

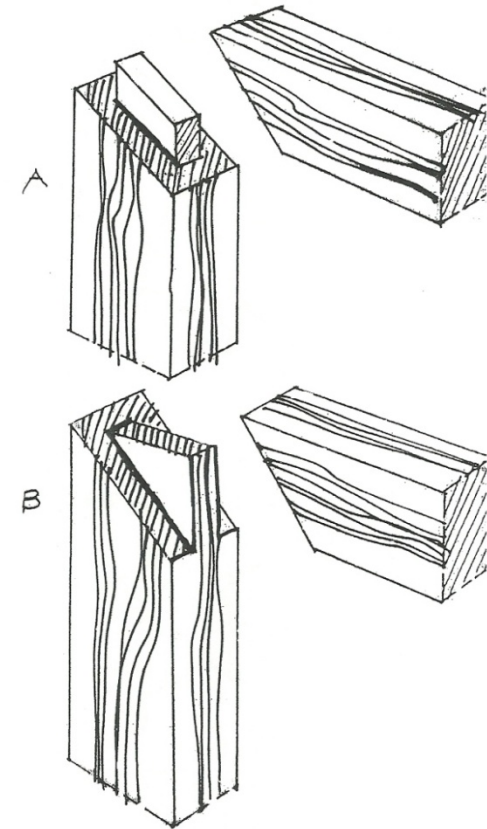
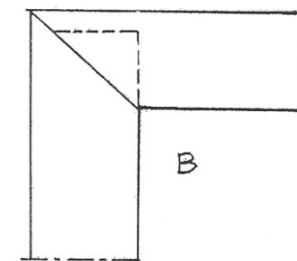
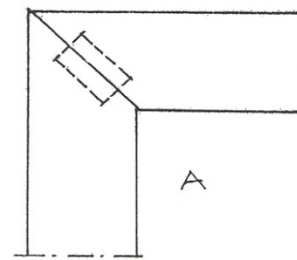
Konstruksi Kayu solid II

KEMAMPUAN AKHIR YANG DIHARAPKAN

- Mahasiswa mampu menerapkan sambungan kayu solid dalam pembuatan konstruksi furnitur sederhana

MITER & SCRIBED JOINT

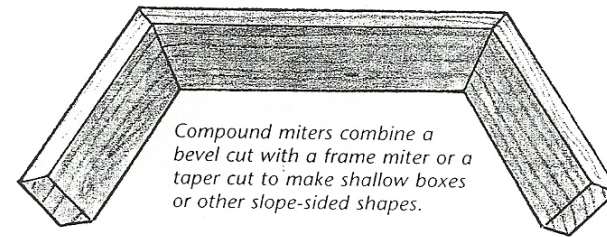
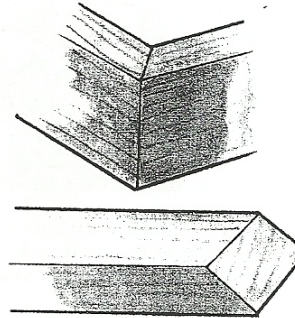
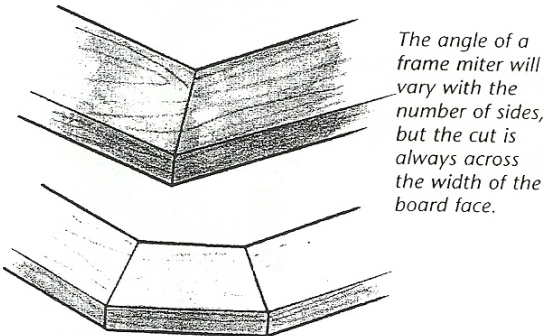
- Sambungan adu manis.
- Sambungan ini khususnya digunakan bila sangat mengutamakan aspek estetis, karena pertemuan kedua komponen yang menyudut dan benar-benar berimbang.



