

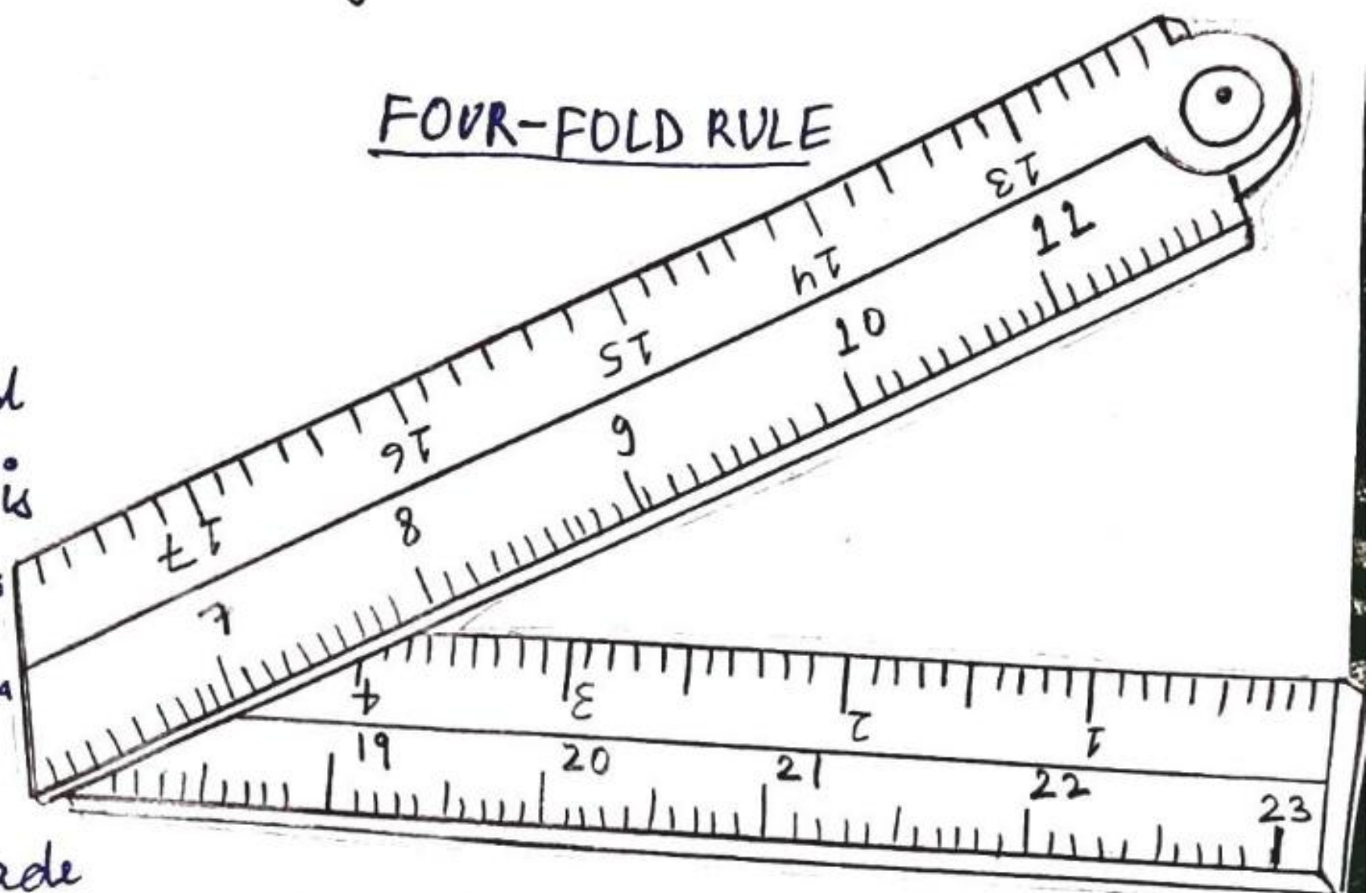
Ques 1

Carpentry shop

Describe various types of measuring and marking tools with diagrams.

