tenons

How may Mortise and Tenon joints were used in this bench?

The **Mortise and Tenon** is one of the most common of all woodwork joints and is used in all forms of frame construction from tables and benches to houses.

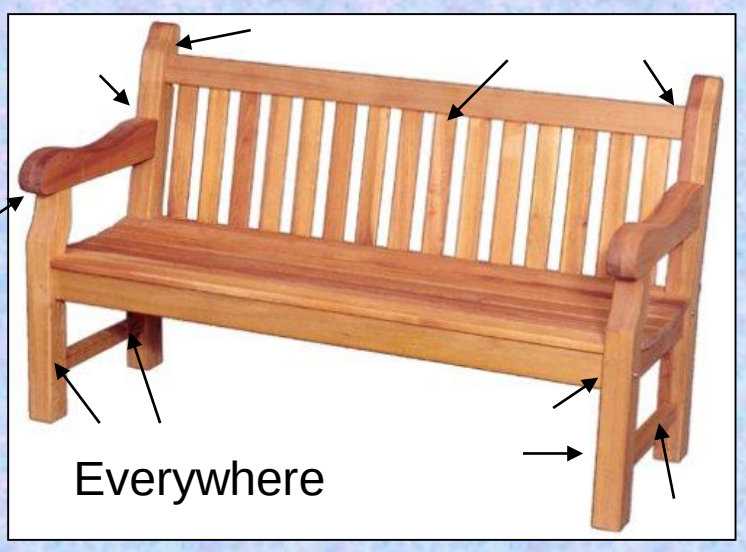
Through Mortise & Tenon



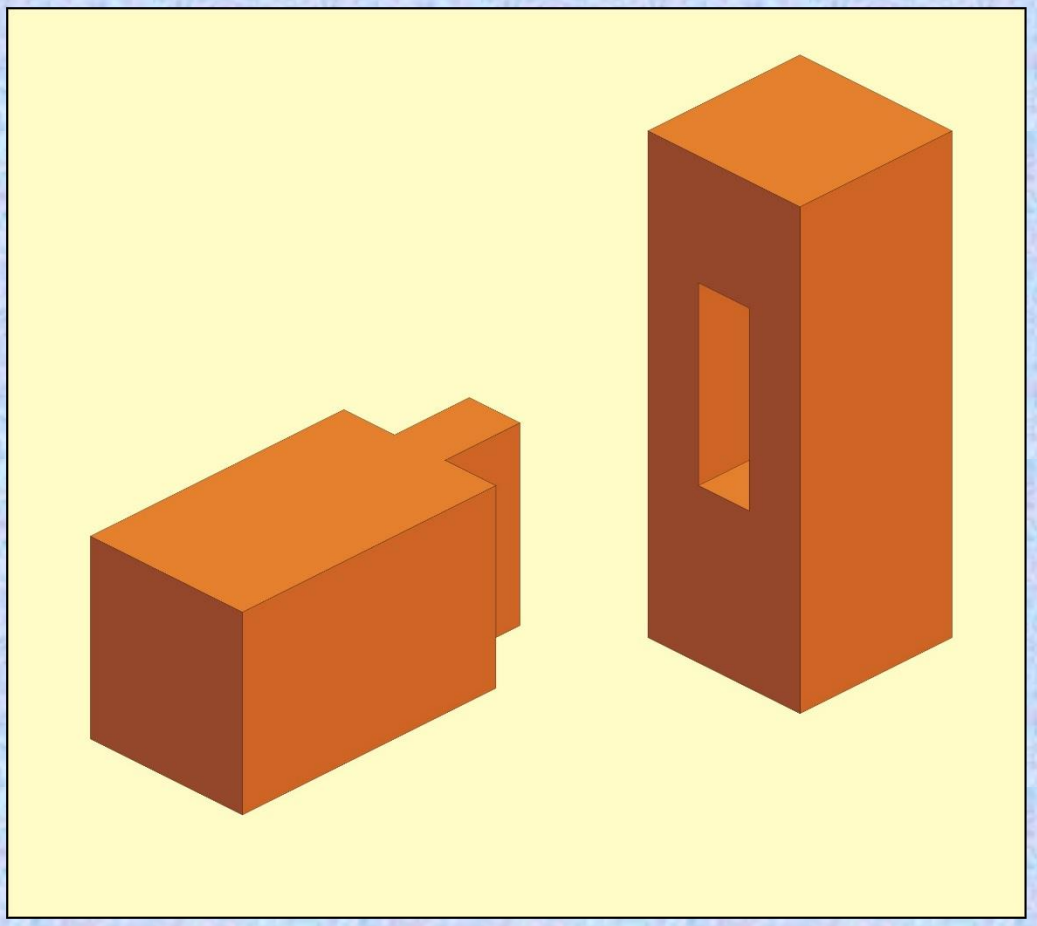


The simplest form of this joint is the **Through Mortise and Tenon**. Where