Smithy and Forging Aa Chapter 5 Introduction Forging may be defined as the plastic flow of metal by the application of compressive forces in which a metal is altered in shape permanently without rupture.(i) It increases the strength of the metal by producing directional grains. The application of heat increases the plasticity of metals thus making it possible to conduct the operations necessary for the fabrication of various shapes of products. Historical data available show that the art of forging was in use for shaping implements of war such as swords, knives, protective armour, helmets, etc.