



# TRANSFORMING LIVES

## Through Skilling

Supporting Partners



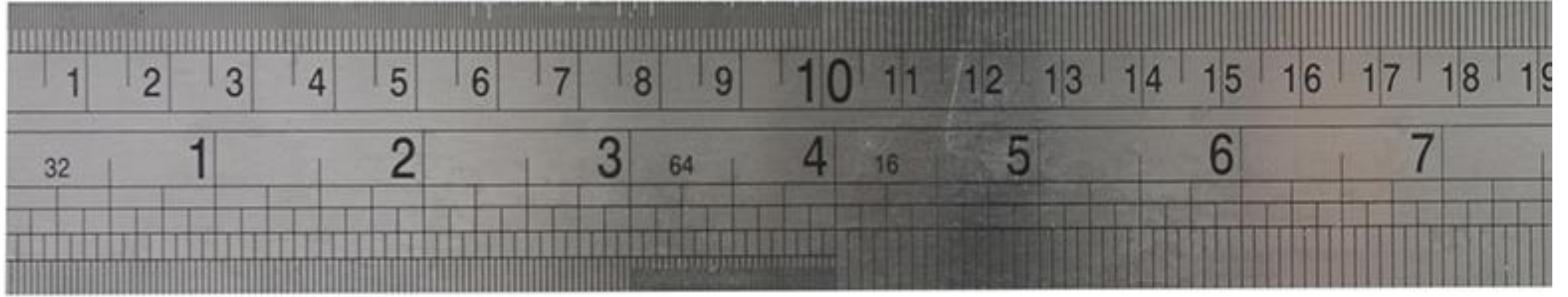
# Content

1. Rule
2. Hammer
3. V-Block
4. Bench vice
5. Hacksaw Frame with Blade
6. File
7. Try Square
8. Combination Set
9. Divider
10. Trammel

# 1 RULE

માર્કિંગ જ્યારે આપણે કોઈ વસ્તુને માપીએ છીએ ત્યારે ખરેખર કોઈ પ્રમાણ સાથે તેને સરખાવીએ છીએ. જ્યારે ડ્રોઇંગમાં કોઈપણ જાતનો ટોલરન્સ દર્શાવેલ ન હોય ત્યારે માની શકાય કે આ માપ રૂલથી લેવાનું છે. આમ રૂલ એ ટોલરન્સ વગરનું રૈપ્લિક માપ લેવા માટેનું એક સાધન છે.

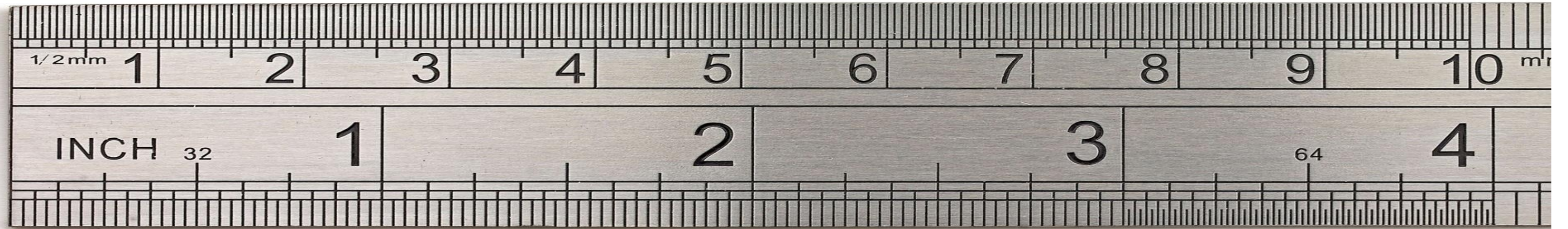
✓ MATERIAL : STAINLESS STEEL



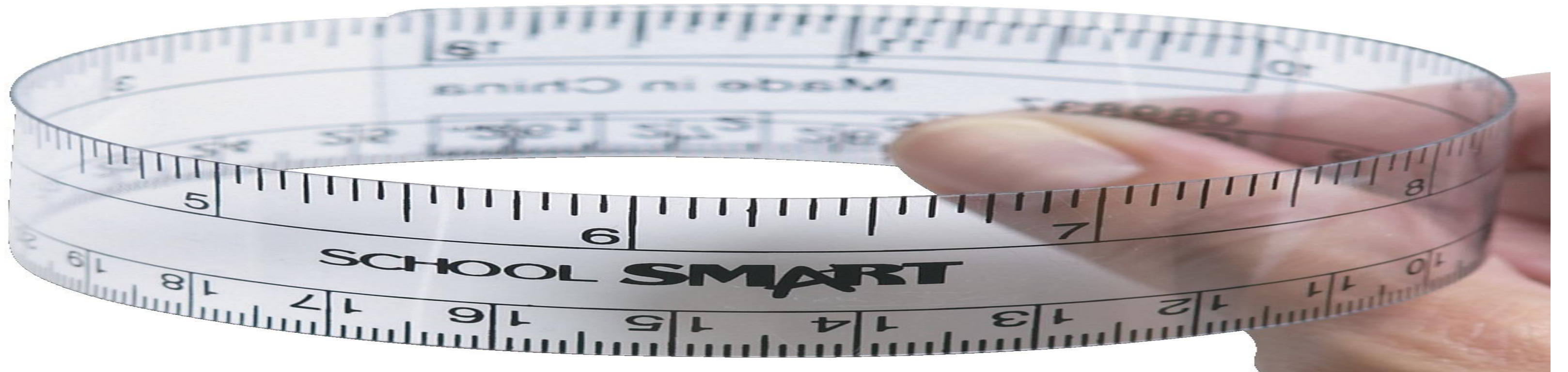
CONVERSION TABLE	
in	mm
1	= 25.400
2	= 50.800
3	= 76.200
4	= 101.600
5	= 127.000
6	= 152.400
7	= 177.800
8	= 203.200
9	= 228.600
10	= 254.000
11	= 279.400
12	= 304.800
13	= 330.200
14	= 355.600
15	= 381.000
16	= 406.400
17	= 431.800
18	= 457.200
19	= 482.600
20	= 508.000
21	= 533.400
22	= 558.800
23	= 584.200
24	= 609.600
25	= 635.000
26	= 660.400
27	= 685.800

STEEL RULE

# TYPES



STEEL RULE



FLEXIBLE RULE

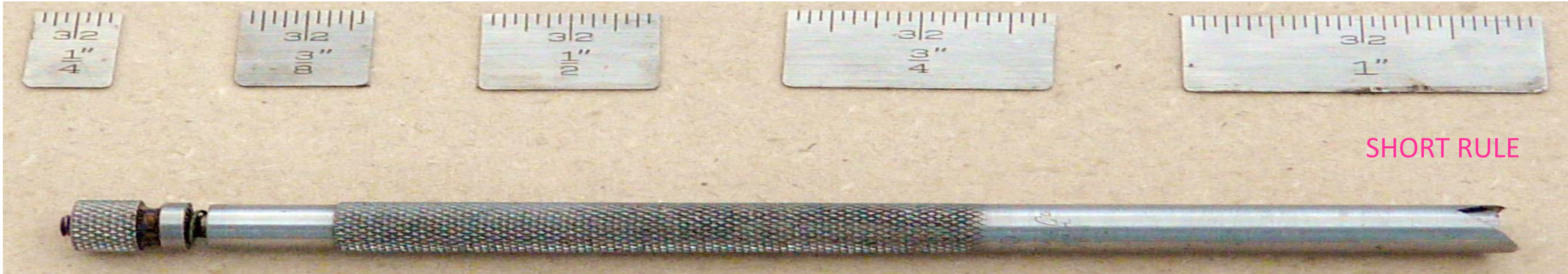
# TYPES



HOOK RULE



NERROW RULE



SHORT RULE

# RULE



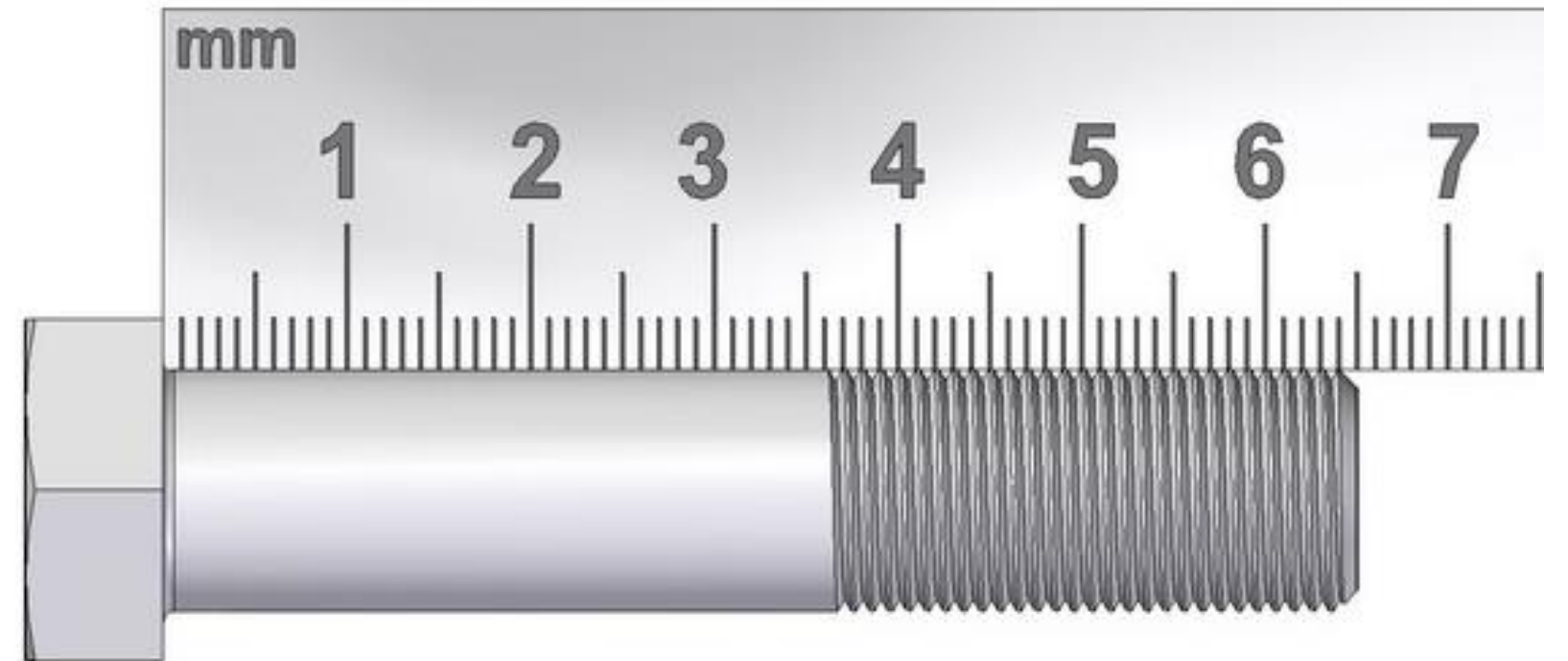
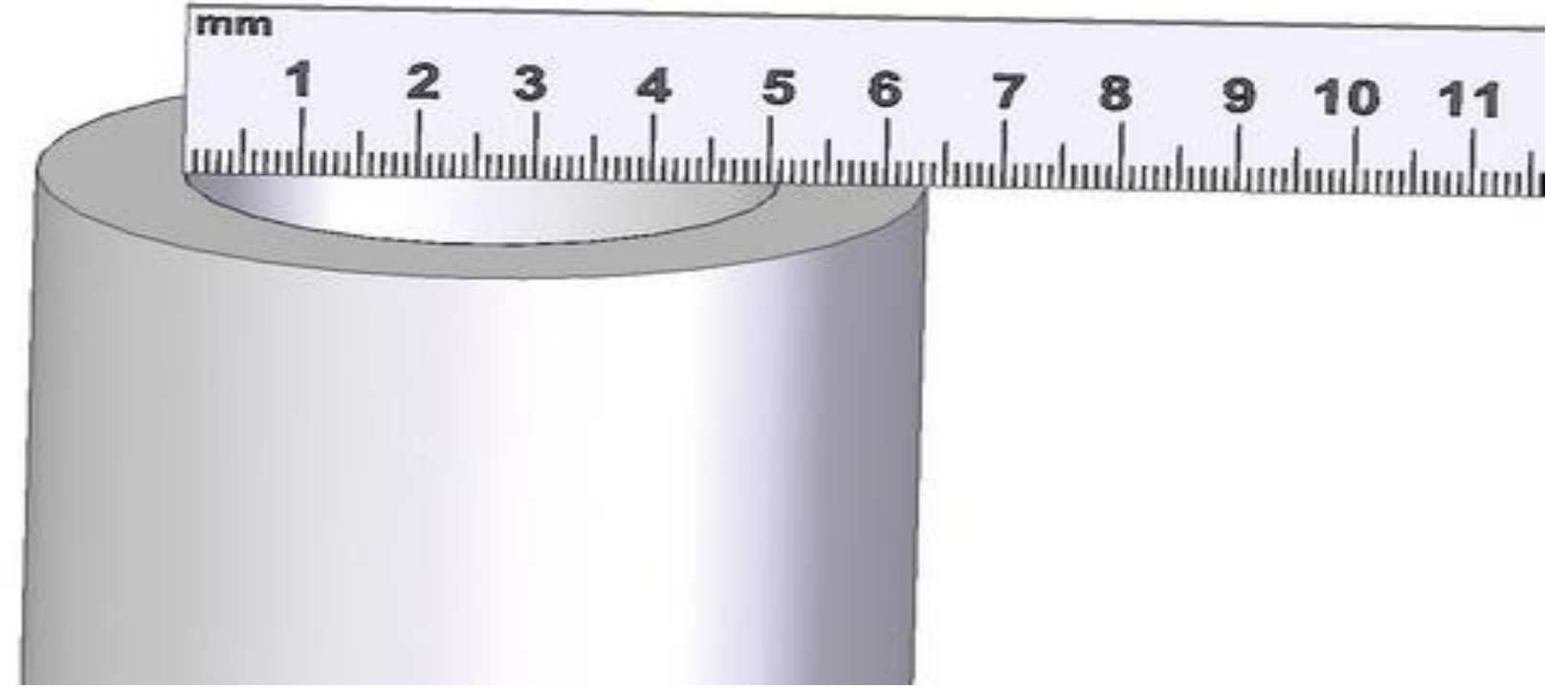
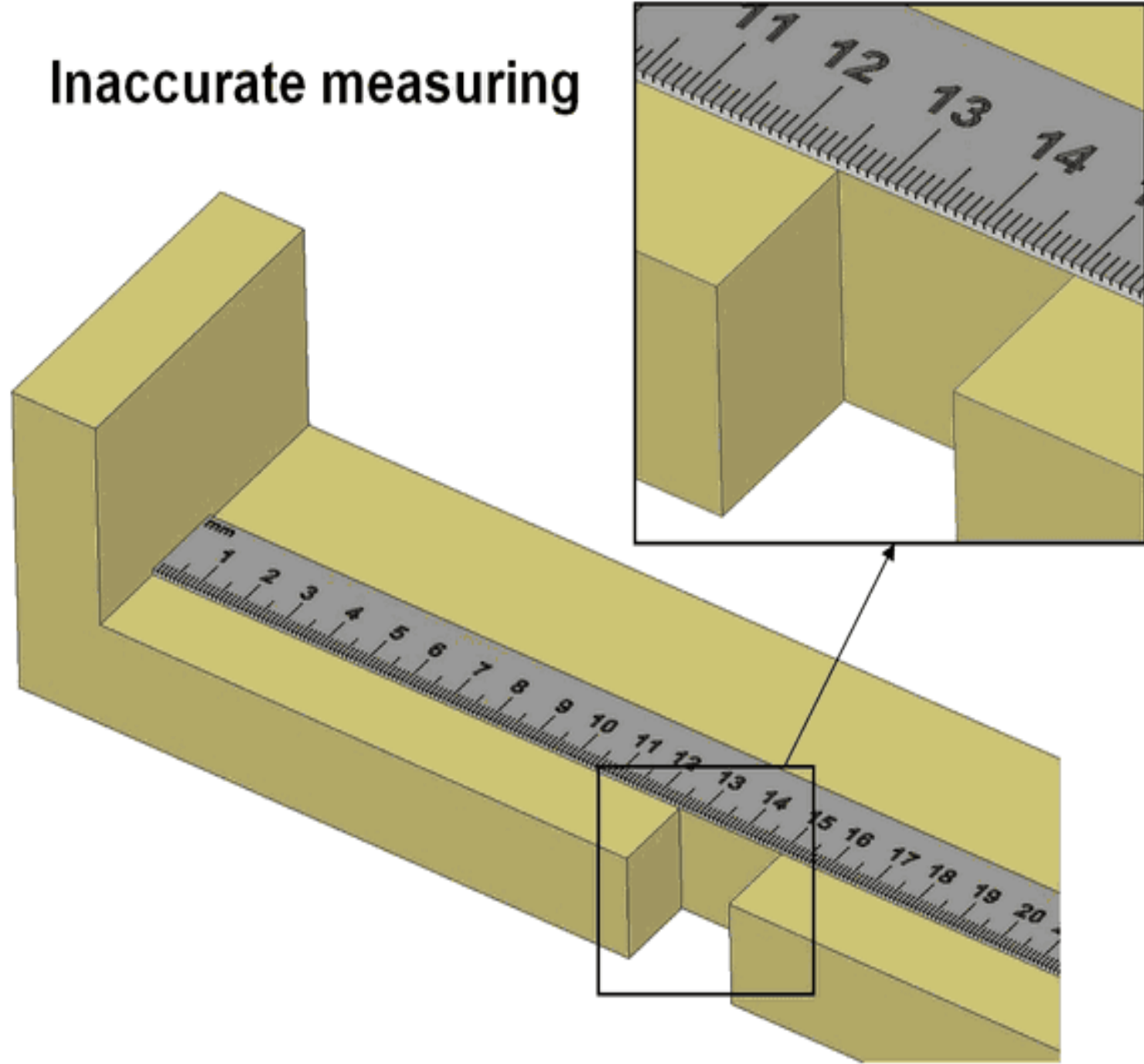
## SHRINKAGE RULE



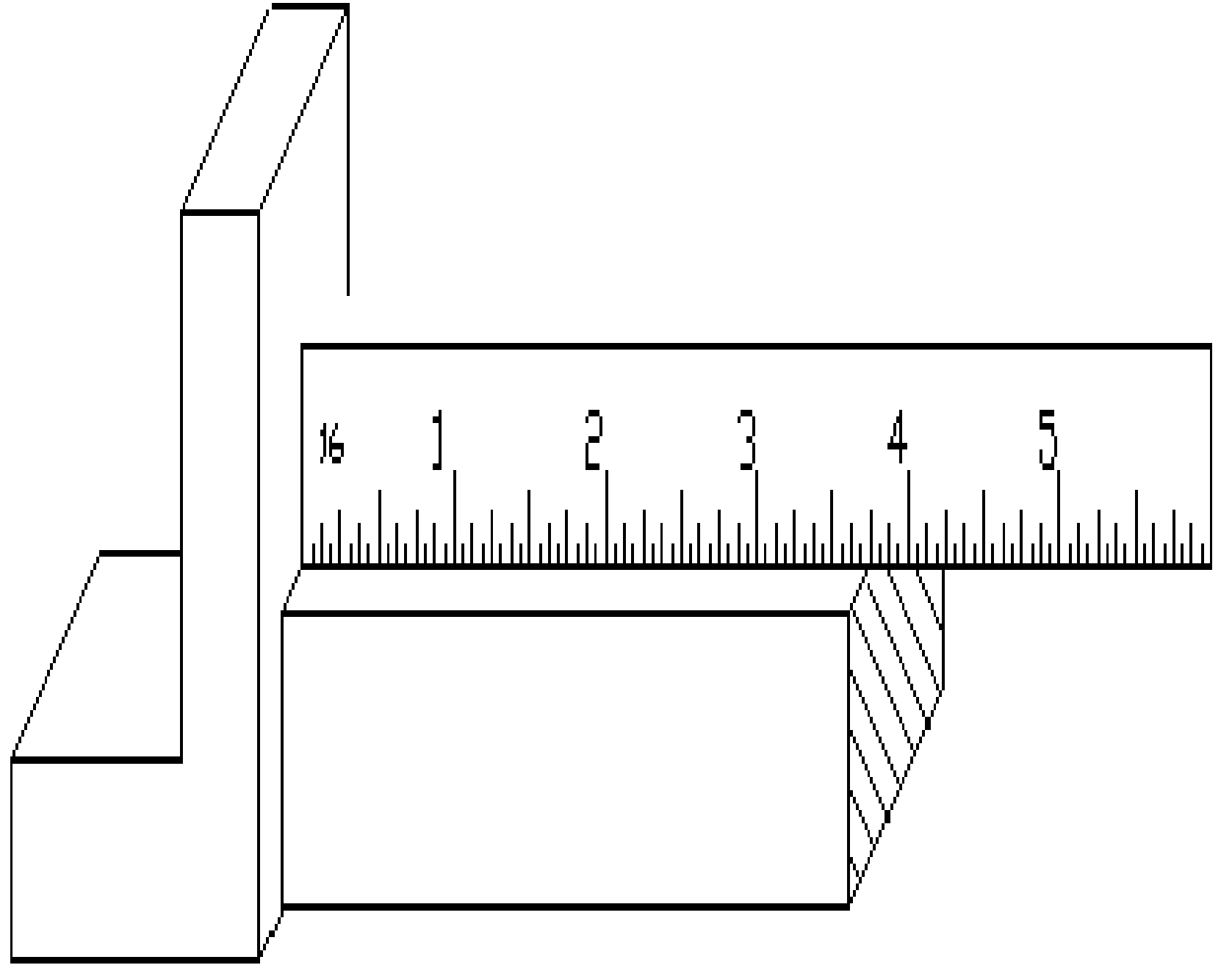
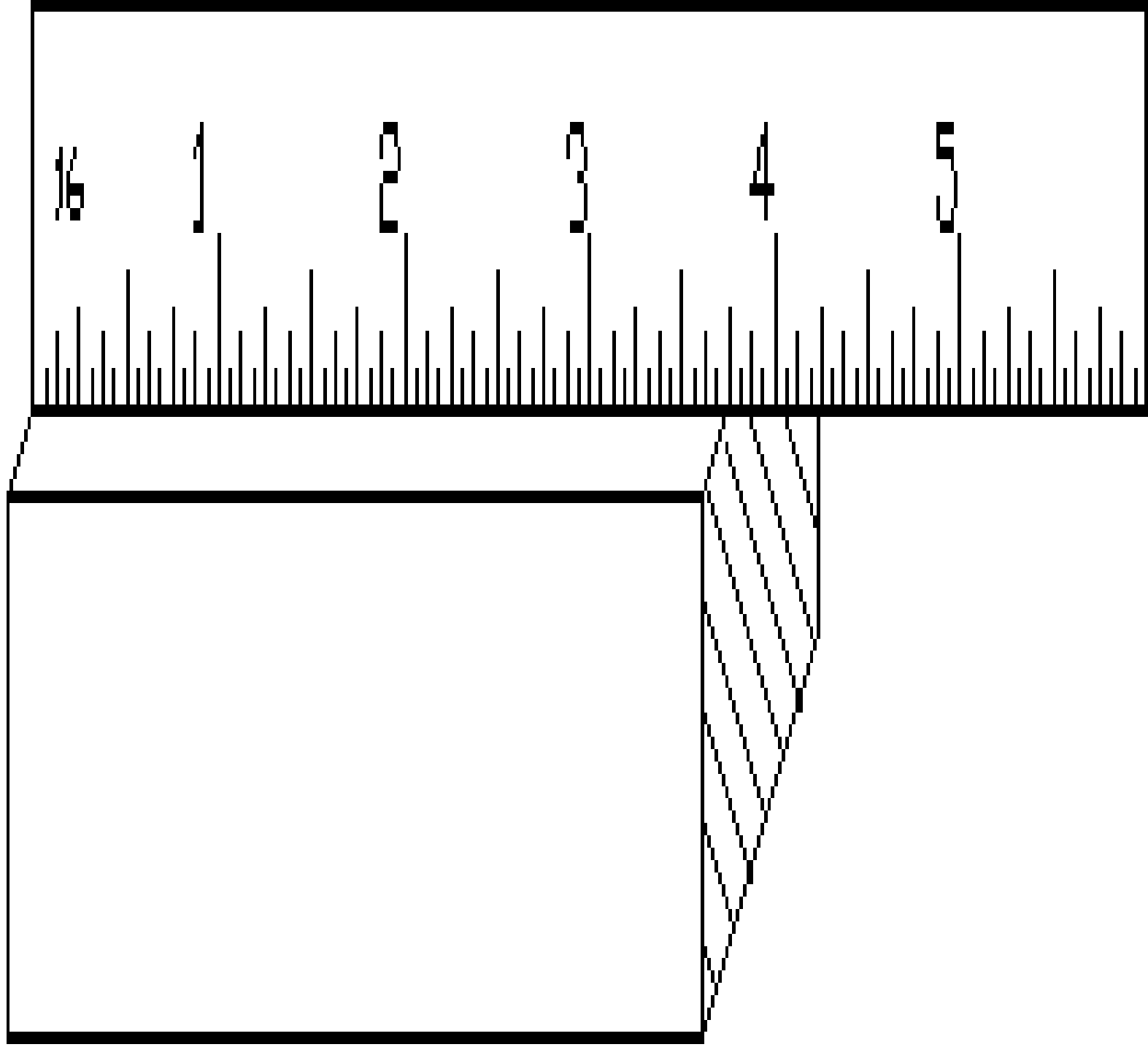
## TAPER ENDED STEEL RULE

