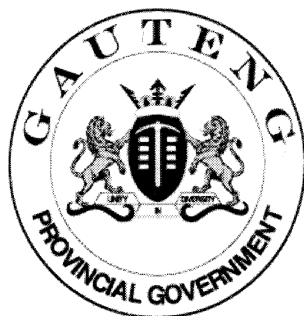


SENIOR CERTIFICATE EXAMINATION
SENIORSERTIFIKAAT-EKSAMEN



OCTOBER / NOVEMBER
OKTOBER / NOVEMBER

2004

WOODWORK

HOUTWERK

(Second Paper)
(Tweede Vraestel)



720-3/2 LS

WOODWORK LG: Paper 2



11 pages + answer sheet
11 bladsye + antwoordblad

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GAUTENGSE DEPARTEMENT VAN ONDERWYS

SENIORSERTIFIKAAT-EKSAMEN

HOUTWERK LG
(Tweede Vraestel)

TYD: 2 uur

PUNTE: 100

INSTRUKSIES:

- Sketse mag gebruik word om jou antwoorde toe te lig.
 - Alle sketse moet in potlood op die blanke bladsy van jou **antwoordboek** gedoen word.
 - Trek na elke vraag wat jy heeltemaal voltooi het 'n lyn regoor die bladsy.
 - 'n Los **antwoordblad** word vir die beantwoording van Vraag 1 voorsien. Skryf jou eksamennommer op hierdie bladsy en plaas dit **voor** in jou **antwoordboek**.
 - Vraag 1 is VERPLIGTEND en beantwoord enige VIER ander vrae.
-
-

**VRAAG 1
VERPLIGTEND**

- 1.1 'n Handsaag met 10 tot 12 tande per 25 mm word 'n _____ genoem.
- A. kloofsaag
B. rugsaag
C. dwarssaag
- 1.2 Van watter materiaal word die raamwerk van die soetskaaf vervaardig?
- A. Lood
B. Gietyster
C. Sagte staal
- 1.3 Om hout met 'n dwarsdradige grein glad te skaaf gebruik ons 'n _____ .
- A. reiskaaf
B. verdiepskaaf
C. soetskaaf
- 1.4 Watter houtwerkvoeg word gebruik om planke wyer te maak vir die maak van 'n tafelblad?
- A. Toomvoeg
B. Skroef-en-gleuflas
C. Inlaatvoeg

GAUTENG DEPARTMENT OF EDUCATION
SENIOR CERTIFICATE EXAMINATION

WOODWORK LG
(Second Paper)

TIME: 2 hours

MARKS: 100

INSTRUCTIONS:

- Sketches may be used to illustrate your answers.
 - All sketches should be done in pencil in the **answer book**.
 - Rule a line across the page after you have completed each full question.
 - An **answer sheet** is provided for Question 1. Write your examination number on this sheet and place it inside the **front cover** of your **answer book**.
 - Question 1 is **COMPULSORY** and answer any other **FOUR** questions.
-
-

**QUESTION 1
COMPULSORY**

- 1.1 A saw with 10 to 12 teeth per 25 mm is called a _____ .
- A. rip saw
 - B. tenon saw
 - C. cross-cut saw
- 1.2 Which material is used to make the frame of the smoothing plane?
- A. Lead
 - B. Cast iron
 - C. Mild steel
- 1.3 To plane cross-grained timber, use a _____ .
- A. trying plane
 - B. router
 - C. smoothing plane
- 1.4 Which woodwork joint is used to widen planks to make a table top?
- A. Bridle joint
 - B. Slot-screw joint
 - C. Housing joint

- 1.5 Om tap-en-gatvoeë uit te meet, gebruik ons 'n _____ .
- A. swaaihaak
 - B. tapkruishout
 - C. skraper
- 1.6 Die ratel is 'n onderdeel van die _____ .
- A. speekskaaf
 - B. omslag
 - C. voorloperskaaf
- 1.7 Om die skuinste van die stert van die swaelstertvoeg te trek gebruik ons 'n _____ .
- A. swaaihaak
 - B. kombinasie-winkelhaak
 - C. winkelhaak
- 1.8 Die grootte van die steekbeitel word bepaal deur die _____ .
- A. noodring
 - B. breedte van die lem
 - C. lengte van die lem
- 1.9 Met die verstekkant van die handvatsel van die winkelhaak trek ons _____ lyne.
- A. 45°
 - B. 60°
 - C. 30°
- 1.10 Die oliesteenvlak van die kapbeitel het 'n hoek van _____ .
- A. 45°
 - B. 60°
 - C. 30°
- 1.11 Die voeg wat ons gebruik by die maak van 'n portretraam is die _____ .
- A. swaelstertvoeg
 - B. tapgatvoeg
 - C. verstekvoeg
- 1.12 'n Ronde reguitskag-boor word gebruik in 'n _____ klembus.
- A. tweeklou-
 - B. drieklou-
 - C. tapsboor-

- 1.5 To mark a mortice and tenon joint, we use a _____ .
- A. sliding bevel
 - B. mortice gauge
 - C. scraper
- 1.6 The ratchet is a part of the _____ .
- A. spoke shave
 - B. carpenter's brace
 - C. bench plane
- 1.7 To mark out the slope of the dovetail joint, we use a _____ .
- A. sliding bevel
 - B. combination square
 - C. try square
- 1.8 The size of the firmer chisel is indicated by the _____ .
- A. ferrule
 - B. width of the blade
 - C. length of the blade
- 1.9 With the mitred edge of the try-square we draw _____ lines.
- A. 45°
 - B. 60°
 - C. 30°
- 1.10 The sharpening bevel of the mortice chisel has an angle of _____ .
- A. 45°
 - B. 60°
 - C. 30°
- 1.11 The joint that we use to make a picture frame, is the _____ .
- A. dovetail joint
 - B. mortice and tenon joint
 - C. mitred joint
- 1.12 A round straight-shank drill bit is used in a _____ .
- A. Two-jaw chuck
 - B. Three-jaw chuck
 - C. Taper-drill socket

