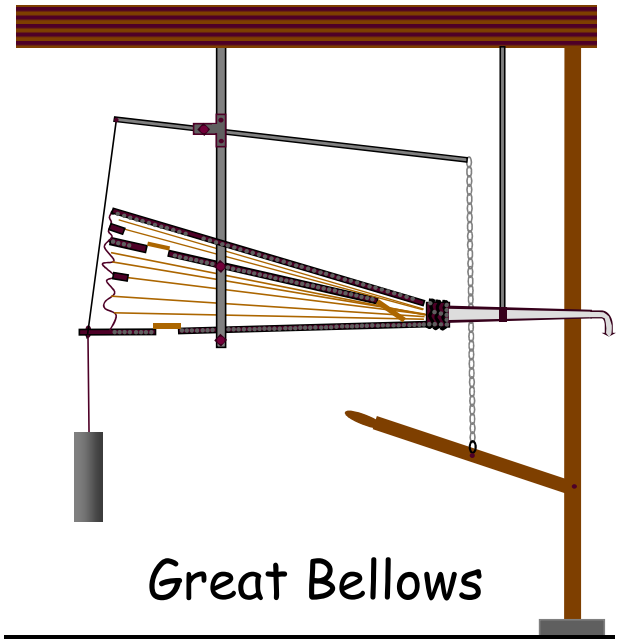
School Project Sheet

Combe Mill Forge
Blacksmithing tools

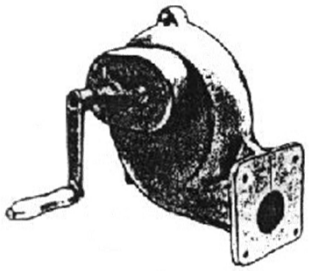
Issued ~ 22 September 2013

Educational visits to Combe Mill are organised jointly by the Combe Mill Society and the Blenheim Palace Education Department.
Contact details can be found at the end of this document.