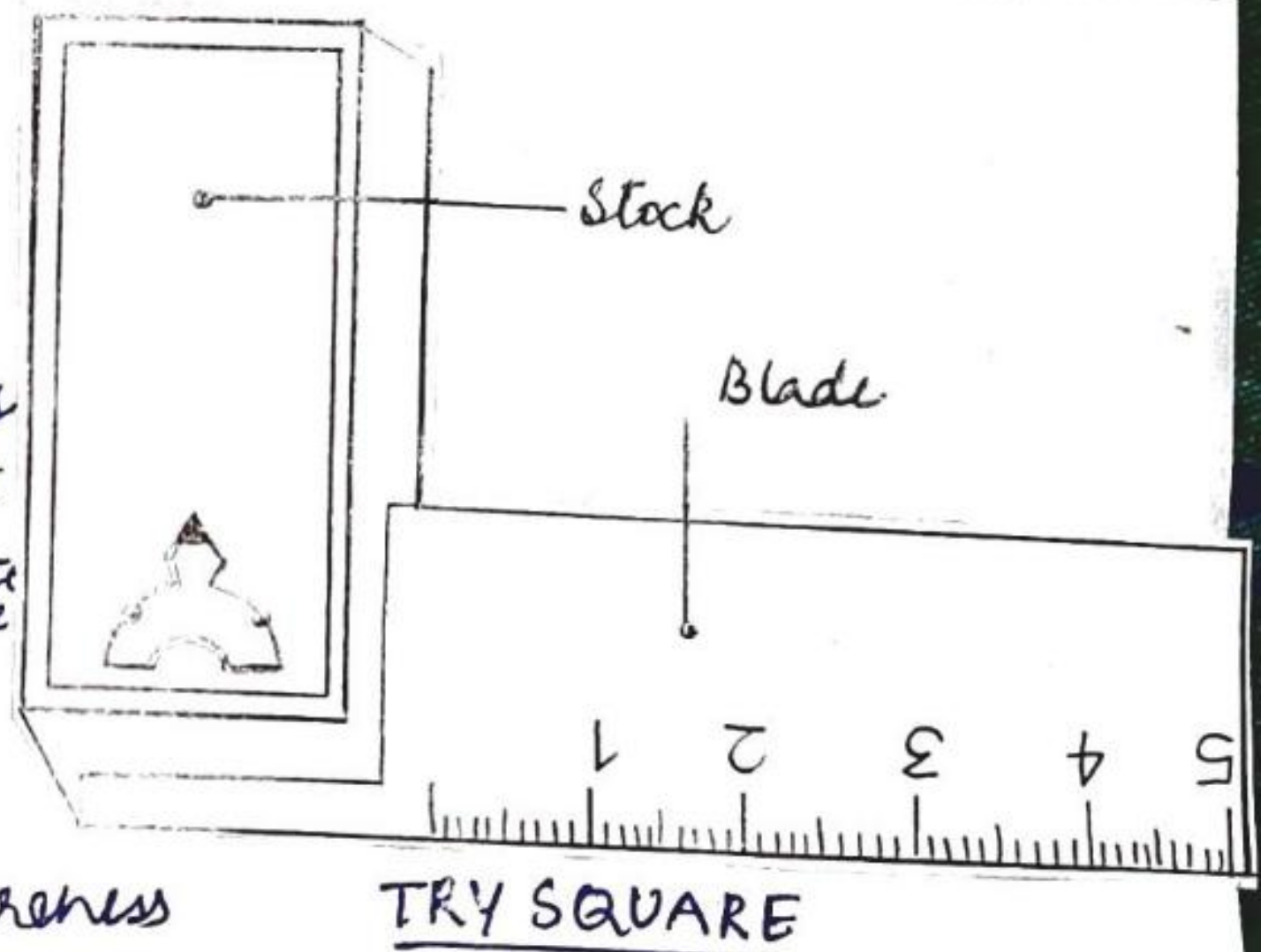
1. Folding Rule

It is a wooden scale consisting of four pieces each 150mm long, joined together by hinges. It is mainly used for measuring and setting out dimensions.



