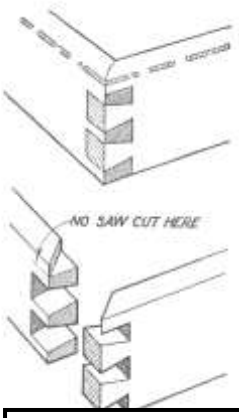


April 2022

Crosscut

◄ **Mitred Dovetail joint from Woodwork Joints by Charles Hayward.**

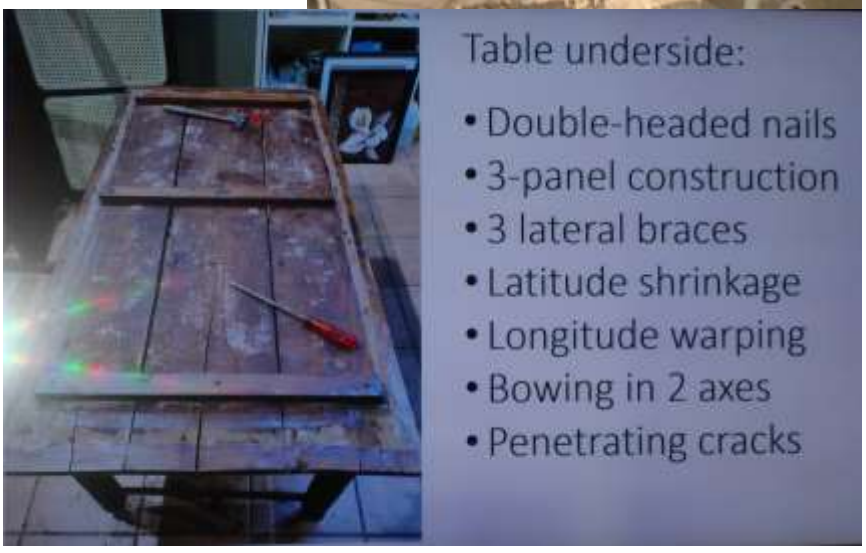
Secretary: Lynton Dennill secretary@wwwa.org.za Editor: Trevor Pope tpope AT iafrica.com

Next Turners' Meeting on **Monday, the 4th April 2022** – from 18h00 at **Made in Workshop** – Making a whistle with Herman Potgieter

Next Cabinet makers / Main club meeting – Wednesday, the 13th April 2022 – from 18h00 at **Made in Workshop** –Michael Minassian will talk on how to fix breaks and mistakes.

News

Turners' meeting. Monday, 7th March 2022. John Speedy provided an introduction to bowl turning using work-holding without a chuck. John showed various ways to mount a work piece for turning a bowl. He started showing how to mount a block of wood onto a faceplate using a paper joint. He also showed to use hot-melt glue to mount a work piece and how to remove it afterwards. On the right, you can see him rough turning the outside, taking a deep cut, to show how robust these mounting methods are. The paper joint does require a little clean-up of the base afterwards. Using hot-melt glue as alternative, it is possible to first turn the outside of a bowl and finish the foot, before reversing it to glue the finished foot onto a faceplate. The bowl can then be hollowed out and then removed afterwards, with no damage to bottom, because the hot-melt glue is fully reversible.



Main Club meeting, Wednesday, 9th March 2022. In January, Michael Minassian talked on some aspects of restoration. This month, Michael some examples of repairs and restorations he has completed. Many pieces arrive with cracks, broken parts and missing bits in addition to the usual wear and tear that one may expect. Michael first has to locate suitable wood or veneer stock to match the piece before fabricating and fitting the replacement pieces. Staining the repairs to match is followed by either restoration or replacement of the finish as appropriate. The slide shows an example table that Michael tackled.

Schedule for Regular Events at Made in Workshop

1. Second Saturday of month at 9h00 - Herman – all things turning related – 083 631 0501 hermanpotgieteresq AT gmail.com

This list is subject to change, so please consult your Crosscut each month.

