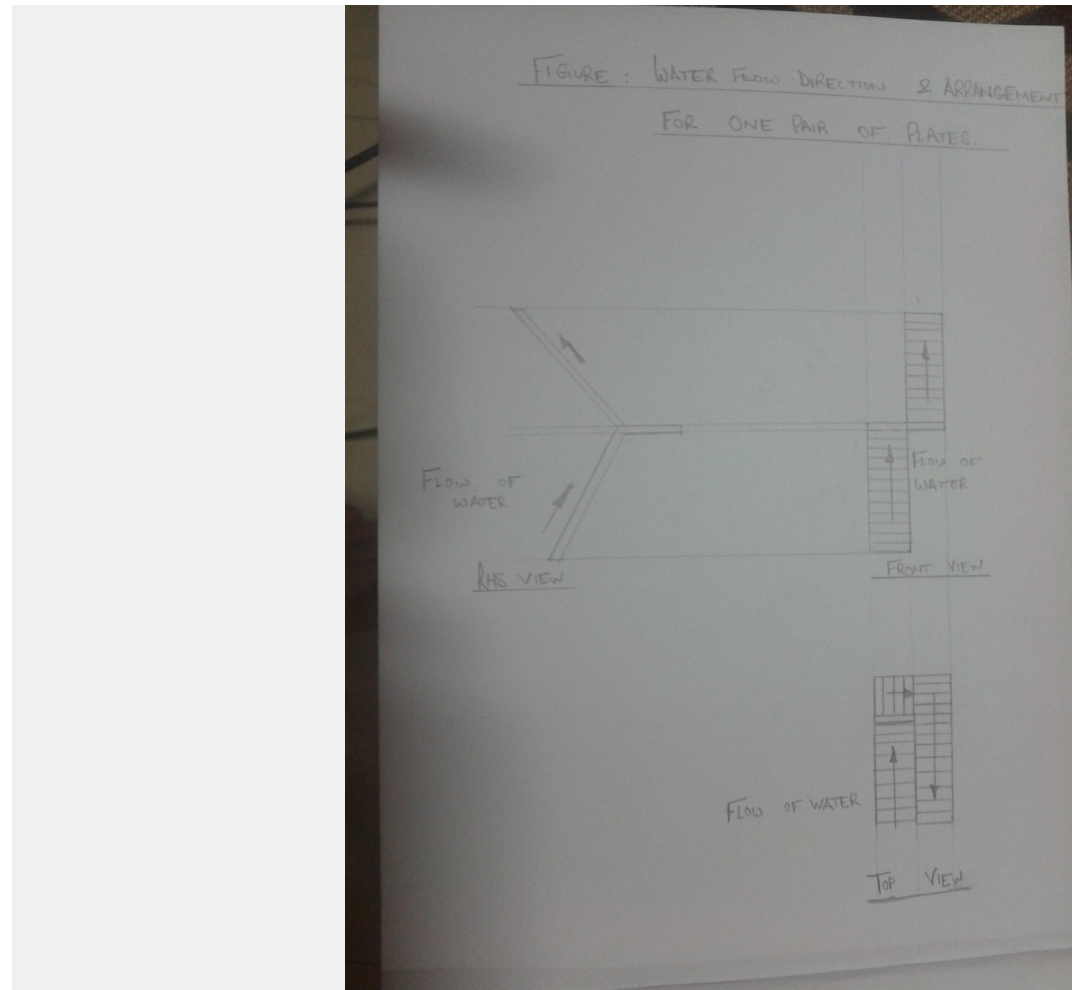


1/2 **Leidenfrost Pump**

Works efficiently by using Leidenfrost effect as there is no loss of energy in conversion.

**Solution**

Leidenfrost effect is seen when any liquid comes in contact with a surface that is at a temperature about twice that of its boiling temperature. When droplets of water on a heated surface reach a certain temperature, the droplet surface starts to boil rapidly allowing it to float or levitate on the evaporated gas vapour. This is known as the Leidenfrost effect and is commonly seen during cooking – when sprinkling water onto a hot pan which is above the Leidenfrost point, droplets skitter across the pan and take longer to evaporate.

It is also found that droplets can be made to climb up a steep incline – the sharper the teeth of the surface, the steeper the incline they were able to climb.

A droplet in the Leidenfrost regime is suspended on a cushion of gas evaporating from its surface

through film-boiling. On a ratcheted surface, the surface structure provides an asymmetry for the gas

2/2

Leidenfrost Pump

Works efficiently by using Leidenfrost effect as there is no loss of energy is conversion.

Creative's profile



Sidmahajan
Student

Creative's top 5 skills

Photography, Product Design, User Experience