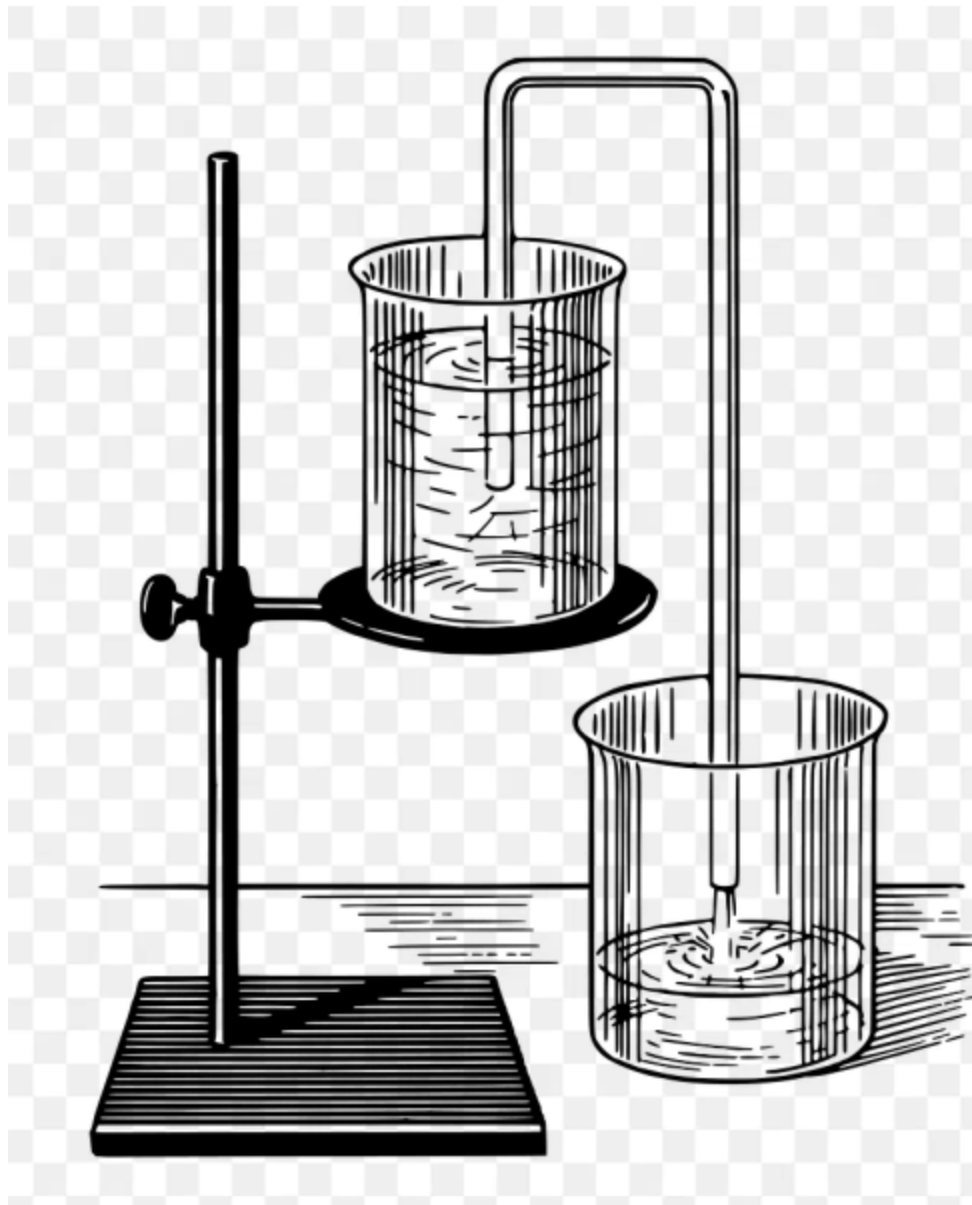


Demonstration of Siphon Using a Pythagoras Cup Model

Project Overview

The project, conducted by Abhinab Sharma, focuses on demonstrating the siphon principle using a Pythagoras cup model. This work was part of a summer internship under the guidance of Dr. Uday Shanker Dixit at the Indian Institute of Technology Guwahati and is aimed at providing a clear and intuitive understanding of the siphon effect in fluid dynamics.

from the higher level, up and over any obstacles, and down to the lower level



Key Components

- **Objective:** To explore the siphon principle through the construction and analysis of a Pythagoras cup model, which drains its contents automatically when filled above a certain level.
- **Pedagogical Aim:** The report aims to enhance understanding of fluid dynamics principles, particularly the siphon effect, for educational purposes.

- **Experimental Focus:** The experiments investigate factors affecting the siphon effect, including liquid volume, cup dimensions, and fluid properties.



(a)



(b)



Figure 3.1: The Simple Design of the Pythagoras Cup

Application and Importance

- **Practical Applications:** The siphon principle is vital in plumbing, water management, and various industrial processes.
- **Historical Context:** The report includes historical evidence of the siphon principle's use in ancient civilizations and its significance in Indian history.
- **Educational Value:** This project serves as a resource for educators, researchers, and enthusiasts interested in fluid dynamics and the siphon principle.



Figure 3.3: The Cross-Sectional Model

Acknowledgments

The report acknowledges the guidance and support from Dr. Uday Shanker Dixit, Dr. Faladrum Sharma, and other contributors who facilitated the successful completion of the project.

Conclusion

The project offers a comprehensive examination of the siphon principle using a Pythagoras cup model, providing valuable insights into fluid behavior and its applications in various fields.

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