# USE OF RULE

Inaccurate measuring

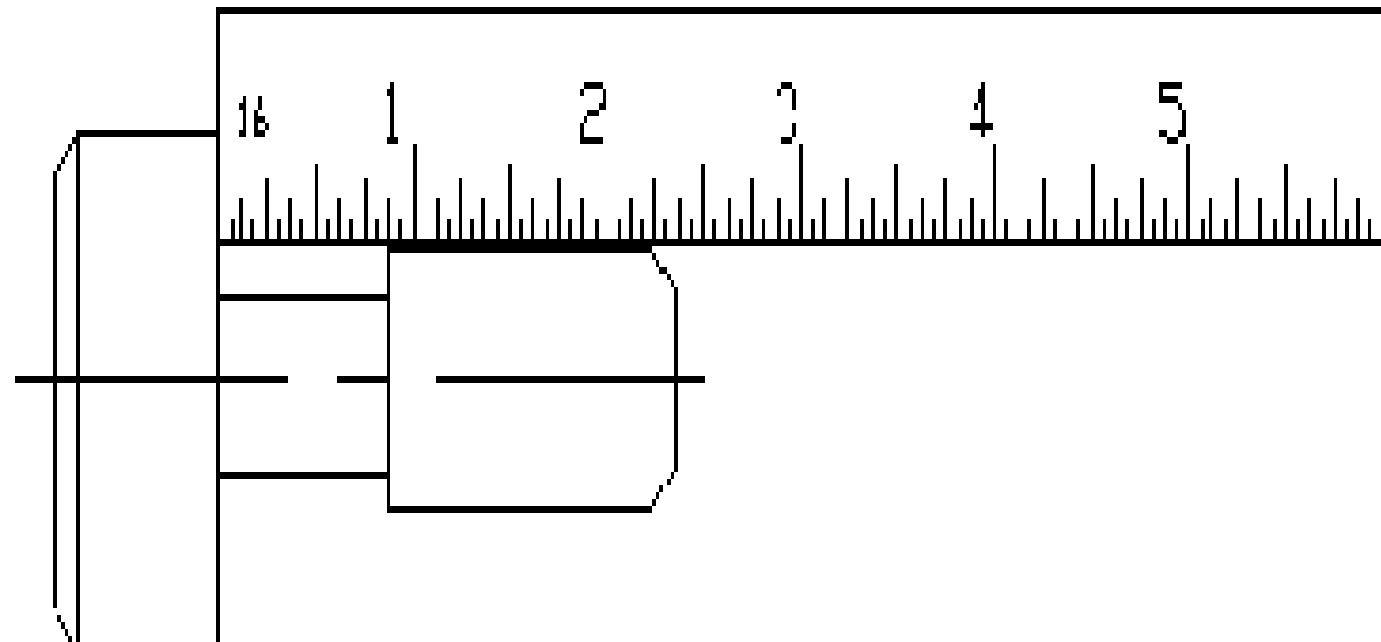
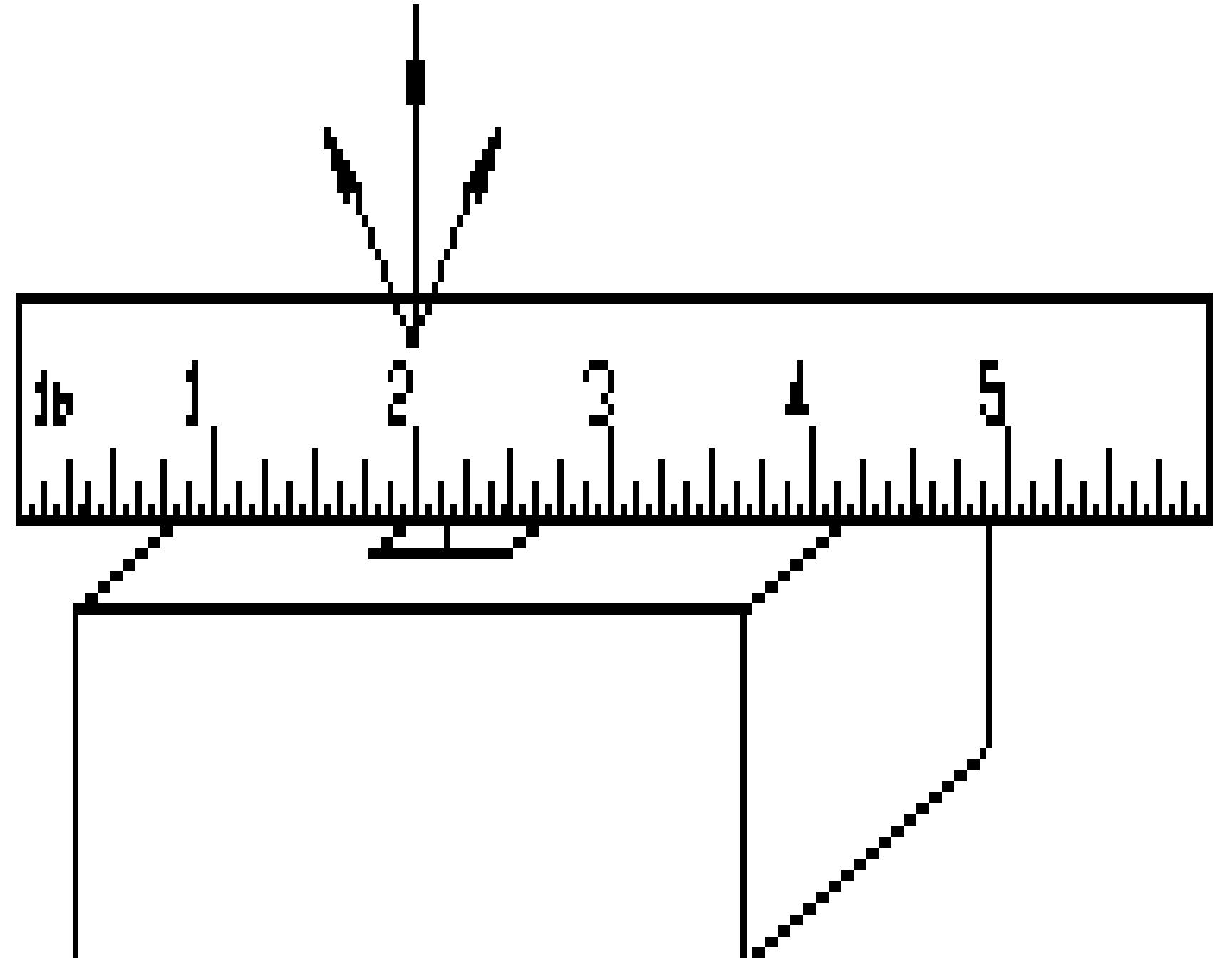
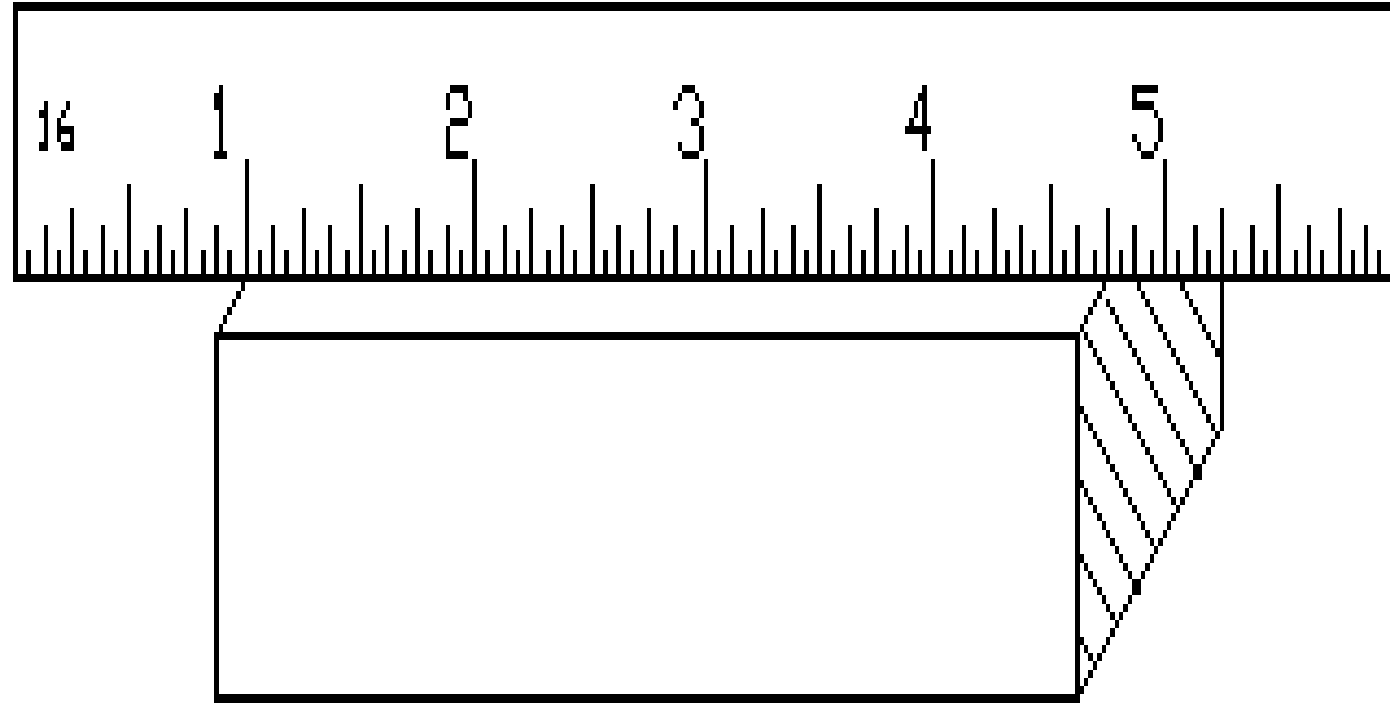


# USE OF RULE





# USE OF RULE



## 2 HAMMER

હેમર સામાન્ય રીતે તમામ શોપમાં વિવિધ ઉપયોગ માટેનું એક અગત્યનું હેન્ડ ટુલ છે. હેમરનો ઉપયોગ કોઈ જોબ અથવા ટુલ પર ફટકા મારવા માટે થાય છે.

✓ MATERIAL : FORGE STEEL



# TYPES OF HAMMER



BALL PEEN HAMMER



CROSS PEEN HAMMER



STRAIGHT PEEN HAMMER

# TYPES OF SPECIAL HAMMER

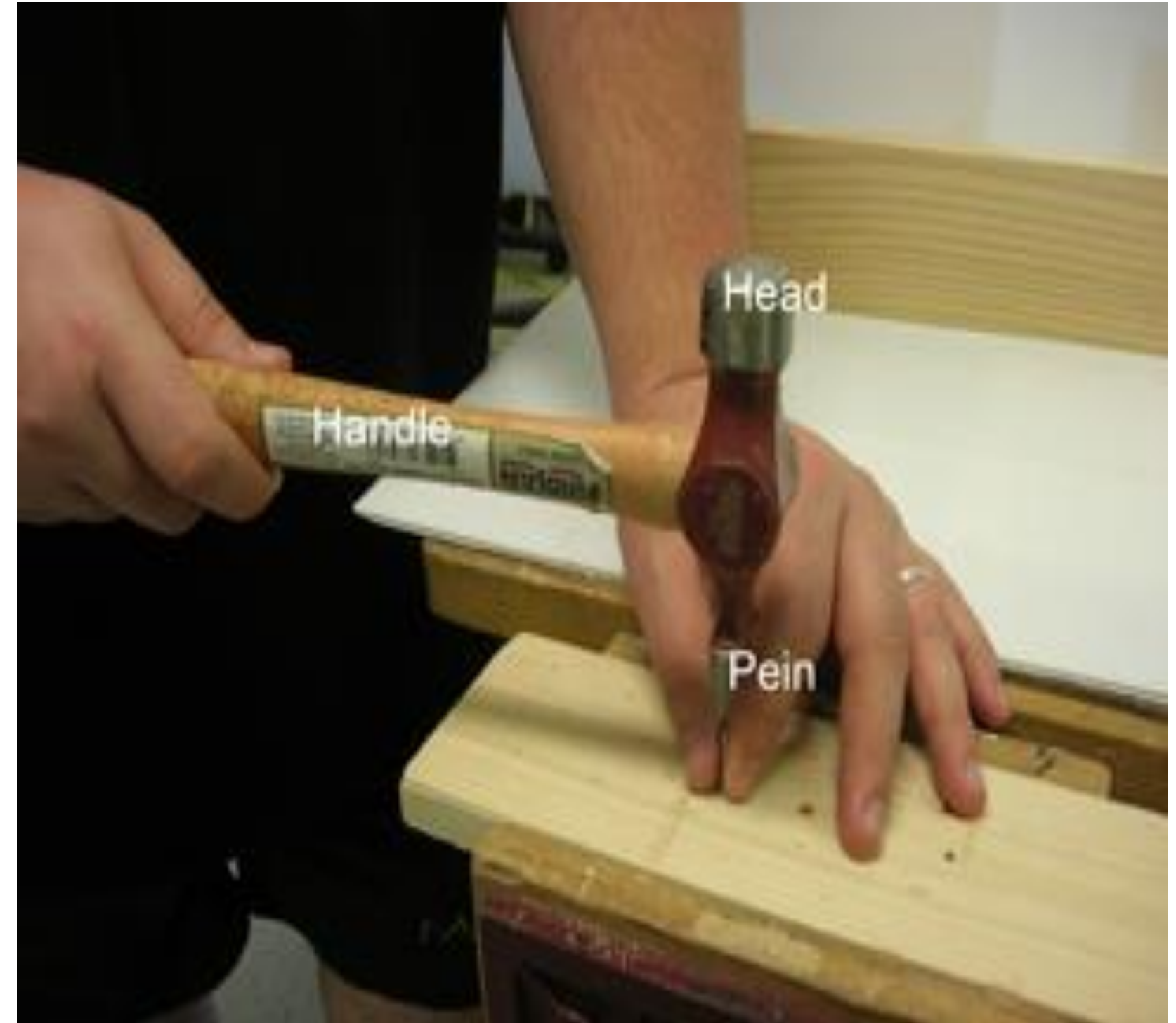


SLADGE HAMMER



SOFT HAMMER

# USE OF HAMMER



# USE OF SPECIAL HAMMER



## CARE & MAINTANANCE

✓ કામનાં પ્રકાર પ્રમાણે યોગ્ય હેમરની પસંદગી કરો.



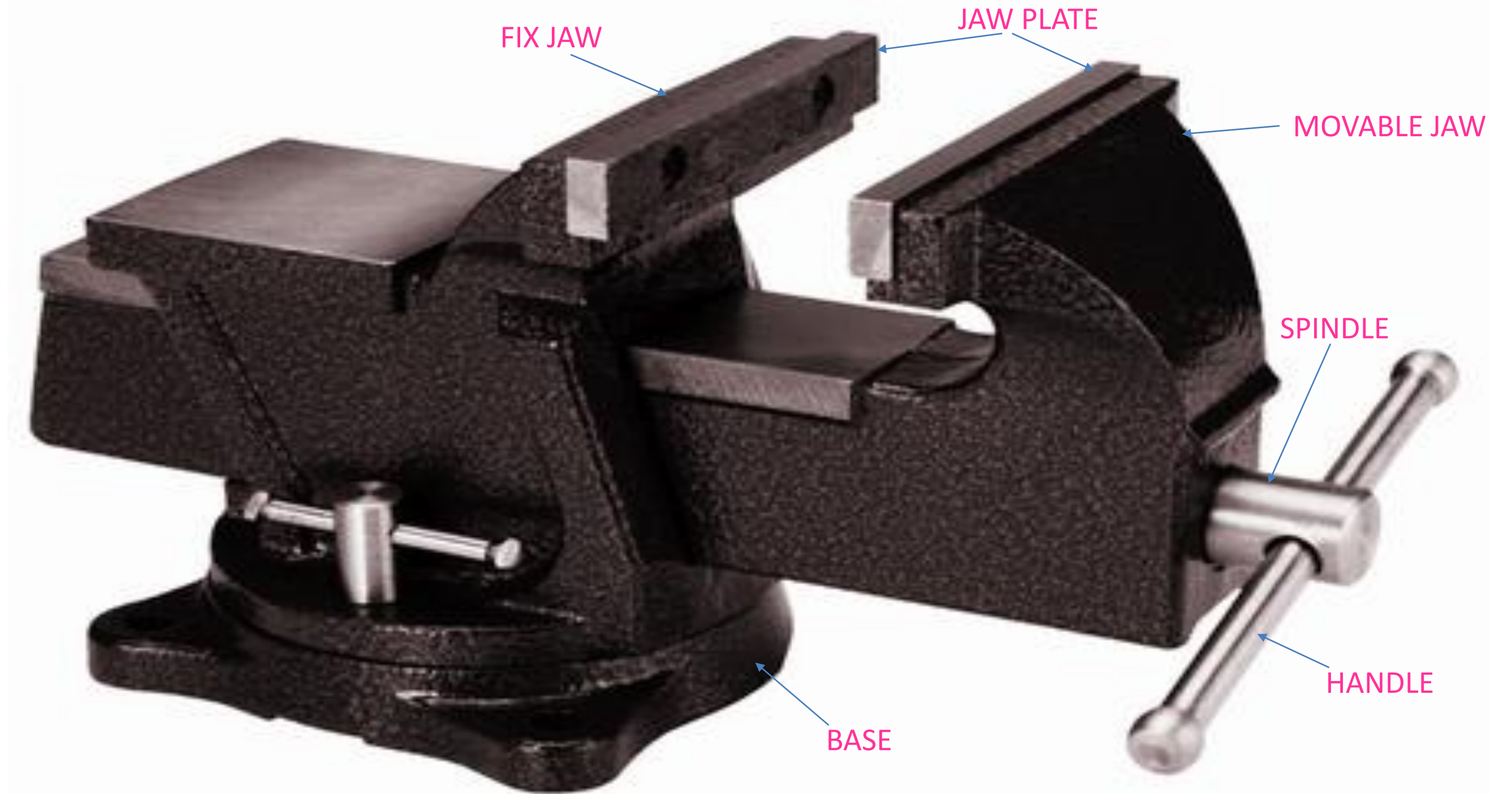
# USE OF V - BLOCK





## 4 BENCH VICE

વર્કશોપમાં  
વર્કપીસને  
પકડવા  
માટે સૌથી  
મહત્વનું  
રોજીંદા  
વપરાશમાં  
આવતું ટુલ  
એ વાઇસ  
છે. આમ  
વાઇસ  
એક “વર્ક  
હોલ્ડીંગ  
ડિવાઇસ”  
તરીકે કાર્ય  
કરે છે.



# SPECIAL VICE



PLAIN MACHINE VICE



PIPE VICE



LAG VICE

# SPECIAL VICE



HAND VICE



PIN VICE

# SPECIAL VICE



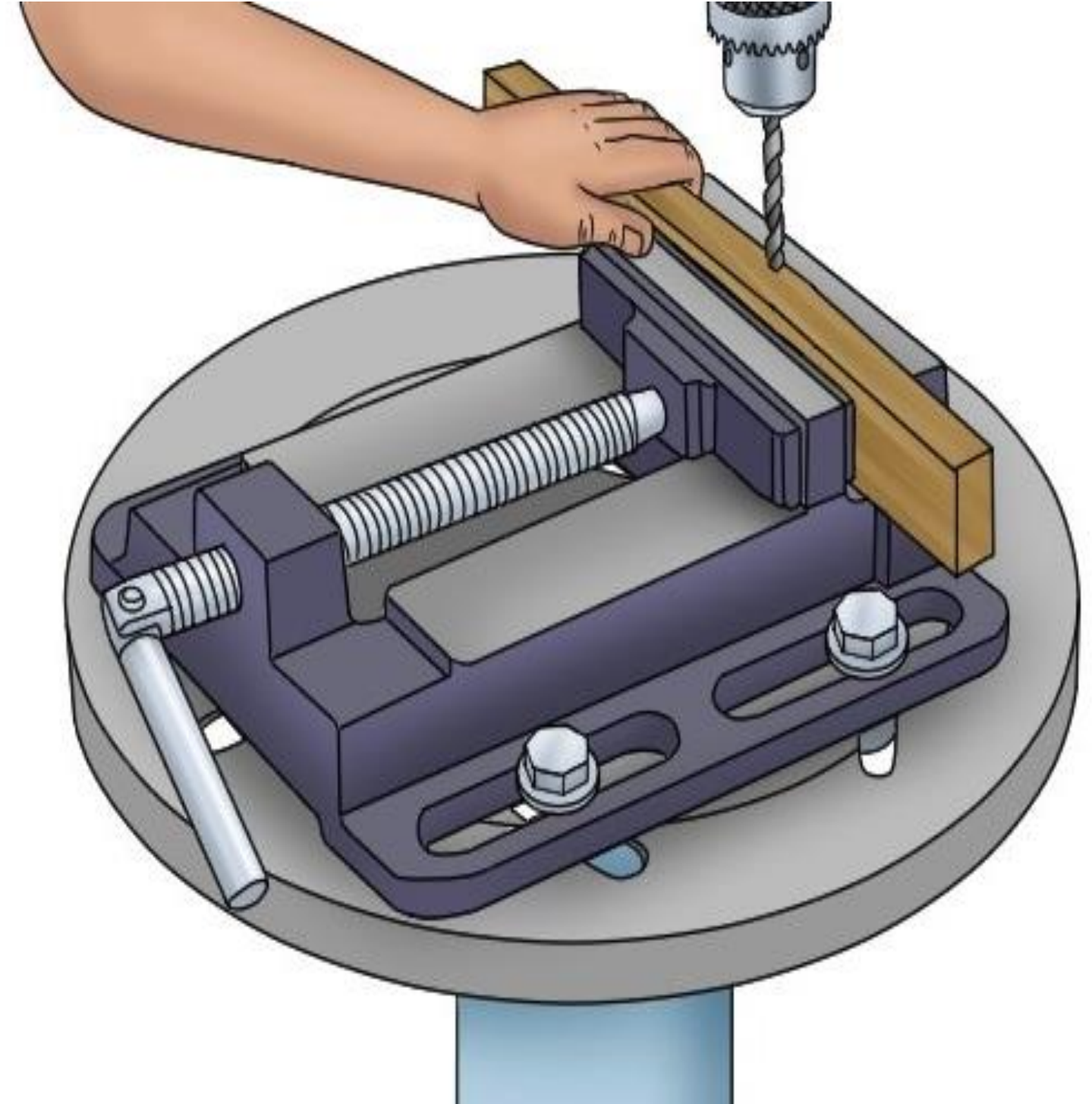
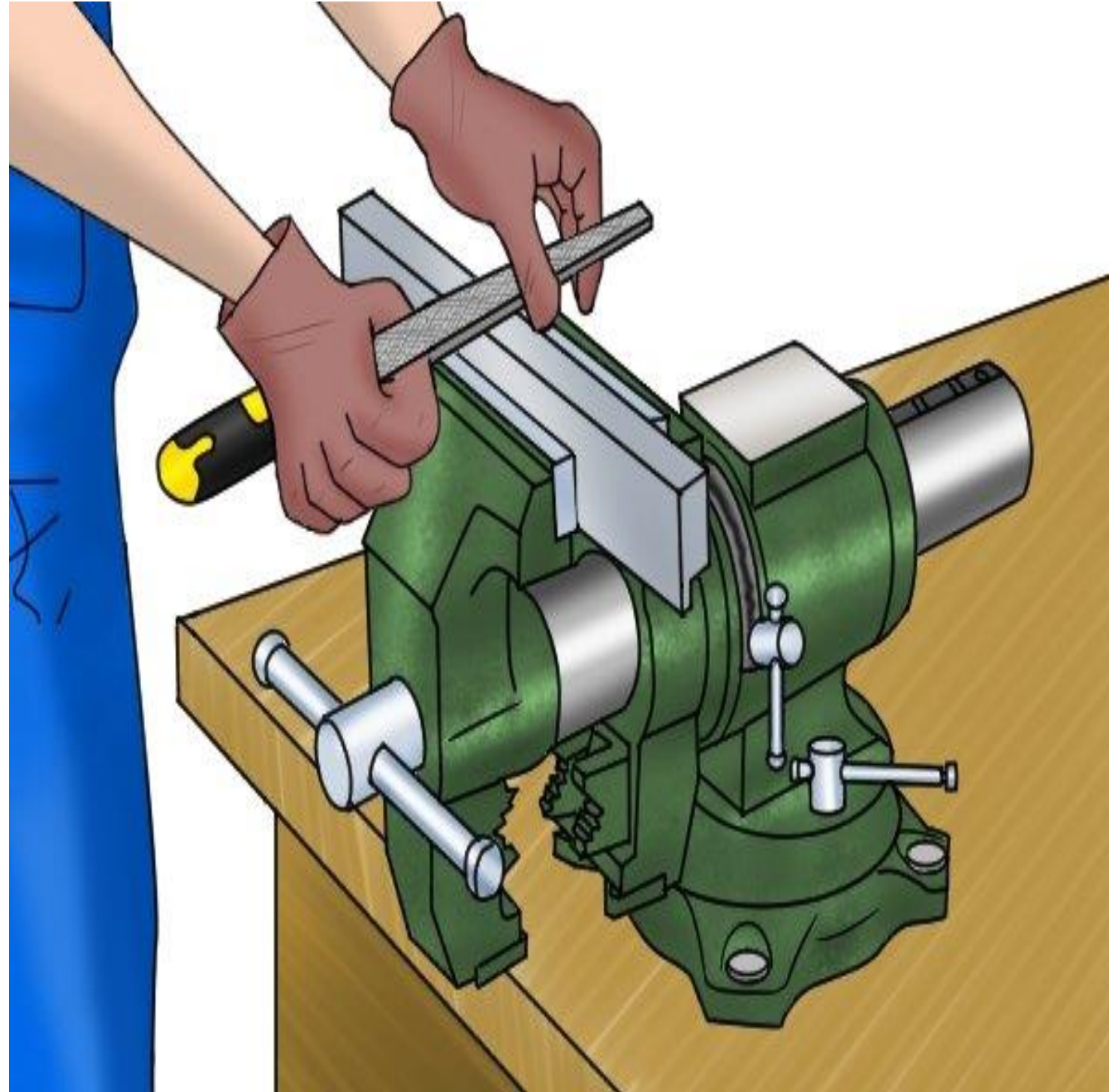
TOOMAKER'S VICE



