

## 5.0 Equipment

A high pressure tank A is fitted with a flange at its top. Into the side of the tank is fitted a pressure gauge B. Onto the tank flange is fitted a cover plate C and a steam-tight joint is made between the cover plate and flange by means of a gasket. The cover plate has a thermometer pocket D fitted into it together with a relief valve E. The relief valve is loaded by means of a loading arm F on which slides a jockey weight G. The cover plate is also fitted with a screw filled cap H and the whole apparatus is mounted on a stand I and is placed over a heater K. A thermometer L is placed in the thermometer pocket.

## 5.0 PROCEDURE

A quantity of water is poured into the tank by first removing the filler cap and then latter replacing it and screwed down tightly. The electric heater is turned on thus the pressure at which steam is to be generated is controlled by the position of the jockey weight on the relief valve loading arm so that the higher the pressure required the further along the loading arm the jockey weight is placed.

When the required steam pressure is reached, then the relief valve will blow off so the steam generated be wet steam and hence the temperature of the steam will be saturation temperature. This temperature would be read in the thermometer and also the pressure is read on the pressure gauge. A series of steam pressures and saturation temperatures are recorded and is then added to each gauge pressure in order to obtain a series of absolute pressures.