- 1.13 Om twee lyne ewewydig aan die kant van 'n plank te trek, gebruik ons 'n _____ .
- A. kraspen
 - B. potlood
 - C. tapkruishout
- 1.14 Die "tafelinvloeging" tref ons aan by die _____ .
- A. staanboor
 - B. bandsaag
 - C. skuurmasjien
- 1.15 Die langhoringkewer is 'n _____ .
- A. termiet
 - B. houtboorder
 - C. swam
- 1.16 Die speling tussen die saagband en die leipenne van die bandsaag word deur middel van _____ verkry.
- A. geelkoperplaatjies
 - B. tinplaatjies
 - C. papierrepies
- 1.17 Die geskikste voeg vir 'n boekrak is 'n _____ voeg.
- A. swaelstert-
 - B. toom-
 - C. inlaat-
- 1.18 Om gate in hardehout te versink gebruik ons 'n _____ .
- A. skulp-versinkboor
 - B. ruimer
 - C. roos-versinkboor
- 1.19 Die grootte van 'n skroewedraaier word bepaal deur die _____ .
- A. grootte van die handvatsel
 - B. die dikte van die lem
 - C. grootte van die skroewedraaier-punt
- 1.20 Om 'n gebuigde paneelspyker uit hout te trek word 'n _____ gebruik.
- A. klouhamer
 - B. dwarspenhamer
 - C. knyptang

- 1.13 To draw two grooves parallel to the side of a board, we use a _____ .
- A. scribe
 - B. pencil
 - C. mortice guage
- 1.14 We find the "table insert" on the _____ .
- A. drill press
 - B. band saw
 - C. sanding machine
- 1.15 The long-horned beetle is a _____ .
- A. termite
 - B. wood borer
 - C. fungus
- 1.16 To set play between the blade and the guide pins on a bandsaw, use _____ .
- A. brass strips
 - B. strips of tin plate
 - C. paper strips
- 1.17 The most suitable joint for a book shelf is a _____ joint.
- A. dovetail
 - B. bridle
 - C. housing
- 1.18 To countersink holes in hardwood, use a _____ .
- A. snail countersink
 - B. reamer
 - C. rose countersink
- 1.19 The size of a screwdriver is determined by the _____ .
- A. size of the handle
 - B. thickness of the blade
 - C. size of the screwdriver point
- 1.20 To remove a bent panel pin, use _____ .
- A. a claw hammer
 - B. a cross-pene hammer
 - C. pincers

[20]

VRAAG 2

- 2.1 Verskillende soorte handsae, nie kragaangedrewe nie, word in die houtwerksentrum aangetref. Noem die name van VYF soorte handsae en noem ook EEN spesifieke gebruik van elke saag. (10)
- 2.2 Noem die vernaamste gereedskapstuk wat jy sal gebruik om
- 2.2.1 op houtbeitels te slaan.
 - 2.2.2 klein spykertjies in te slaan.
 - 2.2.3 groot gate deur drielaaghout te boor.
 - 2.2.4 skroewe in te draai.
 - 2.2.5 gleuwe vir inlêwerk te skaaf.
 - 2.2.6 houtwerkvoeë akkuraat uit te saag.
 - 2.2.7 saam met die grein van die hout te saag.
 - 2.2.8 gate uit te kap vir tap-en-gatvoeë.
 - 2.2.9 te toets of die sykante van 'n stukkie hout haaks is.
 - 2.2.10 een lyn ewewydig aan die kant van 'n plank te trek. (10)

[20]

VRAAG 3

- 3.1 **Figuur 3.1** op bladsy 8 toon 'n skets van 'n gedeelte van die houtdraaibank, asook toebehore wat by die houtdraaibank gebruik word. Skryf die nommers 1 tot 16 onder mekaar neer en daarnaas die onderdeel se naam. (8)
- 3.2 **Figuur 3.2** op bladsy 9 toon sketse van sestien verskillende soorte voeë. Skryf die nommers 1 tot 16 onder mekaar neer en daarnaas elke voeg se naam. (8)
- 3.3 **Figuur 3.3** op bladsy 10 toon 'n skets van 'n skof-tap-en-gatvoeg. Skryf die nommers 1 tot 6 van die dele van die voeg onder mekaar neer en daarnaas elke deel se naam. (3)
- 3.4 Hoe word die dikte van 'n tap(pen) bepaal by die uitmerk van 'n tap-en-gatvoeg? (1)

[20]

QUESTION 2

- 2.1 Different kinds of hand saws, not power driven, are found in the woodwork centre. Name FIVE different kinds of saws, and also write down ONE special use of each saw. (10)
- 2.2 Name the most important tool that you would use for
- 2.2.1 driving chisels into wood.
 - 2.2.2 driving in nails of small sizes.
 - 2.2.3 boring large-diameter holes through three-ply wood.
 - 2.2.4 driving screws into wood.
 - 2.2.5 cleaning out grooves for inlay work.
 - 2.2.6 cutting of woodwork joints where accuracy is imperative.
 - 2.2.7 cutting along the grain of wood.
 - 2.2.8 chiseling and removing of waste wood when chopping mortice holes.
 - 2.2.9 testing the edges of a piece of timber for squareness.
 - 2.2.10 making one groove parallel to the side of the timber. (10)

[20]

QUESTION 3

- 3.1 **Figure 3.1** on page 8 shows a sketch of a part of the wood-turning lathe, as well as some accessories of the wood-turning lathe. Write down the numbers **1** to **16** below each other, and next to each number the correct name of the part or accessory. (8)
- 3.2 **Figure 3.2** on page 9 shows sketches of sixteen different woodwork joints. Write down the numbers **1** to **16** of each joint, and next to each number the name of the joint. (8)
- 3.3 **Figure 3.3** on page 10 shows a sketch of a haunched mortice and tenon joint. Write down the numbers **1** to **6** of the parts of the joint, and next to each number the name of the part. (3)
- 3.4 How would you determine the thickness of the tenon of a mortice and tenon joint? (1)

[20]

