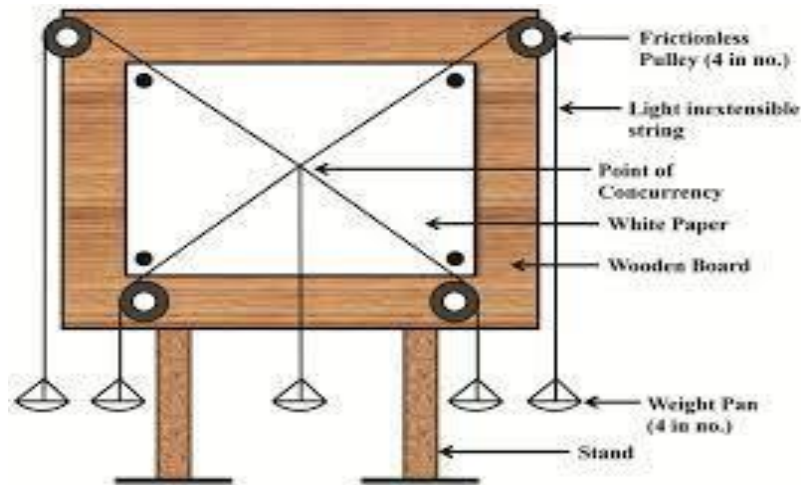


Description:

The **Law of Polygon of Forces** states that if a number of coplanar forces acting simultaneously on a particle are in equilibrium, then the polygon formed by these forces taken in order (both in magnitude and direction) will be **closed**.

In this experiment, we verify the law using a **force table** where several forces act on a common ring through strings and pull.



EQUIPMENT NAME :- POLYGON OF FORCES

Apparatus Required:

- Force table (circular table with pulleys at the edge)
- Set of pulleys
- Set of slotted weights
- Strings
- Protractor or circular scale (to measure angles)
- Weight hangers
- Paper and pencil (for vector diagram)

Applications:

- Used to determine **unknown forces** in structures like bridges, trusses, and cranes.
- Helps in **vector analysis** of coplanar forces in engineering design.
- Demonstrates **equilibrium of concurrent forces** in mechanics.

Objective:-

To verify the **Law of Polygon of Forces** by using a **force table** and to show that when three or more forces act on a point in equilibrium, their vector polygon forms a closed figure.