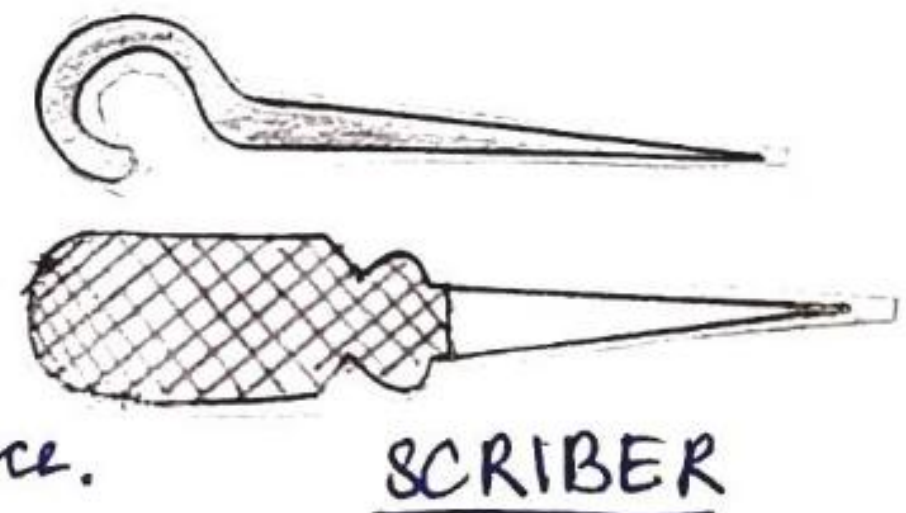
2. Try Square

It consists of a steel blade fitted into a metallic stock at a right angle. It is used for measuring and testing of the planed surfaces and to draw parallel lines at right angle to the plane surface. Also, to draw two mutually perpendicular lines over a plane surface and test squareness of two adjacent surfaces.