VRAAG 4

- 4.1 **Figuur 4.1** op bladsy 10 toon die leiereenheid van die bandsaag. Skryf die nommers **1** tot **7** onder mekaar neer en daarnaas die onderdeel se naam. (7)
- 4.2 **Figuur 4.2** op bladsy 11 toon 'n gedeeltelike raamwerk van 'n tafeltjie, asook 'n lys van moontlike voeë wat vir die samestelling van die onderdele gebruik kan word. Kies uit die lys van moontlike voeë watter voeg jy sal gebruik om
- 4.2.1 gedeelte B aan gedeelte A te heg.
4.2.2 gedeelte C aan gedeelte A te heg.
4.2.3 gedeelte D aan gedeelte A te heg.
4.2.4 gedeelte E aan gedeelte F te heg.
4.2.5 gedeelte G aan gedeelte E te heg. (5)
- 4.3 Skryf die letters **A** tot **H** soos aangedui in **Figuur 4.2** onder mekaar neer en daarnaas die name van die verskillende onderdele soos dit op die skets aangedui word. (8)
[20]

VRAAG 5

- 5.1 Kies die regte woord en skryf dit langs die nommer van die vraag neer.
- Kiaat**
- 5.1.1 Dit is 'n (bladwisselende / immergroen) boom.
5.1.2 Dit het (naaldvormige / breë) blare.
5.1.3 Die boom is selde hoër as (12 m / 60 m).
5.1.4 Die stam is onder (20 m / 0,6 m) in omtrek.
5.1.5 Dit dra (pienk / geel) blommetjies.
5.1.6 Die bas is (donker grys tot swart / wit tot strooikleurig).
5.1.7 Die stam is (kort en krom / lank en reguit).
5.1.8 Die hout word gebruik vir die maak van (goeie, duur meubels / tamatie-verpakkingskiste). (8)
- 5.2 Noem VYF veiligheidsmaatreëls wanneer daar met die houtdraaibank gewerk word. (5)
- 5.3 Waarom word hout met preserveermiddels behandel en hoekom moet die hout behoorlik droog wees om behandel te kan word? (2)
- 5.4 Noem VYF eienskappe waaraan 'n goeie preserveermiddel moet voldoen. (5)
[20]

QUESTION 4

- 4.1 **Figure 4.1** on page 10 shows the guide-pin unit of the bandsaw. Write down the numbers **1** to **7** below one another, and next to each number the correct name of the part. (7)
- 4.2 **Figure 4.2** on page 11 shows part of the framework for a small table, as well as a list of possible woodwork joints that could be used in its construction. Select the most suitable joint from the list that you would use to join
- 4.2.1 part B to part A.
 - 4.2.2 part C to part A.
 - 4.2.3 part D to part A.
 - 4.2.4 part E to part F.
 - 4.2.5 part G to part E. (5)
- 4.3 Write down the letters **A** to **H** as indicated in **Figure 4.2** below each other and name each part as indicated in the sketch. (8)
[20]

QUESTION 5

- 5.1 Choose the correct word and write it next to the number of the question.
- Kiaat**
- 5.1.1 It is a (deciduous / evergreen) tree.
 - 5.1.2 It is a (needle-leaf / broad leaf) tree.
 - 5.1.3 The tree is seldom higher than (12 m / 60 m)
 - 5.1.4 The trunk is (20 m / 0,6 m) thick at the bottom.
 - 5.1.5 It bears (pink / yellow) flowers.
 - 5.1.6 The colour of the bark is (dark grey to black / white to strawish).
 - 5.1.7 The trunk is (not straight and short / straight and long).
 - 5.1.8 The wood is used for (good, expensive furniture / tomato crates). (8)
- 5.2 Name FIVE safety precautions when working on the wood-turning lathe. (5)
- 5.3 What is the reason for treating timber with a preservative, and why must the timber be dry? (2)
- 5.4 Name FIVE properties of an ideal preservative, when timber is preserved. (5)
[20]

VRAAG 6

- 6.1 Noem en skets VYF soorte barste wat by boomstamme aangetref word. (5)
- 6.2 Noem VIER kenmerke wat as leidraad kan dien dat 'n boom volgroeid of ryp is. (2)
- 6.3 Benoem die volgende bemarkbare vorms van hout:
- 6.3.1 'n Boomstam wat afgekap en waarvan die takke verwyder is (1)
- 6.3.2 'n Stuk hout, 150 mm of breër en tot 50 mm dik. (1)
- 6.4 Noem en skets TWEE metodes waarvolgens fineer gesny word tydens die vervaardigingsproses. (2)
- 6.5 Noem DRIE ontwerpbeginsels wat toegepas moet word by die ontwerp van 'n meubelstuk. (3)
- 6.6 Sê op watter houtsoort die volgende stellings betrekking het:
- 6.6.1 Weens die hoë oliegehalte lym die hout moeilik.
- 6.6.2 Dit is geskik vir die maak van vaatjies.
- 6.6.3 Onreëlmatige swart vlekke kom in die hout voor.
- 6.6.4 Versteende hars is 'n ernstige defek.
- 6.6.5 Dit groei veral in Knysna.
- 6.6.6 Saphout word maklik deur kewers aangeval. (3)
- 6.7 Noem TWEE soorte politoer wat op meubels gebruik kan word. (2)
- 6.8 Noem EEN rede waarom hout gebeits kan word. (1)

[20]

TOTAAL: 100

QUESTION 6

- 6.1 Name and sketch FIVE types of shakes which are found on tree trunks. (5)
- 6.2 Name FOUR characteristics of maturity in a tree. (2)
- 6.3 Name the following marketable forms of timber:
- 6.3.1 A length cut from the trunk of a tree and cleared of its branches (1)
- 6.3.2 A piece of timber 150 mm or wider and up to 50 mm thick (1)
- 6.4 Name and sketch TWO methods by which veneer is cut during its manufacturing. (2)
- 6.5 Name any THREE principles that you would apply when designing furniture. (3)
- 6.6 Write down the name of the wood related to the following statements:
- 6.6.1 Difficult to glue due to the high oil content of the timber
- 6.6.2 Suitable for barrel construction
- 6.6.3 Irregular black spots appear in the wood
- 6.6.4 Petrified resin streaks are a serious defect
- 6.6.5 It grows mainly in Knysna
- 6.6.6 The sapwood is easily attacked by beetles (3)
- 6.7 Name TWO types of polish used on furniture. (2)
- 6.8 Name ONE reason for applying stain to wood. (1)