Show & Tell meetings are held at Hardware Centre every Friday Morning at 09:30. All members welcome. Contact Eugene on 0824953394 or eugene@antlerfin.co.za

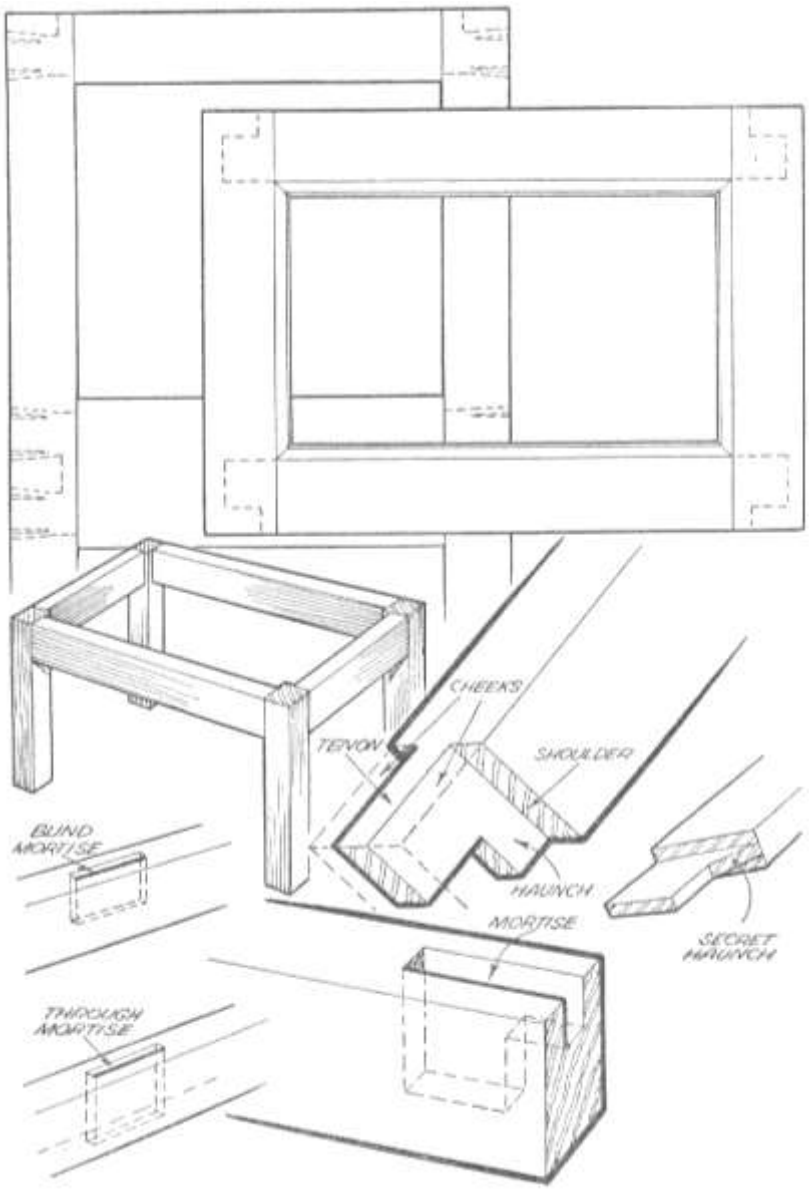
Ken's Saturday Workshop. Ken Bullivant holds a Saturday workshop at his house in Boksburg. The location is 13 Franklin Avenue, Comet, Boksburg on the first Saturday of the month from 09:00 to 12:00. They decide on an annual project and work throughout the year making it. Individual projects are discussed and problems solved. Ken also offers private lessons too. Contact Ken on 082 809 0020 if you wish to take part.

Hobby-X 2021 was postponed from 2021, and is now scheduled for 5 - 8th May 2022. at the Kyalami Convention Centre. WWA will have a stand as before. Alistair has sent out the roster, so please volunteer for slots to demonstrate and assist with the display stand.

Joinery and Joints – a list of topics for meetings

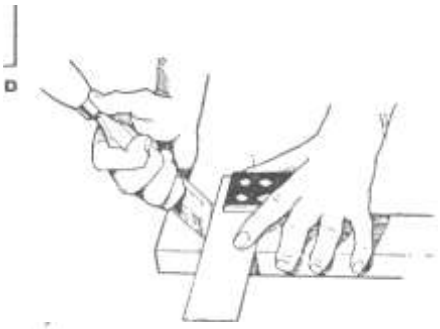
Trevor Pope

A big part of woodworking is joining pieces of wood together, whether one is doing *carpentry, joinery or cabinet making*. Most people are unable to make a distinction between these three trades. To use building a house as an example, the *carpenter* will make the joists for the roof and the floor; the *joiner* will make the doors and windows and the *cabinet maker* will make the cupboards and furniture. The joints used by the carpenter are large and simple as they are mostly hidden from view. The joinery practised by the joiner is more refined, more pleasing to the eye, but still larger in scale. The cabinet maker's art is much more refined and appearance is very important.

