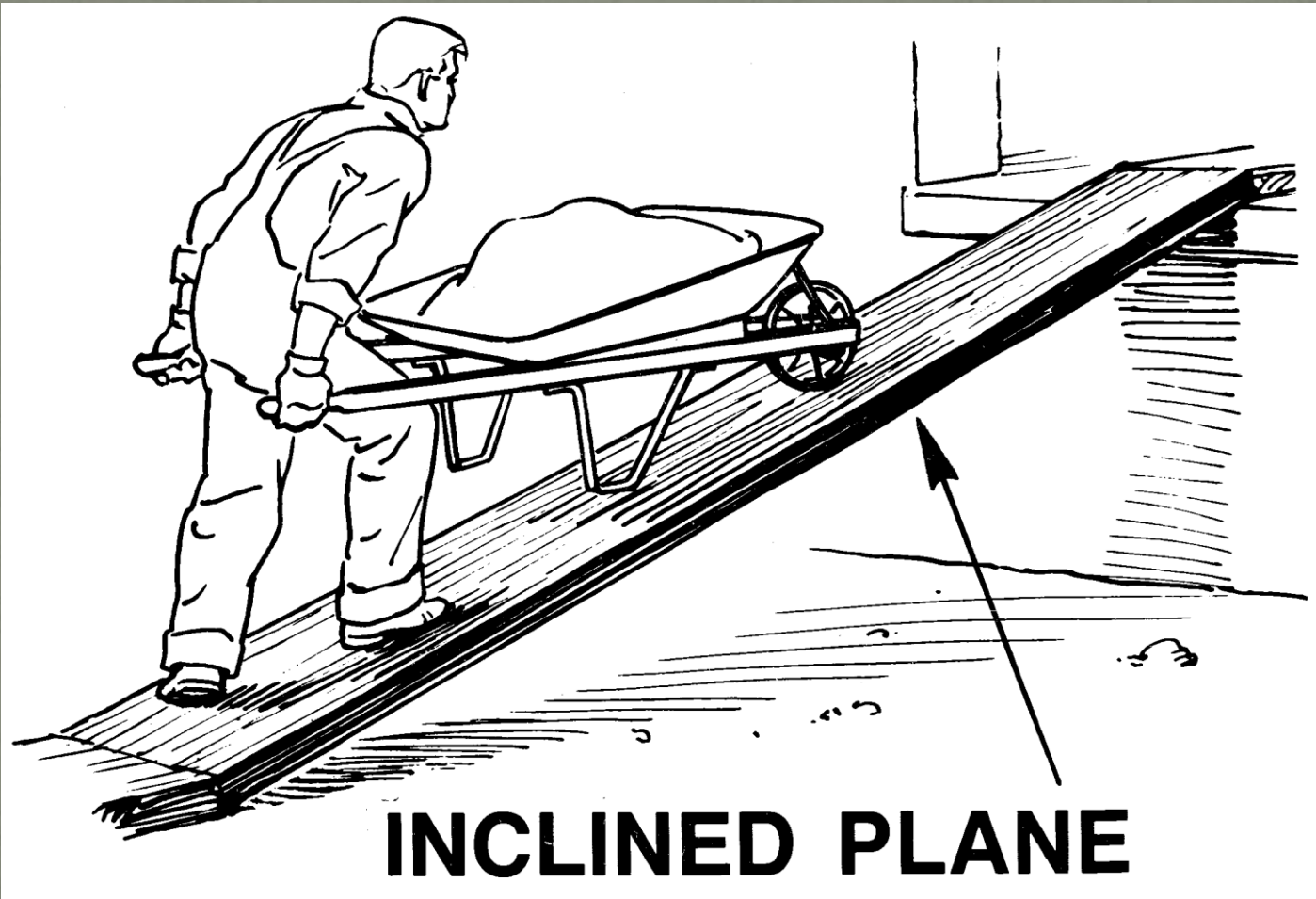


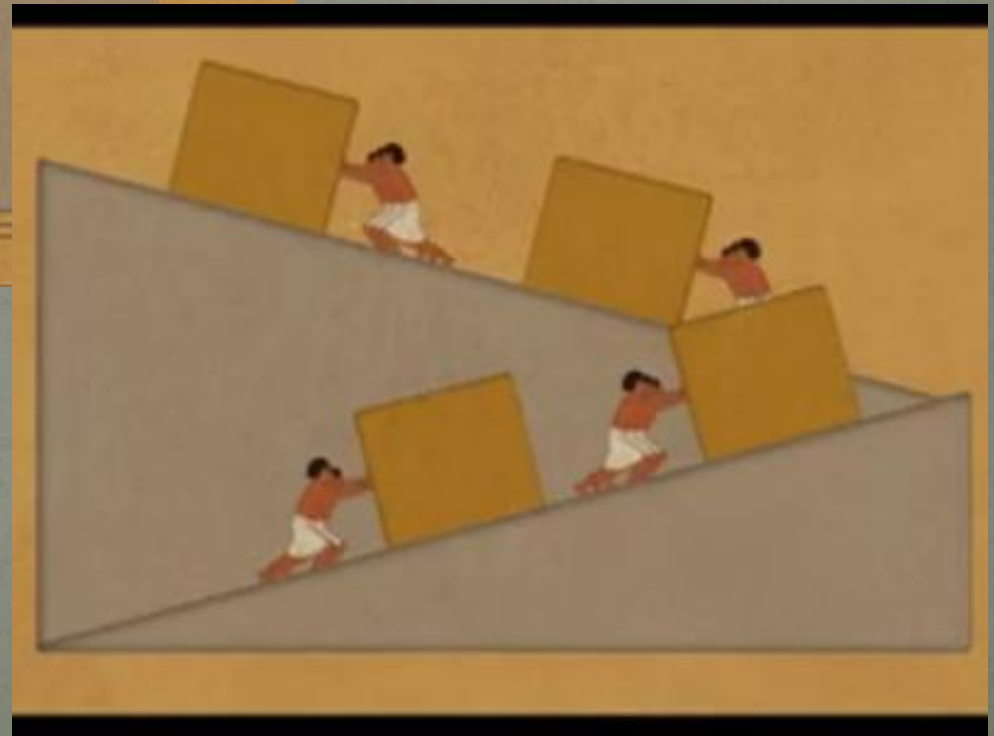
How Do Other Simple Machines Help Us Do Work?



