

To Measure the Force of Limiting Friction for Rolling of Roller on a Horizontal Plane

Aim

To measure the force of limiting friction for rolling of a roller on a horizontal plane.

Apparatus

Same as in Experiment 9 and lead shots as rollers.

Theory

Rolling friction. It is the friction acting on a body in rolling motion.

Force of rolling friction. It is the least force required to make a body start rolling over a surface.

Diagram

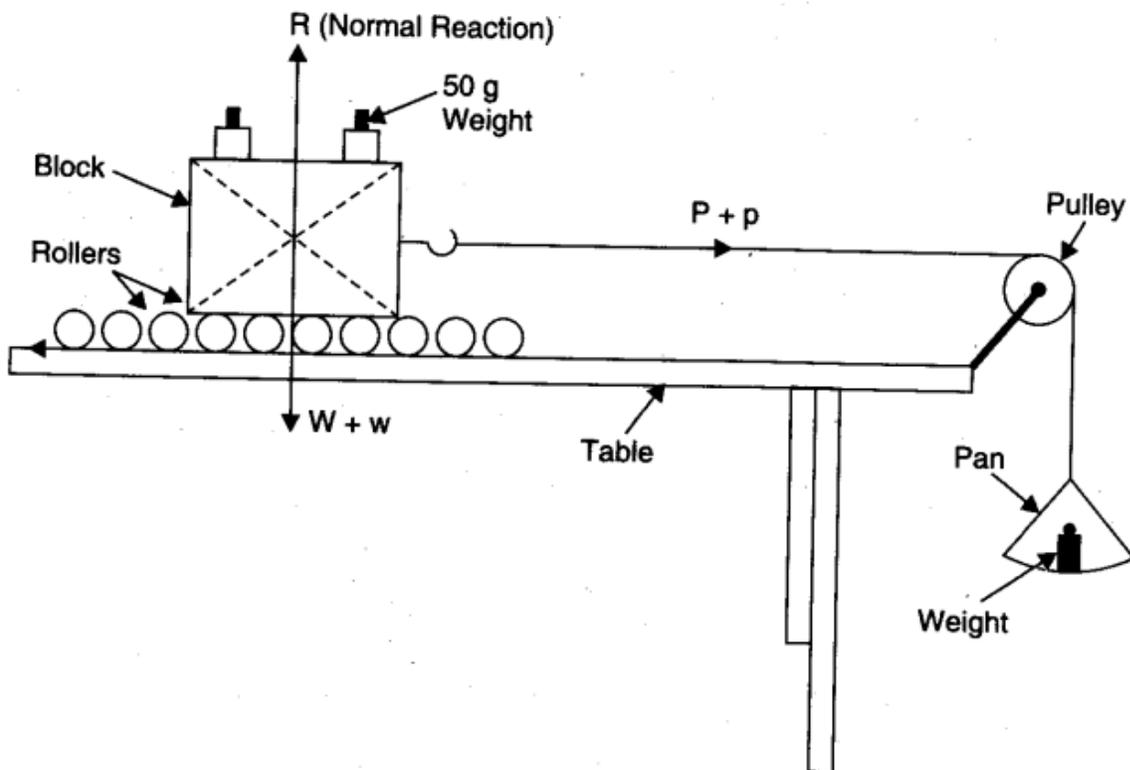


Fig. Study for force of rolling friction.

Procedure

1. Same as in Experiment 9. Spread lead shots over the table top to form a single layer.

2. Weigh the wooden block and put it over the layer of lead shots. Steps from 3 to 12 are same as in Experiment 9.

Observations

Same as in Experiment 9.

Calculations

Same as in Experiment 9.

Result

Same as in Experiment 9.

Precautions

Same as in Experiment 9.

Sources of error

Same as in Experiment 9.