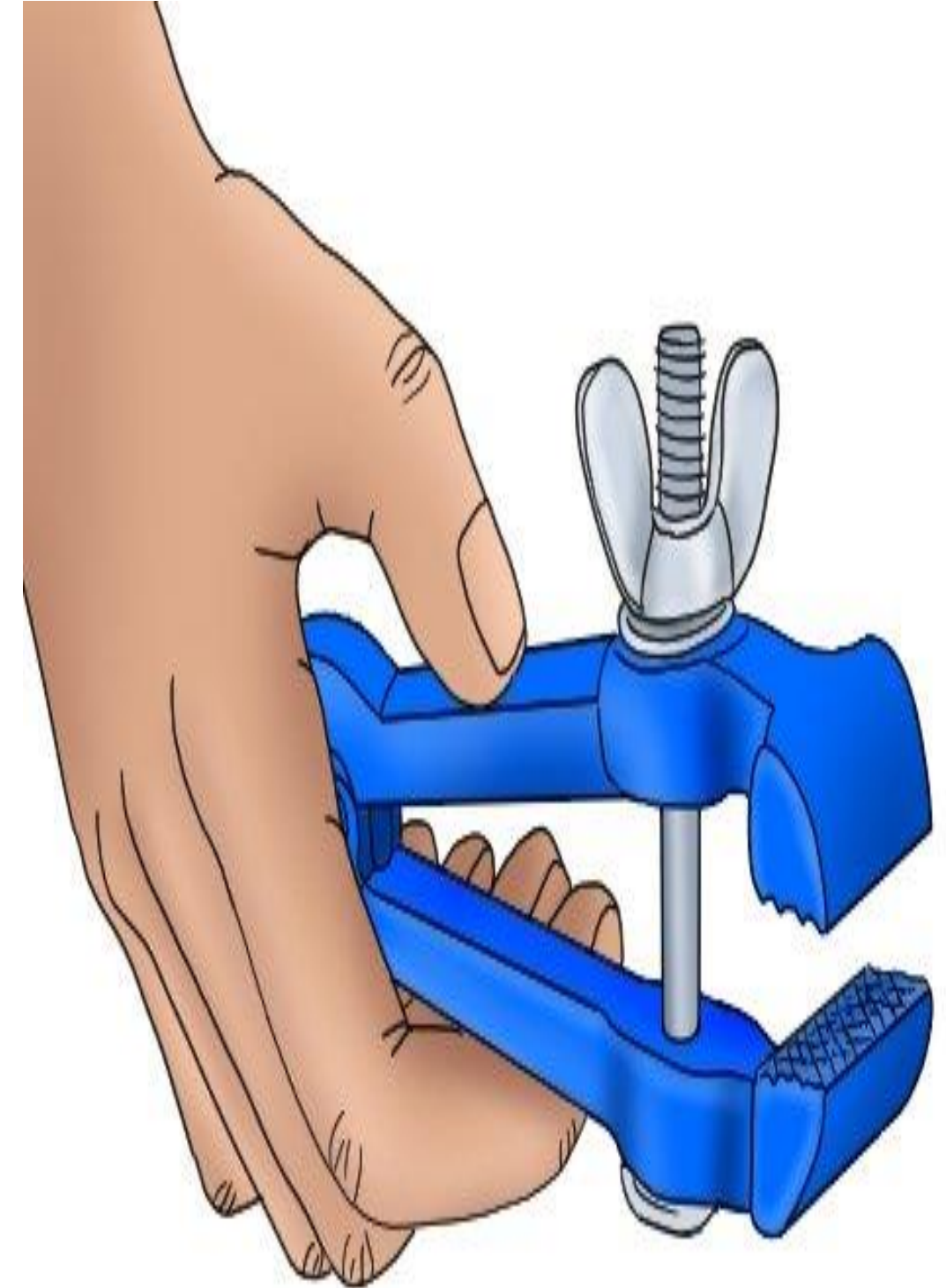
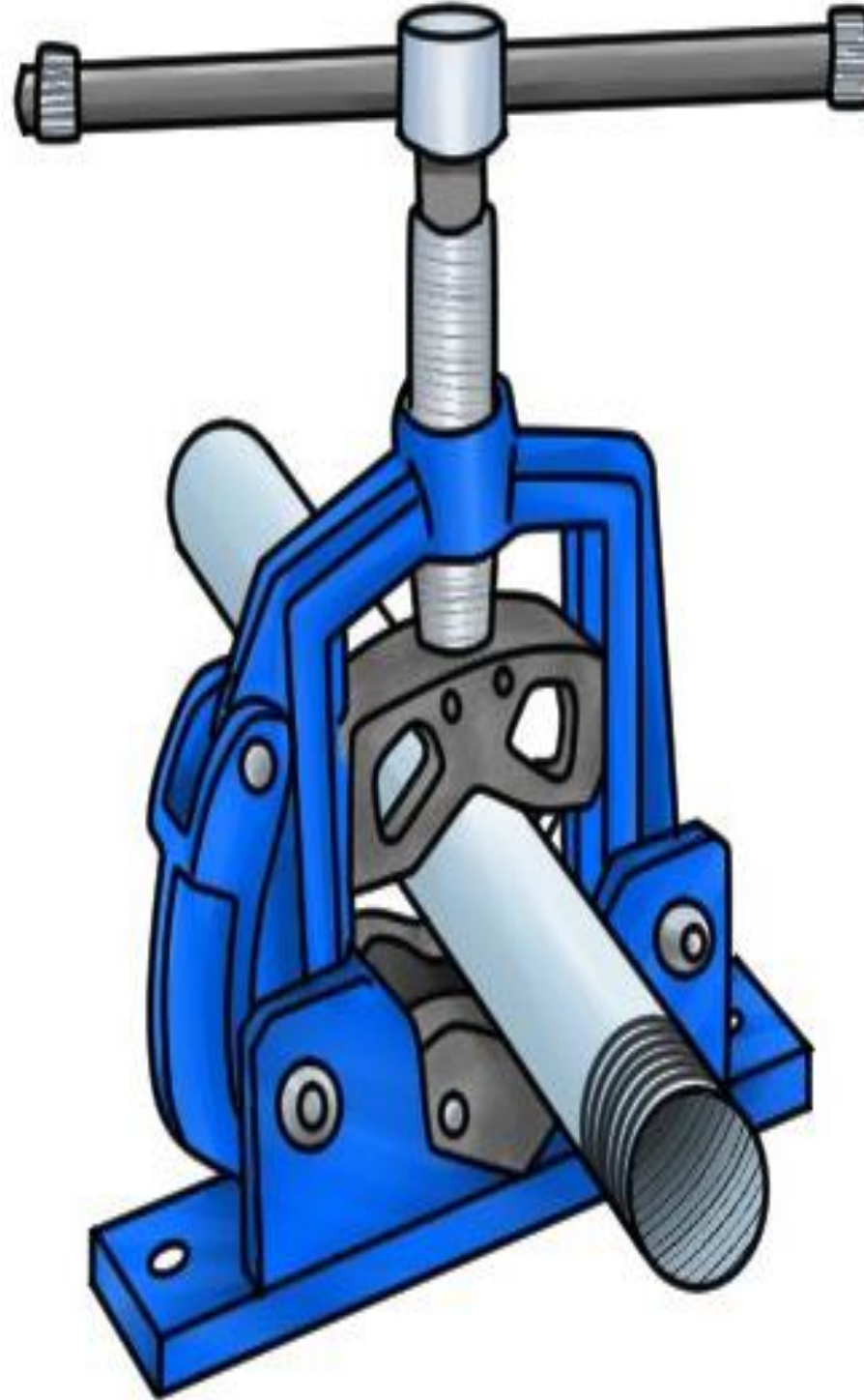
QUICK RELEASING VICE

QUICK RELEASING LEVER

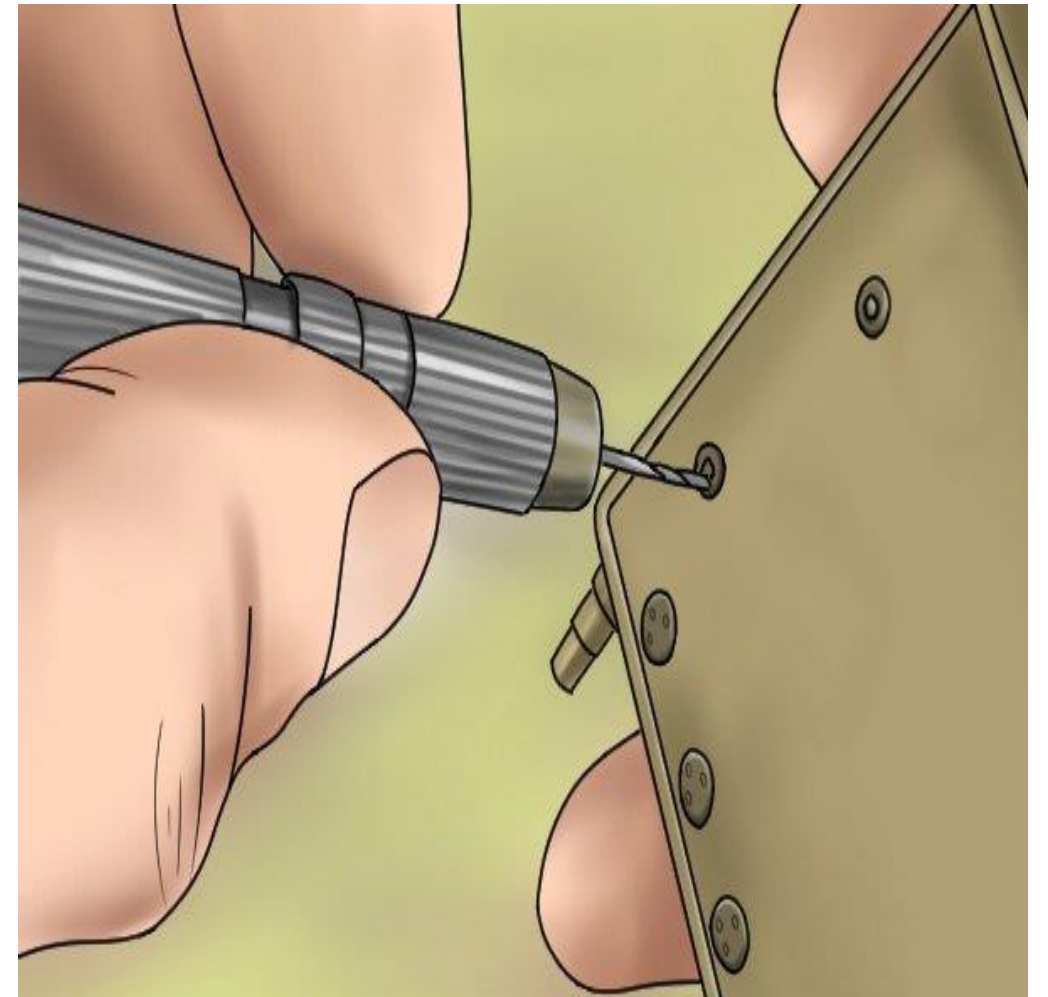
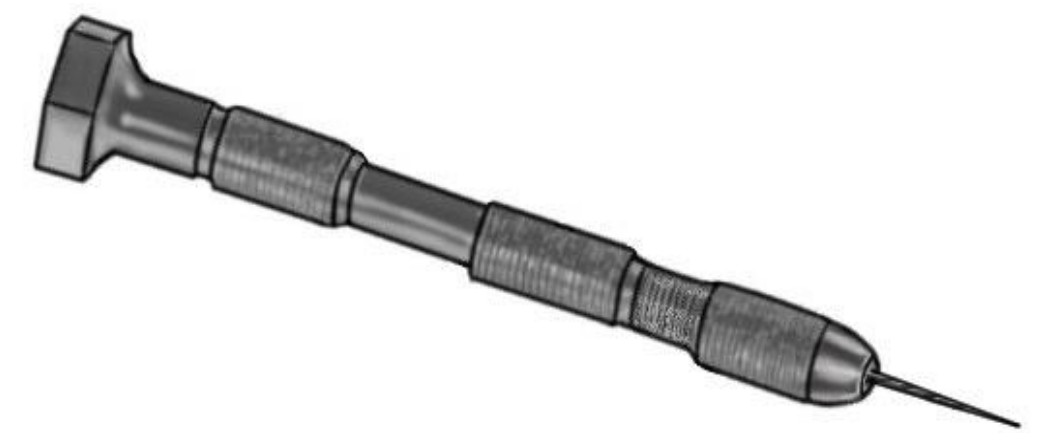
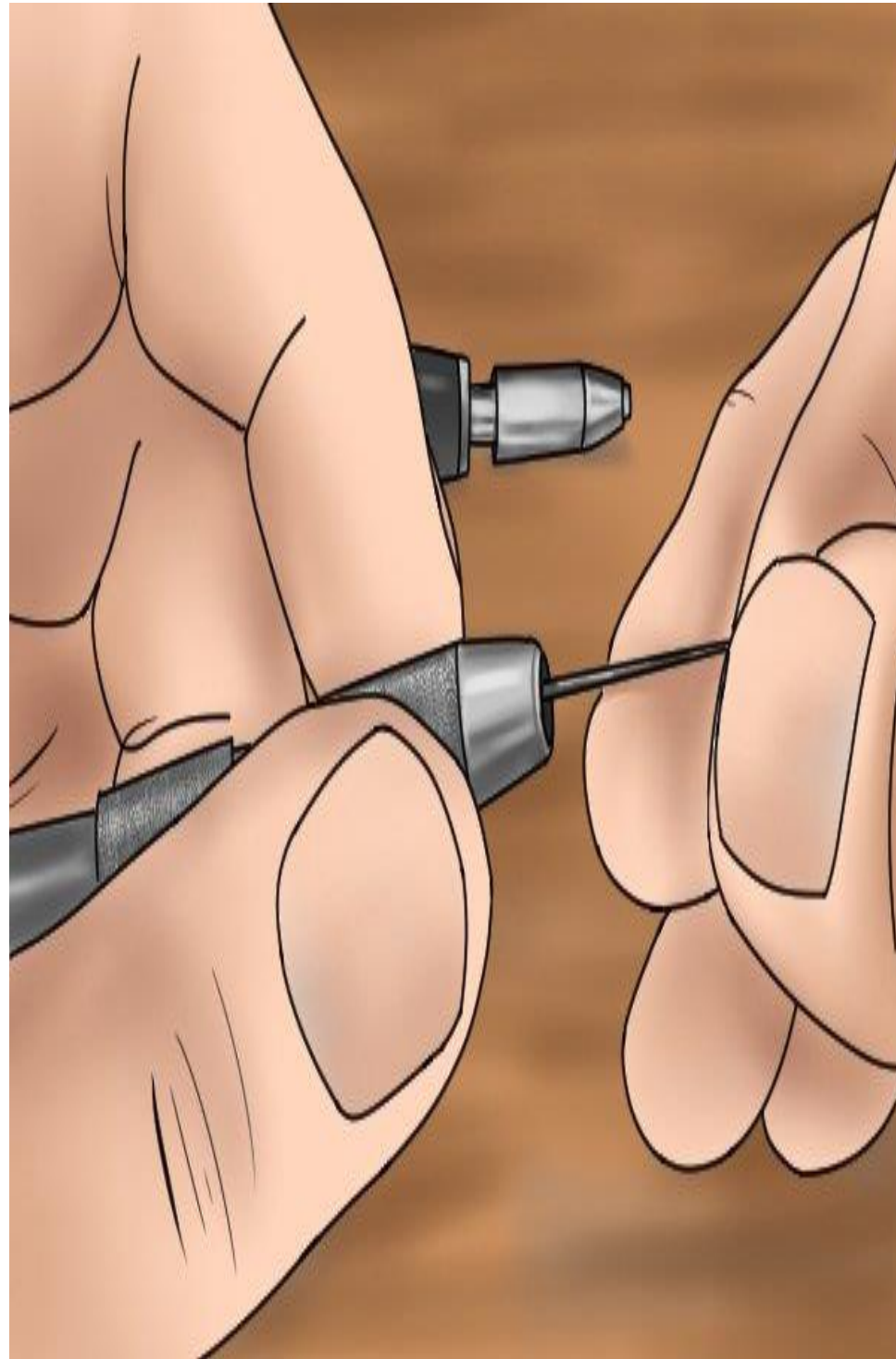
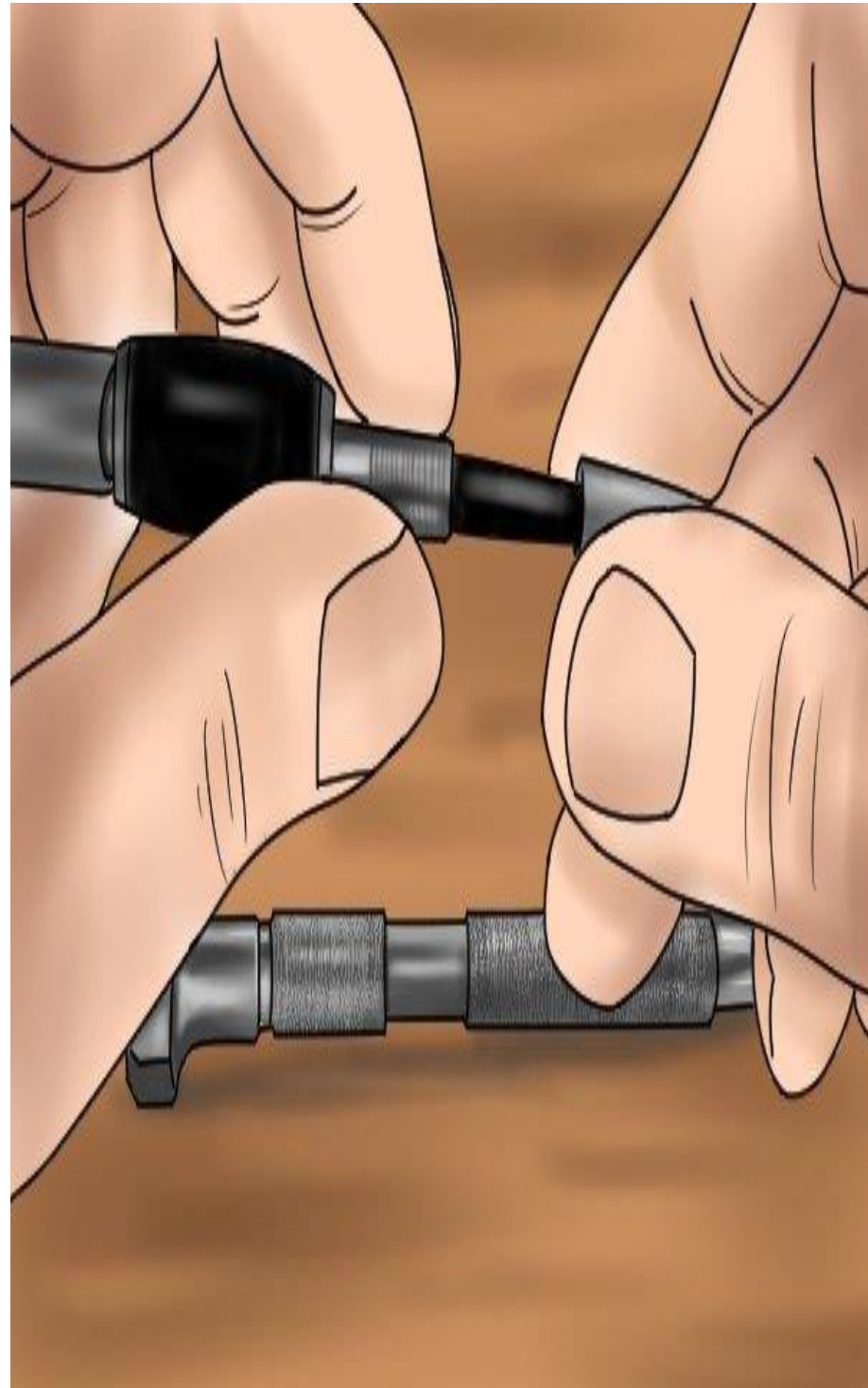
# USE OF VICE



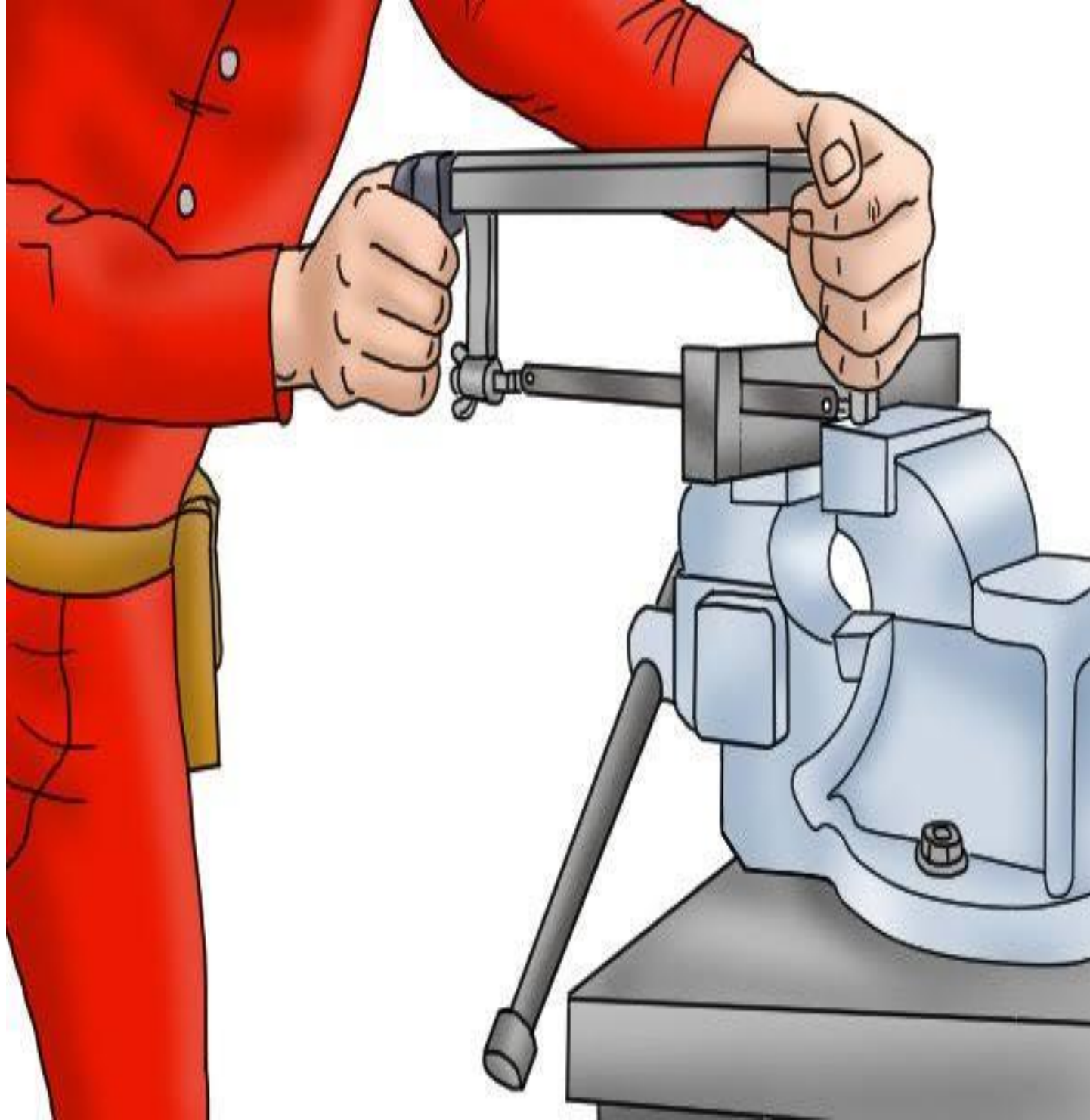
# USE OF VICE



# USE OF VICE



## USE OF VICE



### CARE & MAINTANANCE

✓ બેચ કે મશીન પર વાઇસ સજ્જડતાથી ફીટ કરવો.



## 5 HACKSAW FRAME WITH BLADE

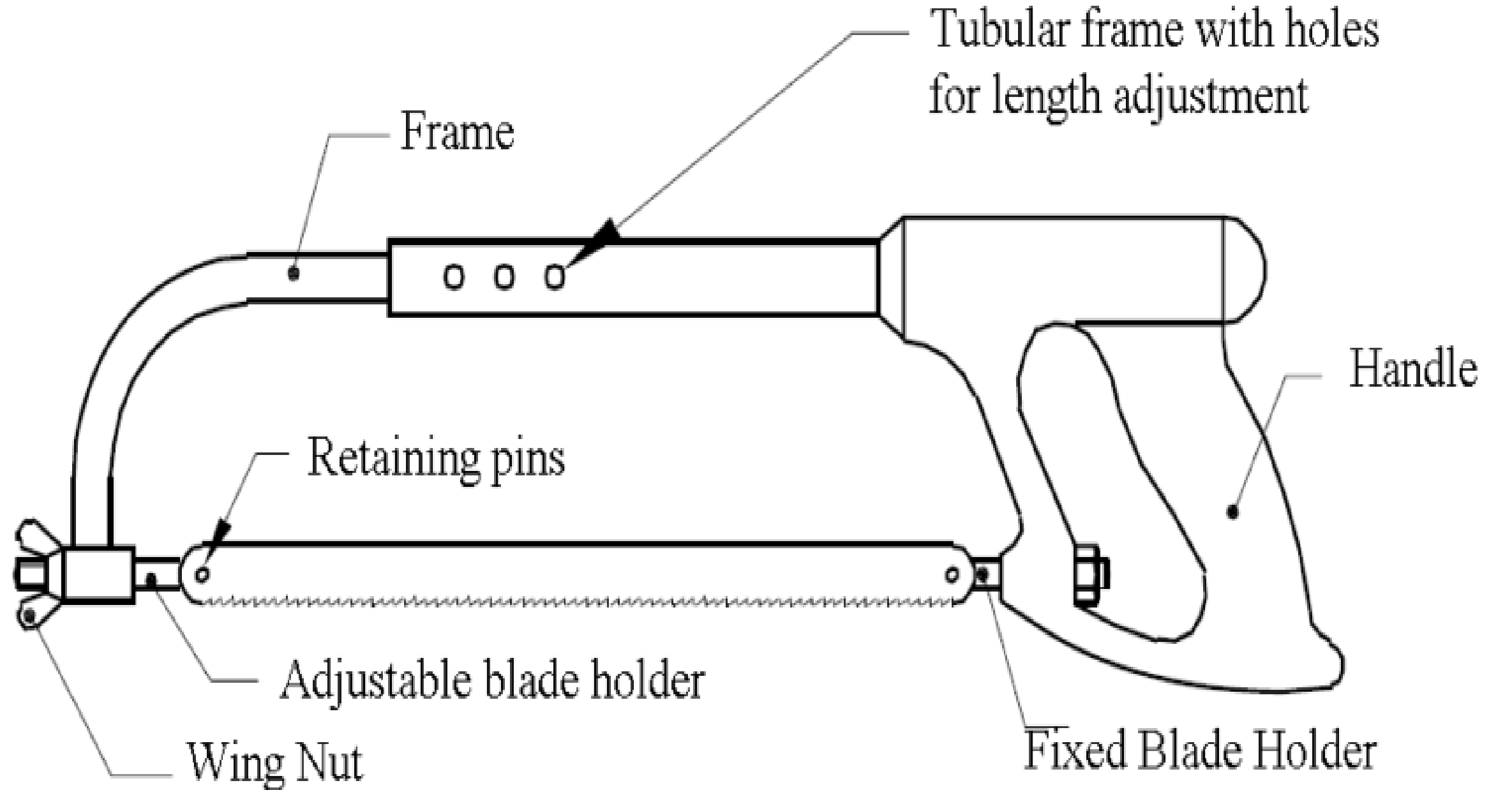
હેક્સો ફ્રેમ અને બ્લેડ સાથે મળીને વિવિધ આડછેદવાળી ધાતુઓ કાપવા માટેનું એક ઉપયોગી સાધન બને છે. જે રીતે લાકડું કાપવા માટે કરવત વપરાય છે તે જ રીતે ધાતુ કાપવા માટે હેક્સો વપરાય છે.