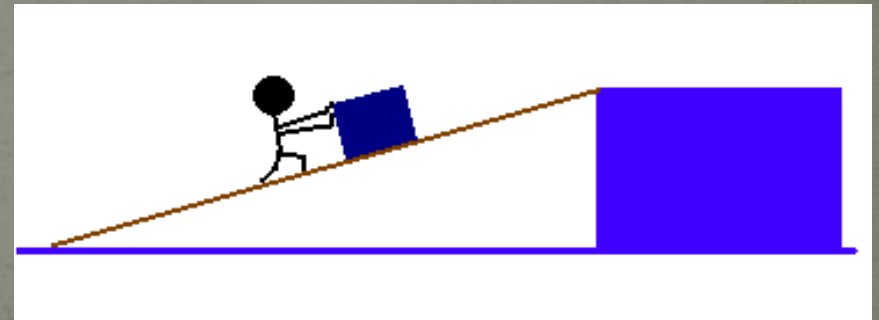
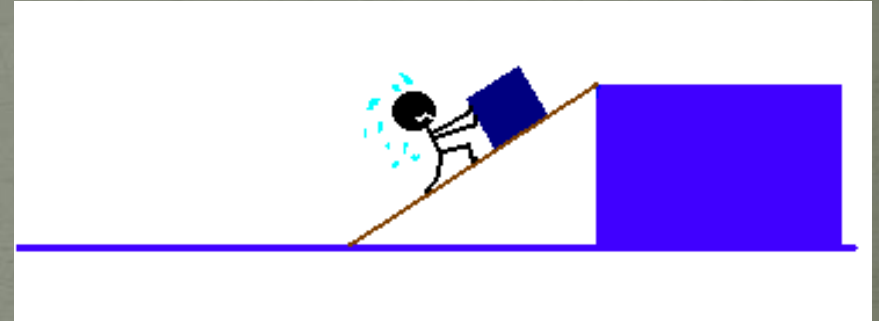
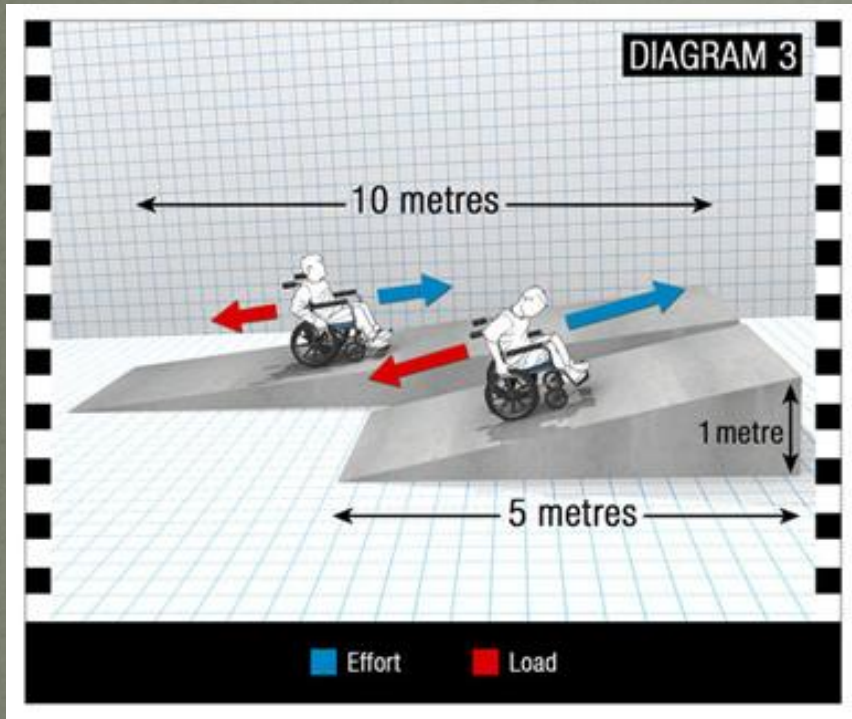
An inclined plane is simply a slanted surface (like this ramp).