MITER & SCRIBED JOINT

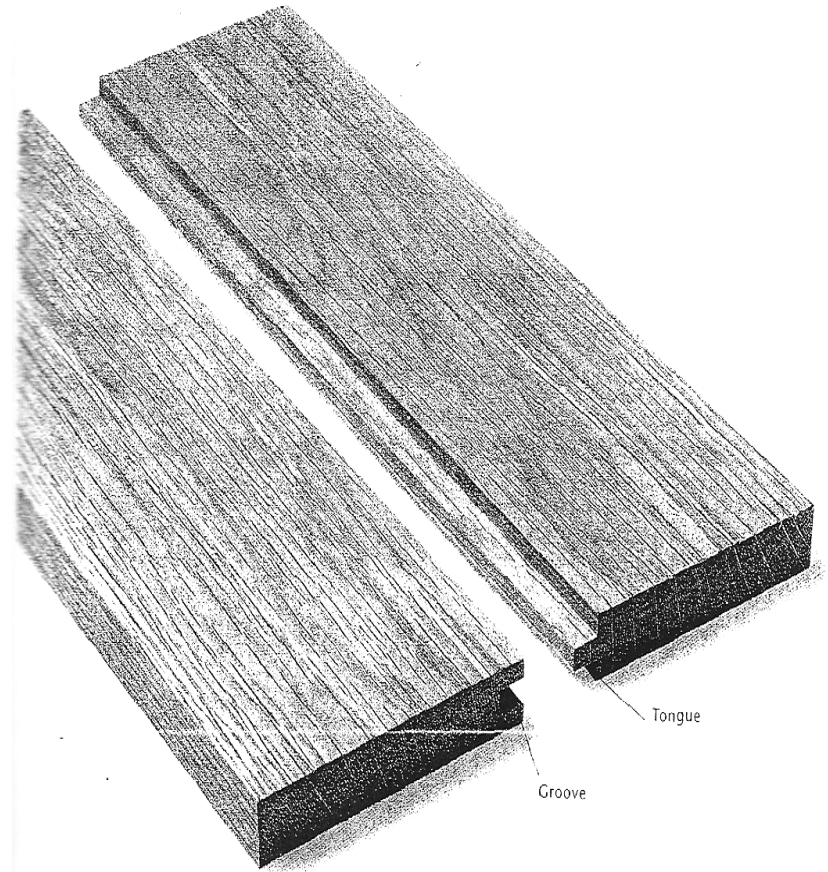
- *Frame Miter* : menyudutkan bilah kayu pada sisi lebar, tegak lurus pada permukaan.
- *Cross dan Length Miter* : menyudutkan bilah kayu dan miring pada permukaan. *Cross Miter* tegak lurus pada ujung kayu, sedangkan *Length Miter* sejajar pada ujung kayu.
- *Compound Miter* : kombinasi miring dan menyudut dalam bentuk menyilang atau sepanjang sisi kayu.

Types of Miters



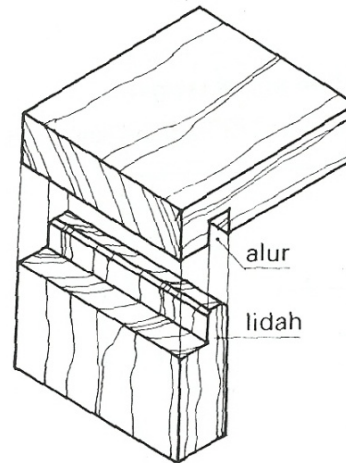
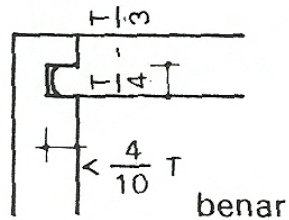
TONGUE & GROOVED JOINT

- Sambungan lidah dengan alur.
- Menghubungkan 2 papan/lebih, untuk memperoleh bidang yang lebar.
- Dapat dipakai pada teknik pembibiran (*lippings*) pada lembaran papan non solid (*plywood/block board*).
- *Tongue & groove* biasa digunakan untuk pemasangan lantai (parket).