[20]

TOTAL: 100

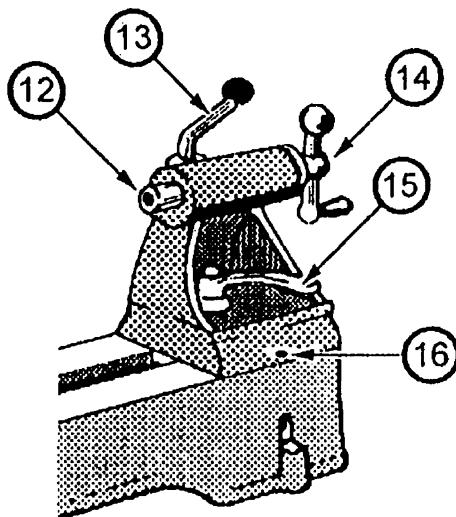
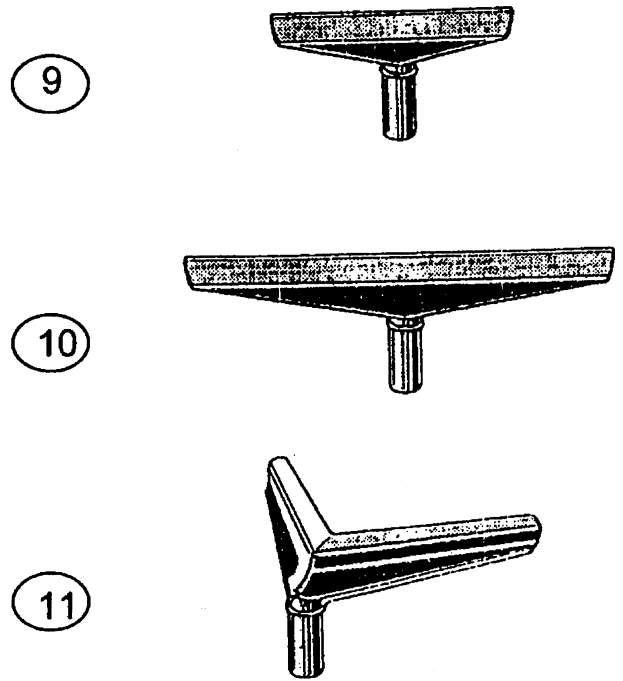
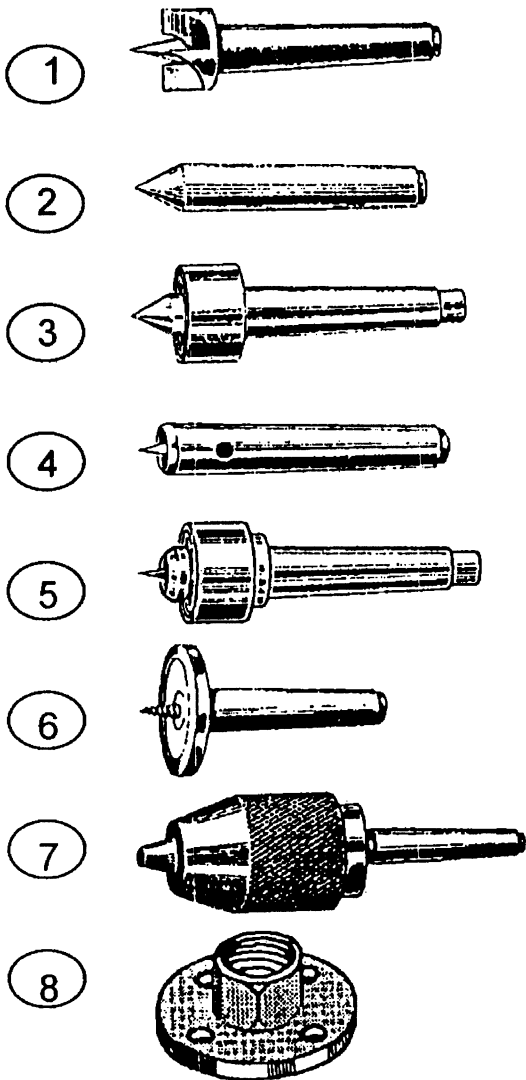