Many people believe the Egyptians used inclined planes to help build the pyramids.



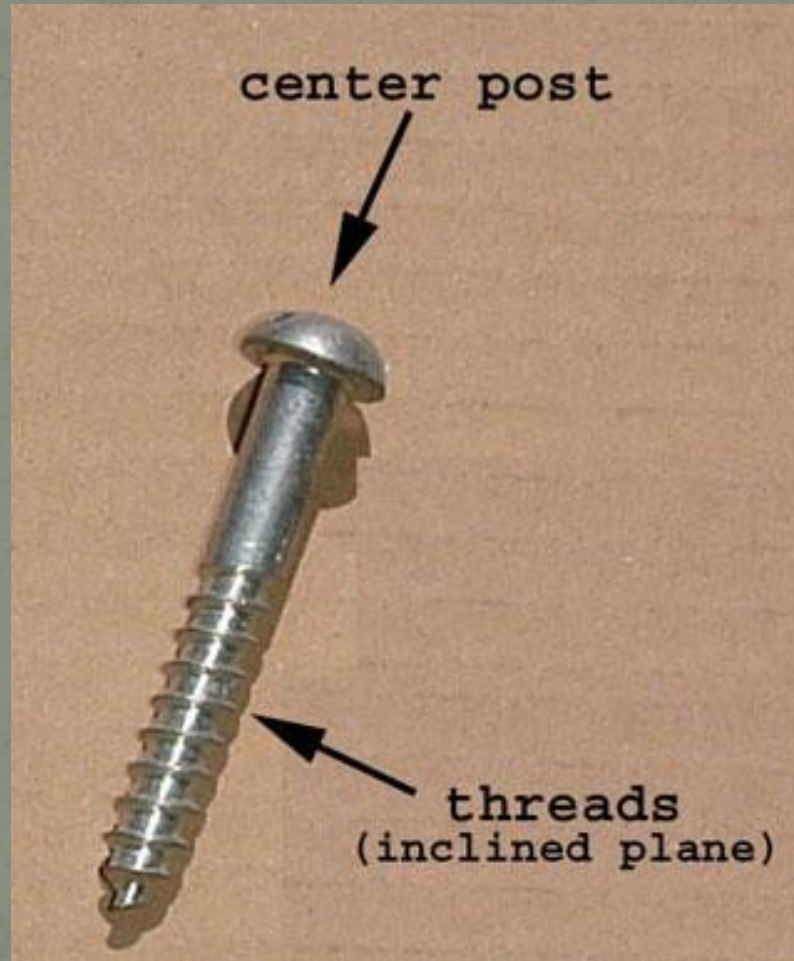
The less steep (and therefore longer) an inclined plane is, the easier it is to push or pull an object.