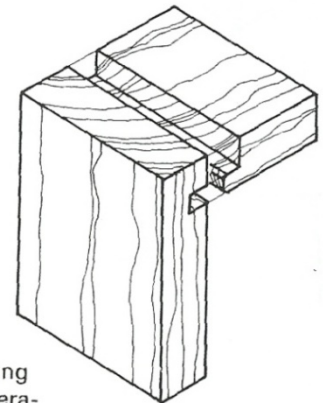


TONGUE & GROOVED JOINT

- Panjang lidah $\frac{4}{10}$ tebal papan samping.
- Tebal lidah $\frac{1}{3} - \frac{1}{4}$ tebal papan atas.
- Tebal lidah jangan $> \frac{1}{3}$ bagian untuk menghindarkan lepasnya bagian penahan & perhatikan arah serat kayu.



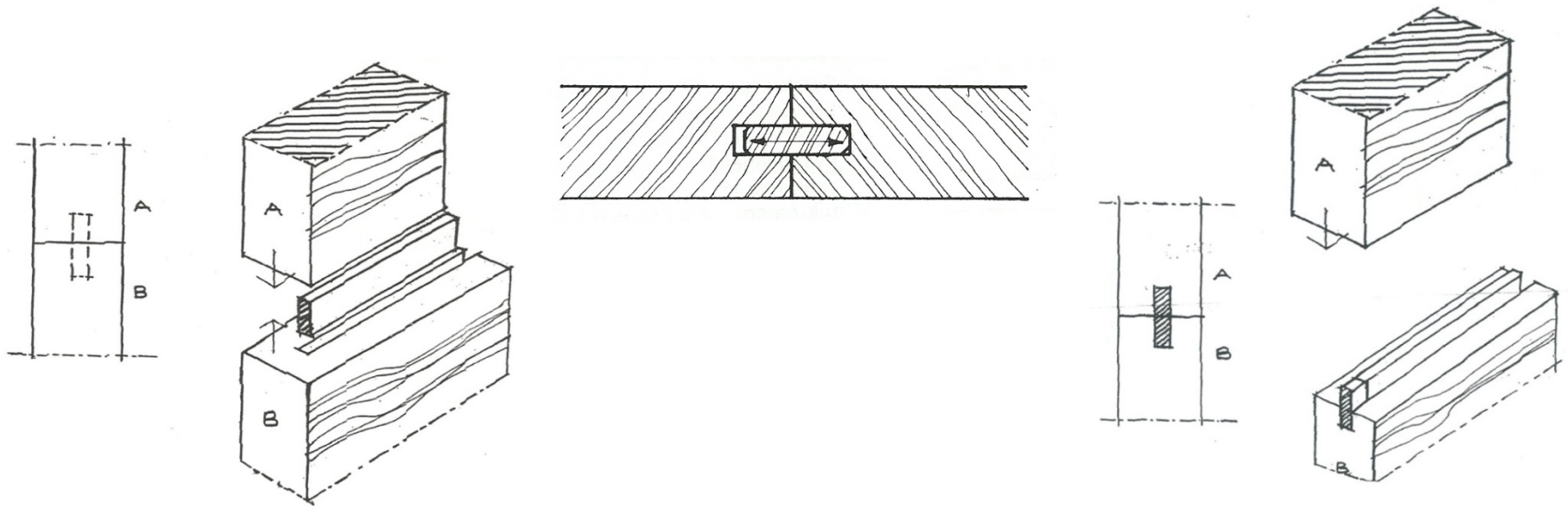
Dinding atas utuh (dipakai untuk perabot dengan ketinggian 1600 mm ke bawah).



