Ingen-Hauz Experiment.

It is used to compare thermal conductivities of different materials. If l_1 and l_2 are the lengths of wax melted on rods, then the ratio of thermal conductivities is $\dfrac{K_1}{K_2} = \dfrac{l_1^2}{l_2^2}$

i.e., in this experiment, we observe Thermal conductivity $\propto$ (length) 2