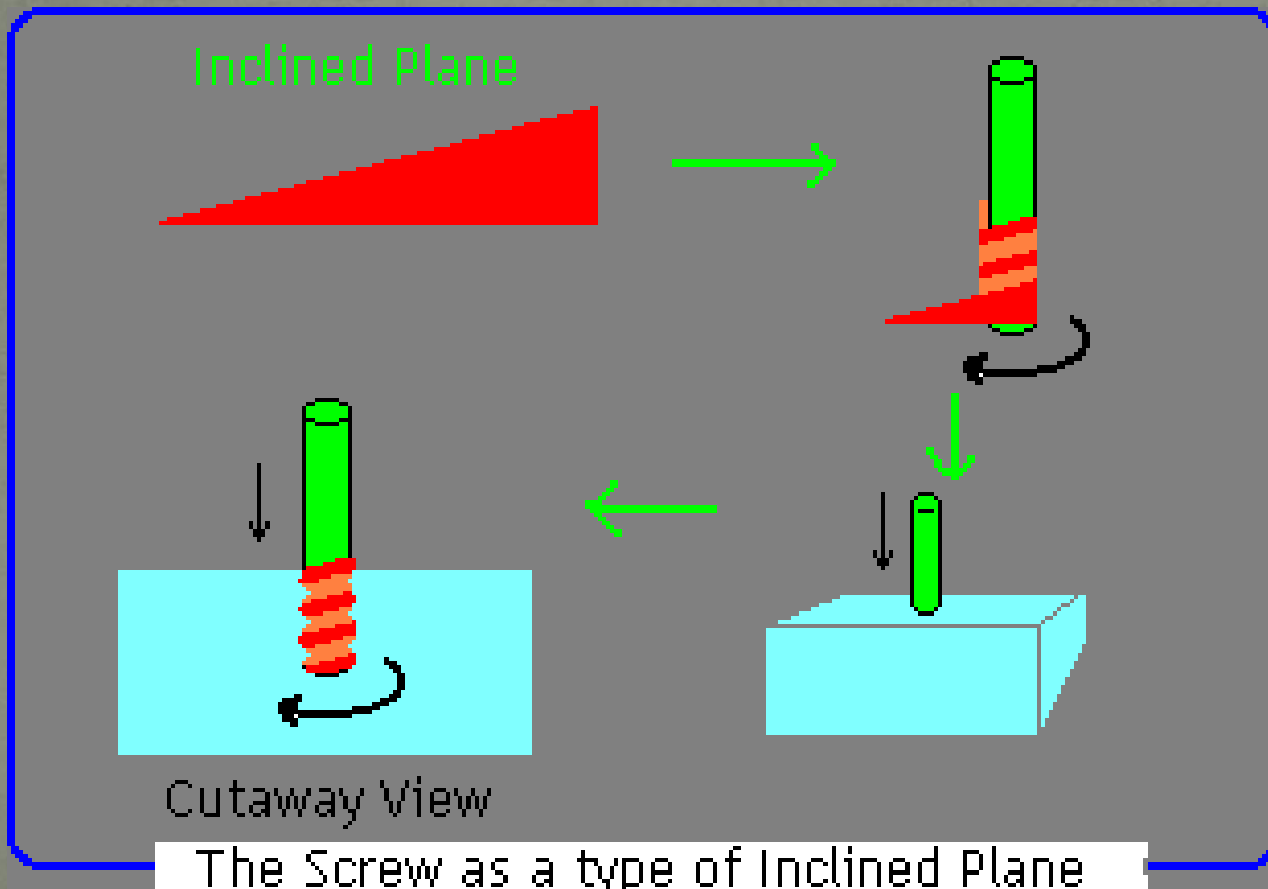
Why does the road wind back and forth instead of going in a straight line?