### MATERIAL :

HACKSAW FRAME  
(MILD STEEL OR LOW  
CARBAN STEEL)

: HACKSAW  
BLADE (LOW ALLOY  
STEEL, HIGH SPEED  
STEEL OR HIGH  
CARBON STEEL)

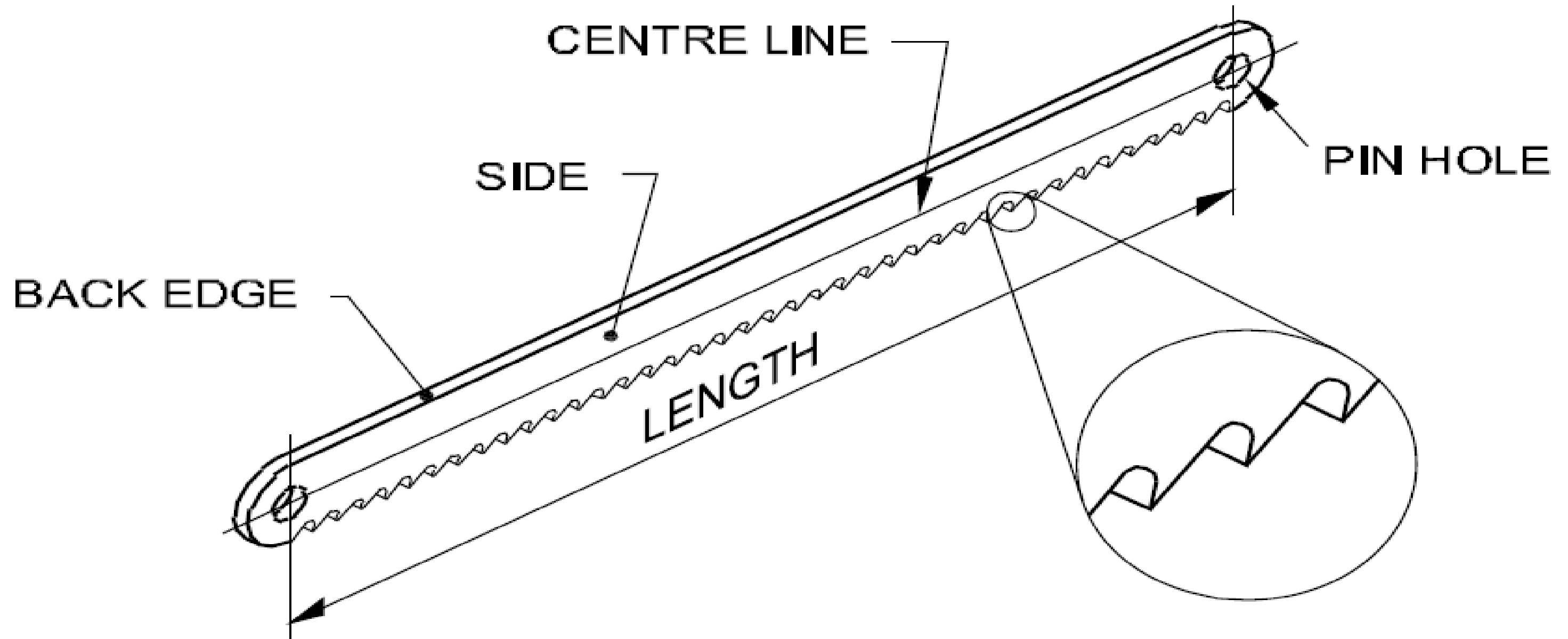
✓ TYPES : TYPES OF  
HACKSAW FRAME  
(SOLID HACKSAW  
FRAME, ADJUSTABLE  
(FLAT TYPE), FRAME  
ADJUSTABLE  
(TUBULAR TYPE)  
FRAME)



# TYPES OF HACKSAW BLADE

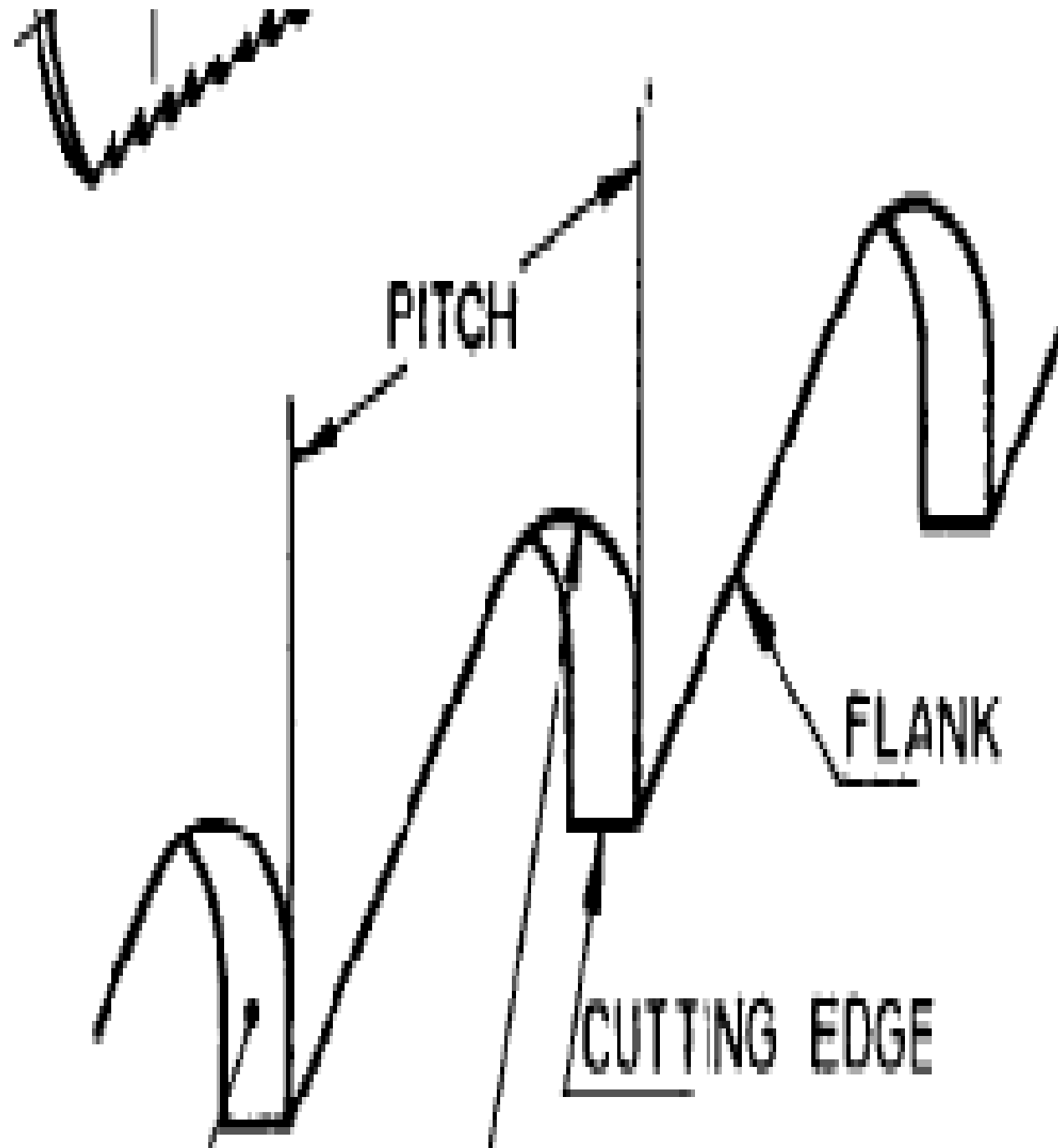
**MATERIAL :** HACKSAW BLADE (LOW ALLOY STEEL, HIGH SPEED STEEL OR HIGH CARBON STEEL)

✓ **TYPES :** TYPES OF HACKSAW BLADE (ALL HARD BLADE, FLEXIBLE BLADE)

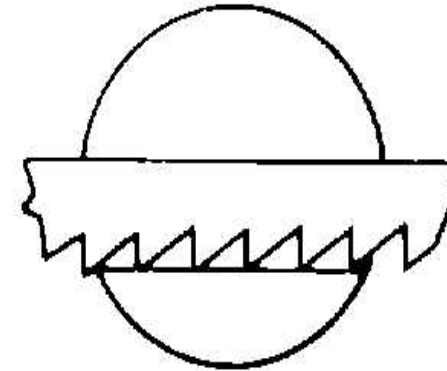


# PITCH OF BLADE

PITCH OF BLADE : બ્લેડના બાજુ બાજુના બે દાંતા વચ્ચેનાં અંતરને બ્લેડની પીચ કહે છે.

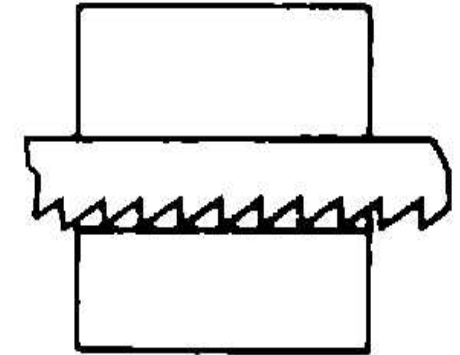


14 TEETH PER INCH



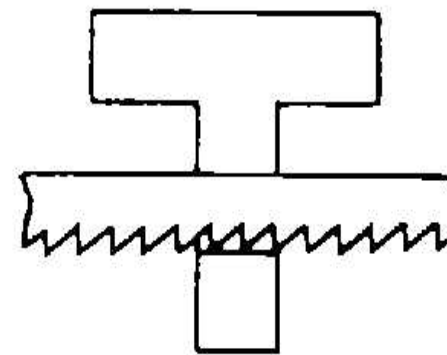
FOR LARGE SECTIONS  
OF MILD MATERIAL

18 TEETH PER INCH



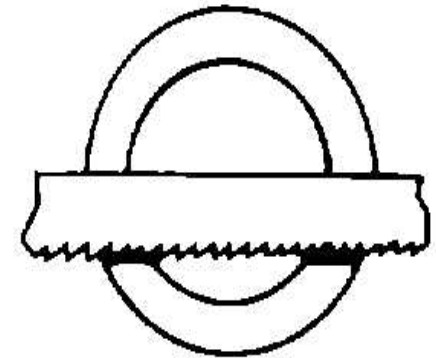
FOR LARGE SECTIONS  
OF TOUGH MATERIAL

24 TEETH PER INCH



FOR ANGLE IRON, HEAVY  
PIPE, BRASS, COPPER

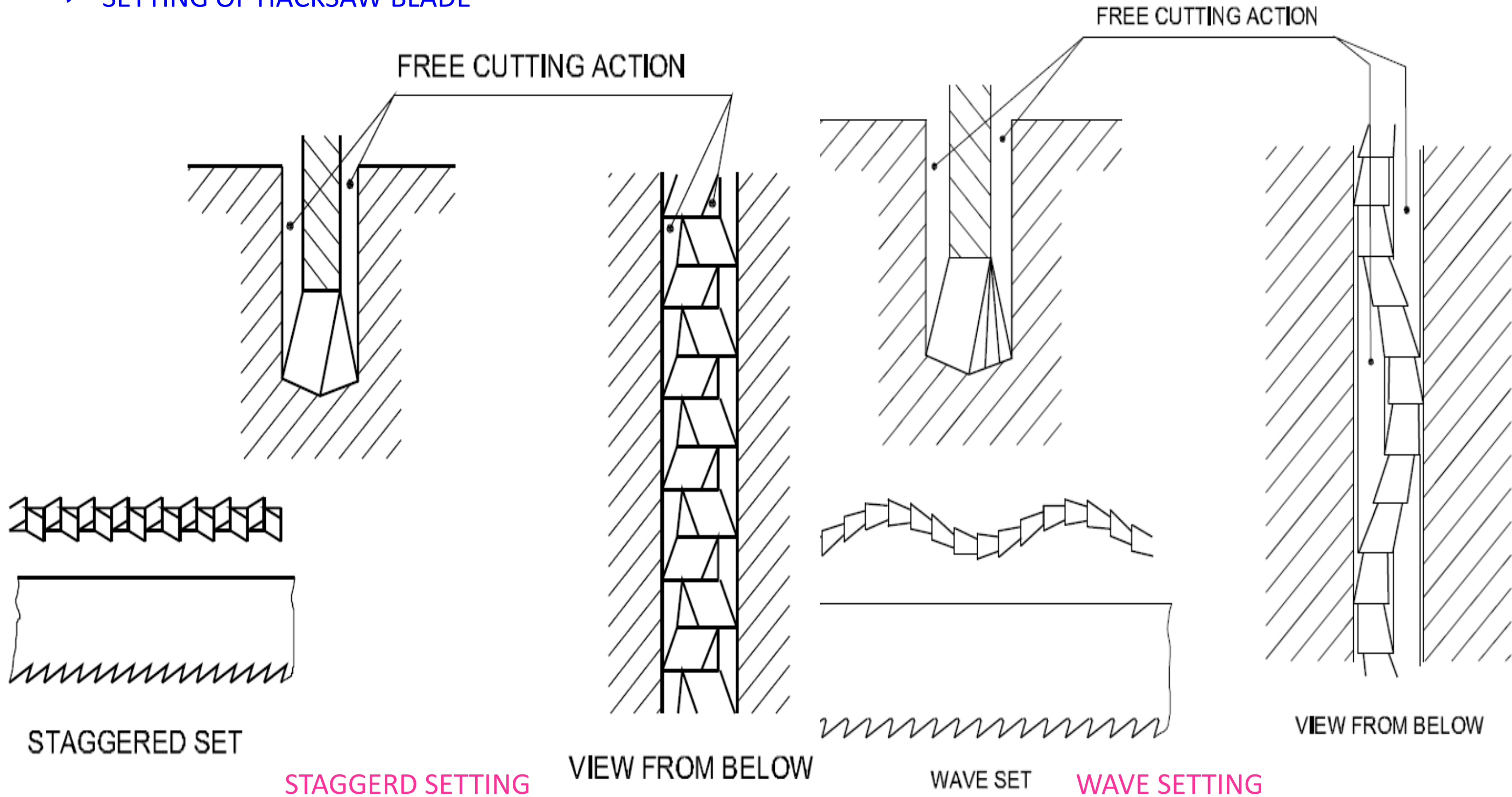
32 TEETH PER INCH



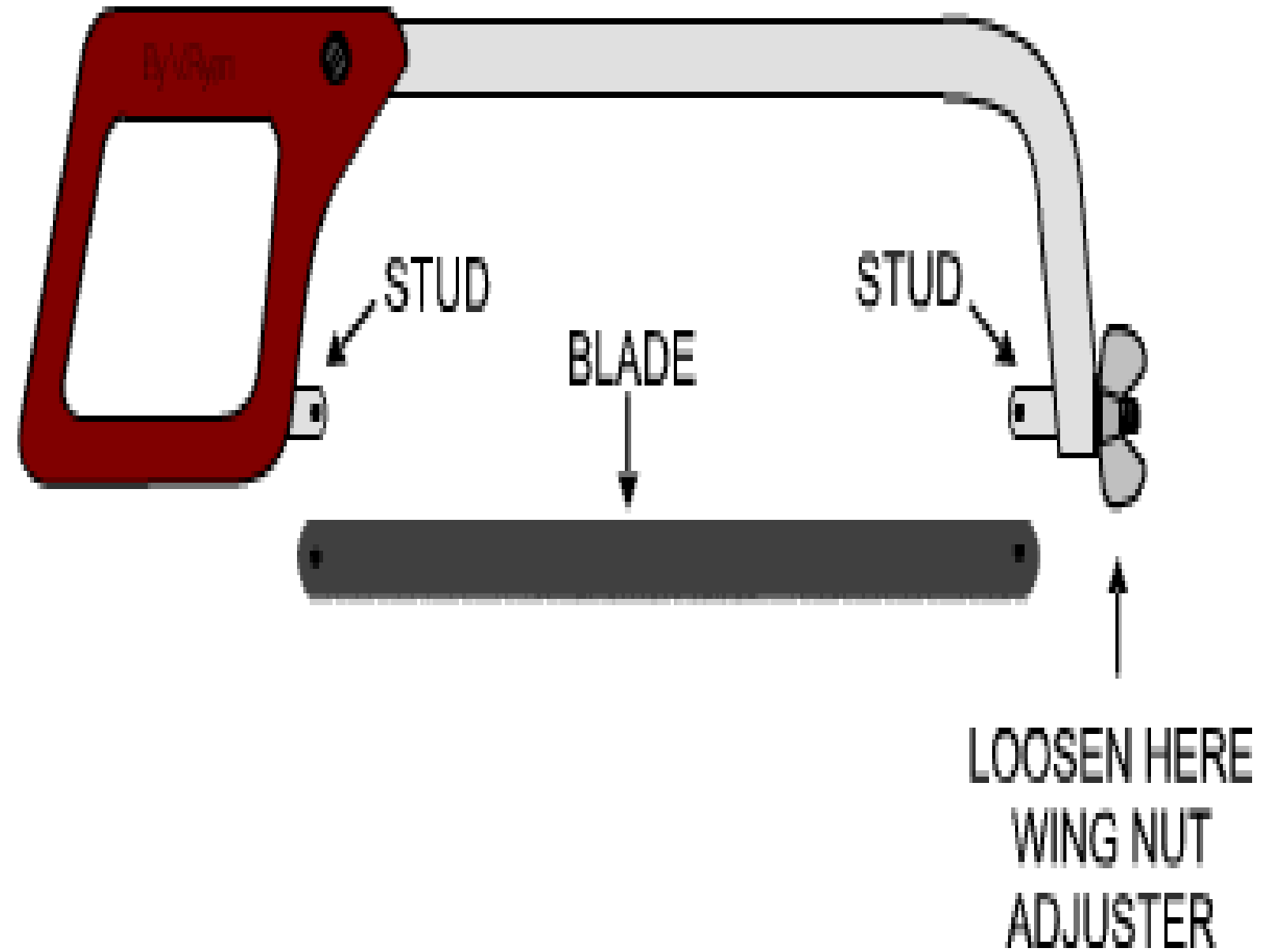
FOR THIN TUBING

# SETTING OF BLADE

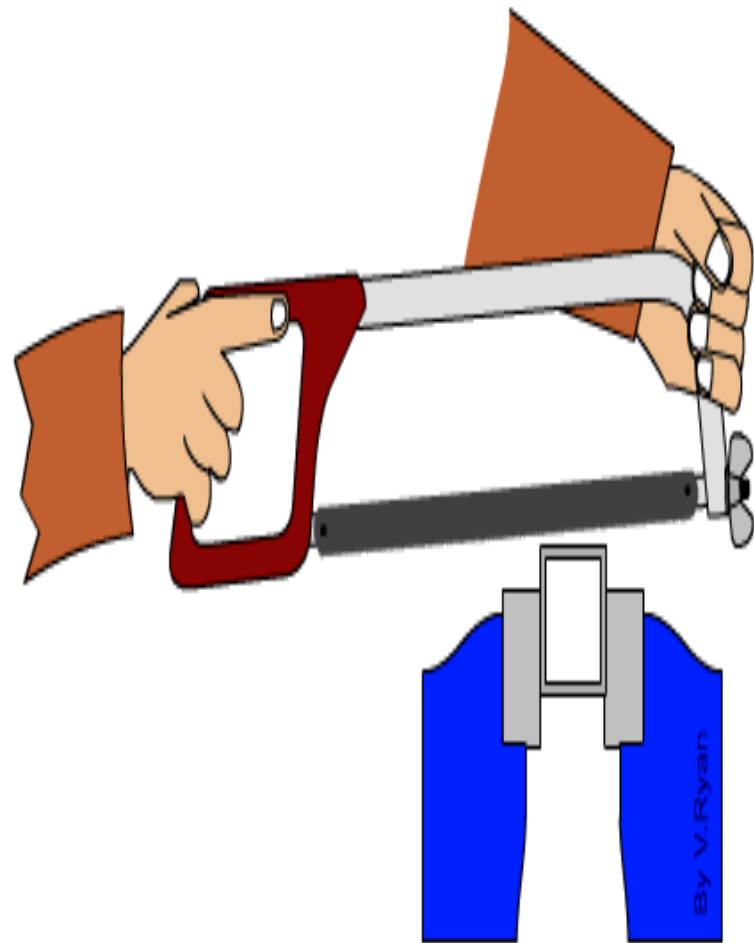
## ✓ SETTING OF HACKSAW BLADE



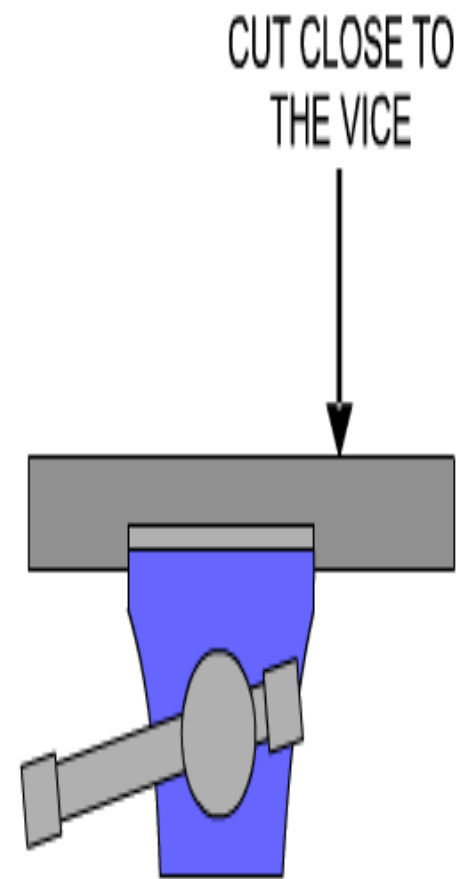
# HACKSAWING



# HACKSAWING

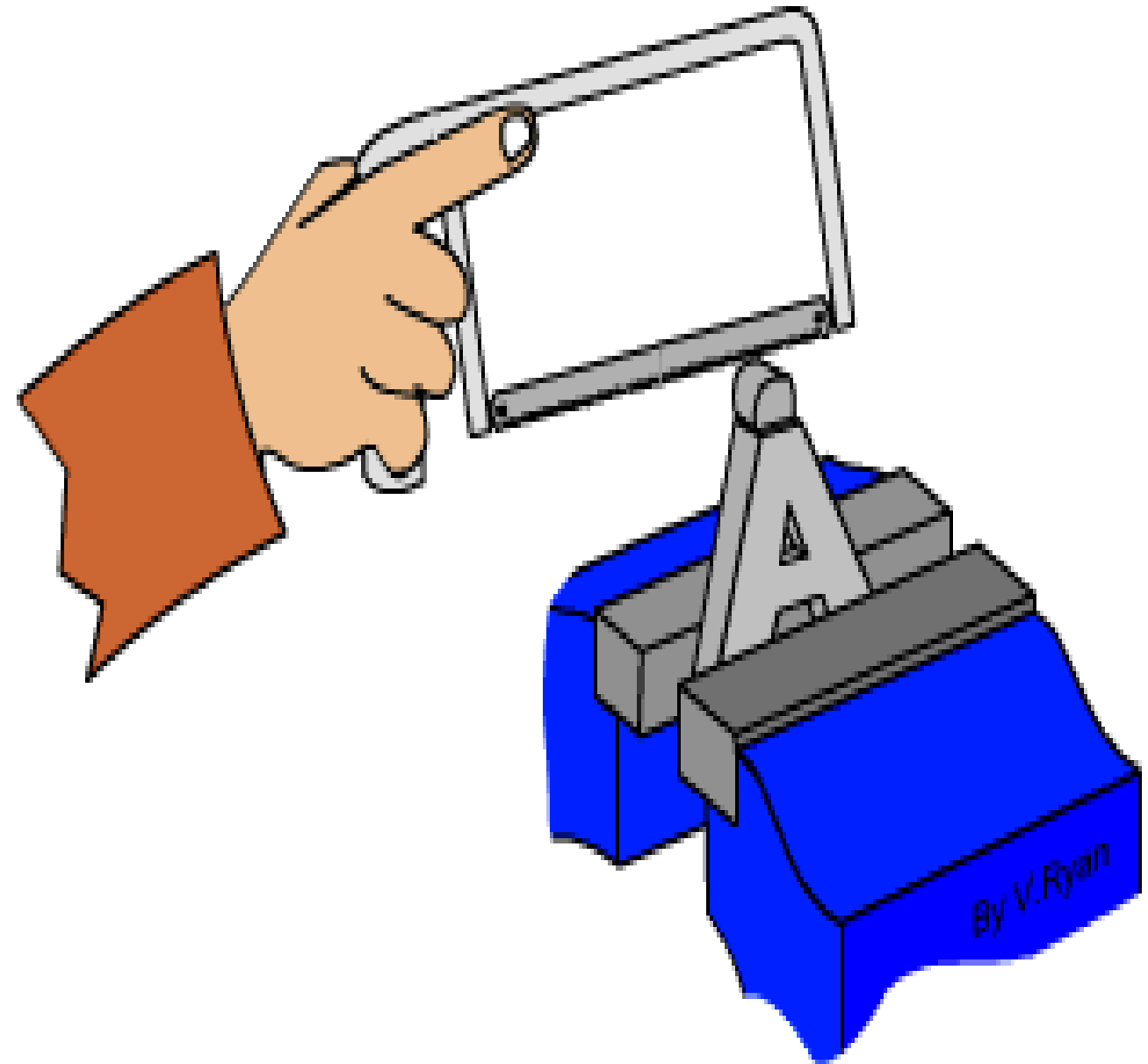


SIDE VIEW



FRONT VIEW

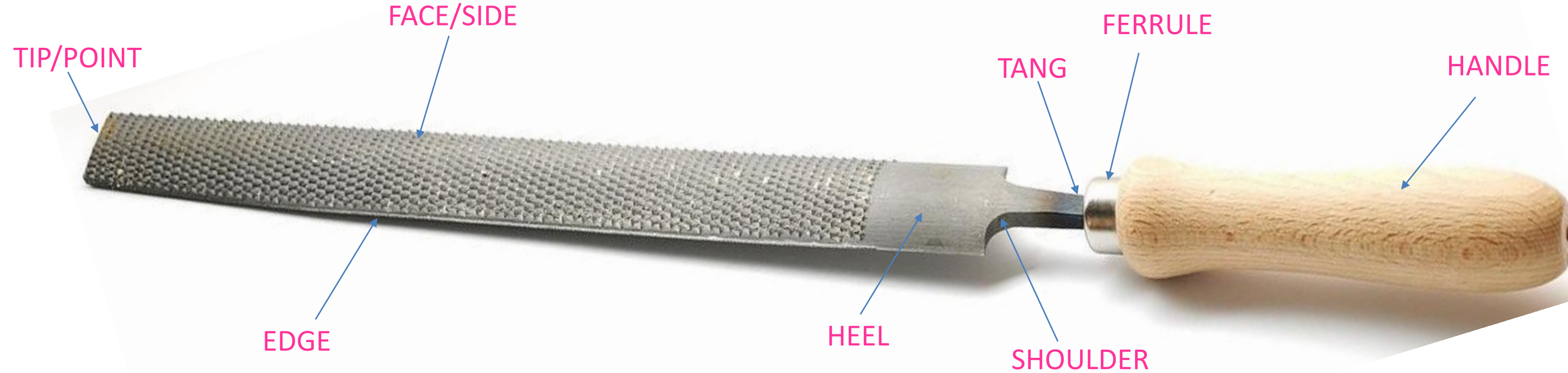
CUT CLOSE TO  
THE VICE



## 6 FILE

ધાતુ સાથે કામ કરનાર માટે સૌથી અગત્યનું ઓપરેશન ફાઇલીંગ છે. ફાઇલ અબ્રેસન પદ્ધતિ વડે જોબ પરથી મટીરિયલ દુર કરે છે.