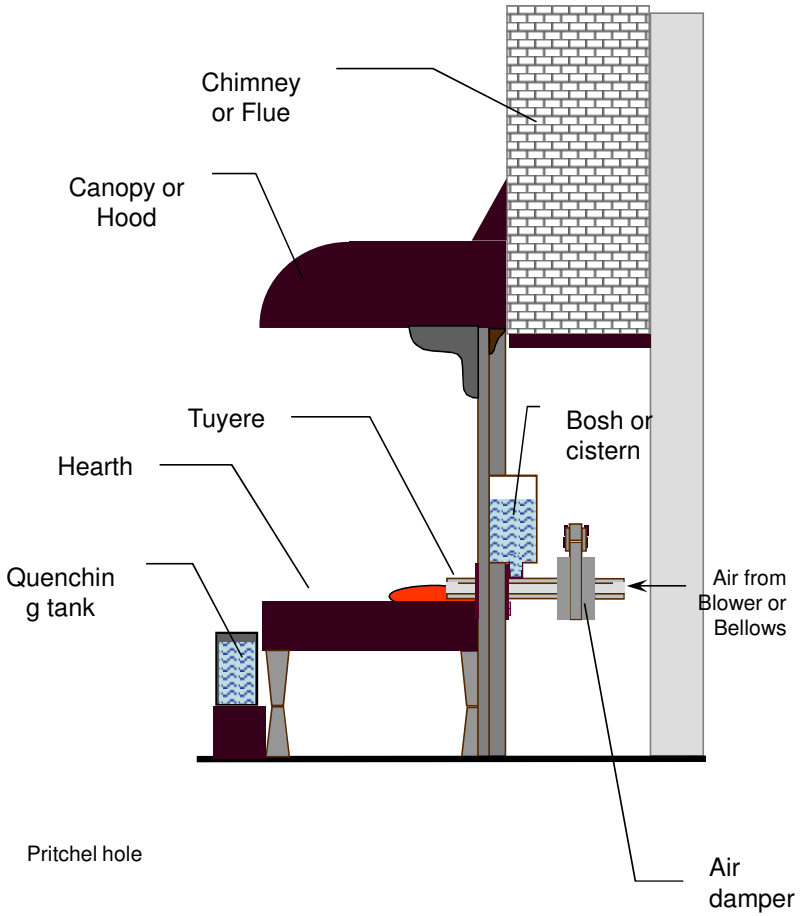
Great Bellows



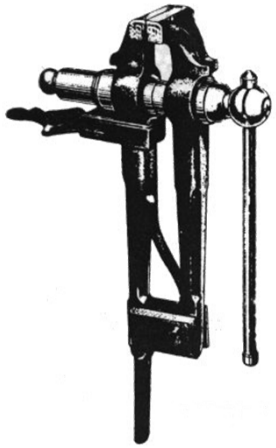
Hand Blower



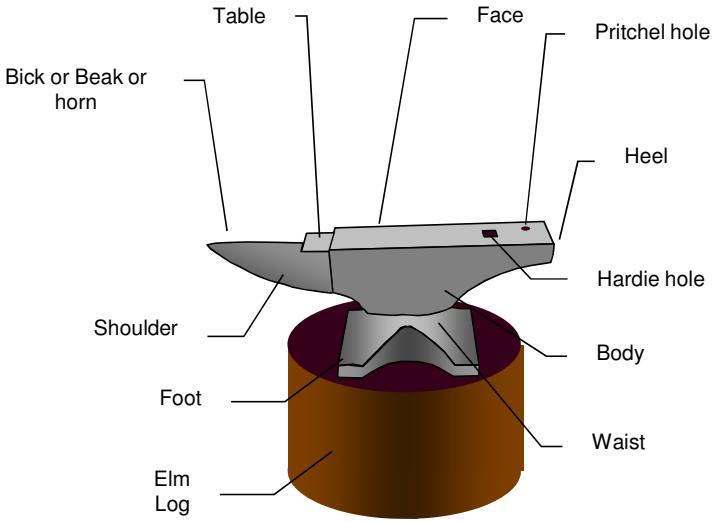
Forge and hearth



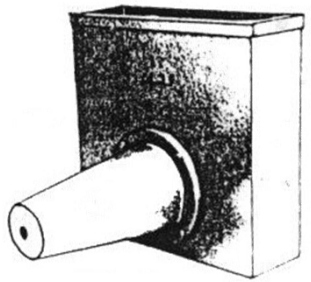
Leg Vice



Anvil

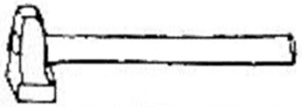