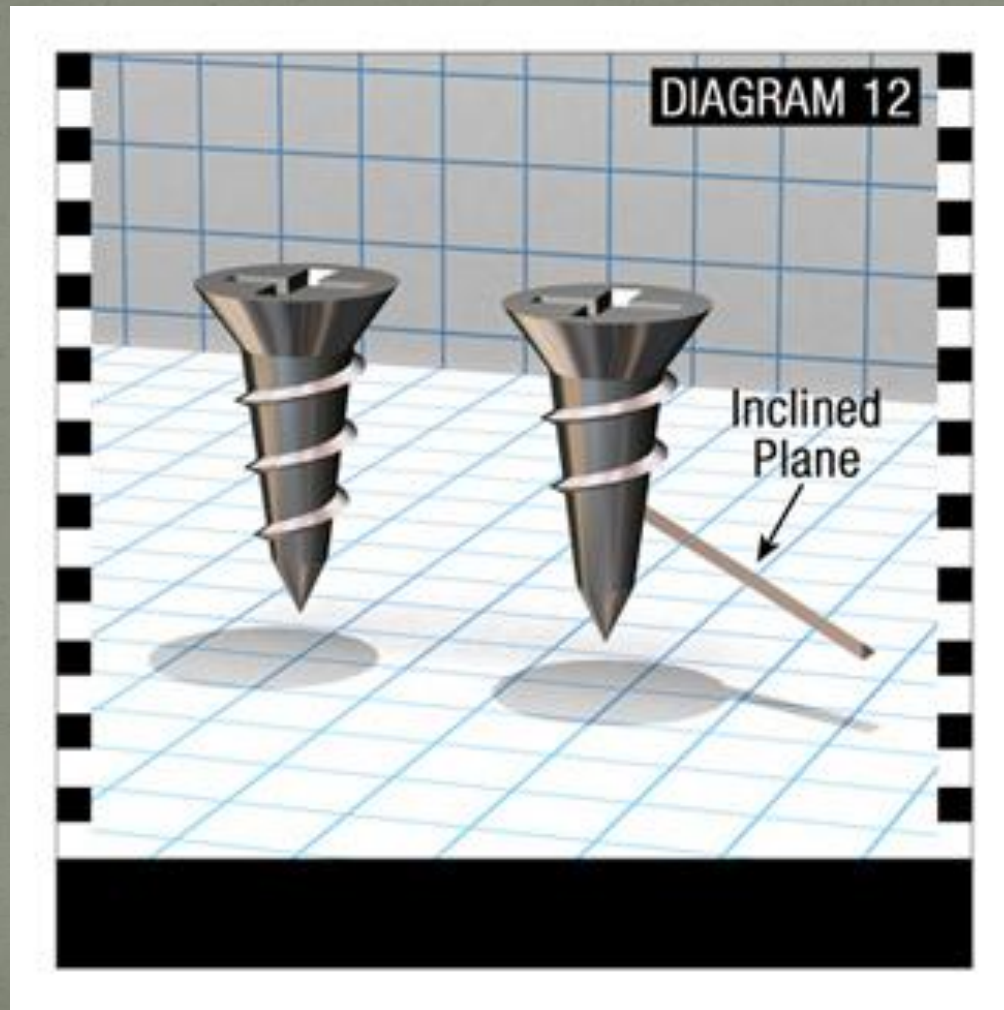
A screw is a post with threads.



Another way to think about it is that the threads are an inclined plane that curls around the post.