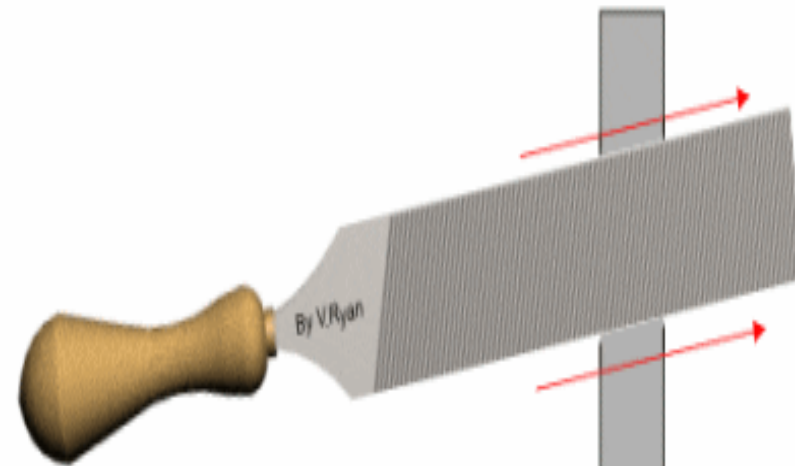
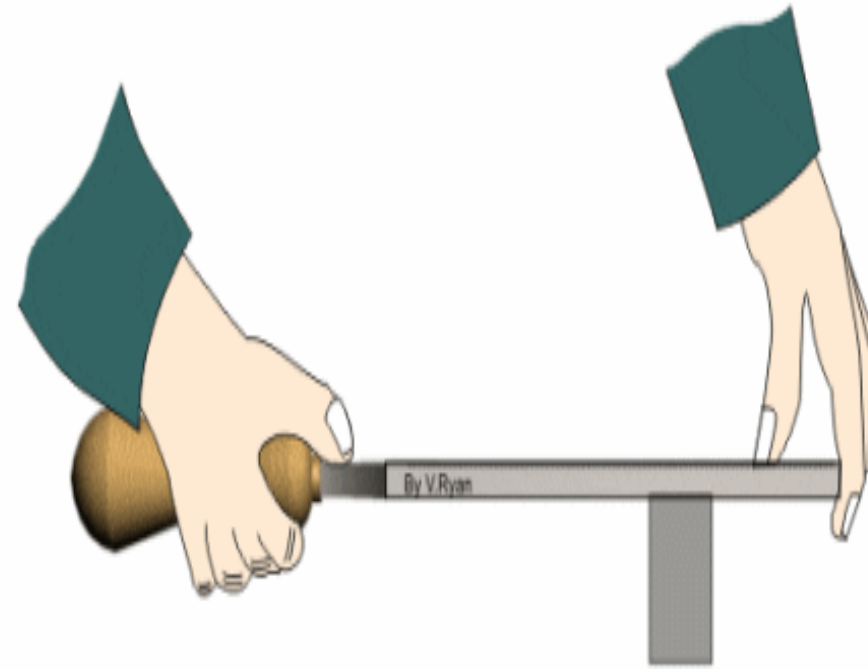
**MATERIAL :** HIGH CARBAN STEEL OR HIGH GRAINED CAST STEEL



# FILING METHOD



STRAIGHT FILING



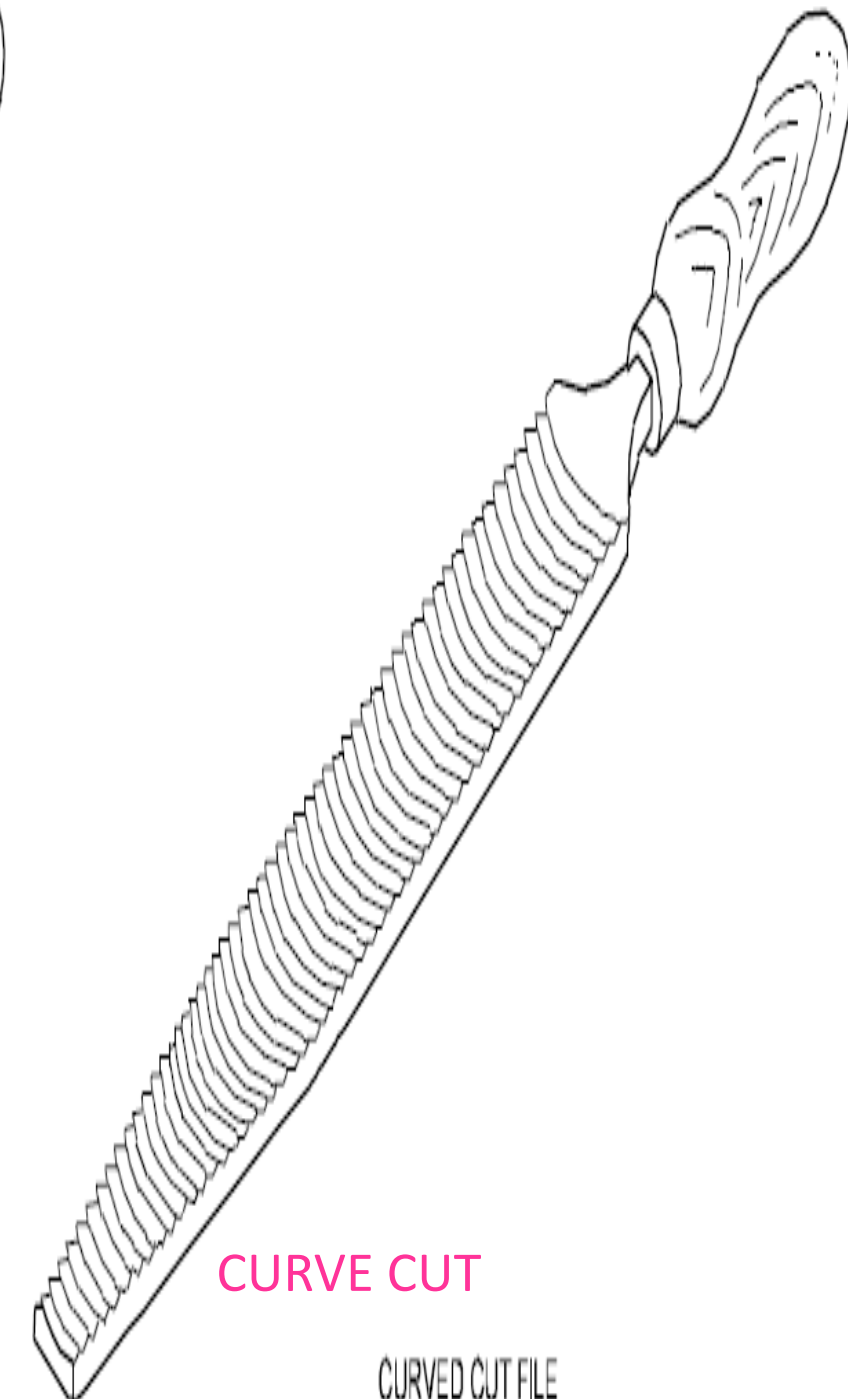
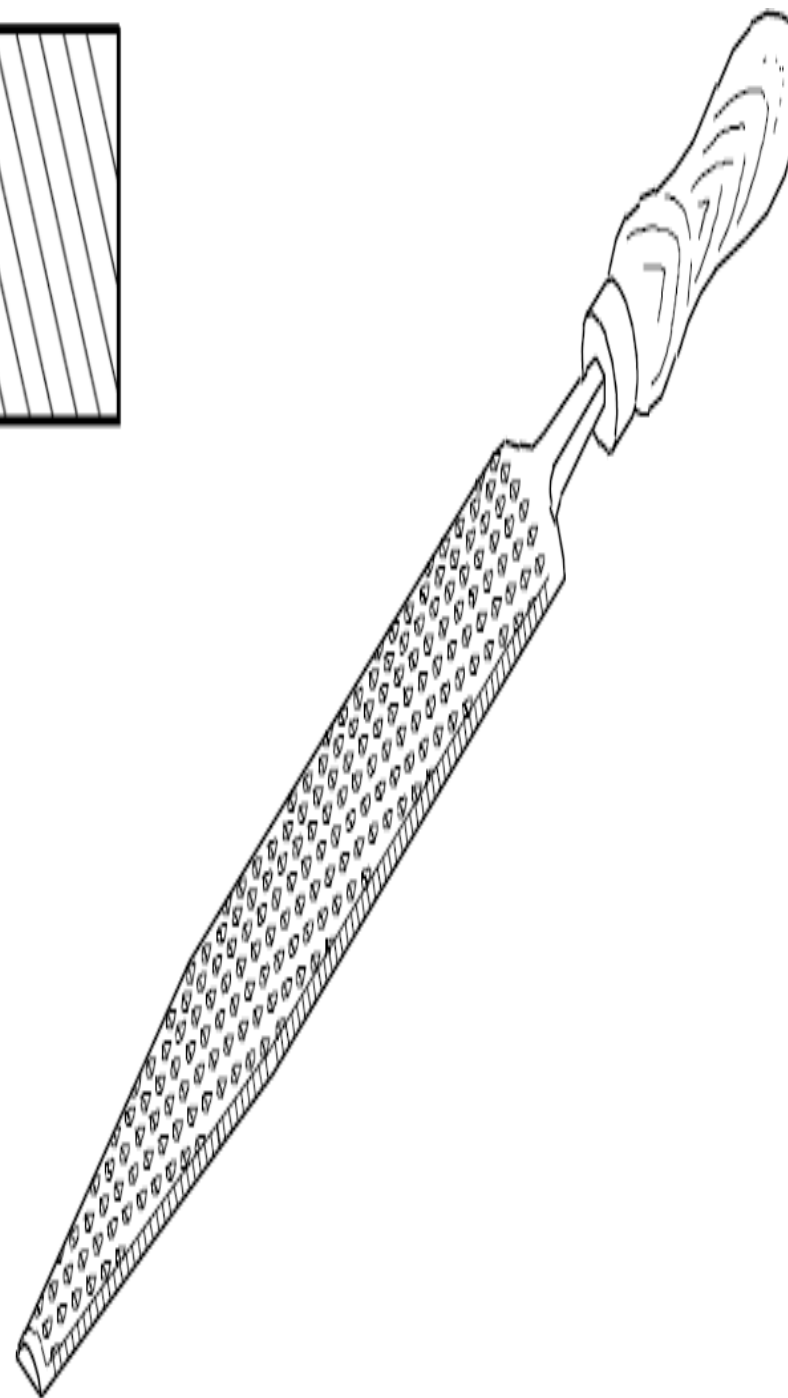
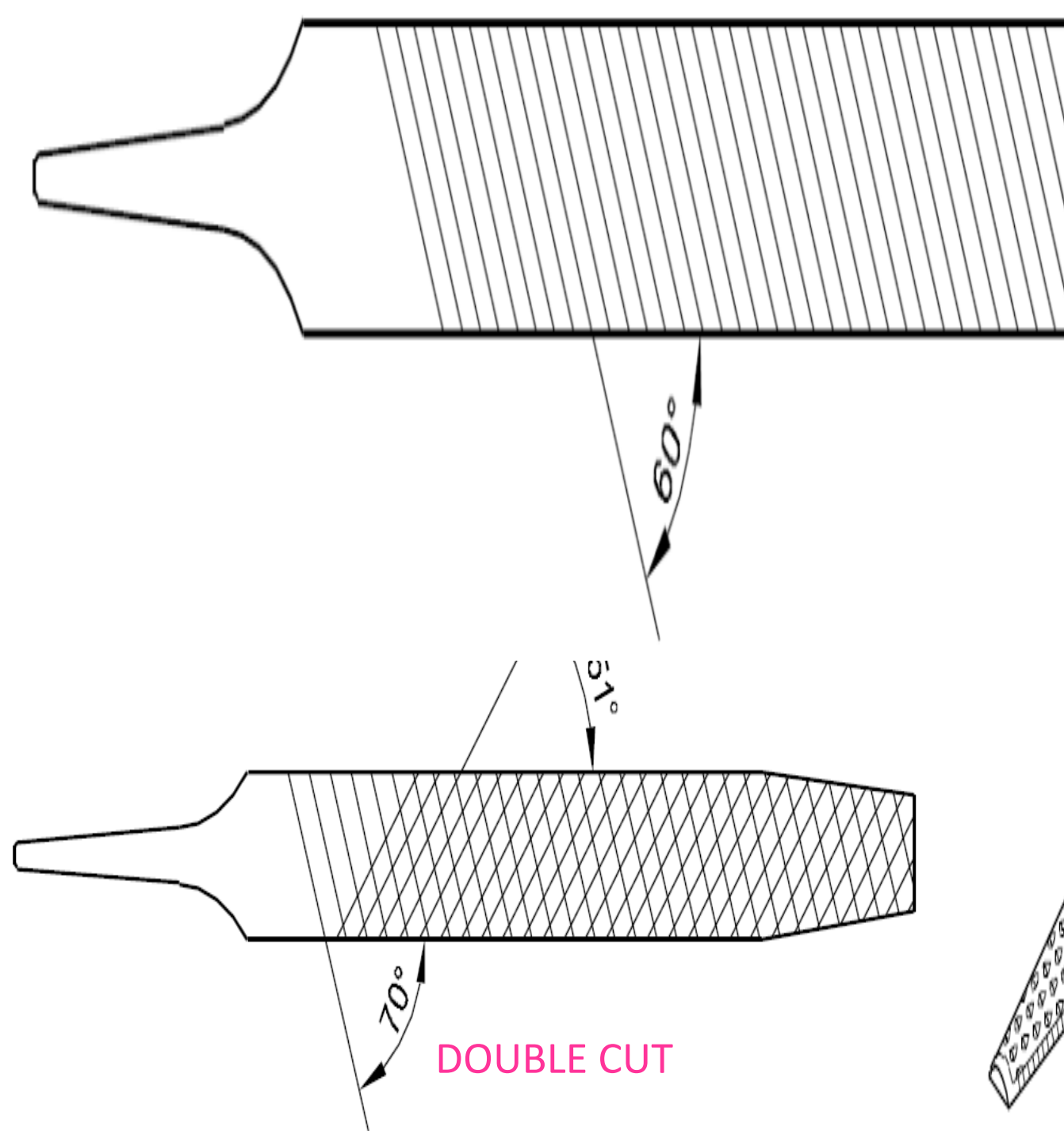
CROSS FILING



✓ DRAW FILING



# CLASSIFICATION OF FILE (AS PER CUT)



# CLASSIFICATION OF FILE (AS PER GRADE)

✓ AS PER GRADE

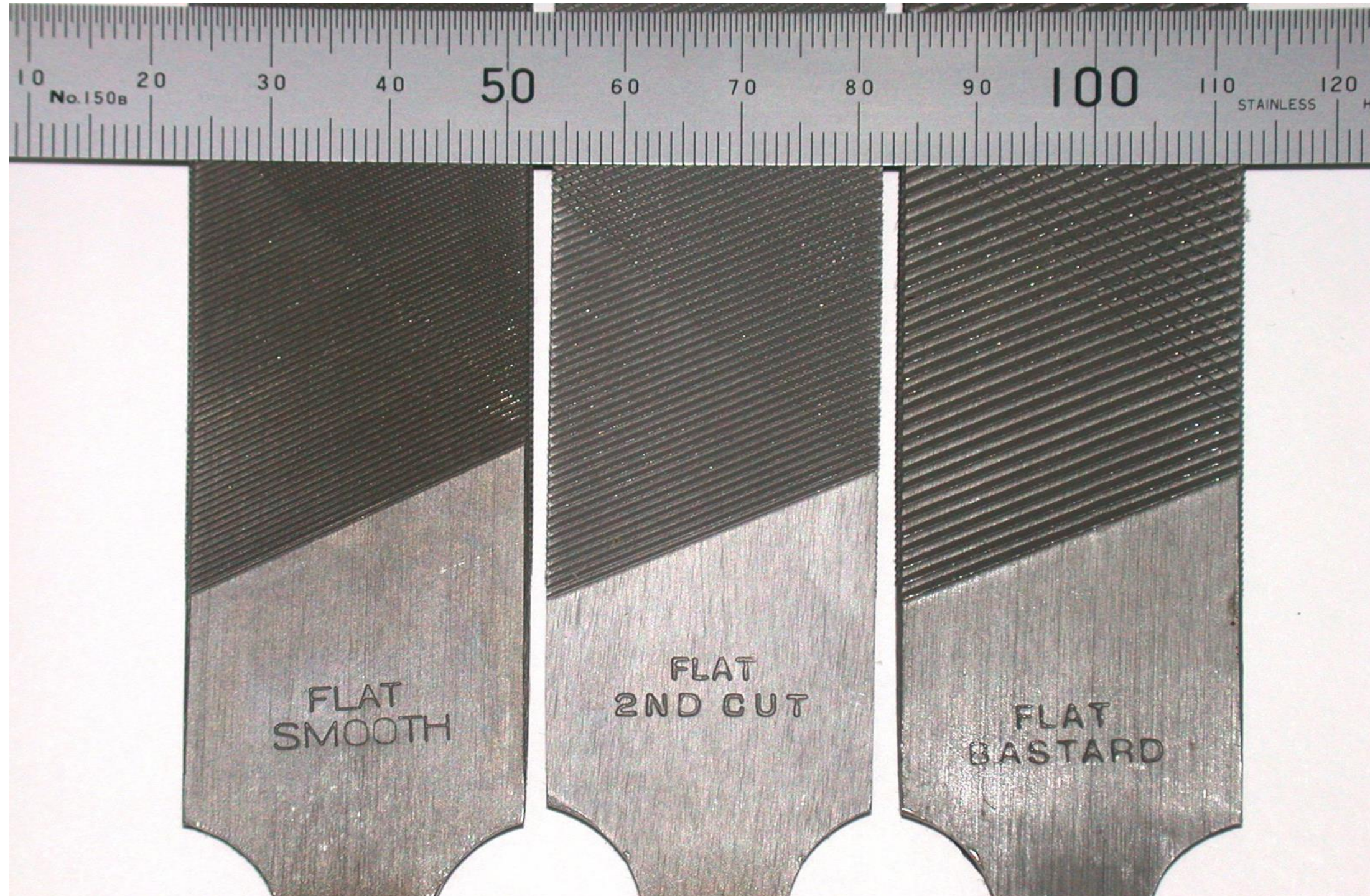
: RUGH

: BUSTARD

: SECOND CUT

: SMOOTH

: DEAD SMOOTH



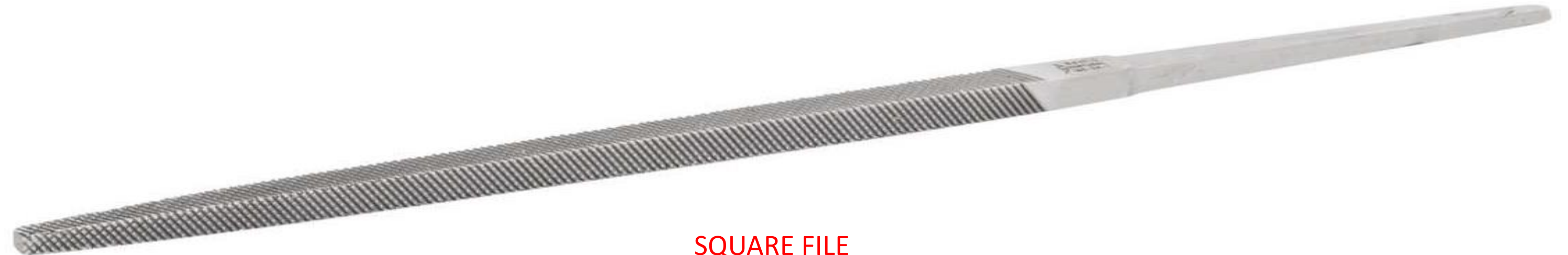
# CLASSIFICATION OF FILE(AS PER SHAPE)