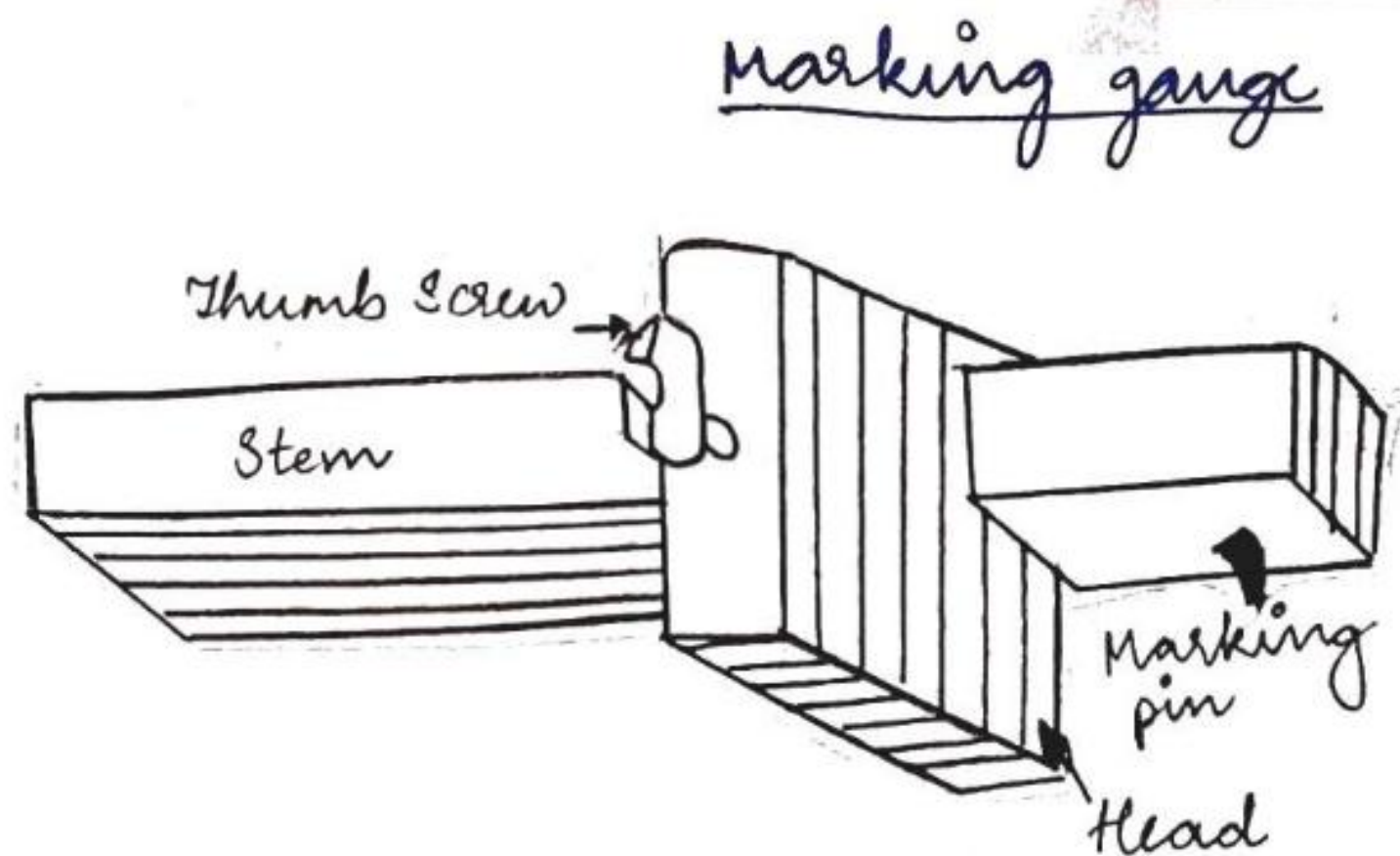
3. Scriber

It is a steel rod having a sharp point at one end. It is mainly used for locating and marking points and scribing lines on wood surface.



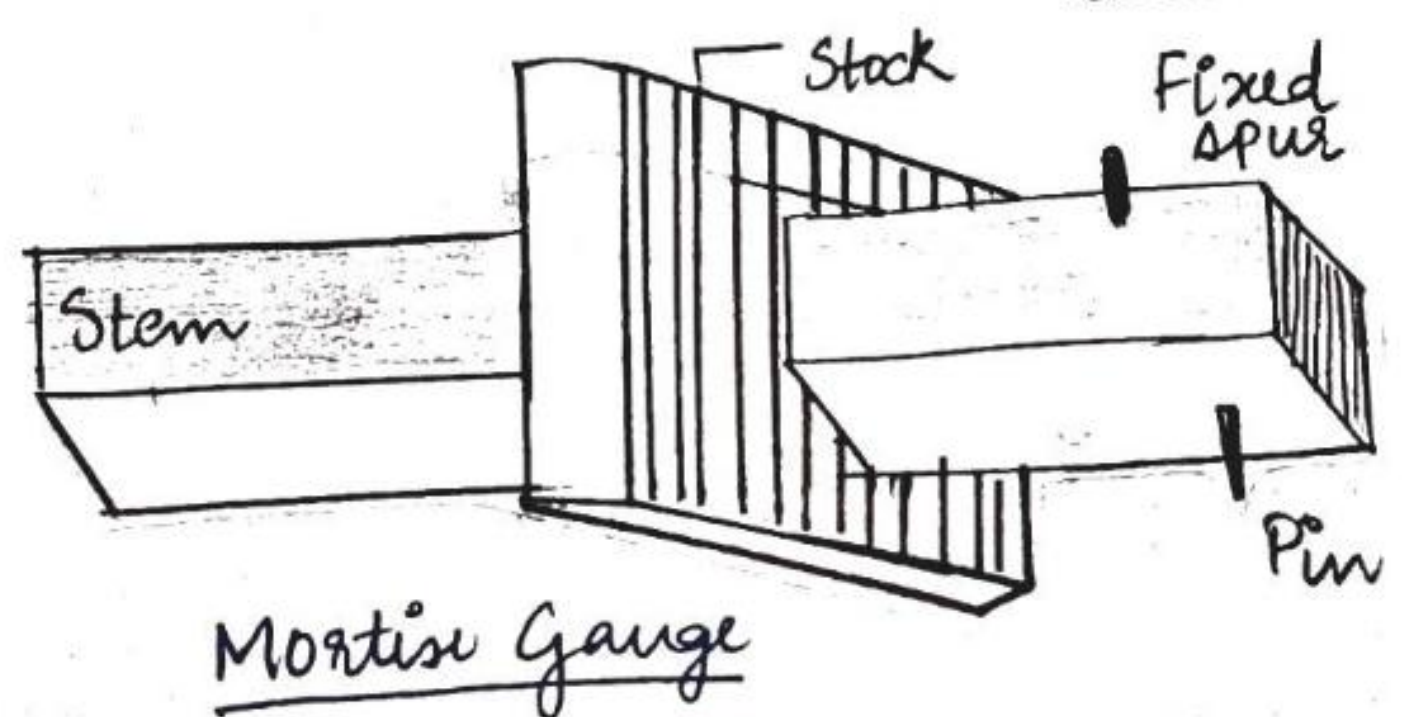
4. (i) Marking Gauge

It consists of a wooden stock of rectangular or square cross-section and a scribing pin. It is used for scribing lines parallel to a finished face or edge.