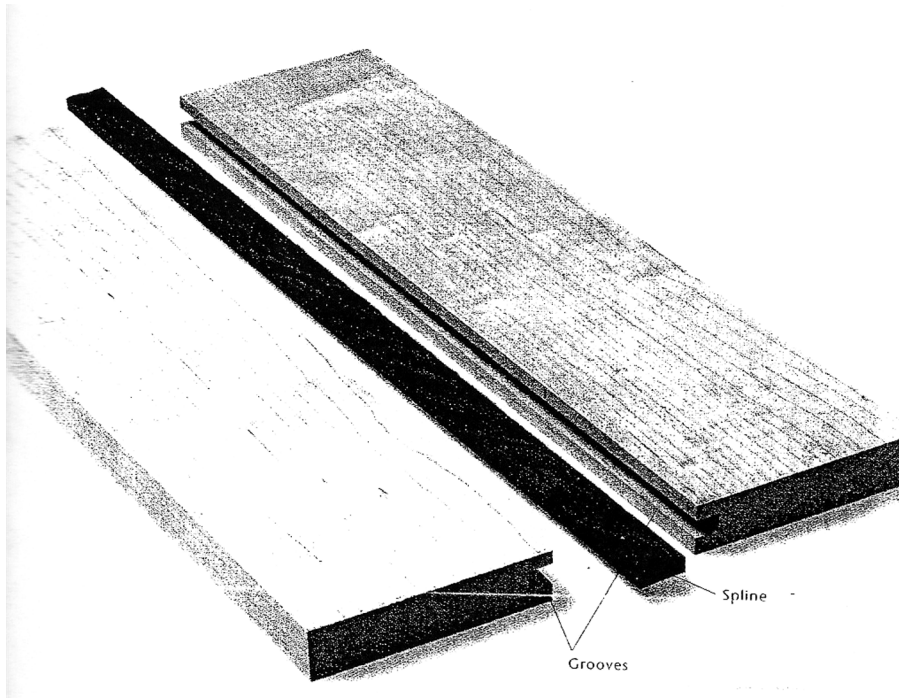
Bagian dinding samping utuh (dipakai untuk perabot dengan ketinggian di atas 1600 mm)

SPLINE JOINT

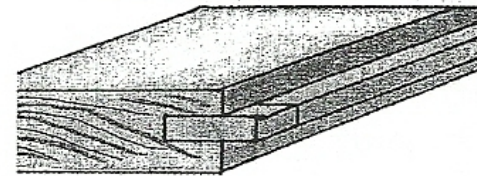
- Sambungan dengan isian
 - Isian dapat dari kayu masif atau multipleks.
 - Ketentuan tebal isian = $\frac{1}{3}$ tebal papan & panjangnya setebal papan.



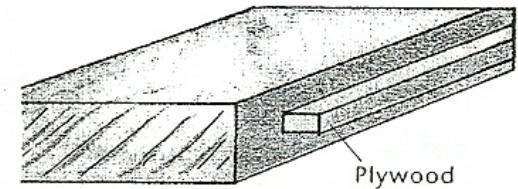
SPLINE JOINT



Capped Spline When the joint runs through and shows on the finished piece, a capped spline improves the appearance of a plywood spline or creates an effect with matching or contrasting wood.