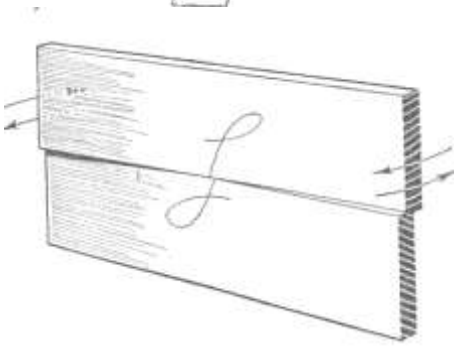


However, many of the joints that they make are very similar in principle. There are a large number of joints and variations. Charles Hayward in ***Woodwork Joints, A Woodworker handbook***, (first published by Evans Brothers press - the publisher of The Woodworker magazine, in 1950), has organised them in his book. I used his list of joints to list a series of topics that I thought we could explore in our

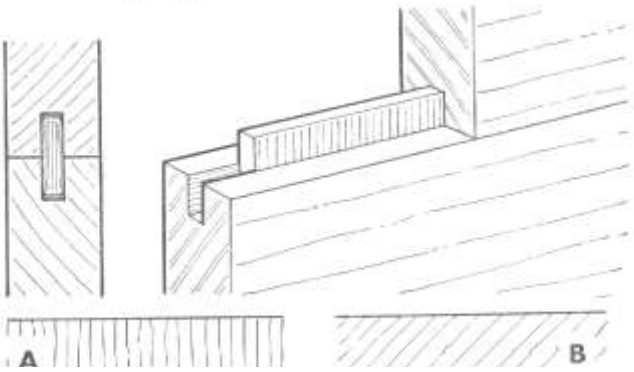
meetings. The illustrations are from the book.
(For each joint, I have suggested some demonstration topics.)



1. **Measuring and marking.** The foundation of all joinery is accurate measuring and marking. Strong, gap-free joints depend on accurate measurement and marking.
   Demonstrate: Basic principles of measuring and marking – tools and marks; taking measurements and marks from work in progress and transferring them; story sticks. (1 topic)



2. **Edge joints.** These are used to join pieces of wood side to side. There is the simple "rubbed" joint where the sides simply glued together. Dowels, tongue-and-grooves and splines may be added for mechanical strengthening or location of the pieces. A variation of this is the coopered joint used to make cylindrical forms like barrels, and segmented turnings.
   Demonstrate: Simple rubbed joint; tongue and groove joint; splined joint (could include biscuits); Coopering – angles and how to cut and join them. (3 topics)



3. **Mortise and tenon joints**. Widely used for joinery and cabinet making, even in timber-framing, these are mostly used to join wood together at right angles. Traditional door making, chairs, tables, cabinets and frames can all use these.
   Demonstrate: Door making joints; Window frames with moulding; Table leg to rail; face frame with groove for panel; bread-board ends; Tusk tenons and draw-boring. (6)