(ii) Mortise Gauge

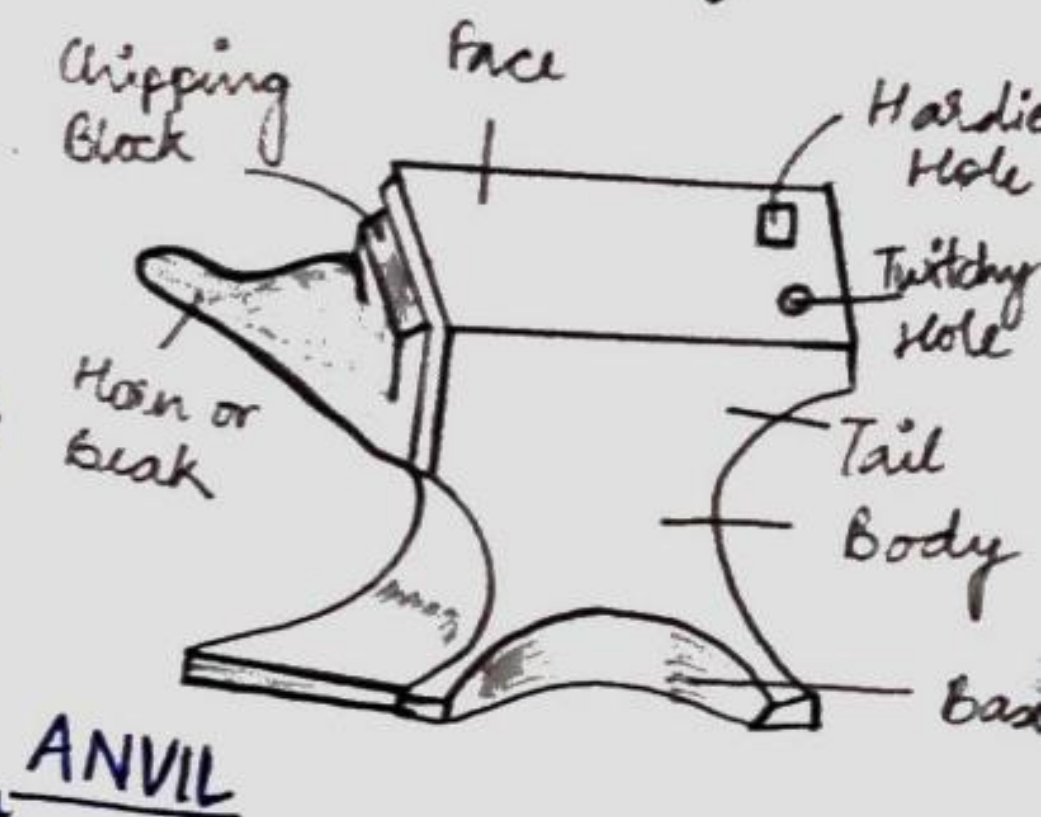
It is used to scribe mortise and tenon joints on wood prior to cutting. One of the pins is adjustable, attached to a sliding face.



Ques 2 Blacksmithy Shop

Explain different types of holding and supporting tools with diagram

1. Anvil - It provides necessary support during forging by resisting blows rendered to the job. It is also useful for operations such as bending, swaging, etc. Its body is generally made of cast steel, wrought iron or mild steel with a hardened top layer of about 20-25 thickness.