FLAT FILE



HAND FILE



SQUARE FILE

# CLASSIFICATION OF FILE (AS PER SHAPE)



ROUND FILE



HALF ROUND FILE

# CLASSIFICATION OF FILE (AS PER SHAPE)

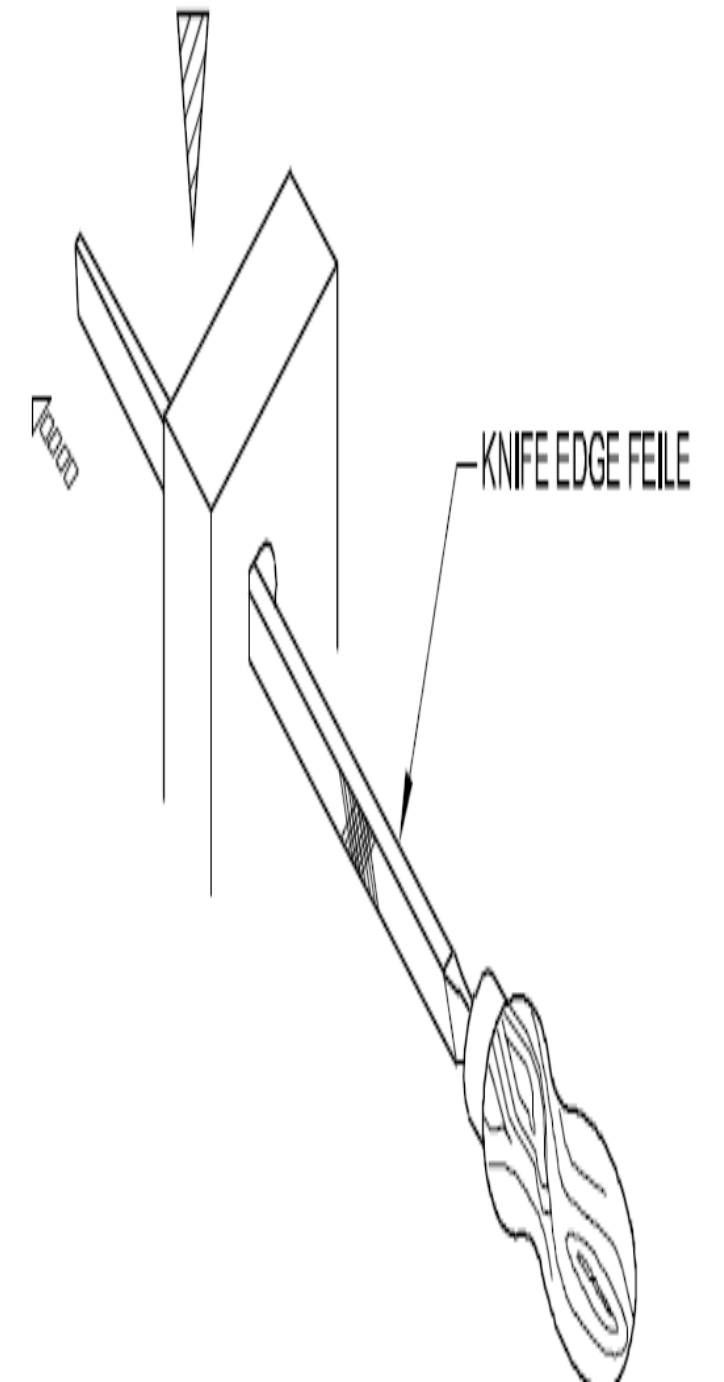
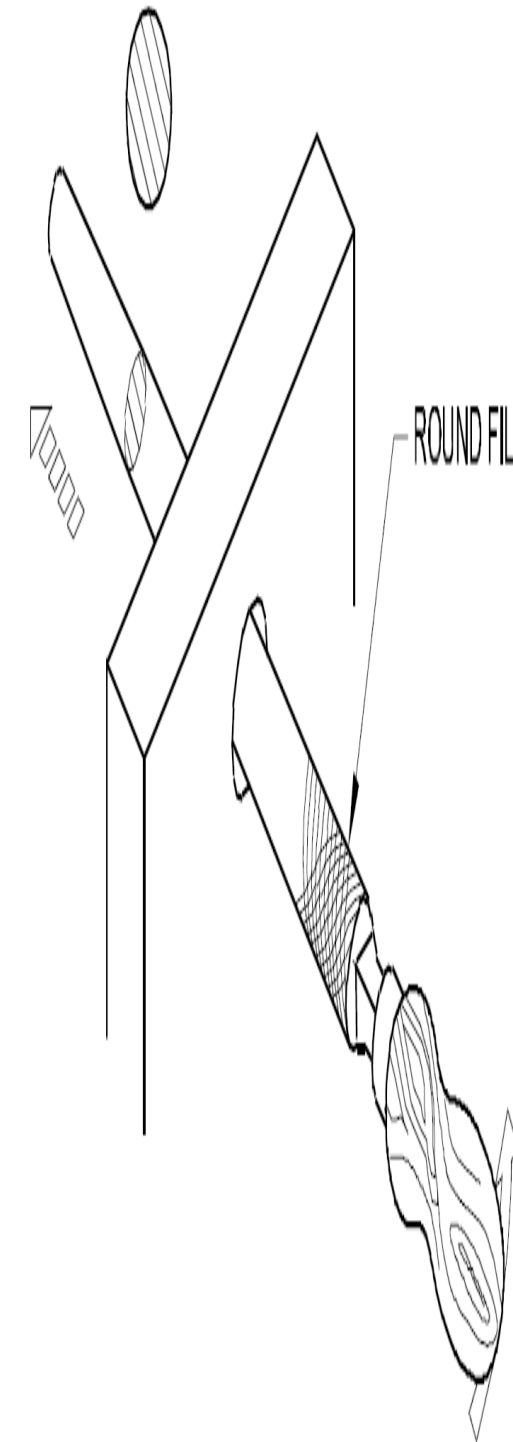
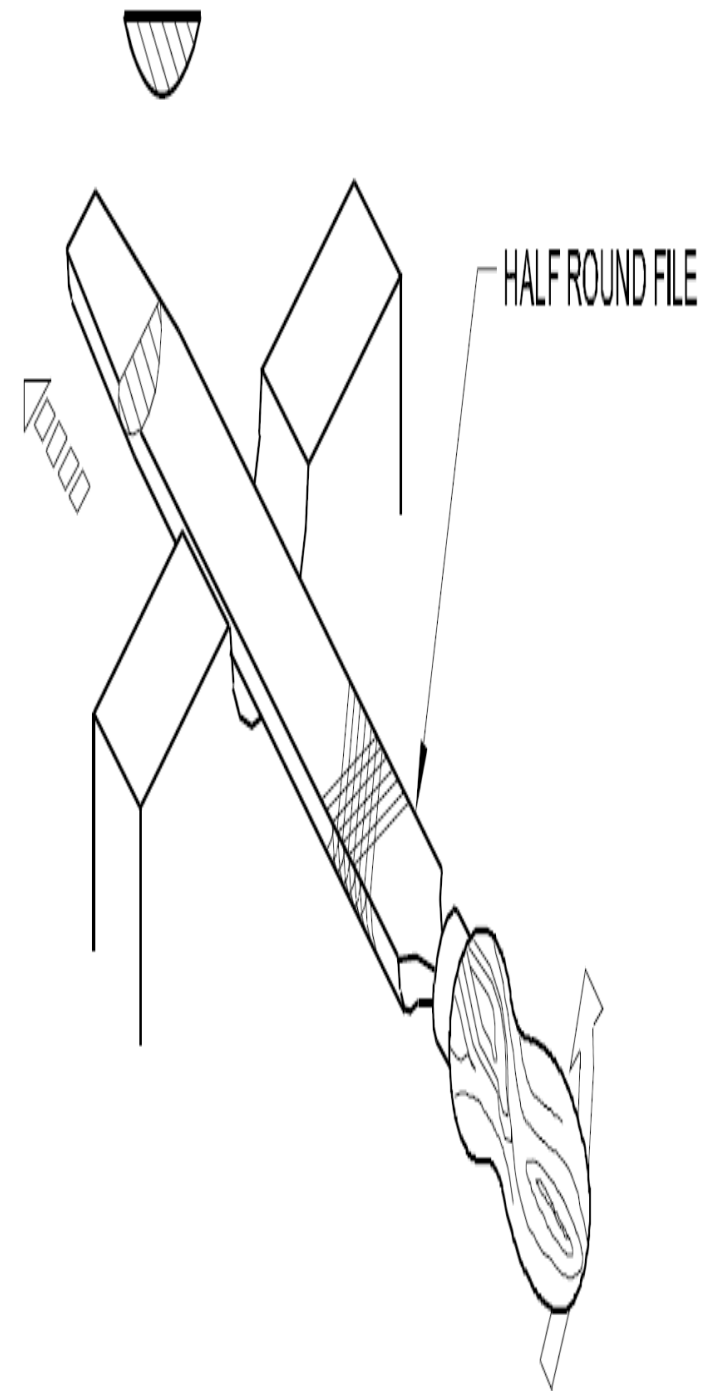
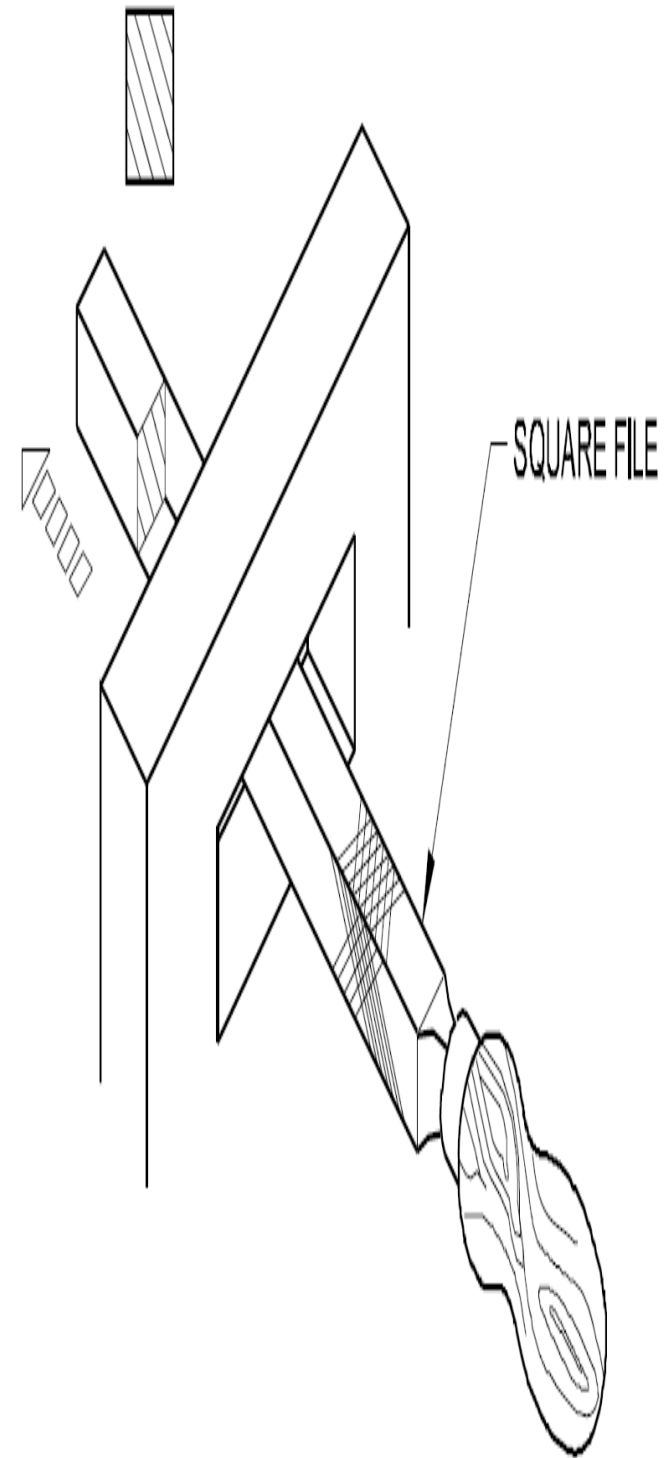


TRIANGULAR FILE



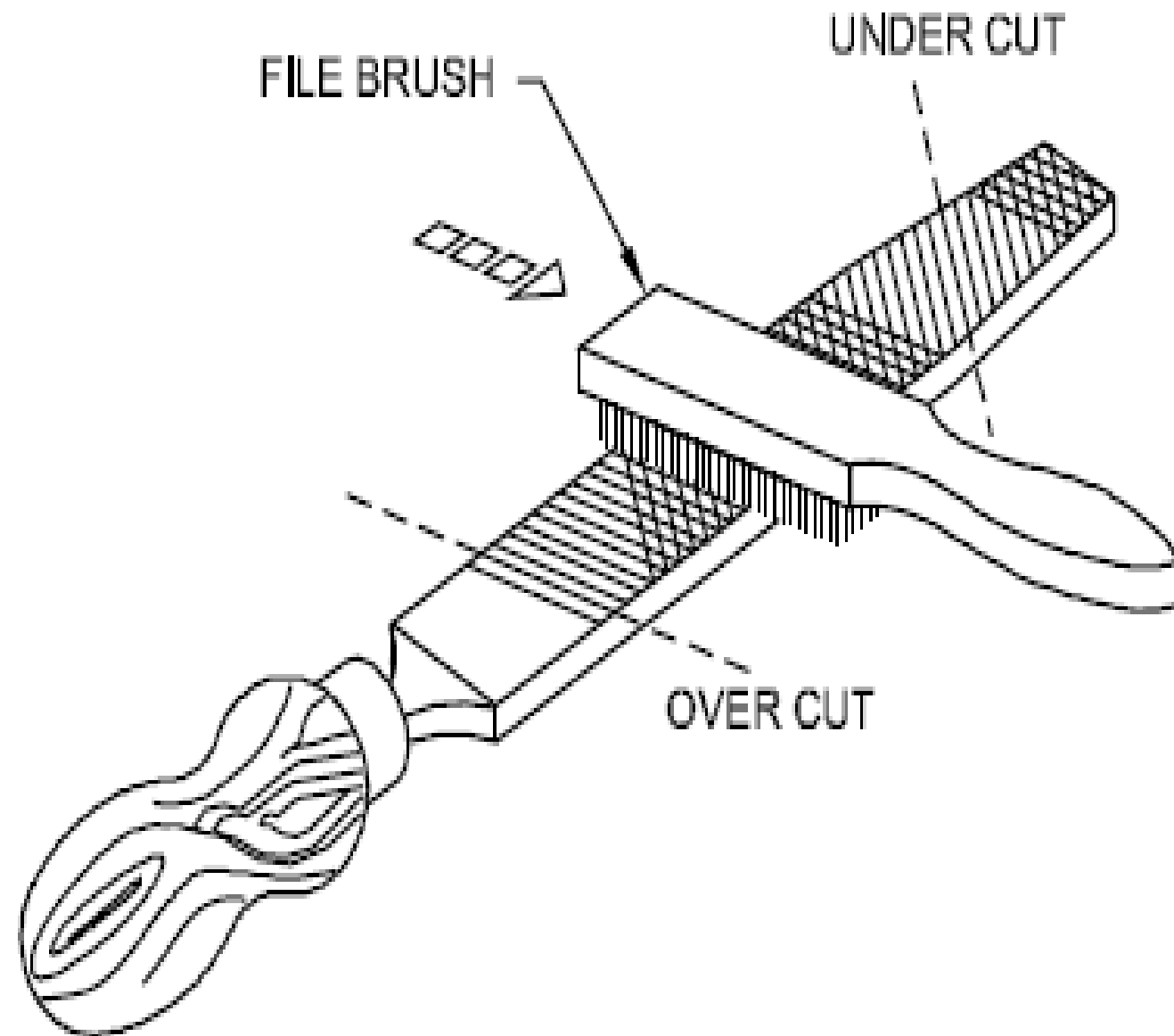
KNIFE EDGE FILE

# CLASSIFICATION OF FILE (AS PER SHAPE)



# CLASSIFICATION OF FILE(AS PER SIZE)

- ✓ AS PER SIZE : દા.ત. 250 મીમી ની ફ્લેટ સ્મુથ ડબલ કટ ફાઈલ (ફાઈલની લંબાઈ [ 250 મીમી] , ફાઈલનો આકાર [ ફ્લેટ ], ફાઈલનો ગ્રેડ [ સ્મુથ ], ફાઈલનો કટ [ ડબલ કટ ] )
- ✓ PINING



# FILE USES

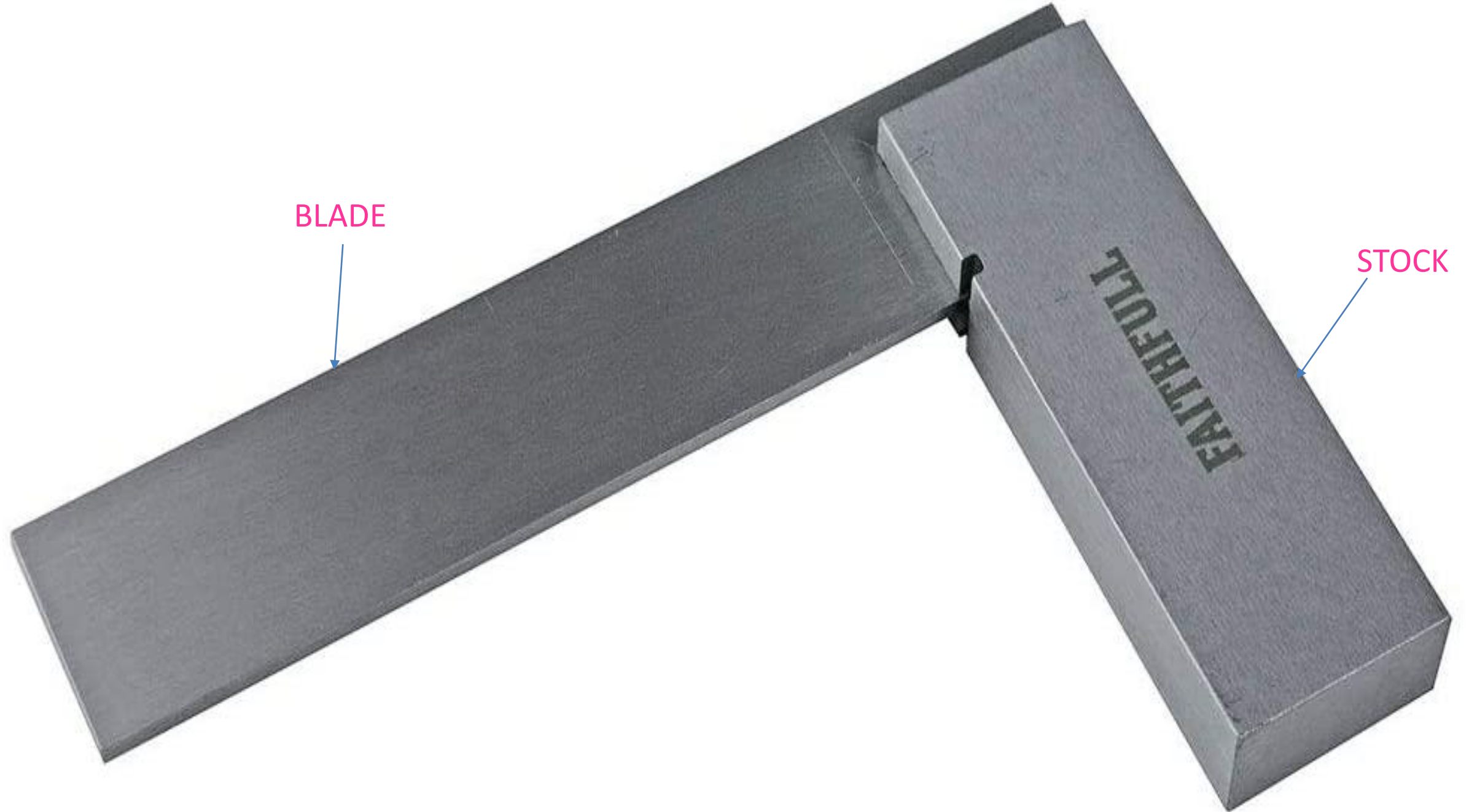




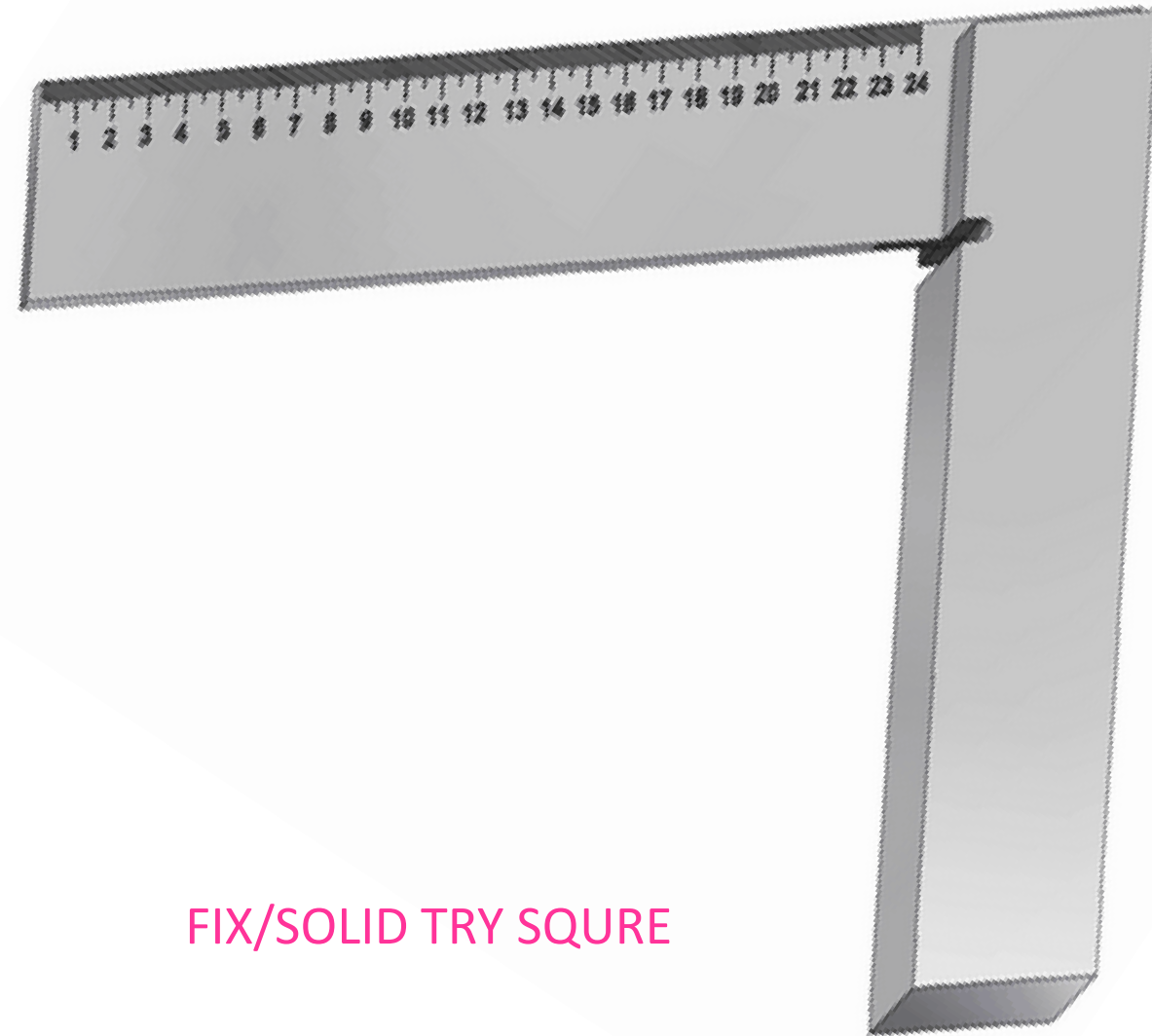
# 8 TRY SQUARE

વર્કશોપમાં  
આપણે  
વારંવાર 90  
ઔસના ખૂણે  
કોઈપણ વસ્તુને  
ચેક  
કરવાની, સેટ  
કરવાની, કે એક  
સપાટીના  
સદર્ભમાં બીજી  
સપાટીનું 90  
ઔસે માર્કિંગ  
કરવાની જરૂર  
પડતી હોય  
છે. તેના માટે  
સૌથી ઝડપી  
સાધન તો તે  
ટ્રાયસ્કવેર છે.

**MATERIAL : HARDEN STEEL**



# TYPES OF TRY SQUARE



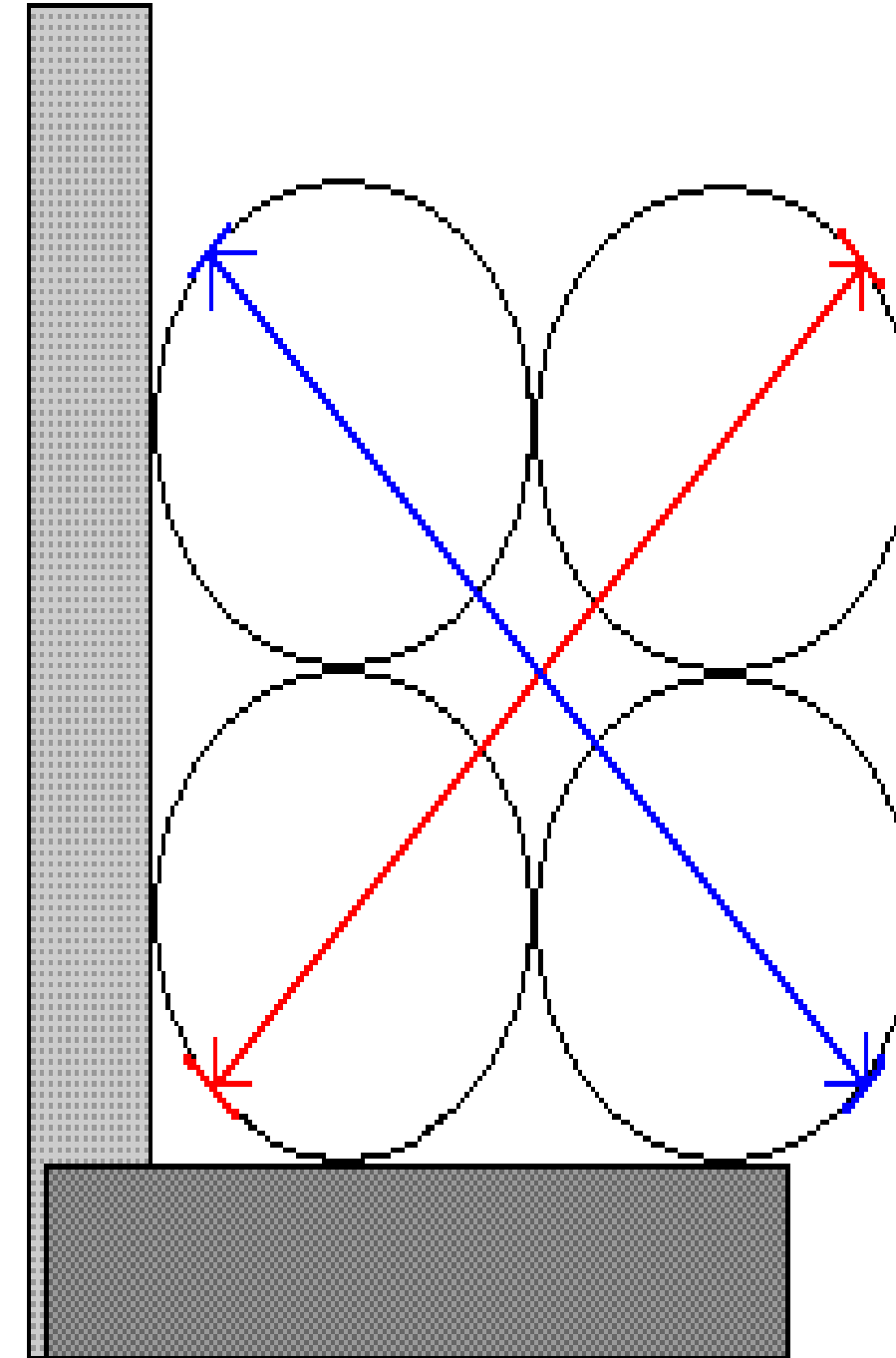
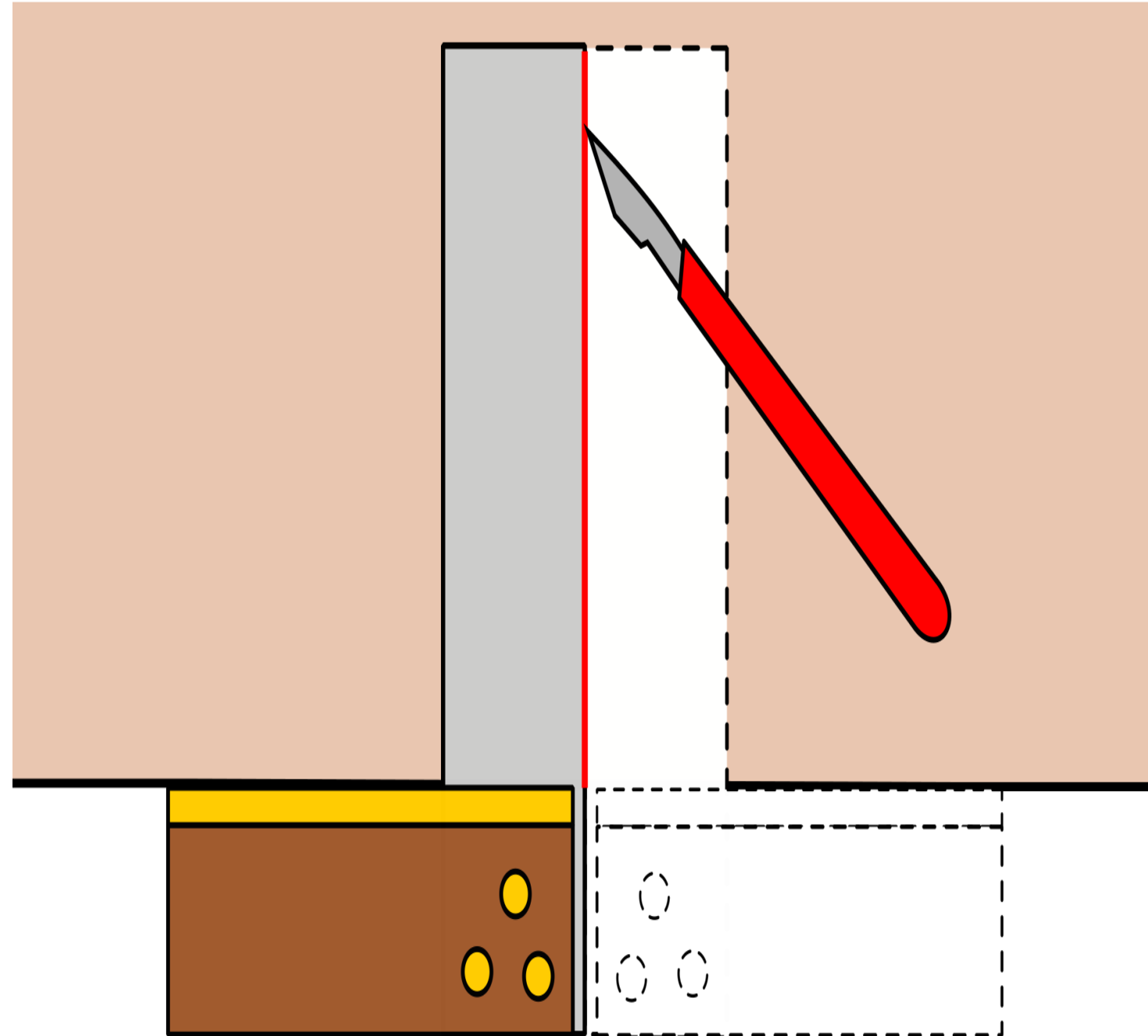
FIX/SOLID TRY SQUIRE