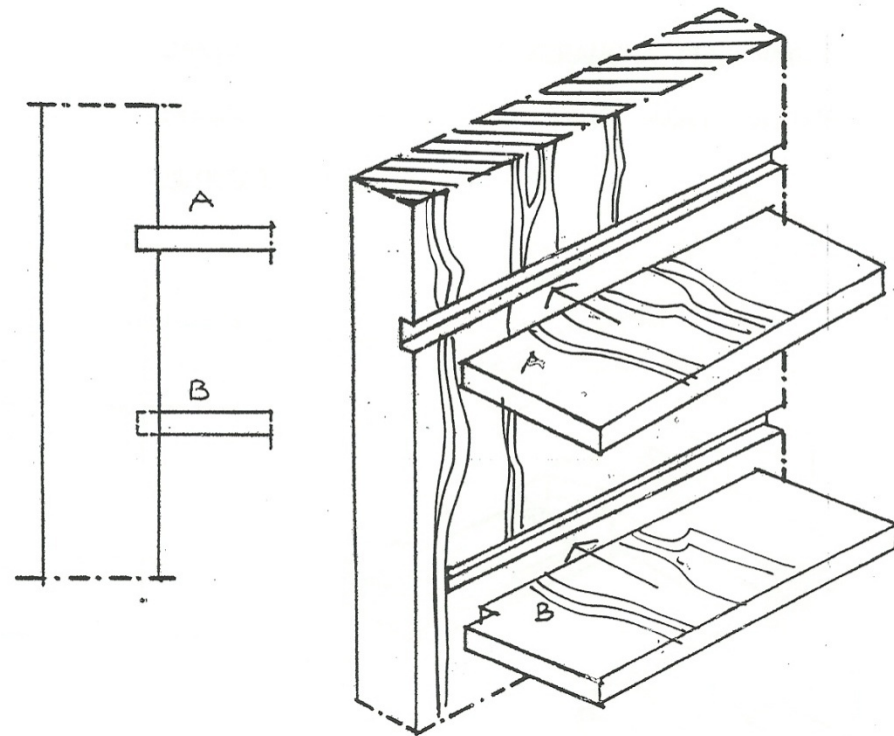


Stopped Spline A stopped spline keeps the joinery hidden, or holds the spline back so further work like shaping the edge doesn't expose it.



HOUSED JOINT

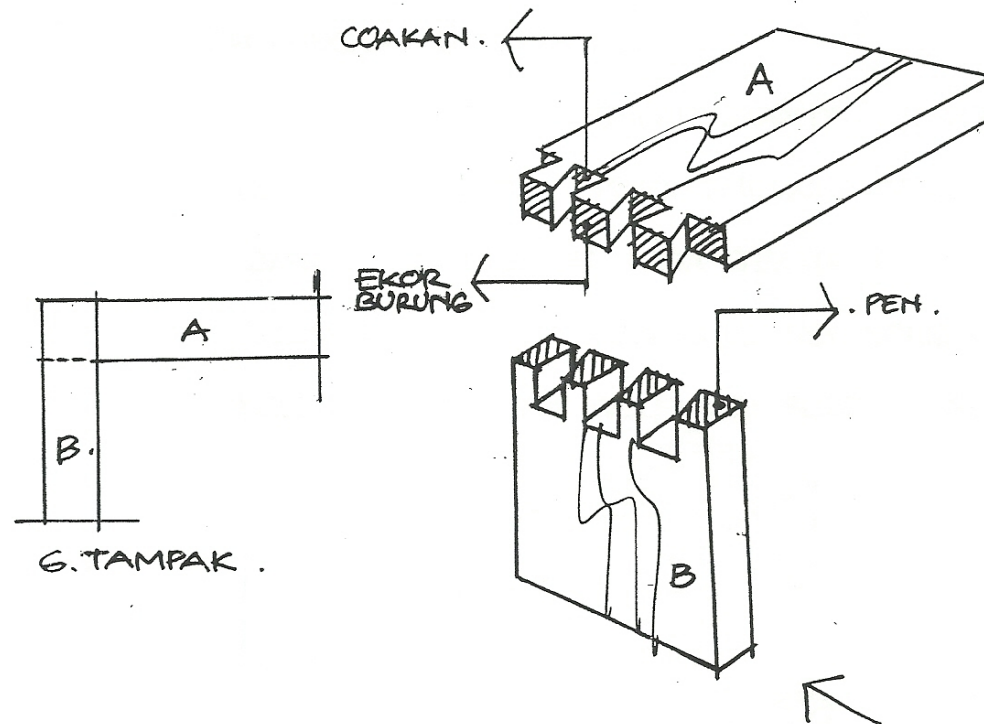
- Sambungan ini banyak dipakai pada desain furniture rak lemari sebagai pembagi ruang.
- Potongannya akan selalu berbentuk : dado, rabbet, atau *groove*.