Tuyere & Bosh

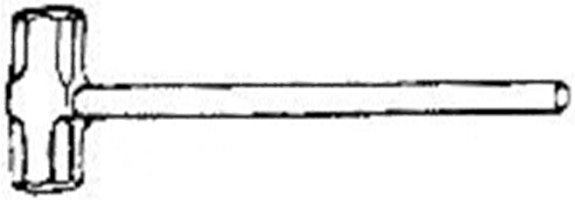


Drifts

Sett Hammer

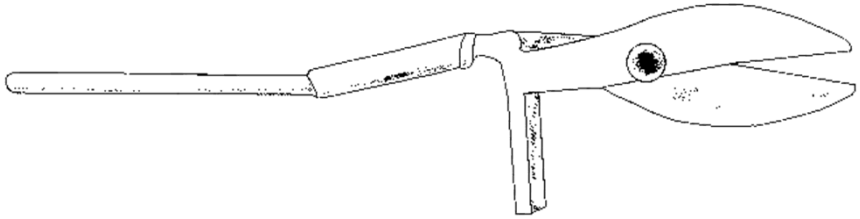


Sledge Hammer

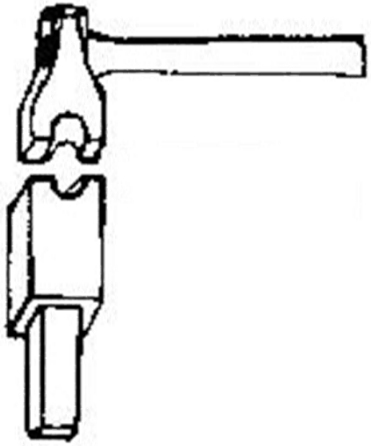


Ball Peined Hammer

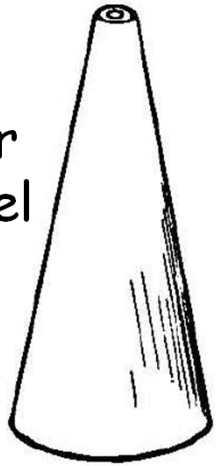