✓ ADJUSTABLE TRY SQUIRE

# CHECKING OF TRY SQUARE ACCURACY

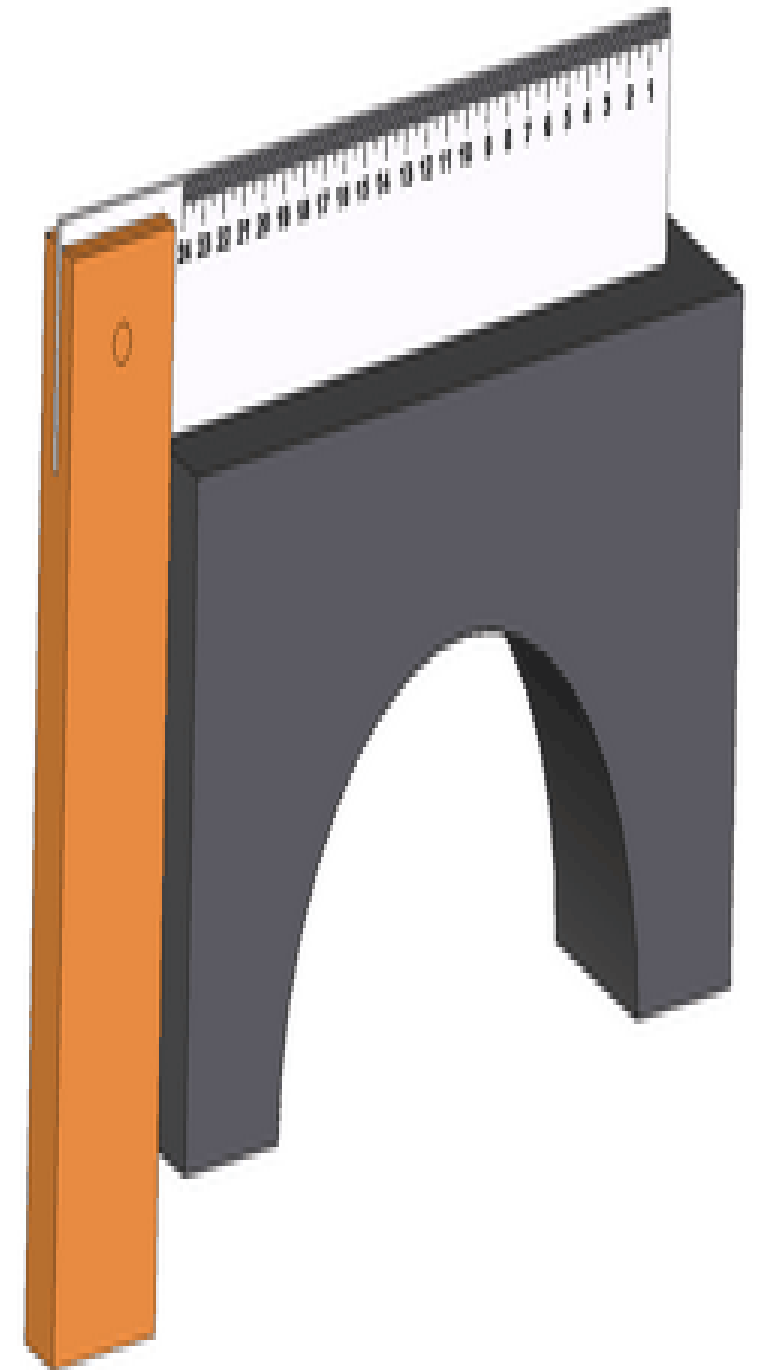
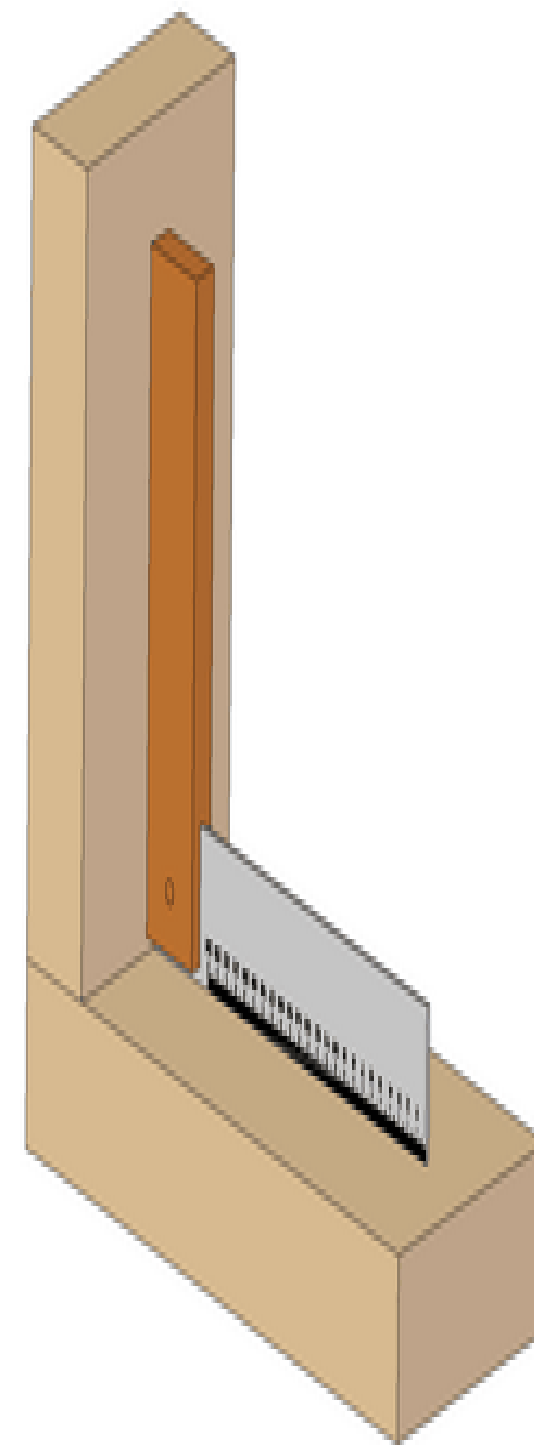
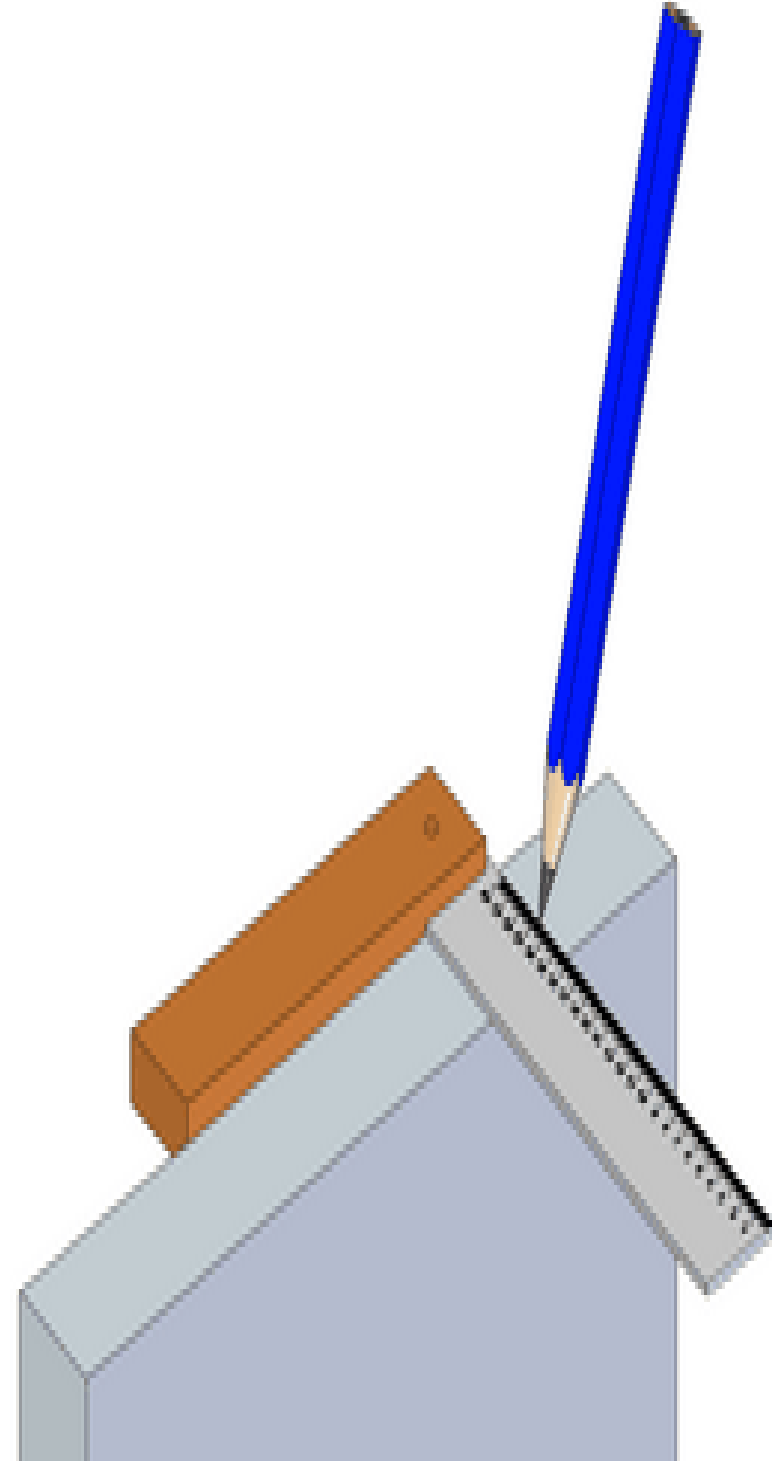
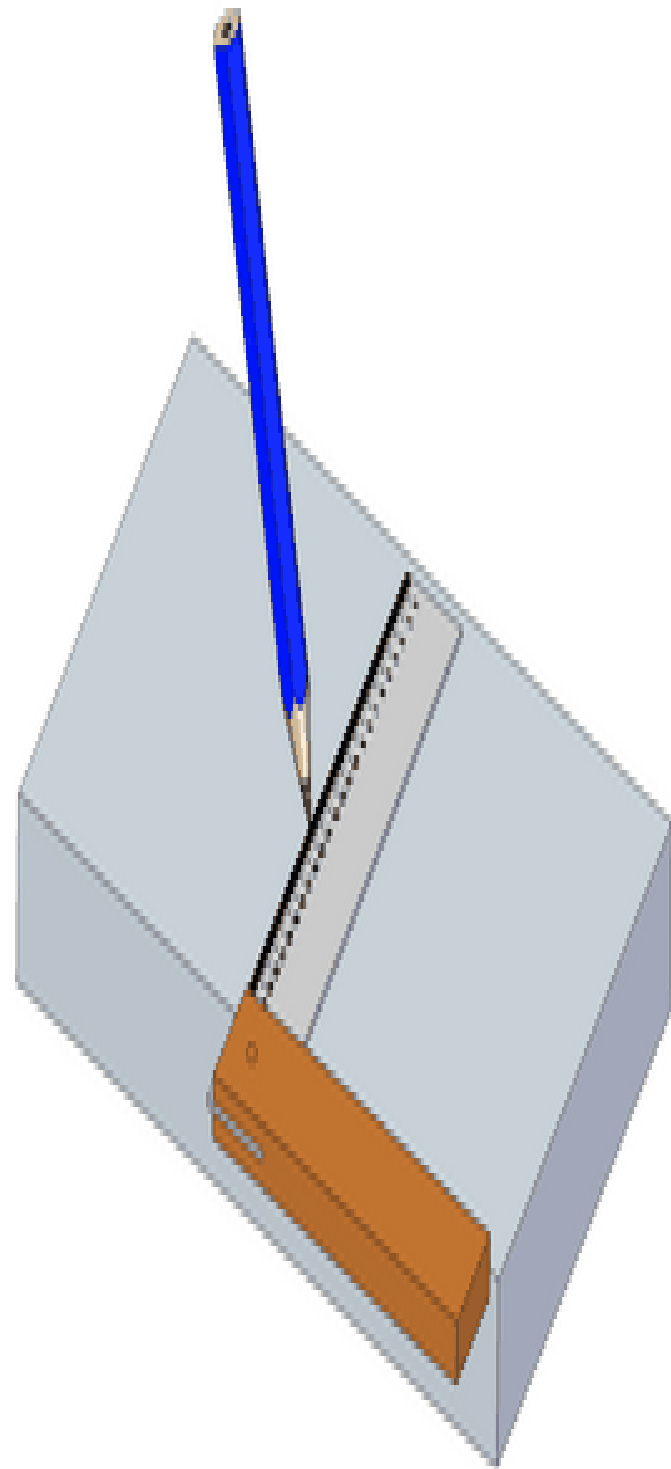
✓ द्राय स्क्वेरनीयोक्कसाई तपासवानी रीत



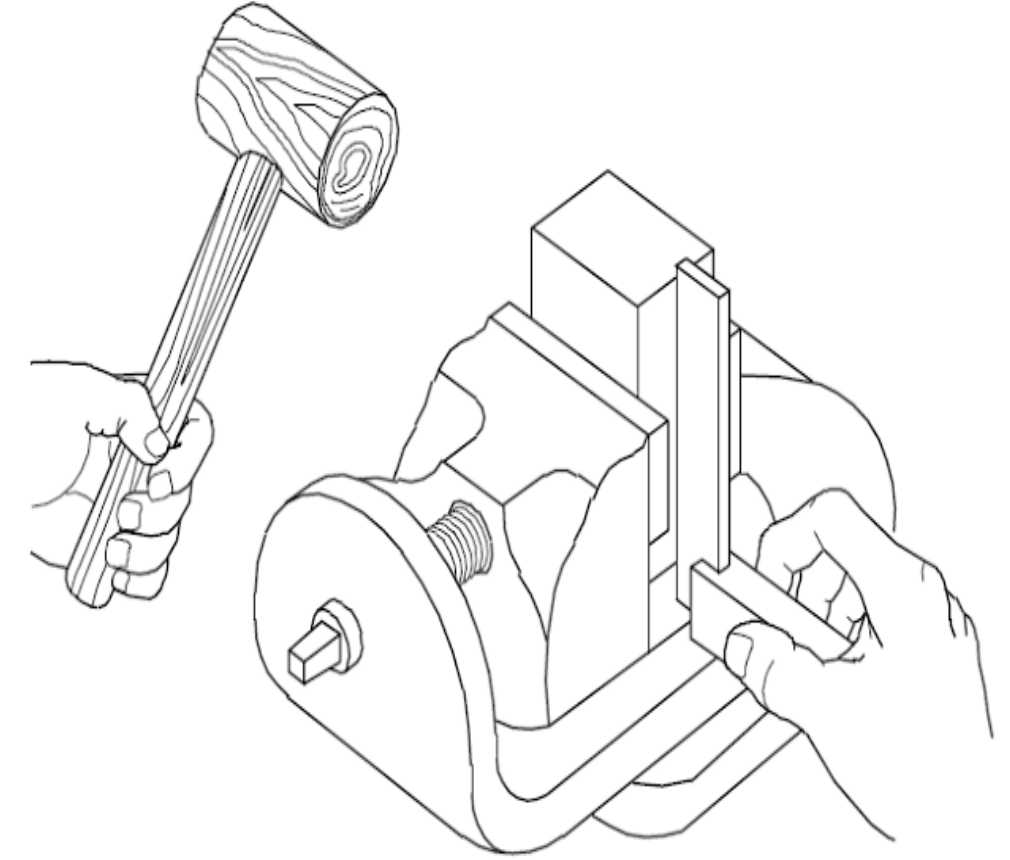
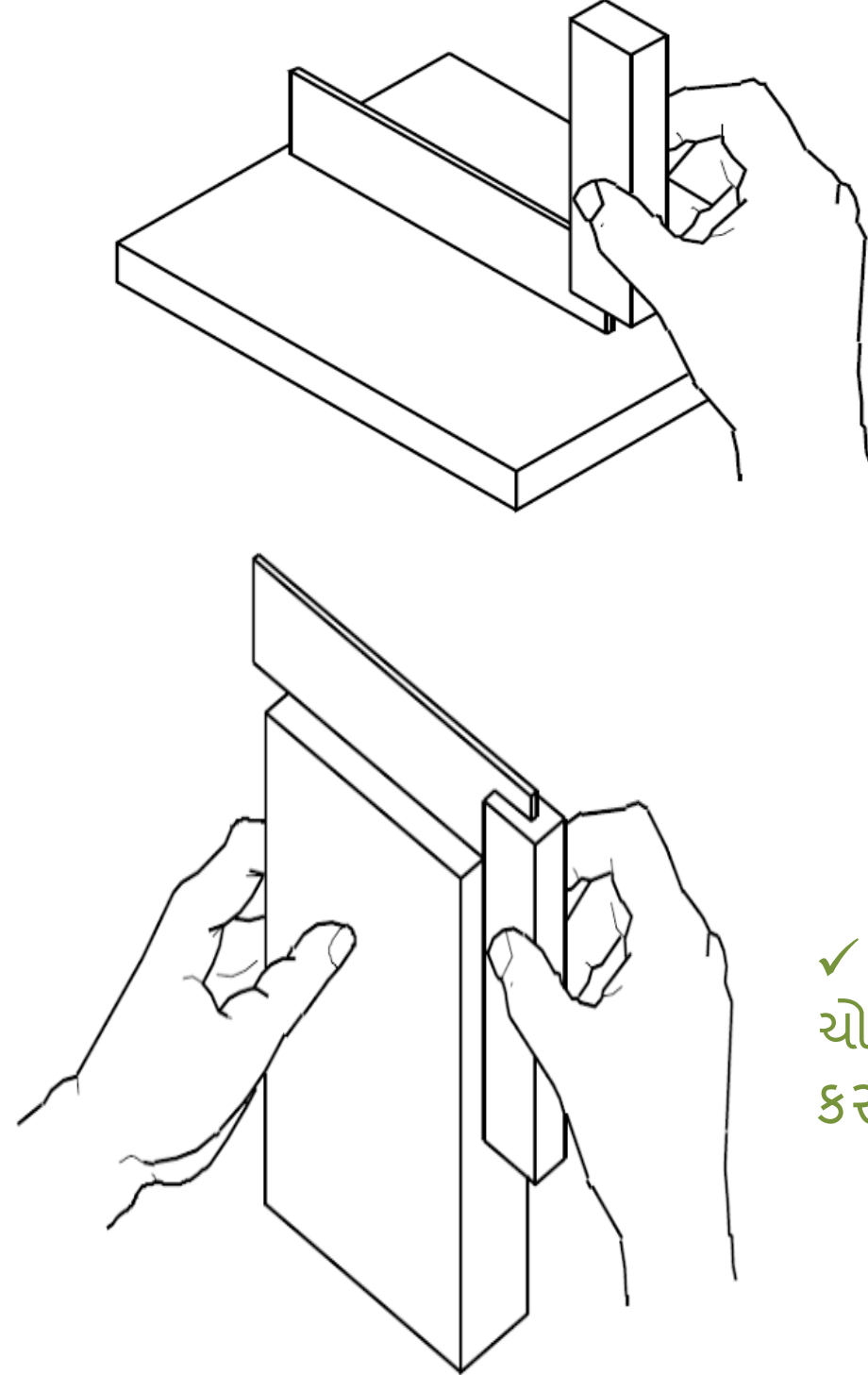
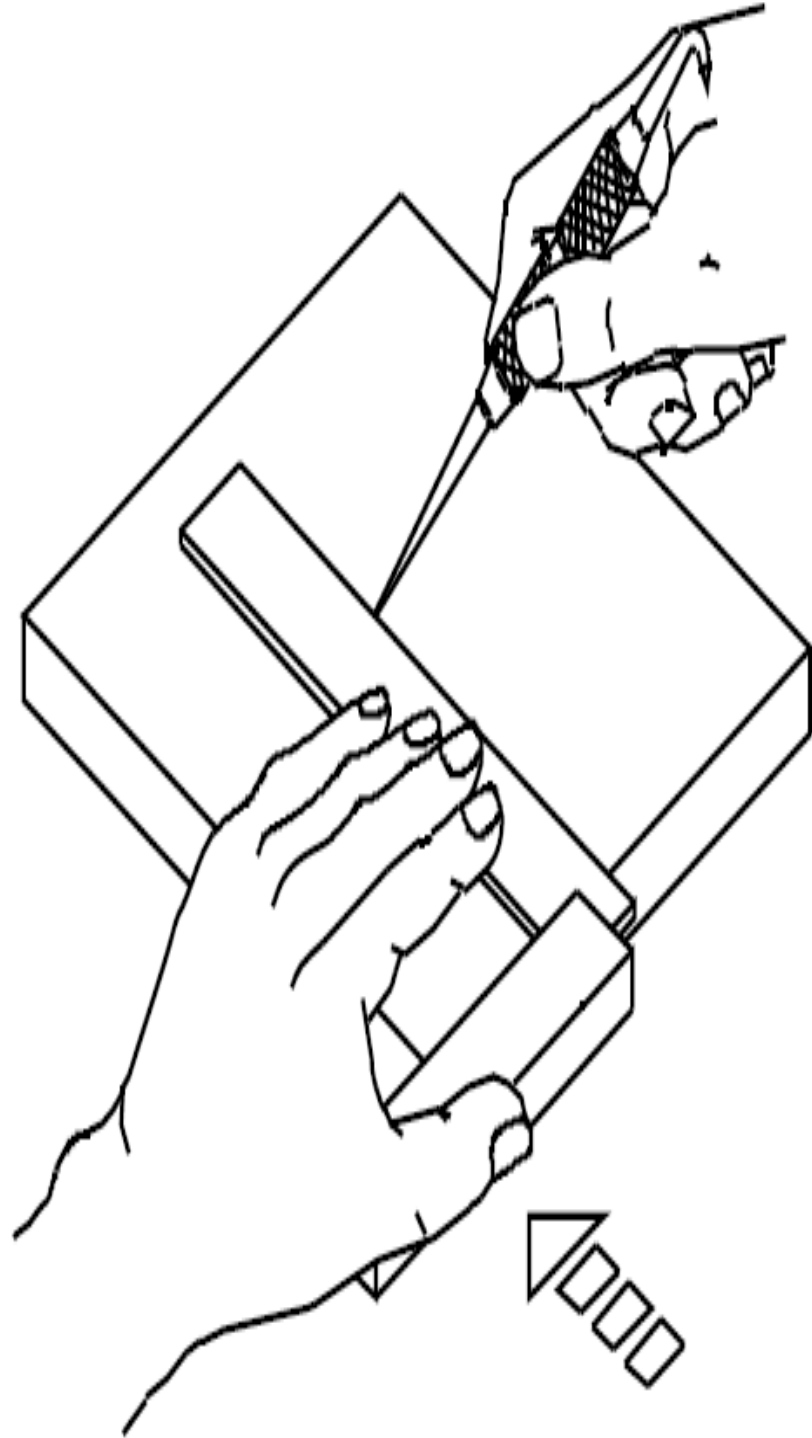
Four disk method of checking squares for accuracy.