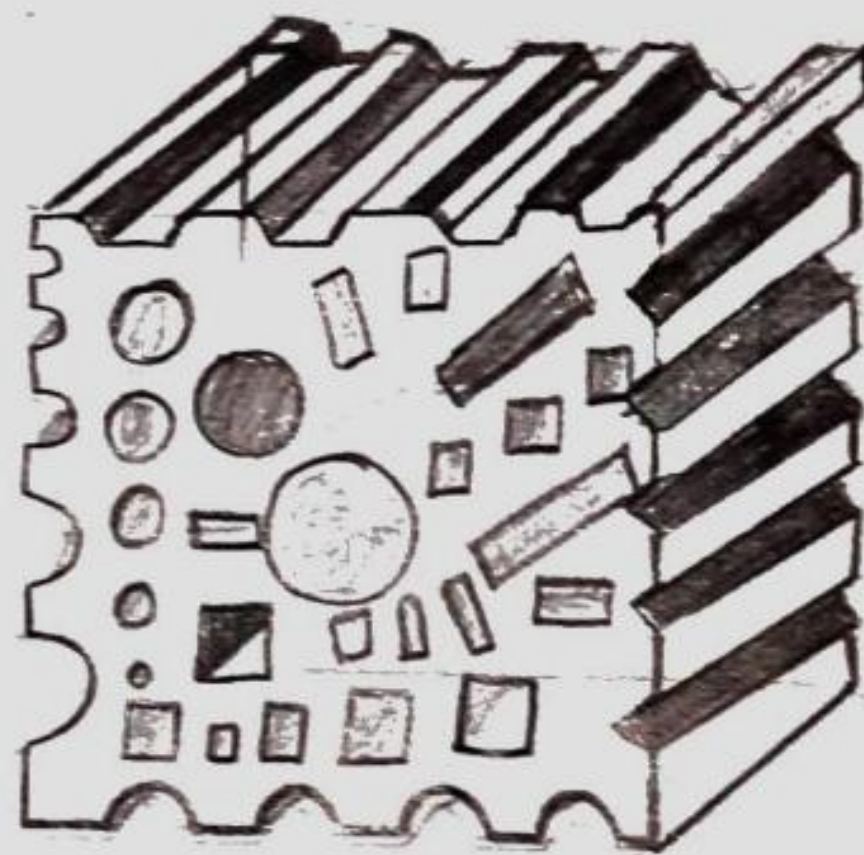


ANVIL

Beak is used for bending metal to round slopes. The hardie hole, which is square is used for holding square shank tools like hardies, swaggers and fullers. The punching hole is used for bending small rods and punching holes in the work. Anvils are made in sizes weighing from 25 to 250 Kg. An anvil weighing about 75 Kg is suitable for general purpose.

2. Sewage Block

The Sewage block is generally made of cast iron and has round, square, rectangular and half-round grooves. In addition to this, it is provided with holes which are useful for holding bars while bending and knocking up heads. The swage block is usually supported at a suitable height on a stand which is adaptable to hold it flat wise or on its edge.



Sewage Block

3. Tongs

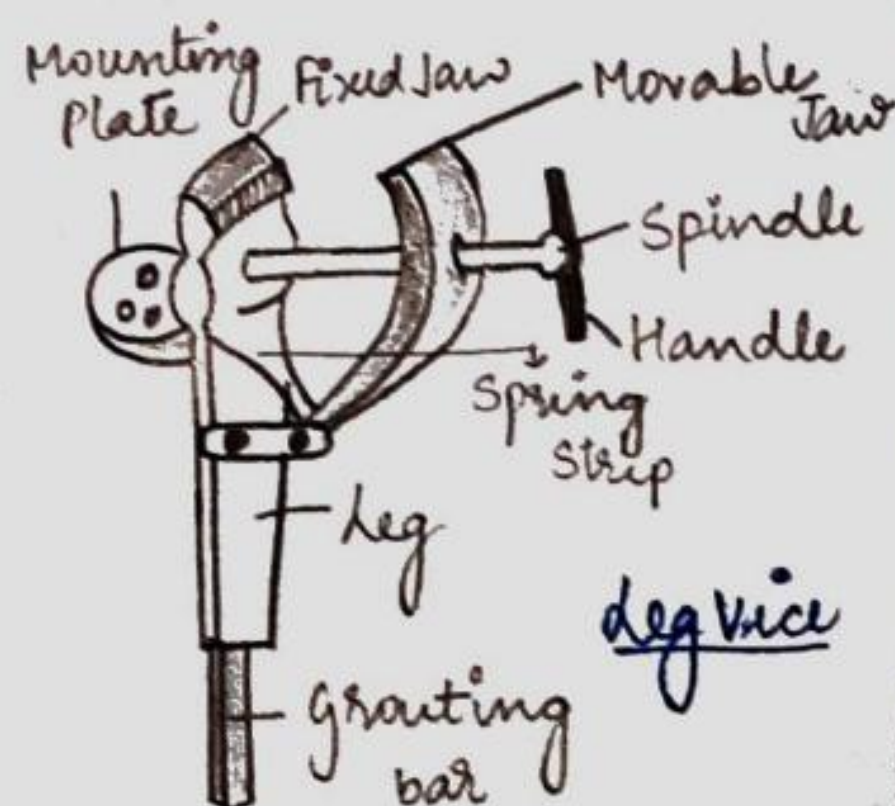
Tongs are generally holding tools, made of mild steel, normally used for gripping hot metals. Tongs come in a great variety of shapes and sizes. Most commonly used are the close mouth tong, open mouth tong and pick up tong.



Open-mouth tong

4. Leg Vice

It is used to hold the hot job for further operations like hammering and bending etc. This is generally made up of mild steel. It is specified by length of its jaw.



leg vice