FIG 3.1

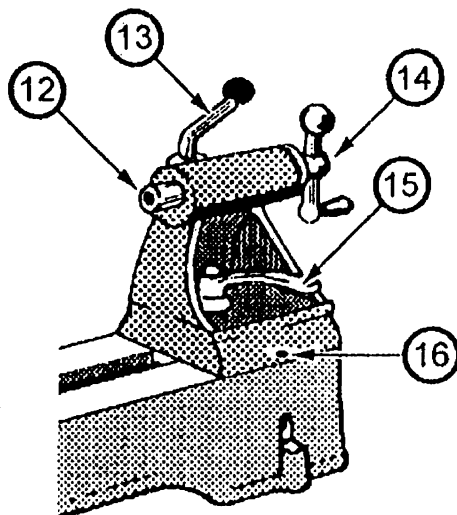
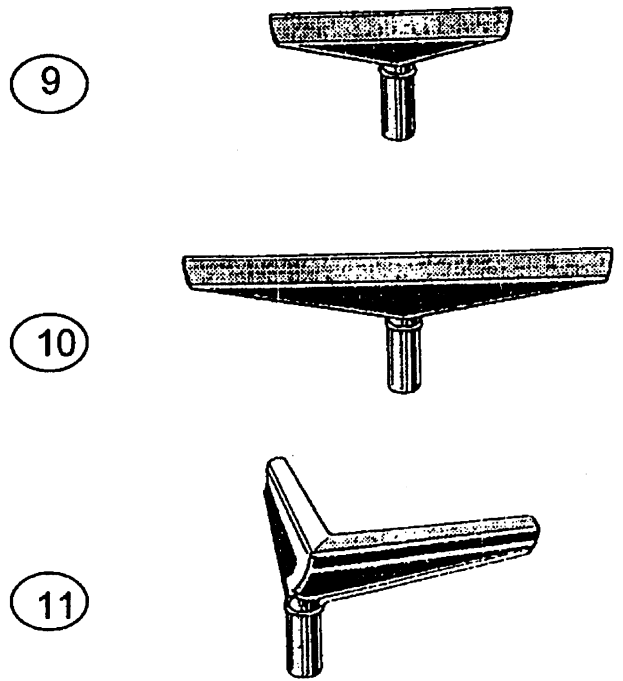
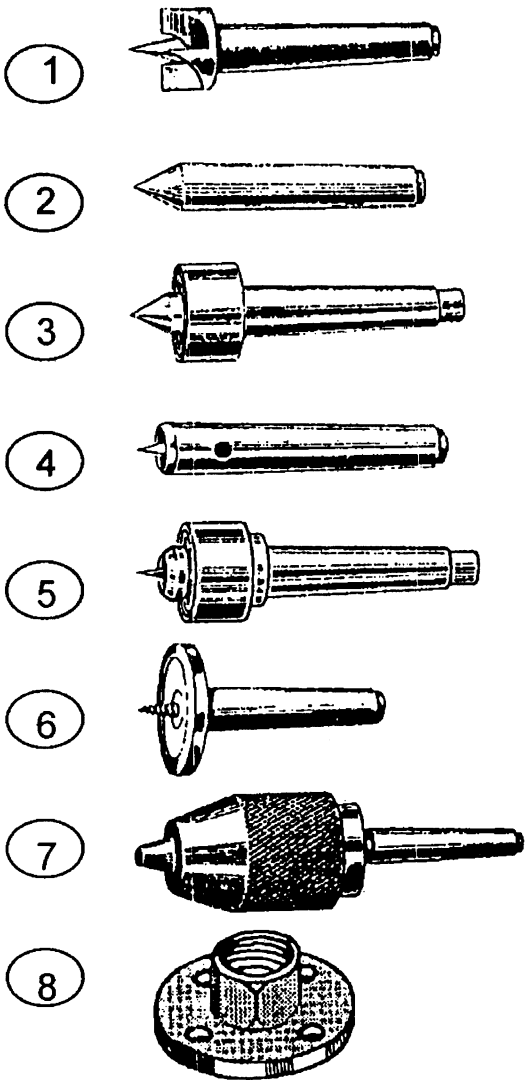