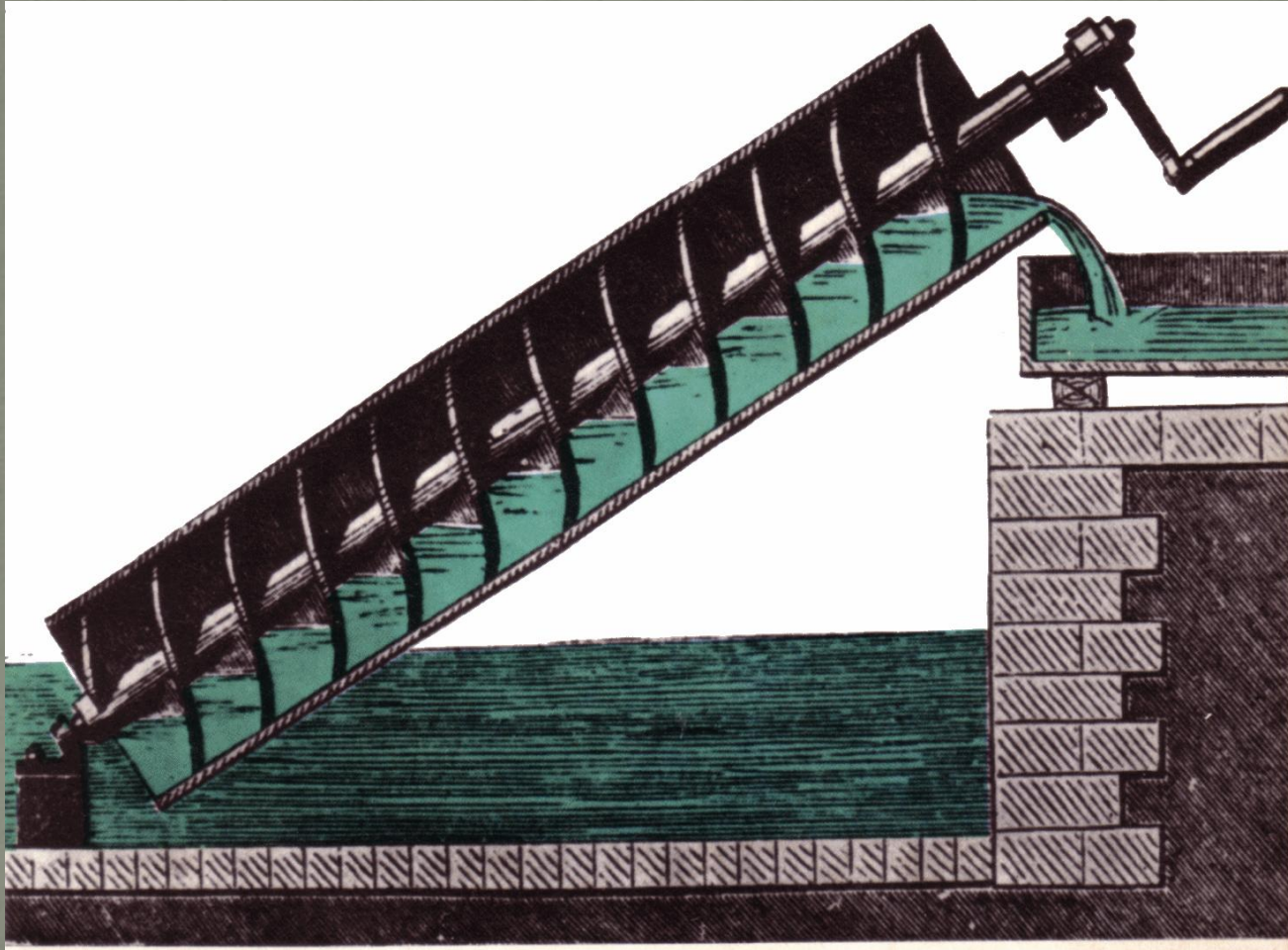
A screw may be small, but the threads that wrap around it can be very long.