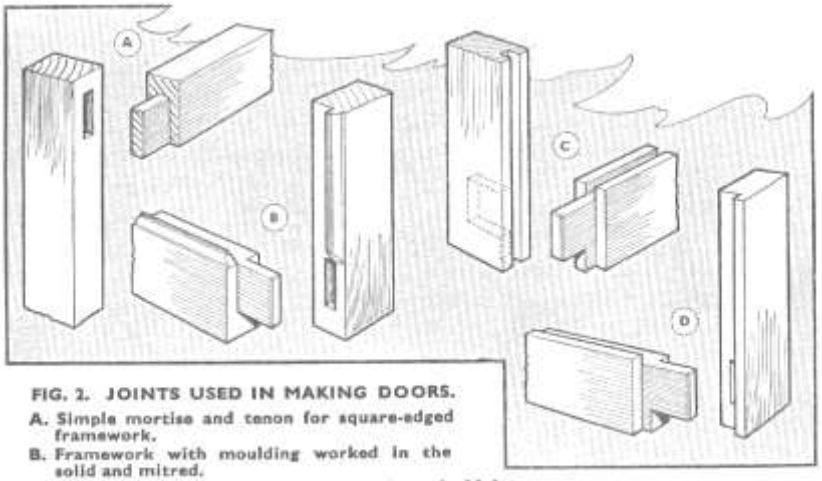


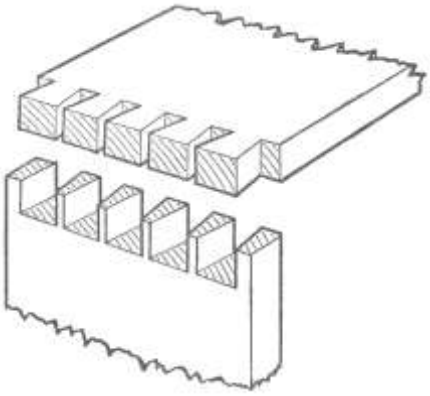
FIG. 2. JOINTS USED IN MAKING DOORS.
A. Simple mortise and tenon for square-edged framework.
B. Framework with moulding worked in the solid and mitred.
C. The grooved-in panel necessitates this haunched joint.
D. Square-edged framework with rebated-in panel.
In good quality work joints at A, B, and D would have a haunch.

4. **Halved and bridle joints**. Also called lap joints, these are used for frames, face-frames, glazing, chairs and tables.
   Demonstrate: Simple halved joint for a face-frame; Bridle joint for sash bars. (2 topics)

5. **Mitred and scribed joints.** These are used for joining mouldings together.
   Demonstrate: How to mark out and cut mitred mouldings and scribed joints; how to strengthen them using tongues, dowels, biscuits and internal joints such as concealed dovetails. (2 topics)

6. **Housed and dowelled joints**. Housed joints are used to join shelves to cabinet sides. These can be through housed, stopped housings, or tapered dovetails. Doweled joints can be used in many areas and are often used in place of mortise-and-tenons.

Demonstrate: How to cut and fit a simple housed joint; how to cut and fit a tapered dovetail housed joint; how to mark out and bore holes for dowels – type of dowels, jigs and applications. (3 topics)

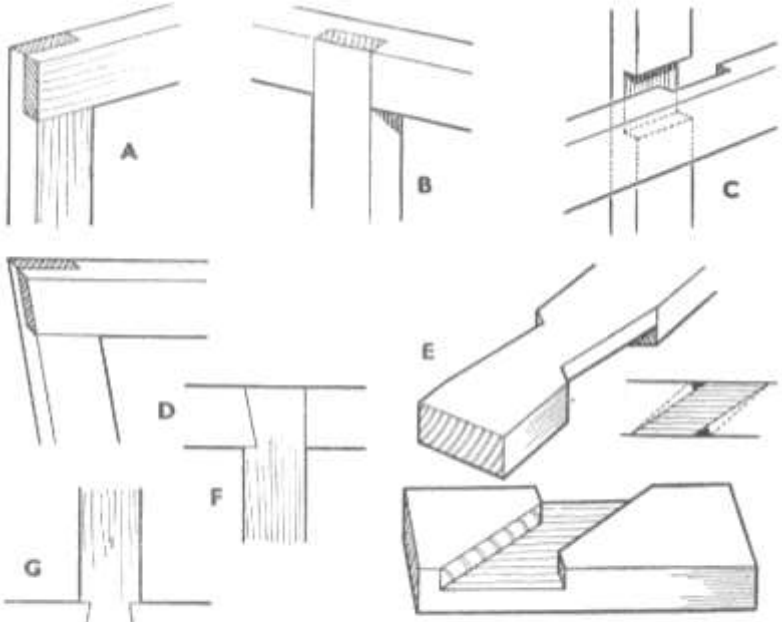


7. **Dovetailed joints.** This is the strongest joint for joining flat pieces end to end and is often held up as visible examples of the skill of the maker.