FIG 3.1

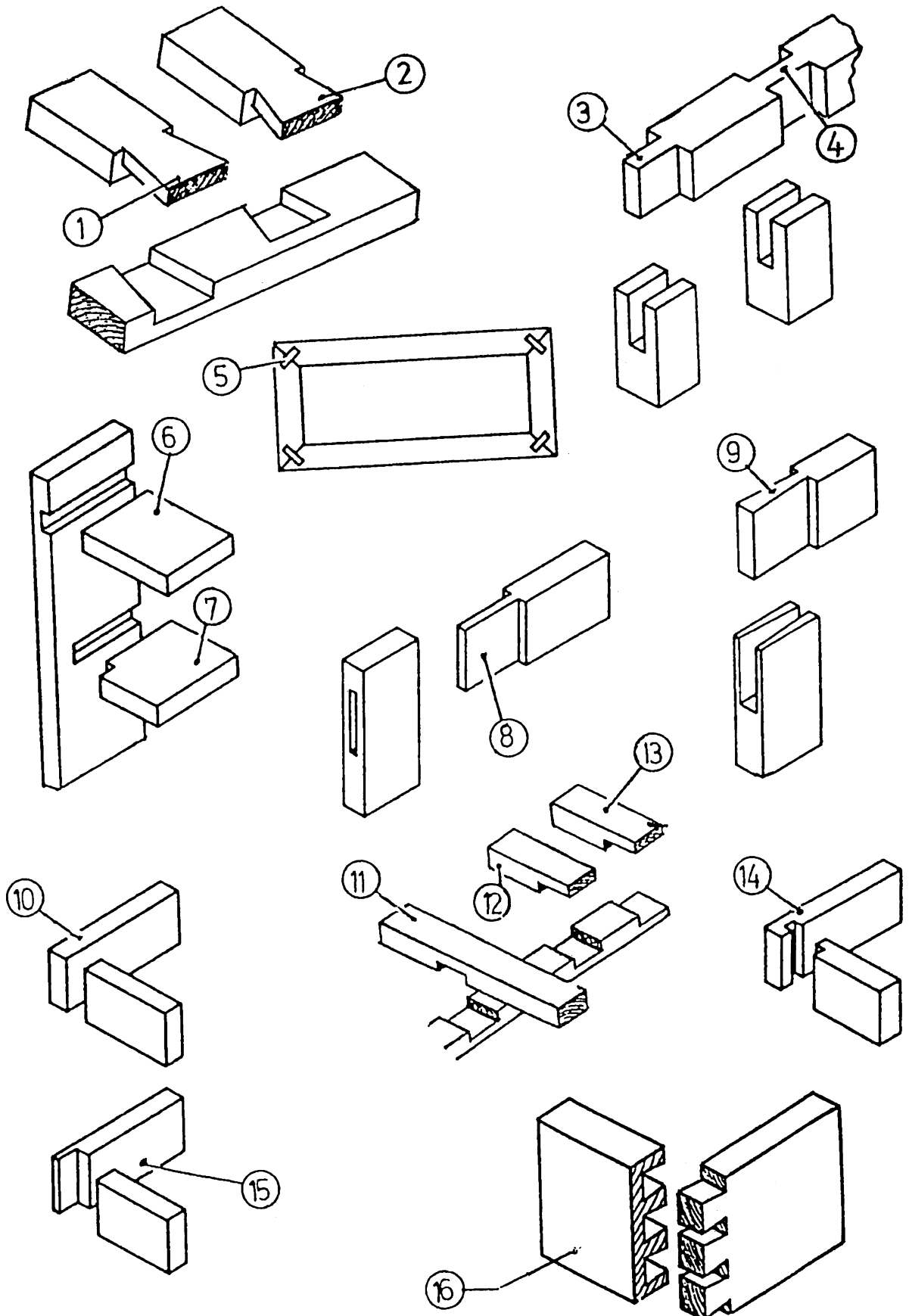


FIG 3.2

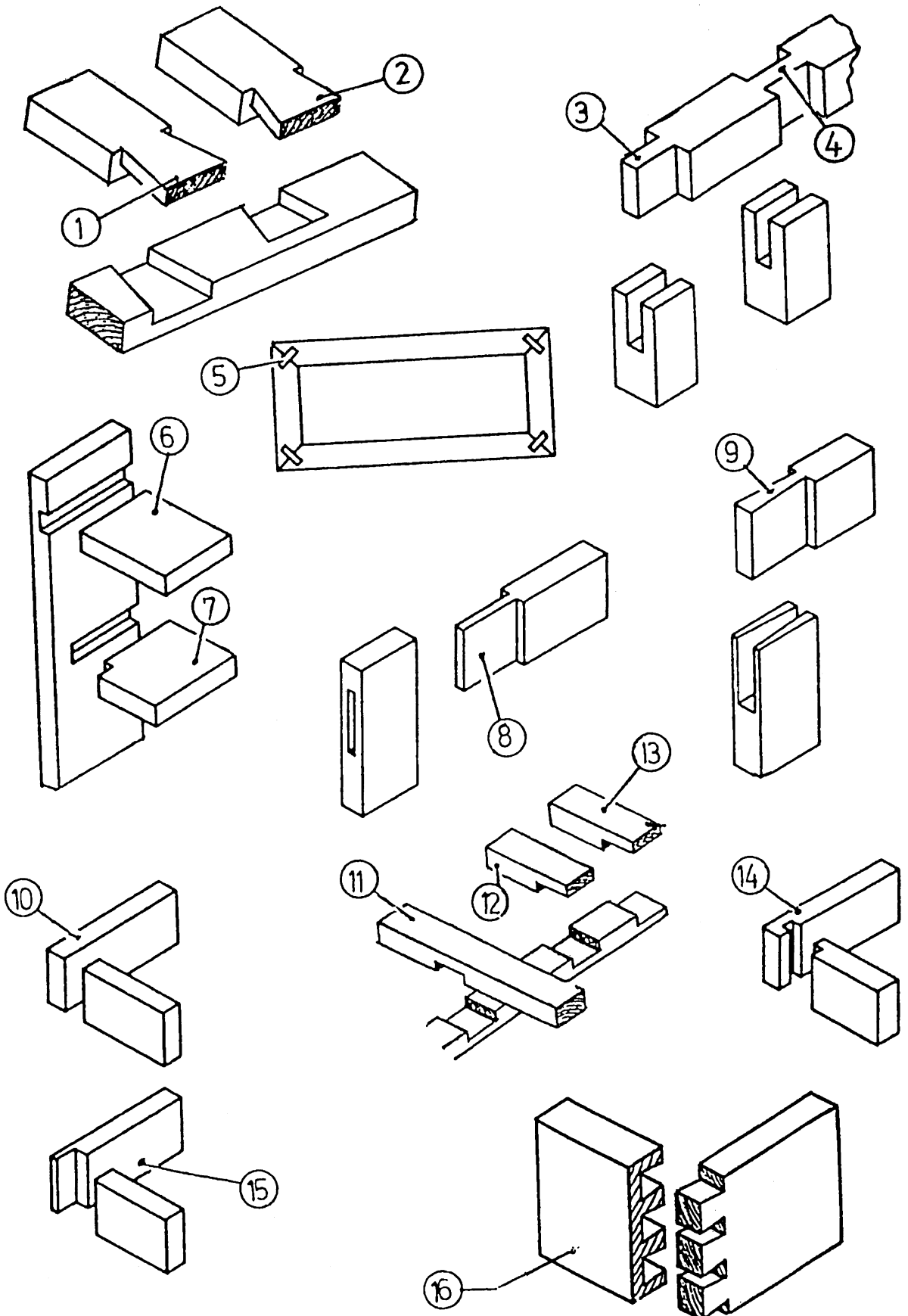


FIG 3.2

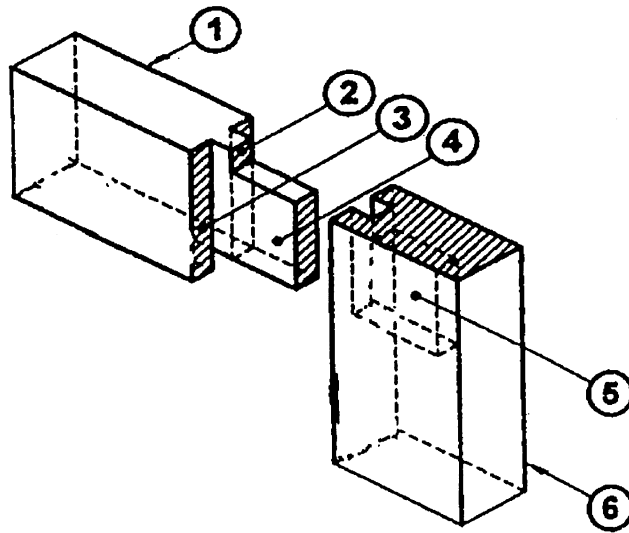


FIG 3.3

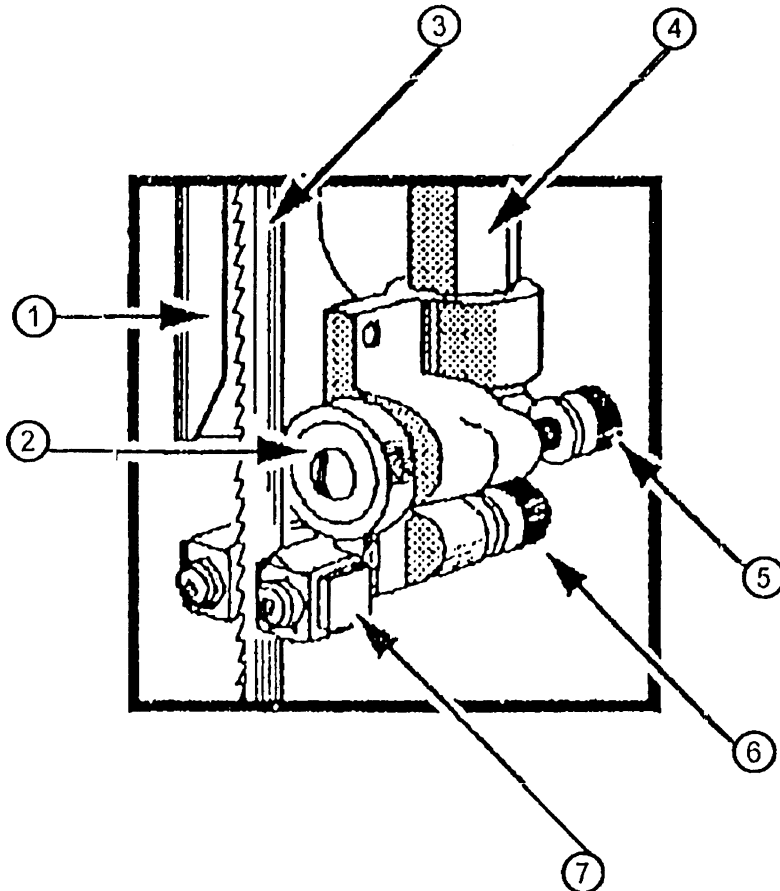


FIG 4.1

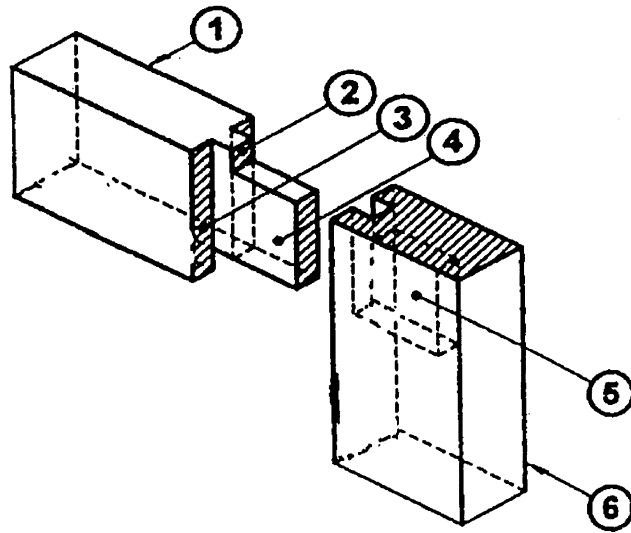


FIG 3.3

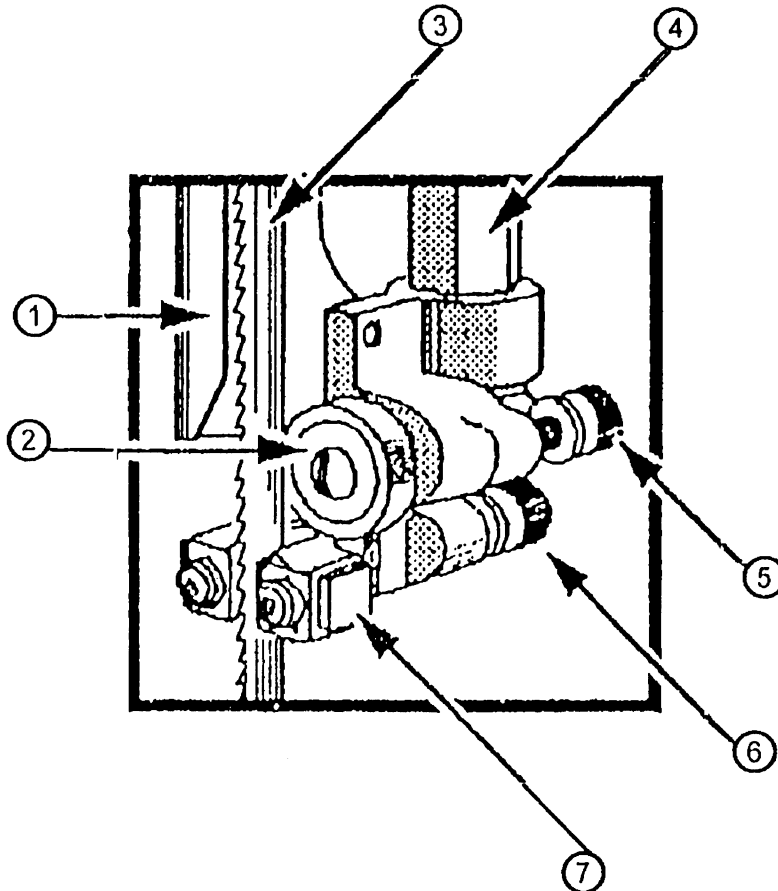


FIG 4.1

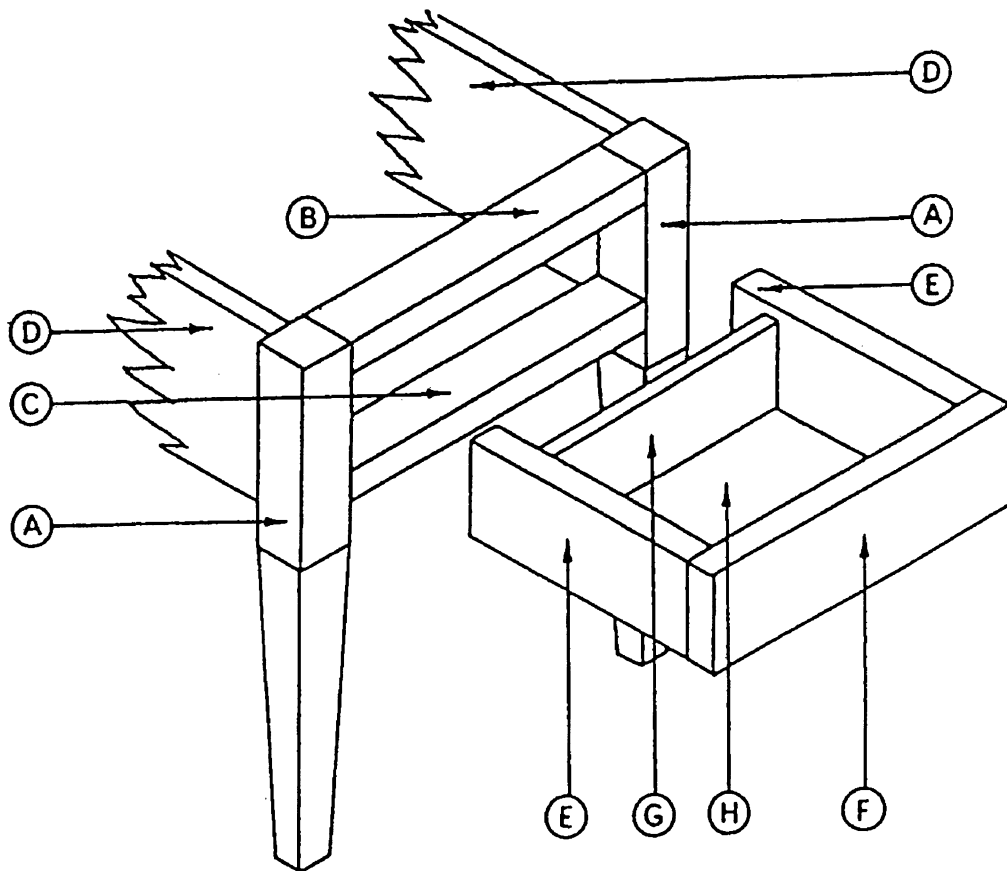


FIG 4.2

Moontlike voeë

1. Saamgestelde swaelstertvoeg
2. Tong-en-groefvoeg
3. Laai-swaelstertvoeg
4. Stomp-tap-en-gatvoeg
5. Skof-dubbel-tap-en-gatvoeg