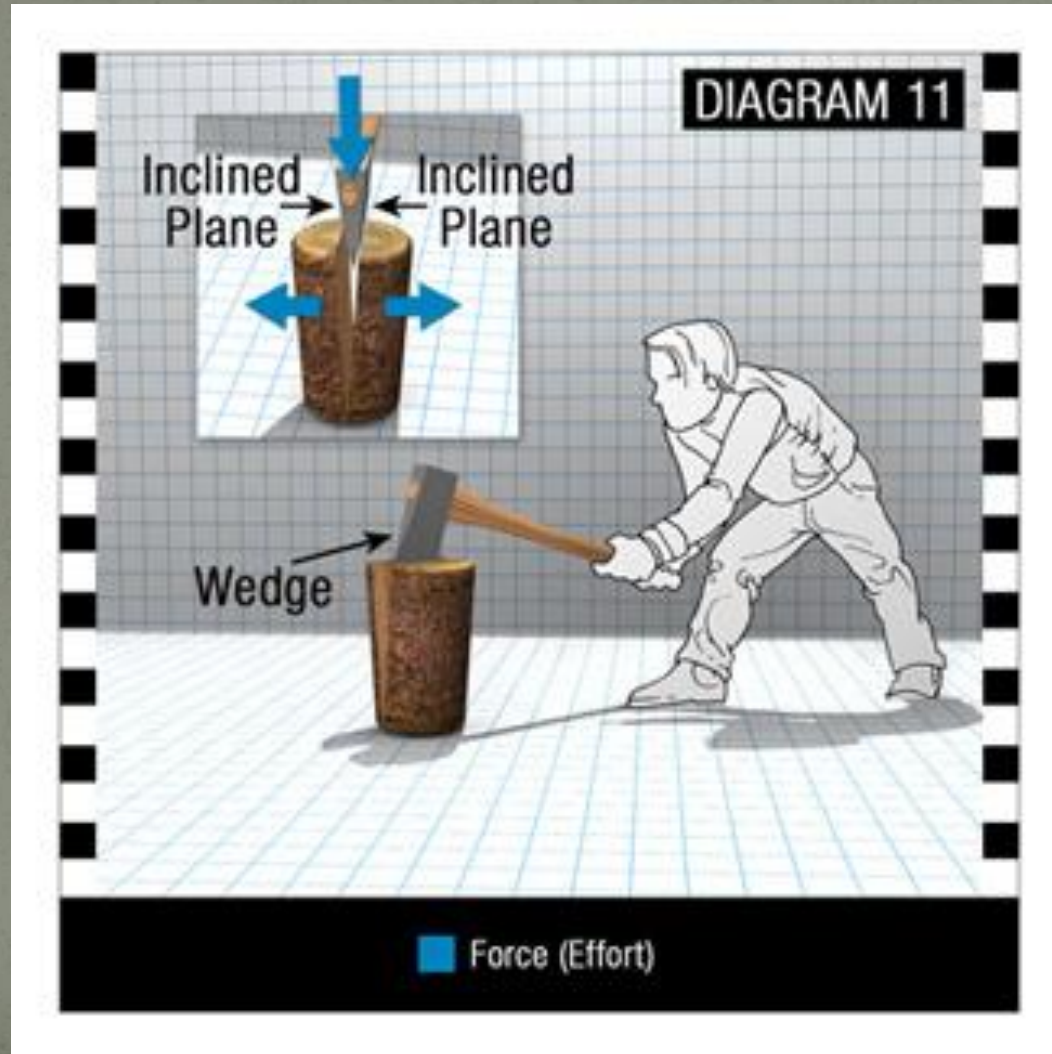
As with a ramp, increasing the distance reduces the force needed to do work.



Archimedes' Screw: acts as a pump for pulling water from canals.



A wedge is two inclined planes placed back to back.



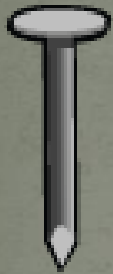
Everyday wedges:



Knife



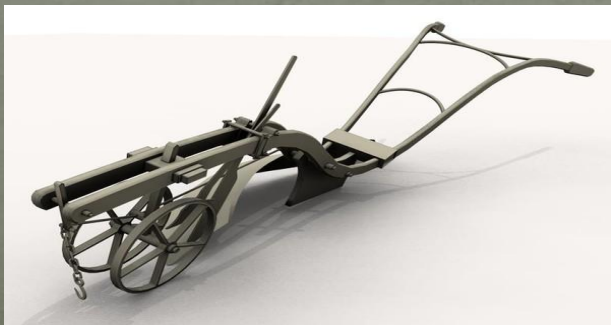
Axe



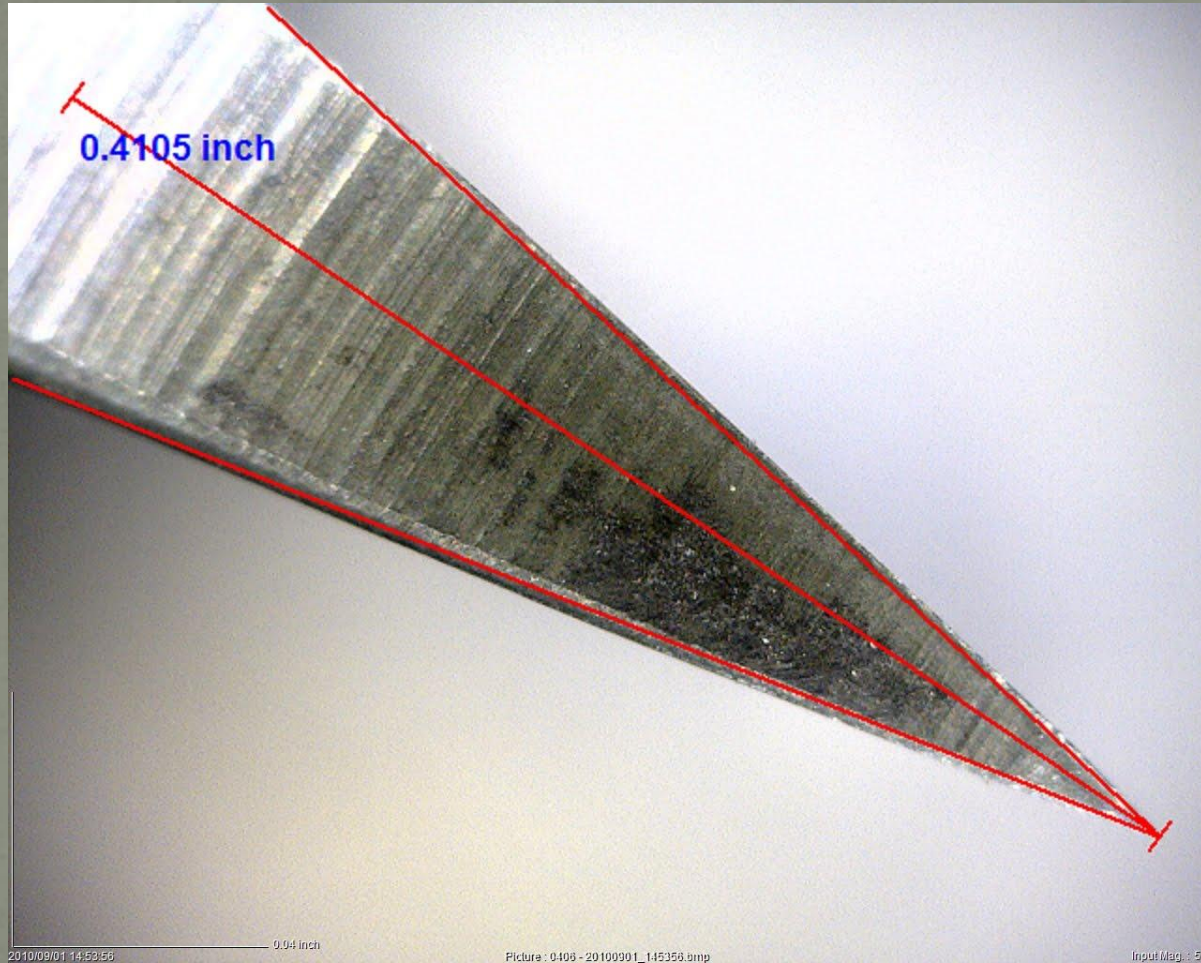
Nail



Needle



A knife's edge magnified to show its wedge shape.



Wedges create a change in direction; a downward force is changed into an outward force.