Hand Shear



Top & Bottom Swage



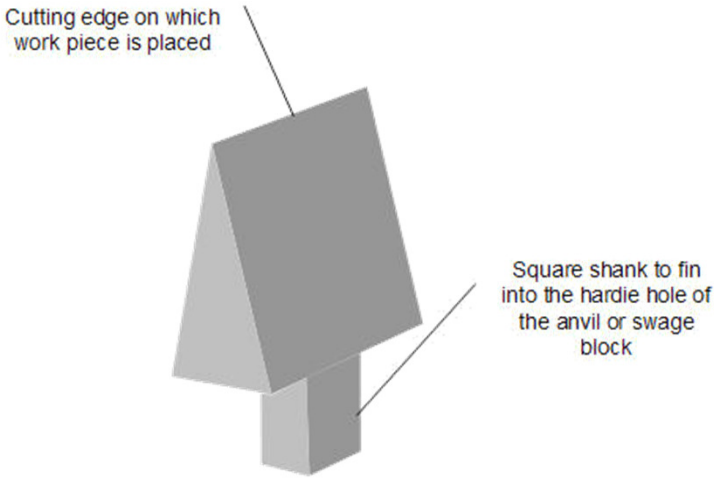
Floor Mandrel



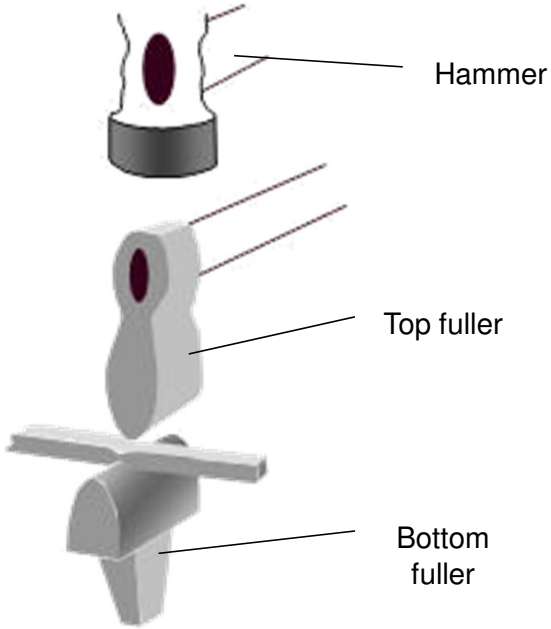
Swage Block

Bending wrench and fork

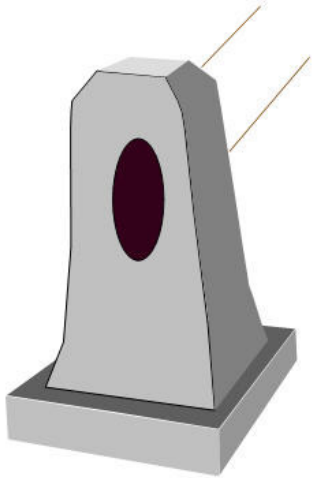
Hardie



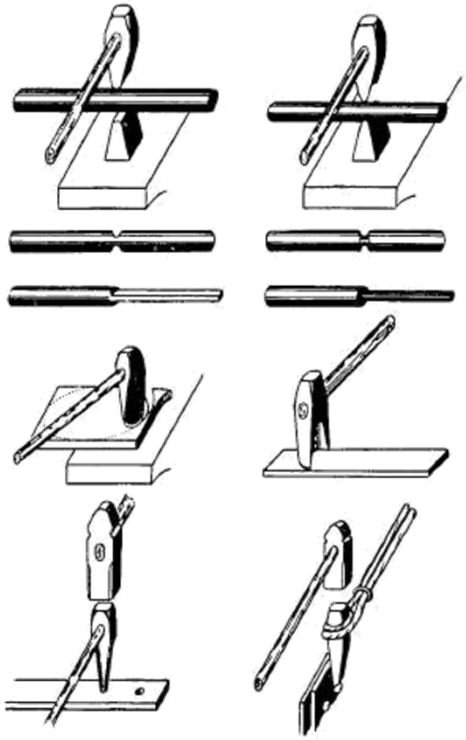
