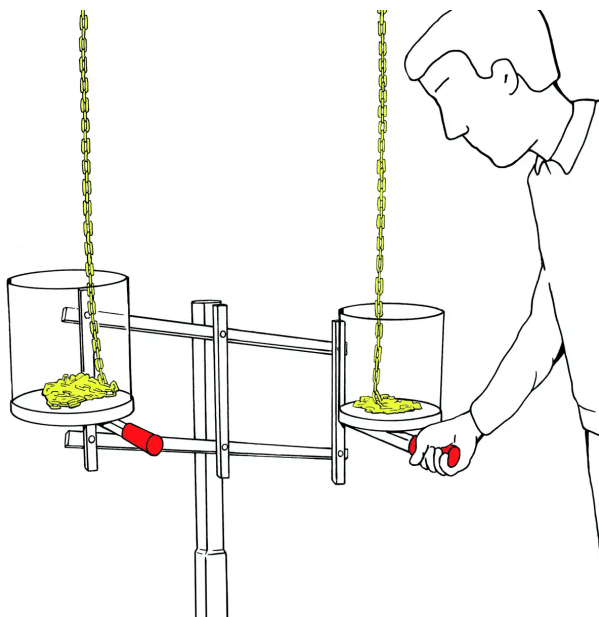


Accelerating Chain

What happens to the chain when you lift up one of the containers?



Set both containers at the same height.

Gradually change the height of one container.

When you lift up one of the containers, there is less hanging chain on that side than on the other side. The excess weight of chain hanging on the other side accelerates the amount of hanging chain uniformly. The acceleration depends on the difference in height of the pots – the greater the amount of excess chain on the lower side so the greater the acceleration of the chain which is produced. The English mathematician, George Atwood, used a similar machine in 1784 to demonstrate the law of uniformly accelerated motion of freely falling bodies and to measure the acceleration due to gravity.