Using four disks of equal size:  
When  $A = B$   
then the sides are dead square

# USE OF TRY SQUARES



# USE OF TRY SQUARES

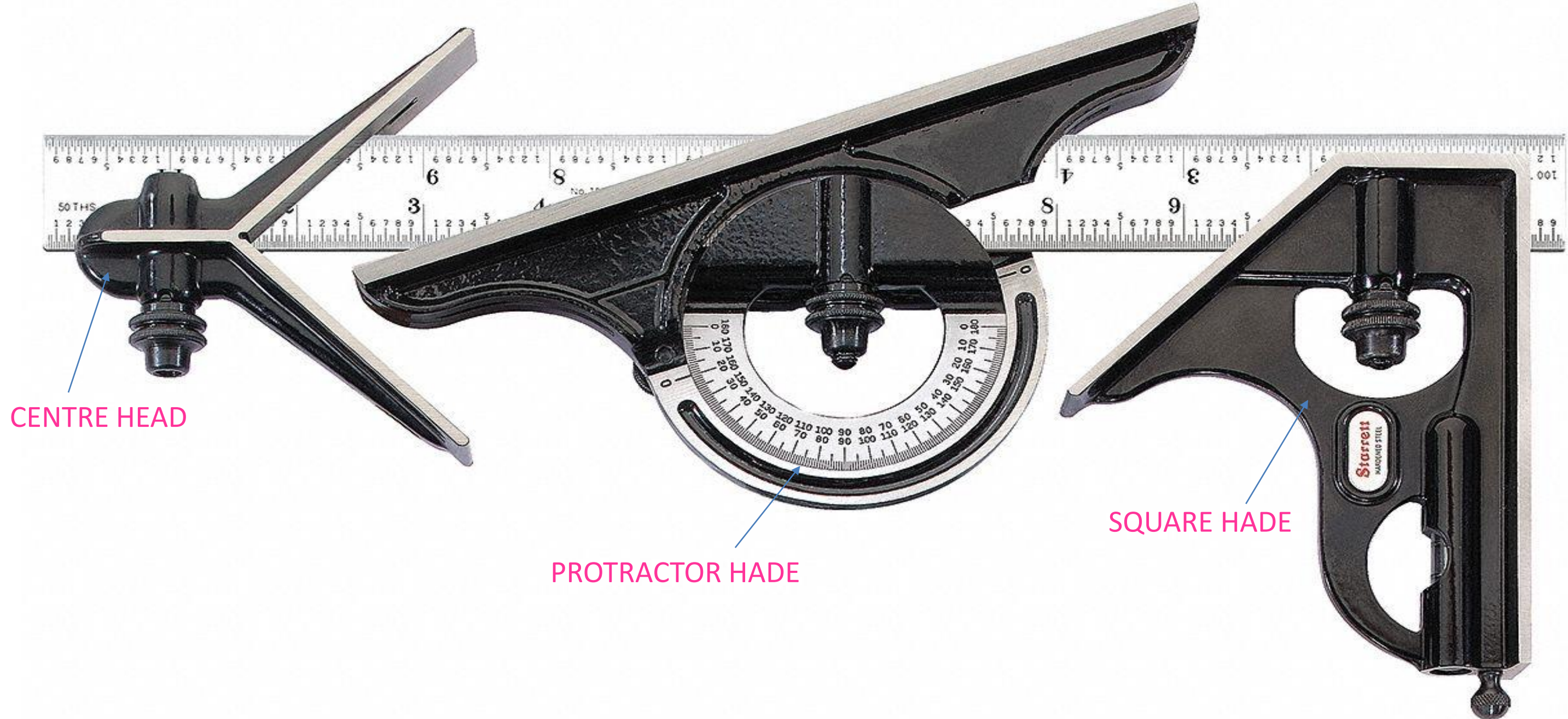


## CARE & MAINTANANCE

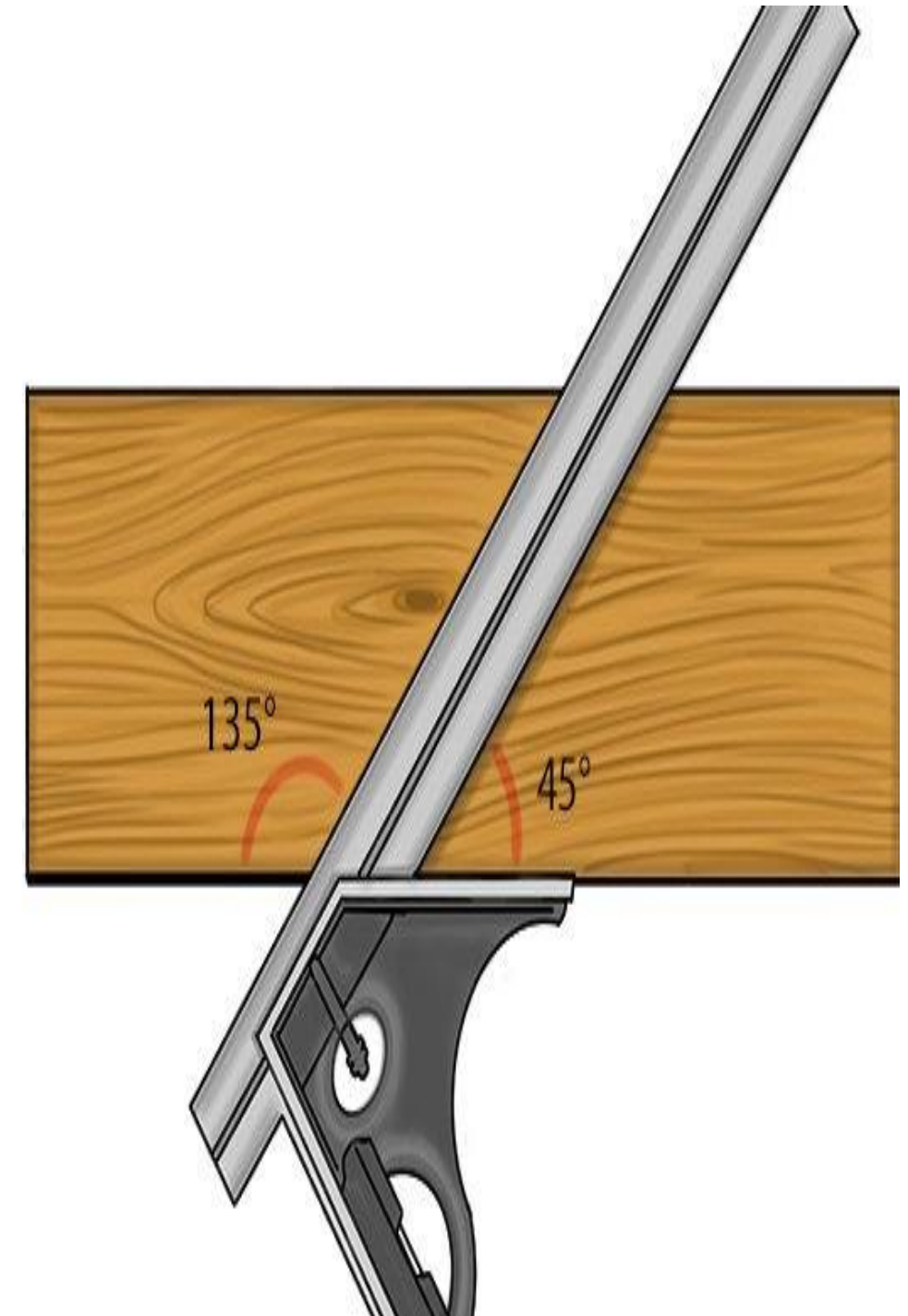
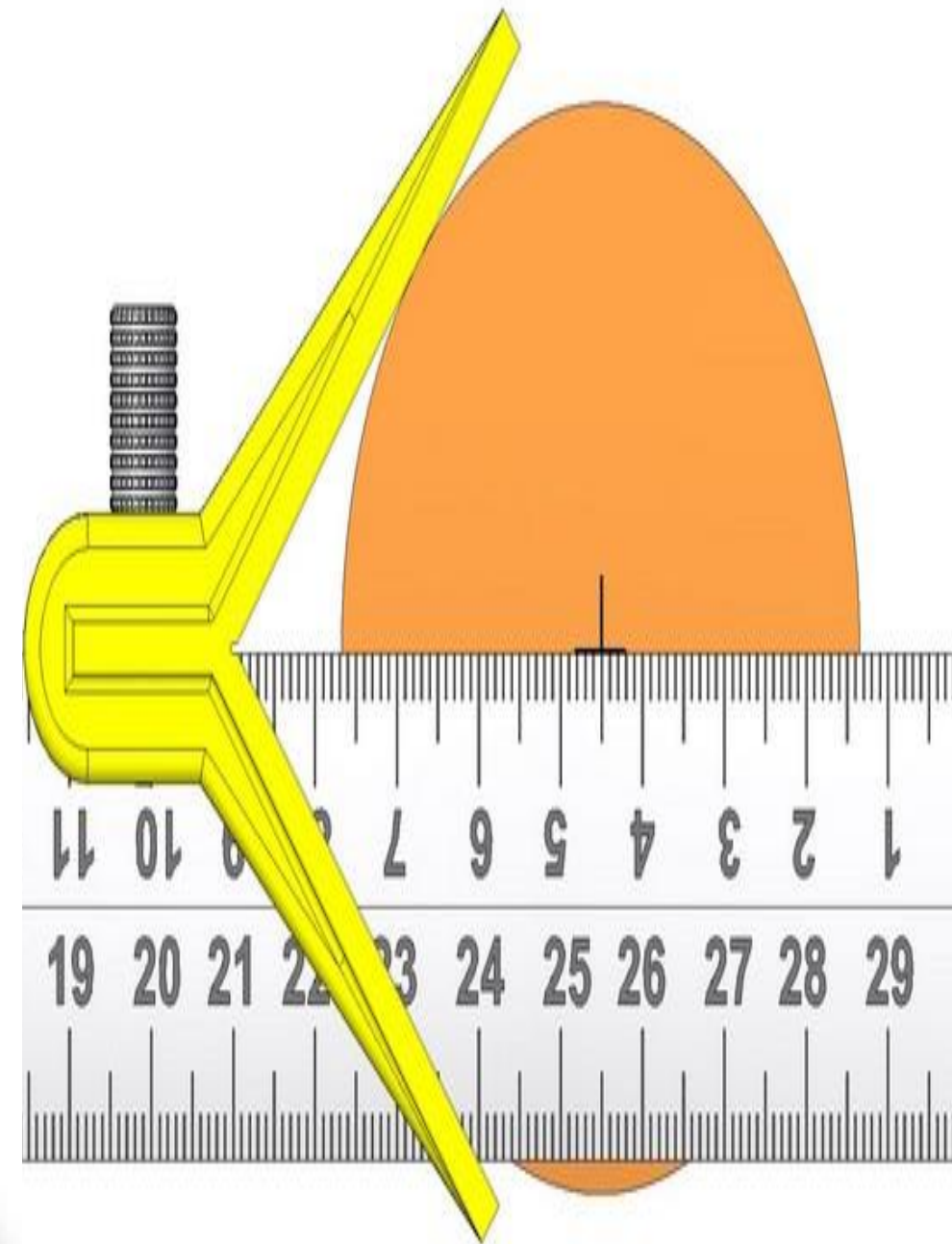
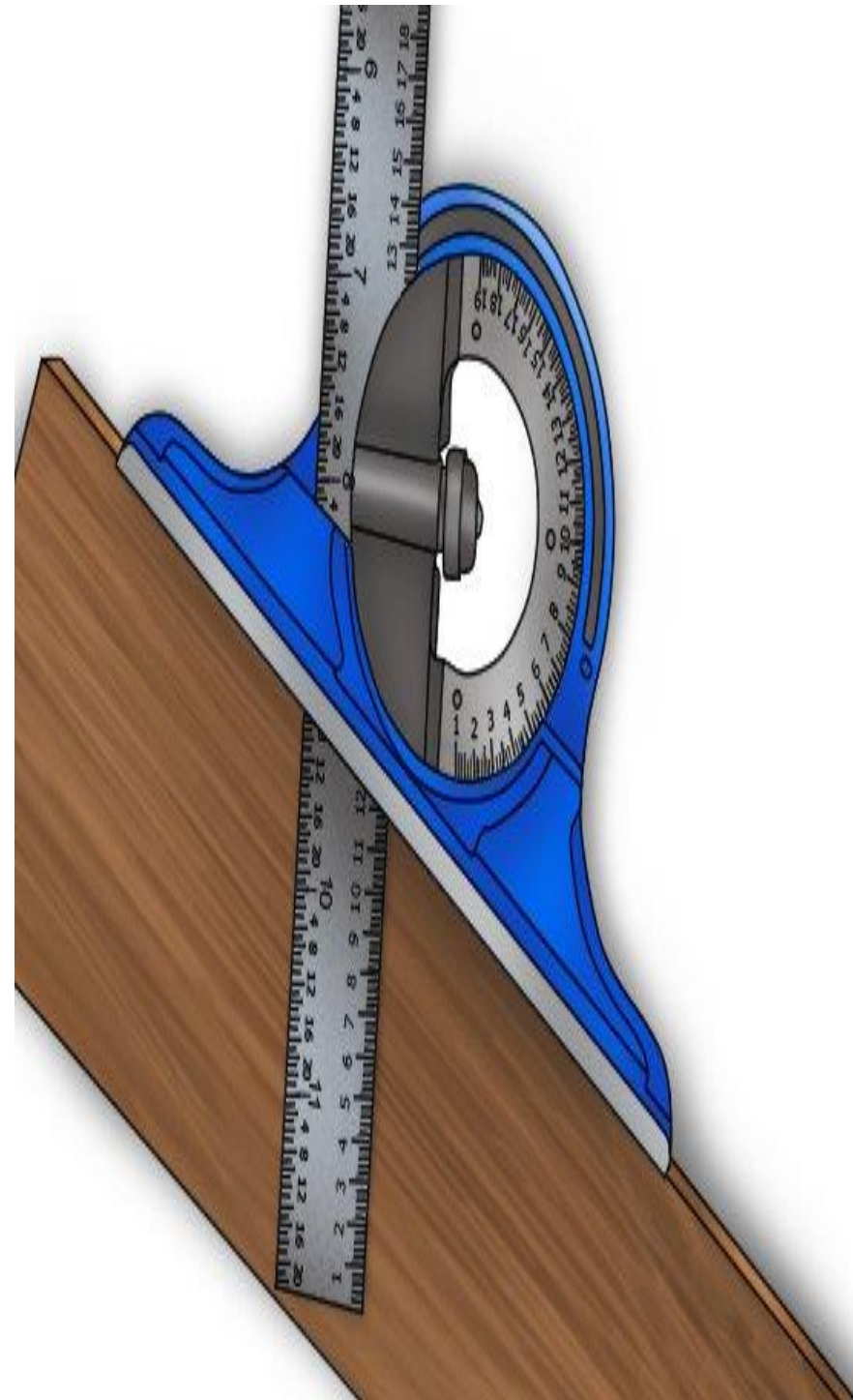
✓ લાંબા સમયના ઉપયોગ પછી તેની ચોક્કસાઈની ખાતરી કર્યા પછી જ ઉપયોગ કરવો.

## 8 COMBINATION SET

માર્કિંગ ચેકિંગ કે મેઝરીંગ માટે ફીટિંગ અને મશીન શોપમાં વારંવાર વપરાતું આ એક ઉપયોગી સાધન છે. તેમાં એકજ સાધનમાં એક સેન્ટર હેડ, એક સ્કવેર હેડ અને એક પ્રોટ્રેક્ટર હેડ આપવામાં આવે છે.



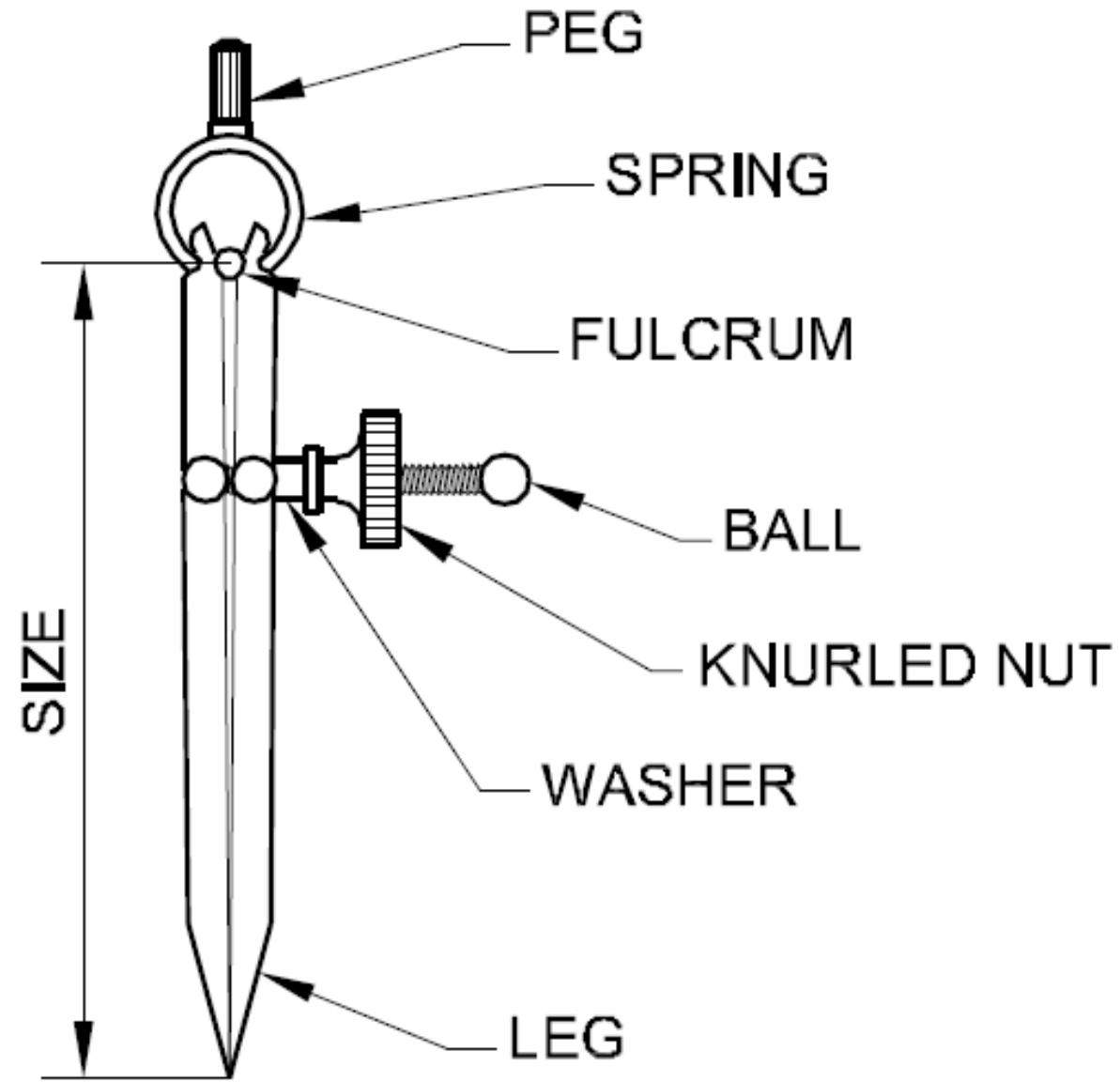
# USE OF COMBINATION SET



# 9 DIVIDER

વર્તુળ કે ચાપનું માર્કિંગ કરવા માટે જે સાધન વપરાય છે તેને ડીવાઈડર કહે છે.

✓ MATERIAL : TOOL STEEL, HIGH CARBON STEEL OR MEDIUM CARBON STEEL



FIRM JOINT DIVIDER

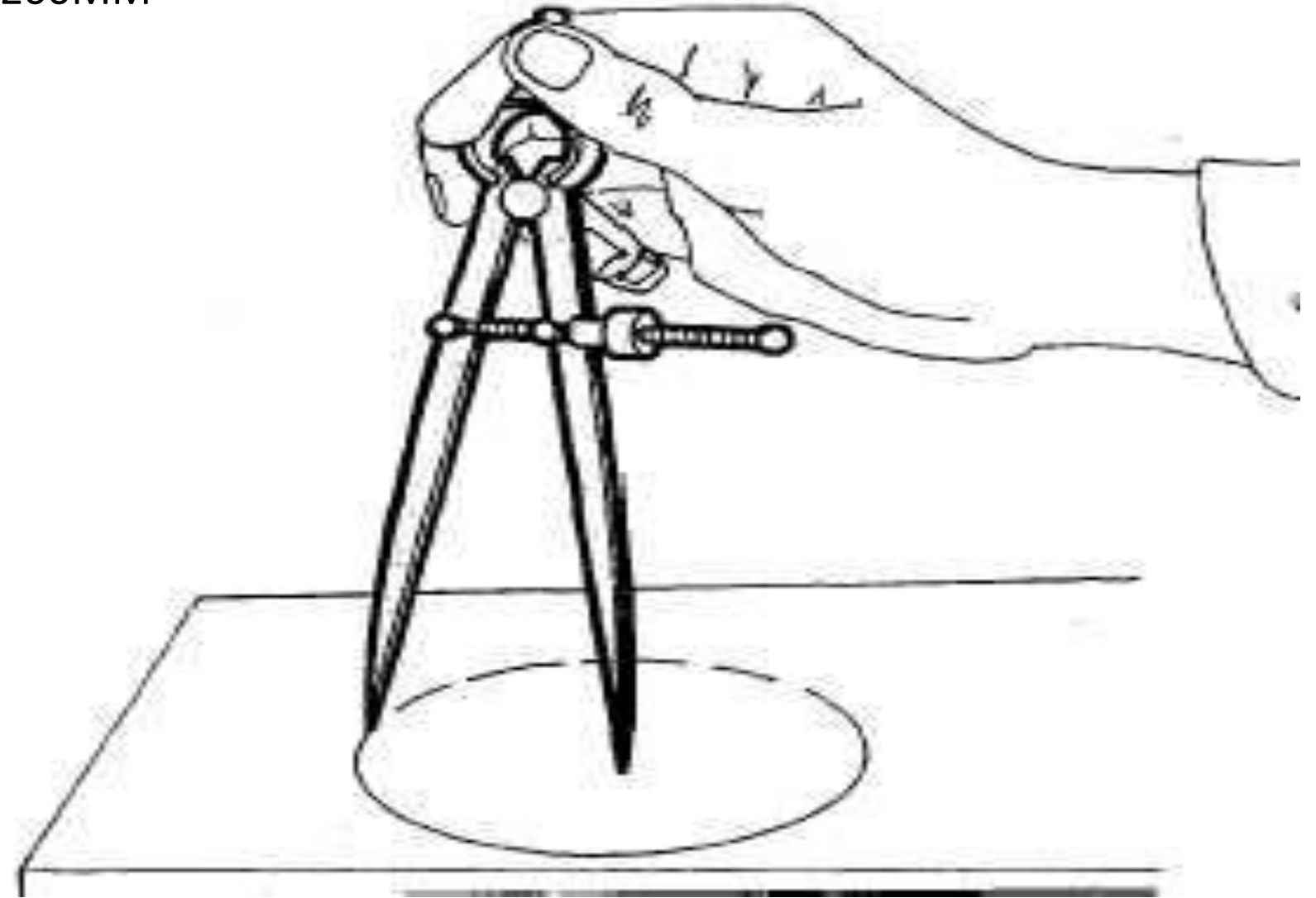
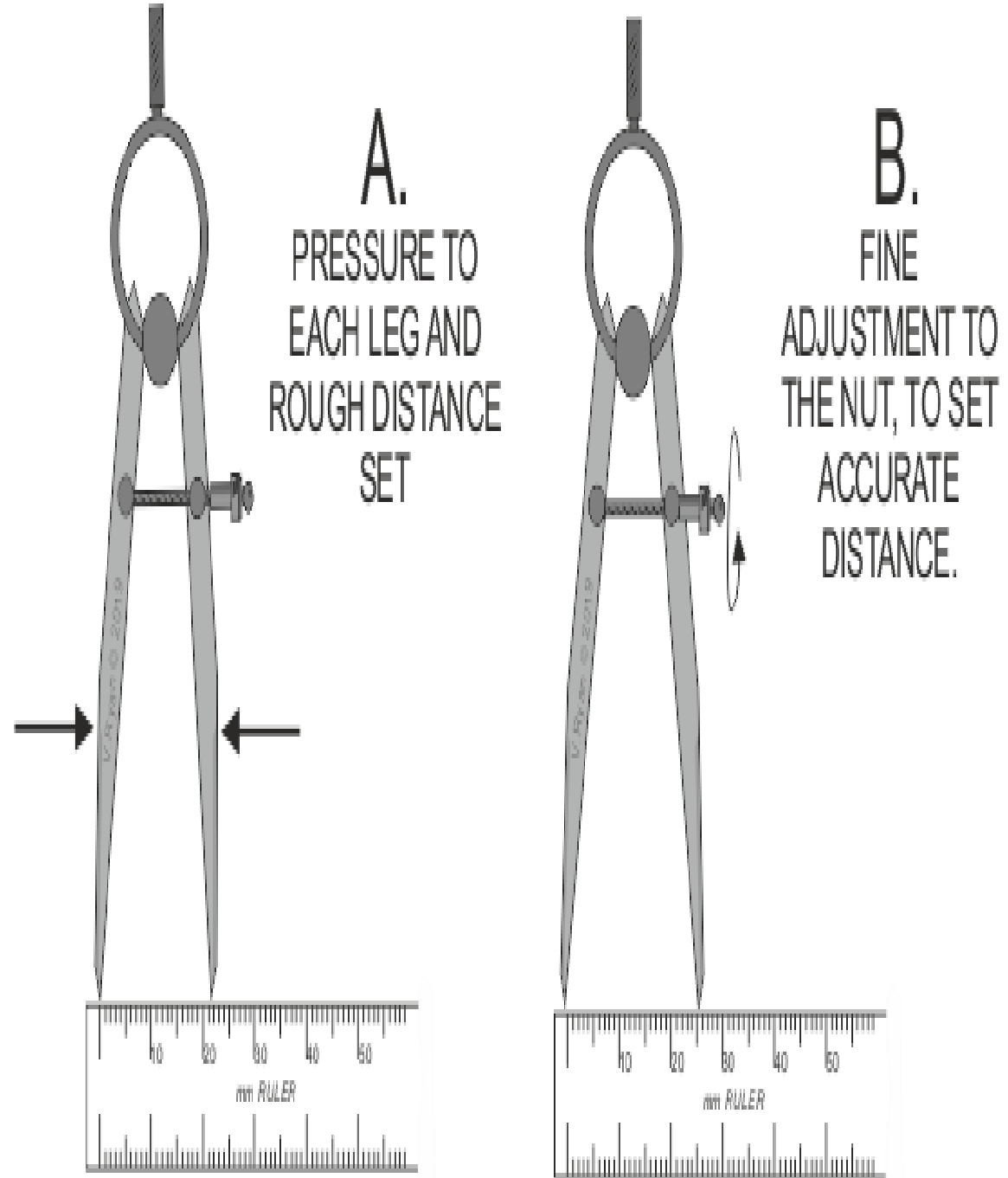


SPRING JOINT DIVIDER



# USE OF DIVIDER

✓ **DIVIDER RANGE :** 50 MM,100MM,150MM TO 200MM



## CARE & MAINTANANCE

✓ સ્કાઇબરના પોઇન્ટને ગ્રાઇન્ડ કરવાના બદલે ઓઇલ સ્ટોન પર ઘસીને જ તિક્ષણ બનાવો.

## 10 TRAMMAL

ડીવાઈડરની રેન્જ કરતા વધુ લંબઈના ચાપનું માર્કિંગ કરવા માટે ટ્રેમલ નો ઉપયોગ થાય છે.



# USE OF TRAMMAL