Top and Bottom Fullers



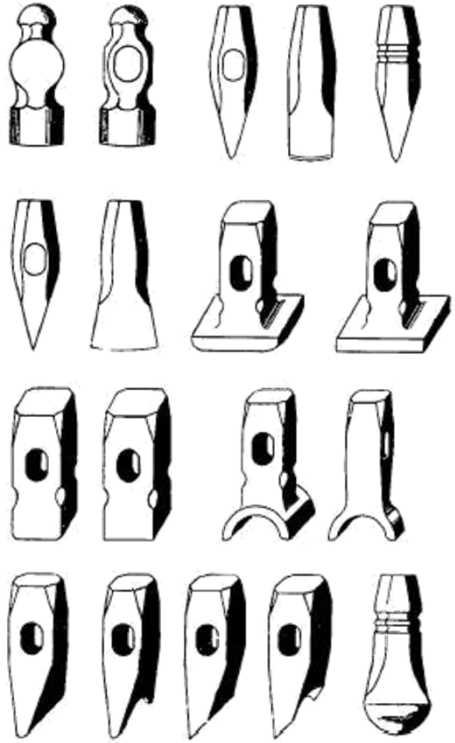
Flatter or Sett Hammer



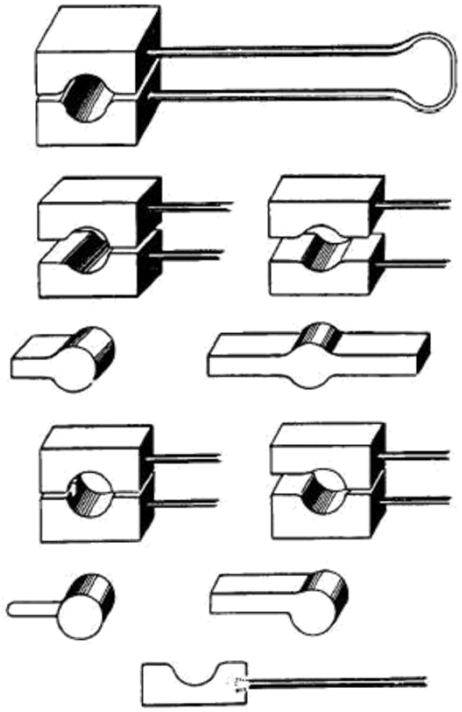
Fullers



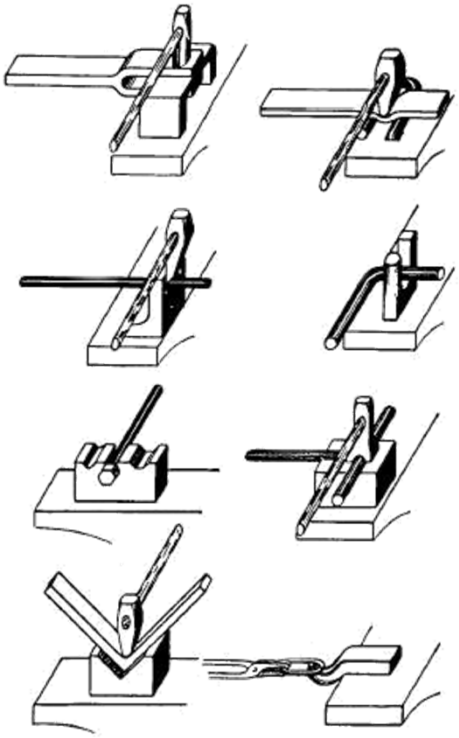
Hammer Heads



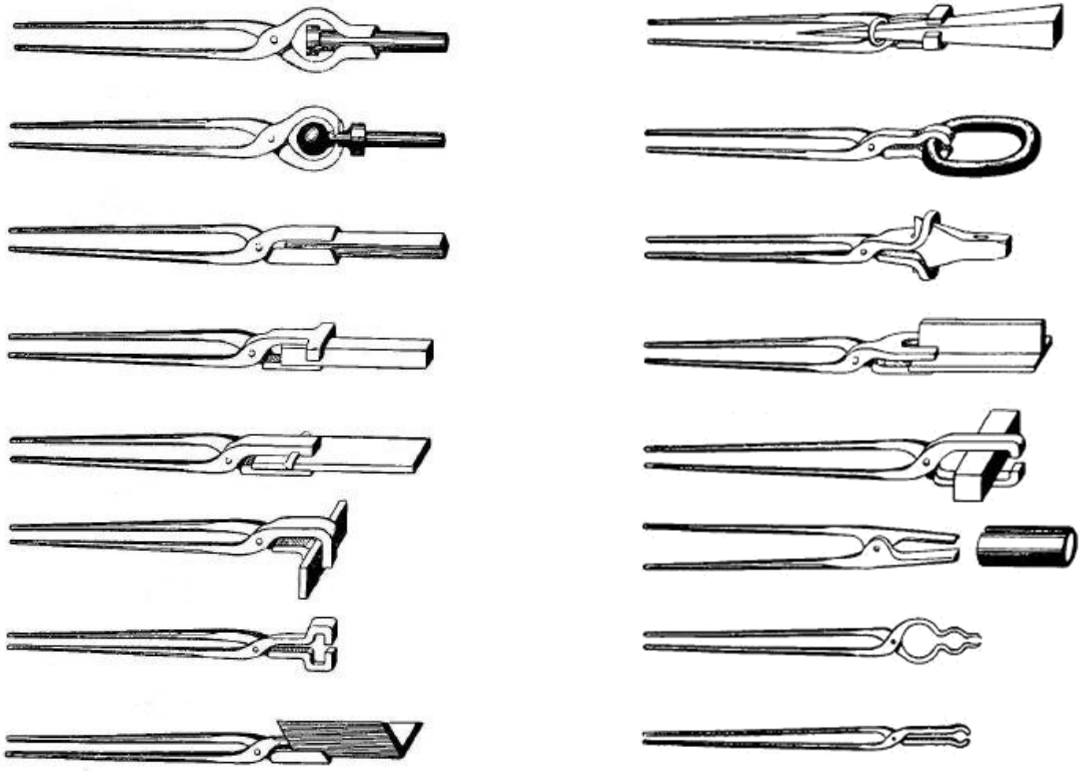
Sprung Swages

