

SCHOOL OF VISUAL PHILOSOPHY

TERMS OF THE BLACKSMITH



INSTRUCTED
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FORGING TECHNIQUES



Forging- Moving metal by impact while hot. Usually with hammer and anvil.

Cold forging- Moving metal by impact while cold

Draw- Forging metal to decrease one dimension and increase another

Upset- Forging metal to increase in one dimension while decreasing in another

Taper- To draw out material with a diminishing volume

Scroll- To bend metal

Fuller- To create a groove

Butcher- Used to clean up the corners of shoulders

Monkey tool- Used to clean up the base of tenons

Bolster plate- Used to support stock material while drifting

Drift- To increase the diameter of a slit or punch

Punch- To create a hole

Slit- To create a cut through material without exceeding any of the edges

Cut- A cut or slit that breaks through one or more edges

Bend- To alter by curving, arching or creating an L

Slag- Fire Scale

Offset- A hammer strike wherein the hammer face is half off the anvil creating a shoulder in the stock material.

Plug- Excess material caused from punching

Cold Shut- A defect in forging that result in a crack caused by improper forging technique and heat

Rivet- A doubled headed fastener

HAMMER VOCABULARY

Cross Peen Hammer

A cross peen (or pein) hammer has a flat face on one side of the head and a "blade" that is perpendicular to the handle on the opposite side. The peen can be sharp, round, flat, smooth or textured.

Ball Peen Hammer

The Ball Peen Hammer has a flat face on one side and a hemispherical round ball on the other side.

Rounding Hammer

A Rounding Hammer is not as spherical as a Ball Peen Hammer, but the face has a slight curve to it.

Sledge Hammer

A Sledge Hammer has a very large, flat head on a long wood handle. The heaviness of the head and the length of the handle make it ideal for gathering great momentum and applying an enormous amount of force.

Hammer Head

The head of the hammer is the top part that is usually metal, and applies the force, or impact on objects it comes in contact with.

Handle

The handle of the hammer is usually wood and is how the user grips the hammer.

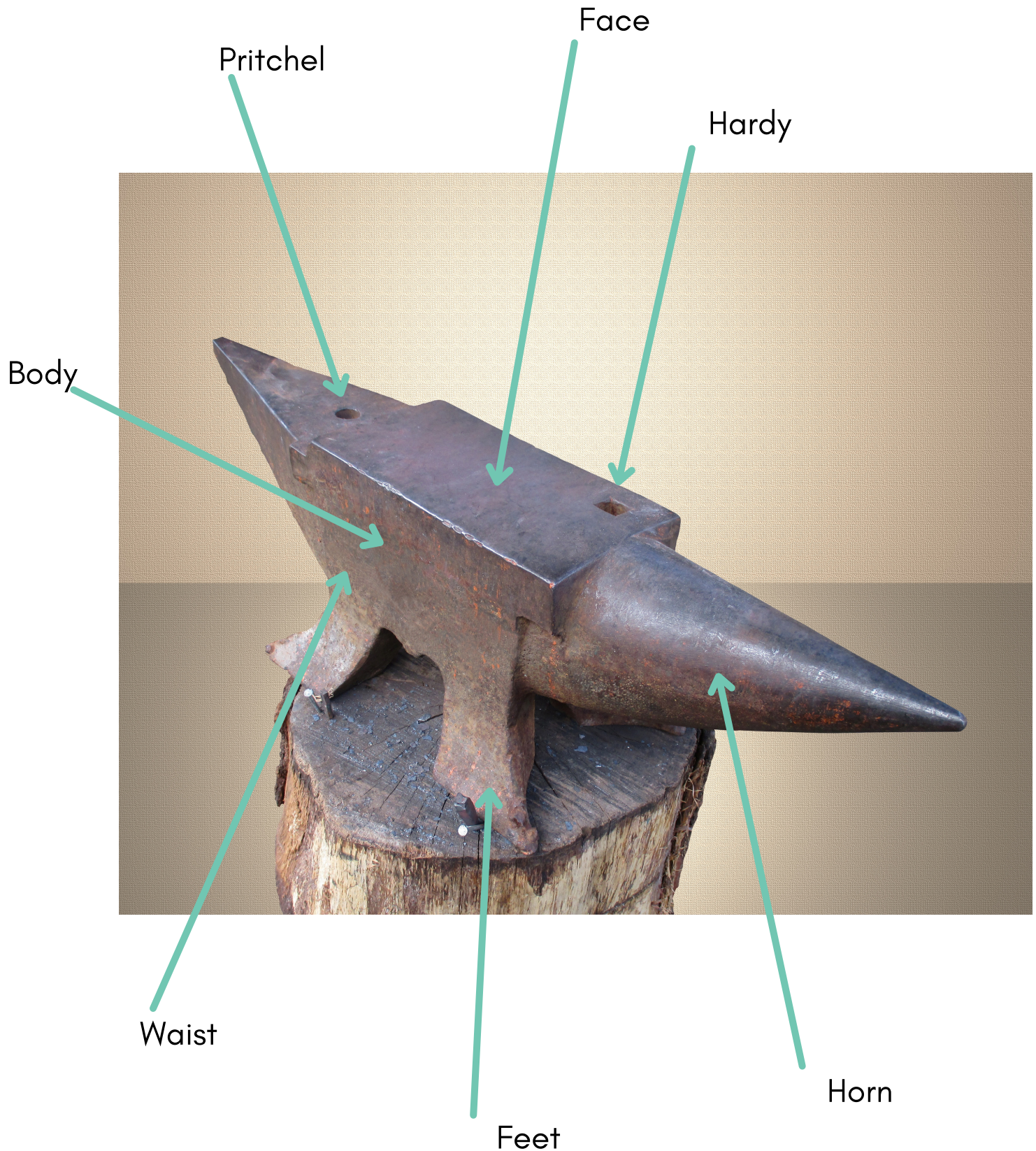
Shoulders

The shoulders of the hammer are the place where the neck starts to taper out along the length. This is the edge of where you will want to grip when forging.

Neck

The neck of the hammer is the dent or divot in the handle where it is appropriate to place your hand while hammering.

Parts of an Anvil



Blacksmith Tools



Tongs- A tool with two movable parts used for handling hot material

Fuller- A tool with a convex shape used for creating curved grooves

Butcher- A tool used to clean the inside corners on shoulders

Bolster Plate- A tool used to support stock material while drifting

Punch- A tool used to create holes in material

Drift- A tool used to enlarge punches or slits

Hardy- A tool used to cut material

Mandrel- A conical or cylindrical rod used to forge hot or cold material

Leg Vice- A tool used primarily by blacksmiths because the supporting leg goes to the ground and can take considerable force without being damaged.

Swedge- A concave shaped tool for imprints and forming and stamping metal

Tongs



V Bit- Used to handle square stock

Pickup- For Large material

Box Jaw- For flat stock

Fire Tongs- Also known as Farrier tongs, Used for shoeing horses

Open mouth- For flat stock, the jaws do not touch

Close mouth- For flat stock ,the jaws touch when closed

Round- For round stock

Flat- For flat stock

Scrolling- Used for bending.

Offset- The jaws are offset to work with longer stock

Hammer- Used to handle hammer blanks