possible the tenon should always be cut 1/3rd the thickness of the rail.

Stub Mortise & Tenon

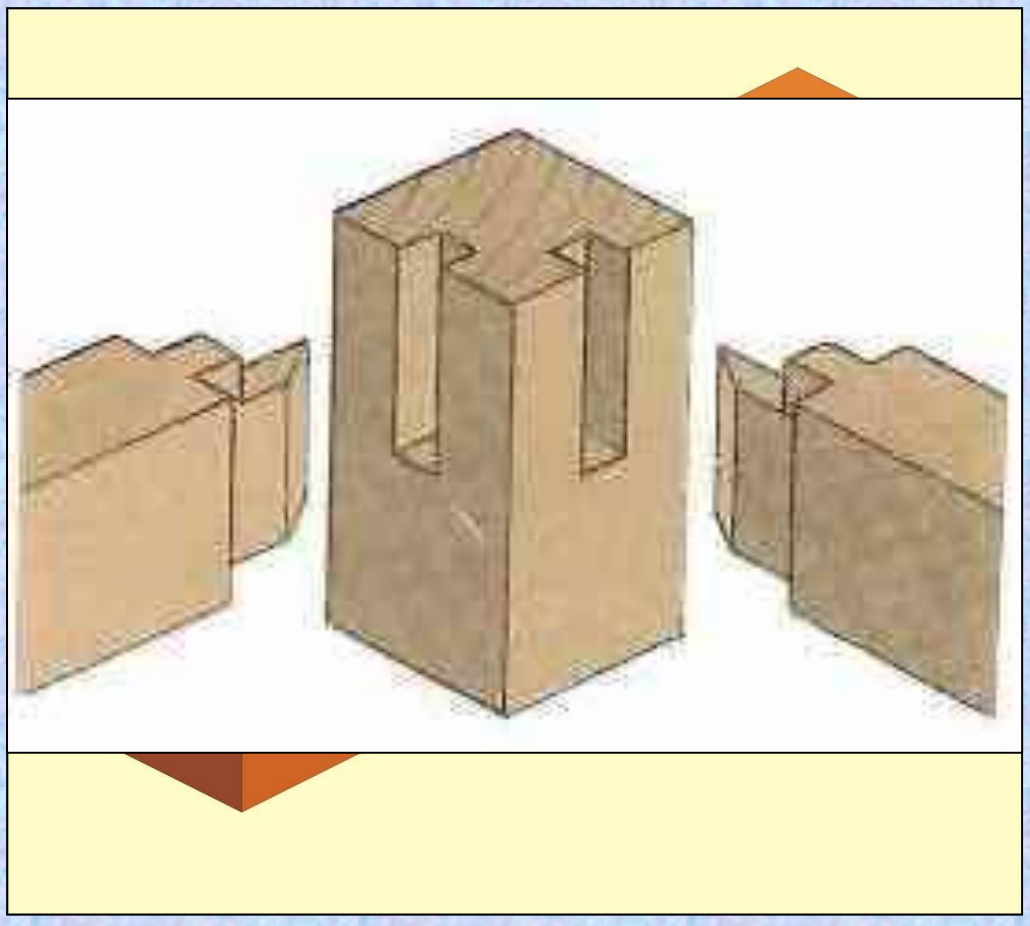


Where would you use Stub Mortise & Tenons on this bench?



Another simple form is the **Stub Mortise & Tenon**. In this case the mortise only goes 2/3 the way through

Haunched Mortise & Tenon



The Haunched Mortise & Tenon is often used where the joint is at the top of a leg.