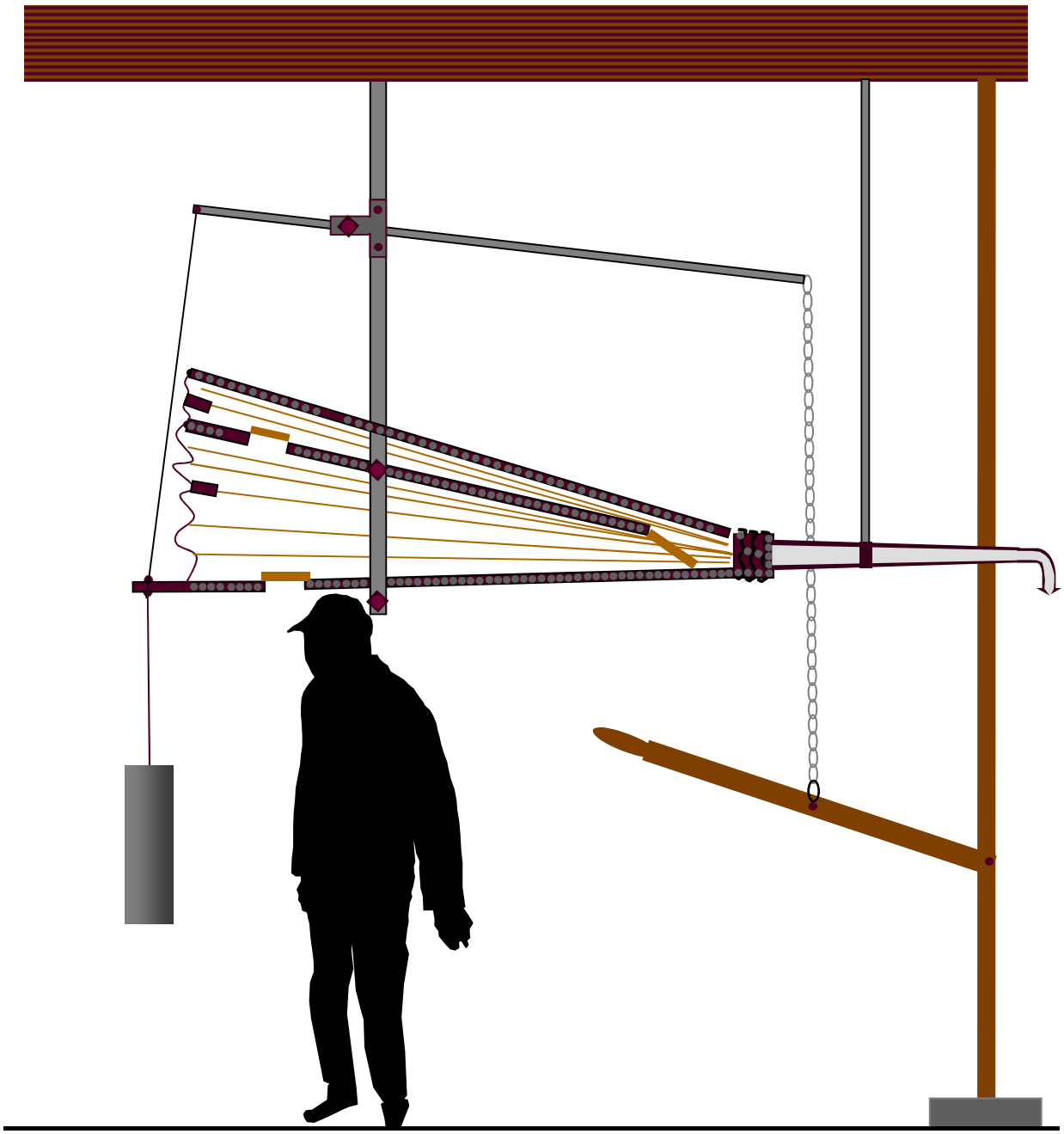


Fullers



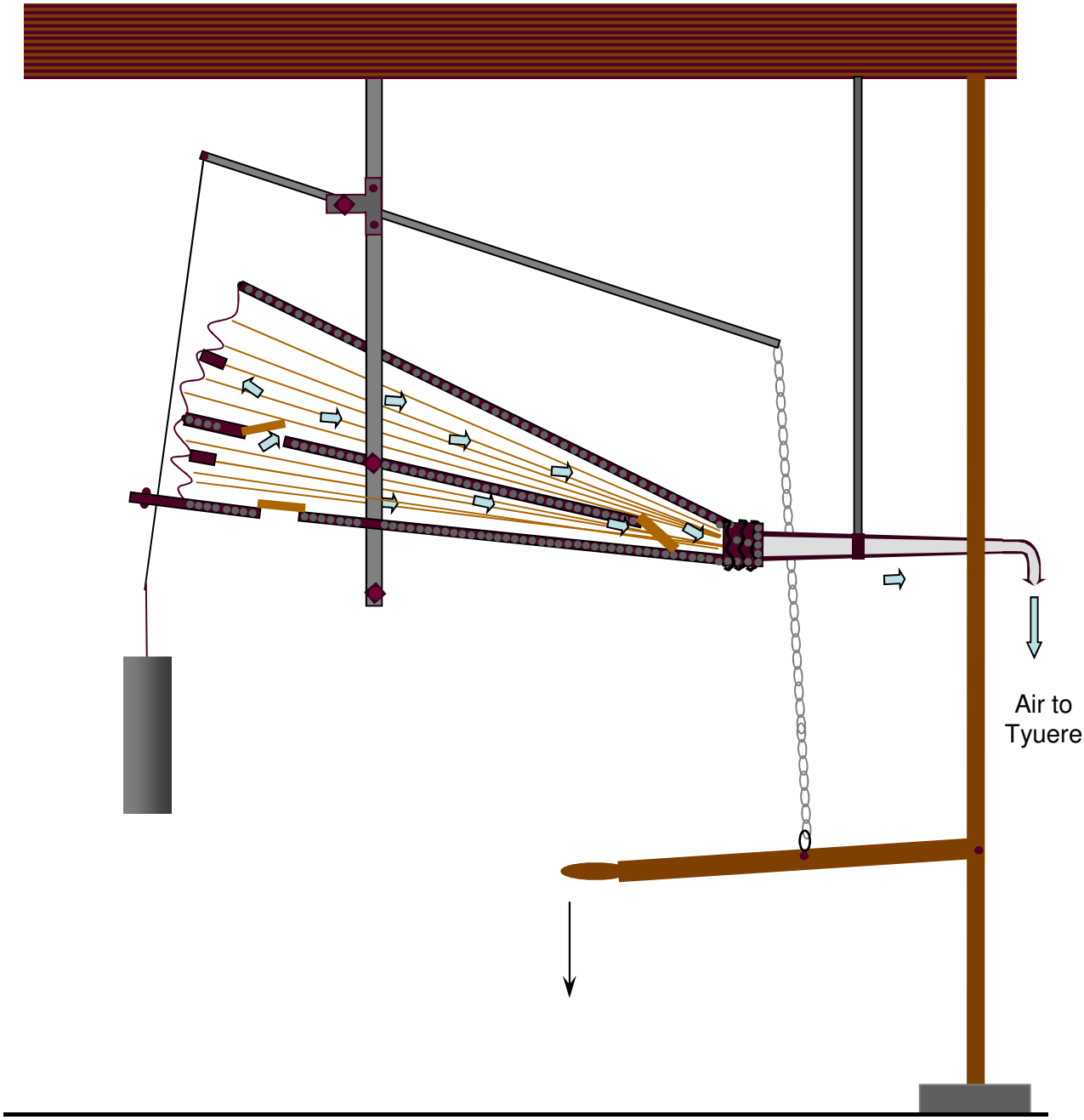
Tongs for various duties



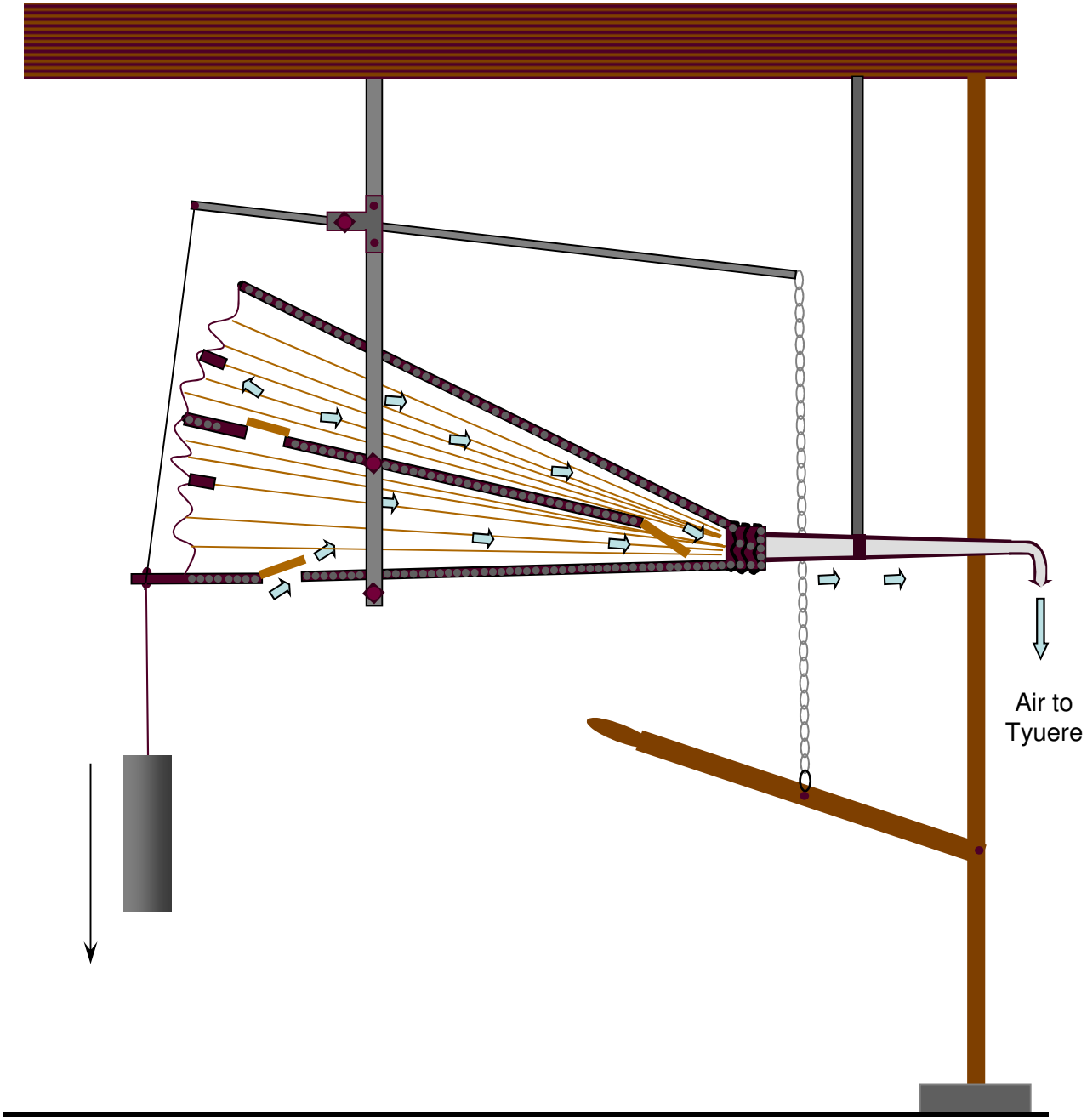


Rest position – top chamber collapsed – lower chamber fully expanded

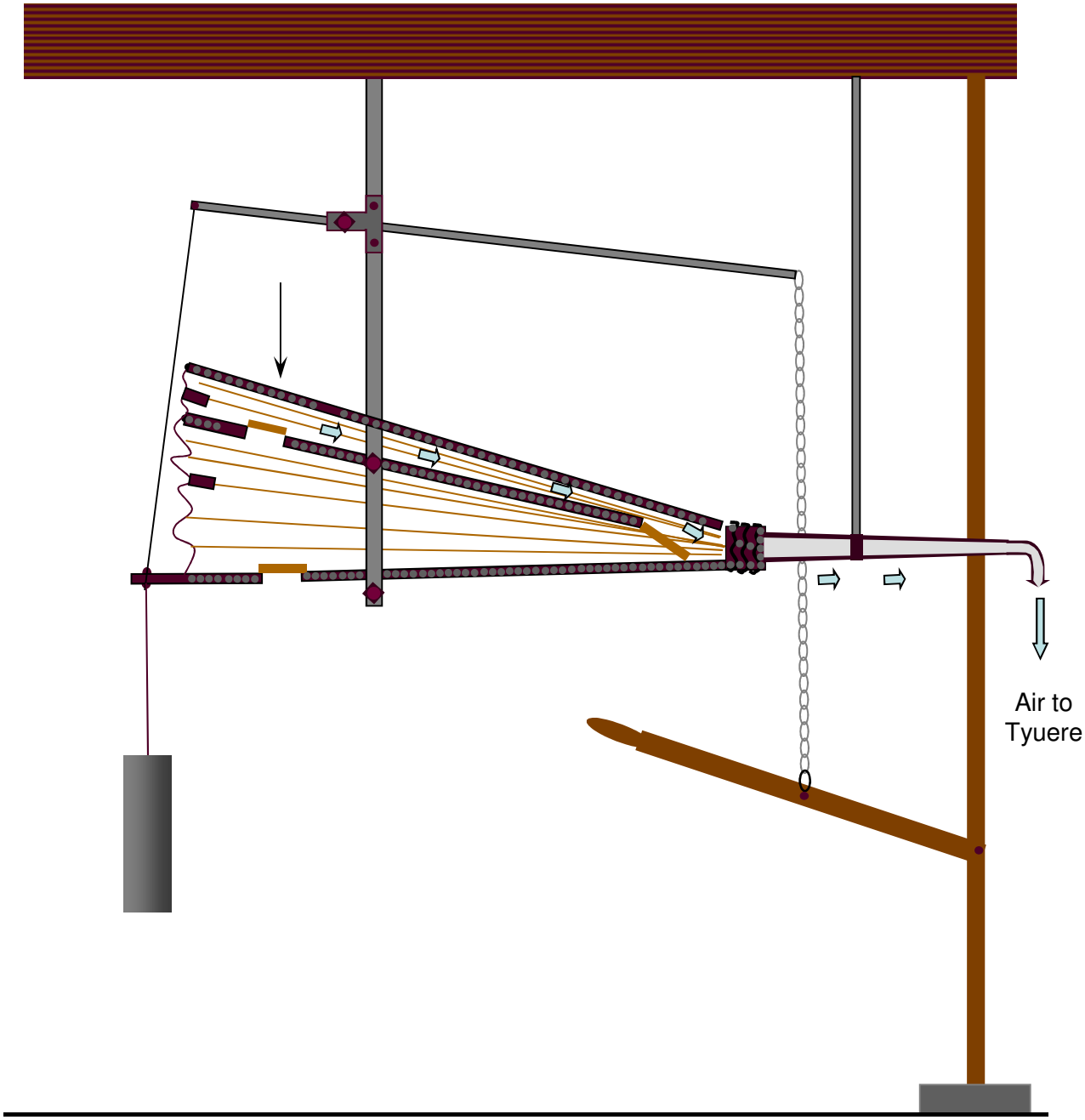
How the Forge Bellows Works



First step – Lever pulled down: top chamber expands – lower chamber contracts. Air exhausted from lower chamber and top chamber filled with air.



Second step – Lever released: top chamber starts to collapse under its own weight. Air is exhausted from top chamber and the lower chamber extends, drawing in air, as it is pulled open by the hanging weight.



Third step: – top chamber collapses under own weight.
Air continues to be exhausted from top chamber as it collapses.