A. Full housing
B. Stop-routed housed rabbet

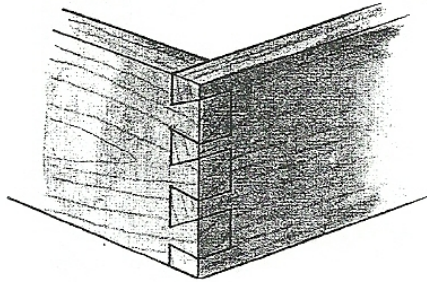
DOVETAIL JOINT

- Biasanya digunakan untuk konstruksi laci.
- Untuk mendapatkan konstruksi yang kuat, biasanya menggunakan mesin untuk memahat bilah-bilah pennya.

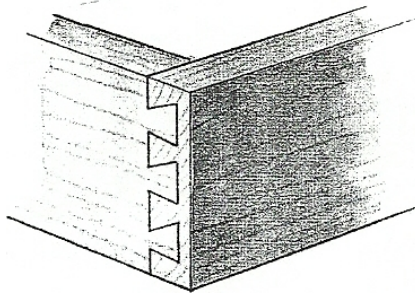


DOVETAIL JOINT

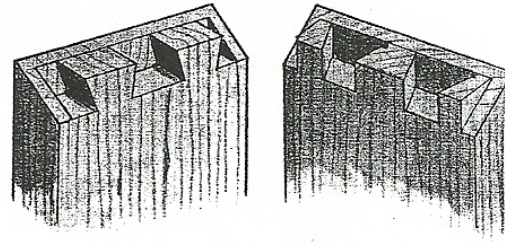
Basic Corner Dovetails



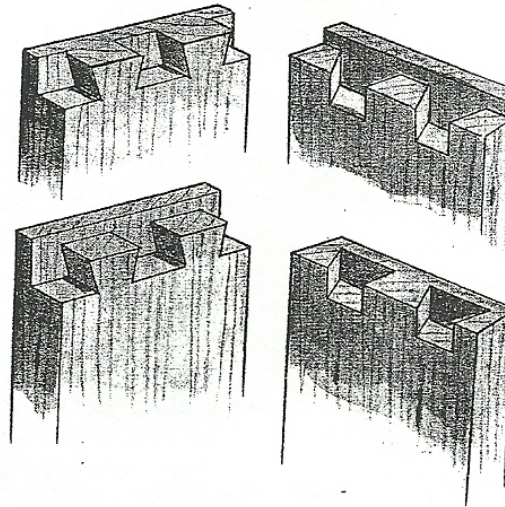
Through dovetails yield the largest glue surface possible in the joint, but the ends of the boards show through on the mating faces.



Half-blind dovetails hold a drawer face to the sides without letting the board ends show through on the drawer front.



A blind mitered dovetail joint gives a corner joint hidden strength but allows the visual continuation of unbroken grain around the assembly.



On blind dovetails, the tails aren't cut through both faces like half-blind dovetails, and either the pins or tails lap to keep any hint of dovetails from view.

DOVETAIL JOINT

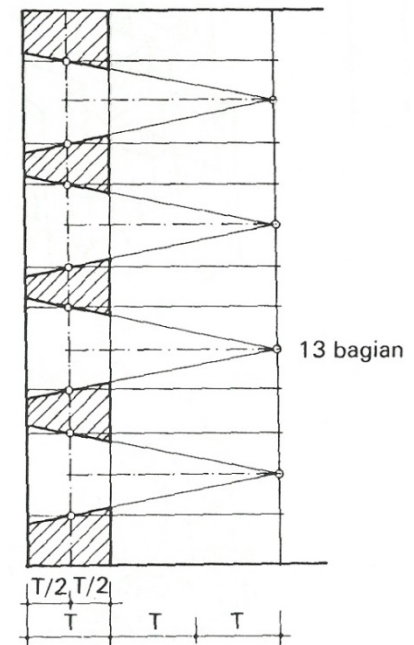
- **Rumus** :