6. Enkelvoudige swaelstertvoeg
7. Pen-en-inkeepvoeg
8. Blinde inkeepvoeg
9. Tap-en-gatvoeg
10. Skof-tap-en-gatvoeg

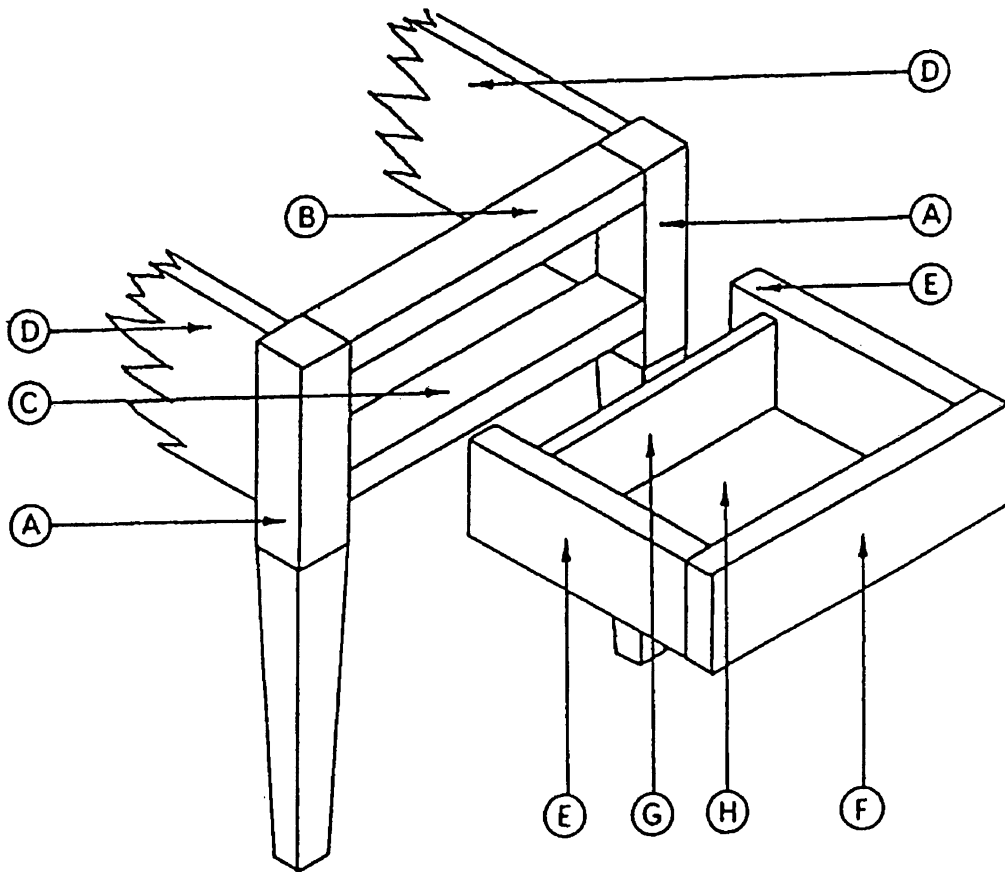


FIG 4.2

Possible joints

1. Compound dovetail
2. Tongue and groove
3. Drawer dovetail
4. Stub mortise and tenon
5. Haunched double mortise and tenon
6. Single dovetail
7. Dowelled joint
8. Stopped bridle joint
9. Mortise and tenon
10. Haunched mortise and tenon

**GAUTENG DEPARTMENT OF EDUCATION /
GAUTENGSE DEPARTEMENT VAN ONDERWYS
SENIOR CERTIFICATE EXAMINATION /
SENIORSERTIFIKAAT-EKSAMEN**

**WOODWORK LG (Second Paper)
HOUTWERK LG (Tweede Vraestel)**

**(ANSWER SHEET) GDE 1
(ANTWOORDBLAD) GDO 1**

CANDIDATE'S NUMBER / KANDIDAAT SE NOMMER

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QUESTION 1 / VRAAG 1

NO.	A	B	C
1.1			
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
1.9			
1.10			

NO.	A	B	C
1.11			
1.12			
1.13			
1.14			
1.15			
1.16			
1.17			
1.18			
1.19			
1.20			

(20)

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END / EINDE