   Demonstrate: Through dovetail cut by hand; Lapped dovetail; mitred dovetail; carcase dovetail, bevel dovetail; machine-cut dovetails using a jig. (6 topics)

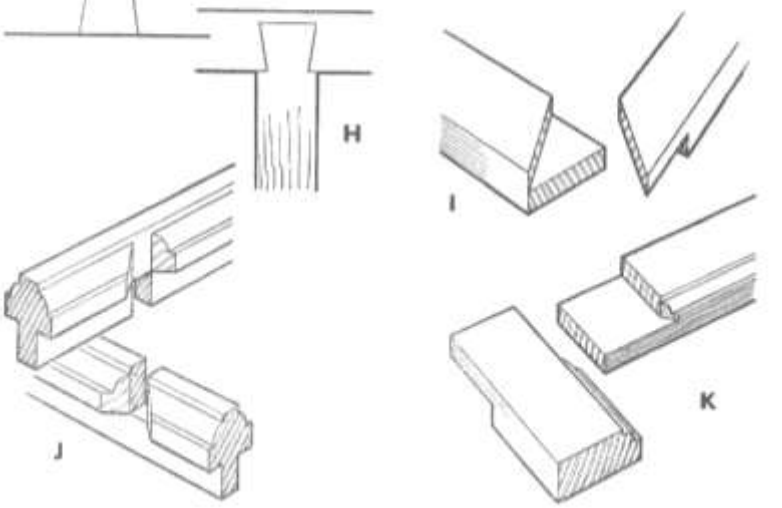
8. **Splice, scarf, fishplate and showcase joints**. Splices and scarfs are normally used to join wood end-to-end in carpentry where standard lengths are not long enough. Fishplate joints are made with extra plates on the outside of the members, such as for roofing trusses. A showcase joint is a special three-sided joint for showcases where all the sides house glass for a display cabinet.

   Demonstrate: Make a scarf joint. (1 topic)



9. **Mechanical joints.** Hinges – conventional and cabinet recessed type, rule joints, knuckle joints. For joining boards so that they can move when required, such as table leaves, cupboard doors, windows, etc.

   Demonstrate: How to fit a conventional leaf hinge; how to fit a modern recessed (cup) hinge; how to make a rule joint; how to make a knuckle joint. (4 topics)



10. **Special joints for man-made boards**. Man-made boards such as chipboard, MDF and plywood need special joints because the grain structure and strengths are different to wood. Widely used for built-in cupboards and cabinets.

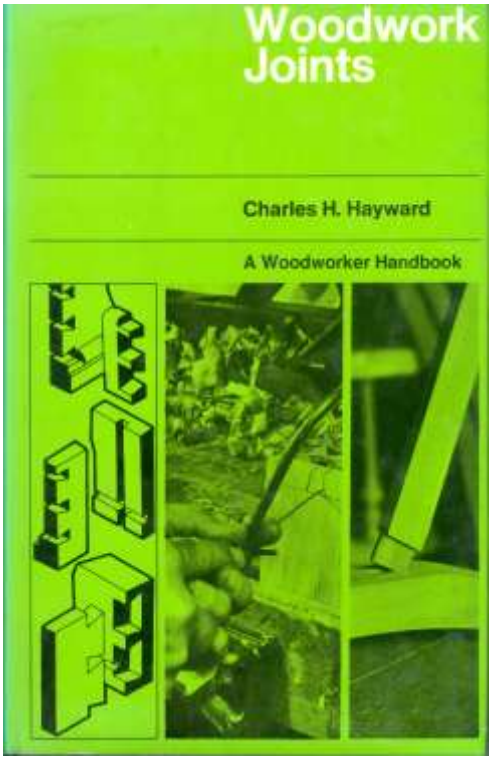
    Demonstrate: Fasteners such as nails and screws; biscuits and special dowels such as Festo dominos, plates; veneering and edging. (2 topics)

A project may contain a number of different joints, so being proficient in a number of these makes you a better woodworker.

This is a long list, so we will pick some of the ones that our members are most interested in and start with those.
This list could form a complete joinery course; which we can spread out over many meetings, but we will prioritise to see how useful they are.
Each presentation could explain the history of the joint: it's uses; all the variations and advantages and disadvantages; finishing off with a demonstration of making an example joint; and the pitfalls.

We could move one of our wooden workbenches into the meeting area, to provide a solid platform with a vise to work on for the speaker. The demonstration would preferably use readily available tools for your average woodworker – hand tools and simple power tools. Suggested time limit would be about 30 minutes, with the emphasis on show and tell, rather than Powerpoint slides.

References – Charles Hayward's book as mentioned above



Woodwork Joints, A Woodworker handbook, first published by Evans Brothers press - the publisher of The Woodworker magazine, in 1950

The Complete Book of Wood Joinery by R.J. DeChristoforo – Sterling - 1997