- Jumlah pen ekor burung = Lebar kayu : $(3 \times \frac{1}{2} \times \text{Tebal kayu})$.
- Jumlah pen sisi lain = Jumlah pen ekor burung + 1.
- Jumlah bagian = $2 \times \text{Jumlah pen ekor burung} + 1 \times \text{Jumlah pen sisi lain}$.
- Lebar 1 bagian = Lebar kayu : Jumlah bagian.

- **Contoh** :

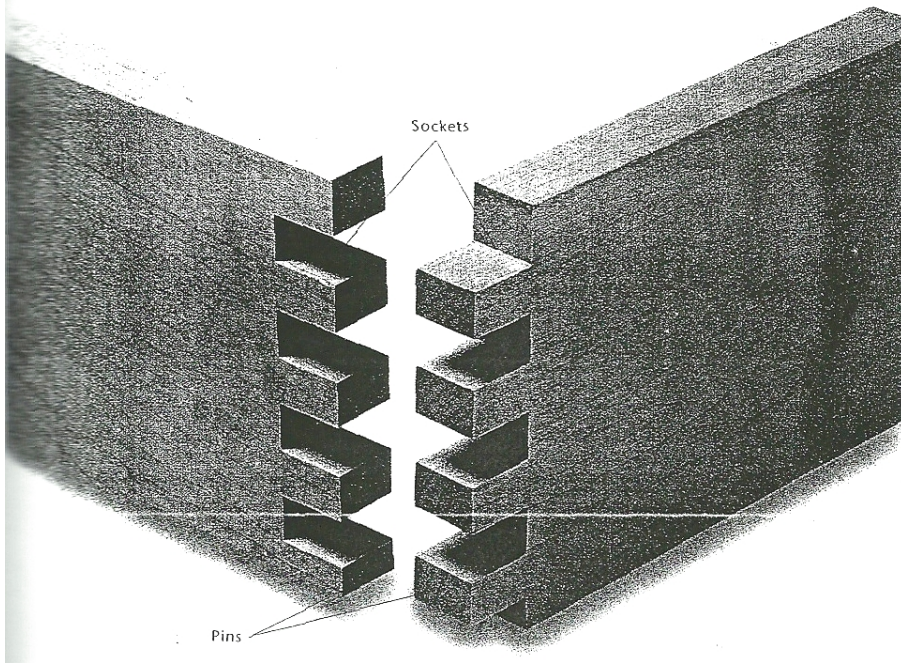
Lebar kayu = 120 mm, Tebal kayu = 20 mm.

- Jumlah pen ekor burung = $120 : (3 \times \frac{1}{2} \times 20) = 4$.
- Jumlah pen sisi lain = $4 + 1 = 5$.
- Jumlah bagian = $2 \times 4 + 1 \times 5 = 13$.
- Lebar 1 bagian = $120 : 13 = 9,2$ mm.

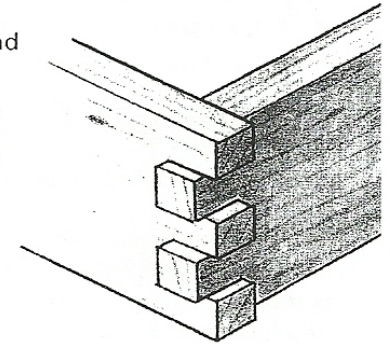


BOX / FINGER / COMB JOINT

- Serupa dengan *dovetail joint*, lebih mudah dikerjakan



Deep Variations Cutting notches deeper than the stock thickness lets the fingers of a box joint stand proud for a decorative effect that is additionally enhanced by chamfering around each finger's end.



Rounded corners After a box joint is glued, round the corner by hand or with a router for a bricklaid appearance that is friendly to the touch.

