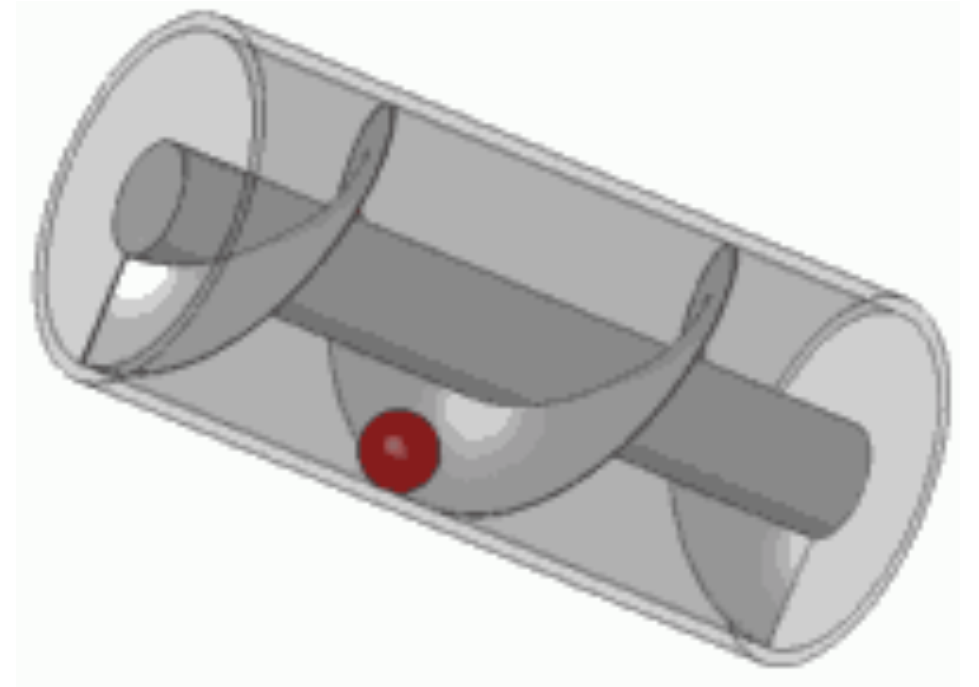
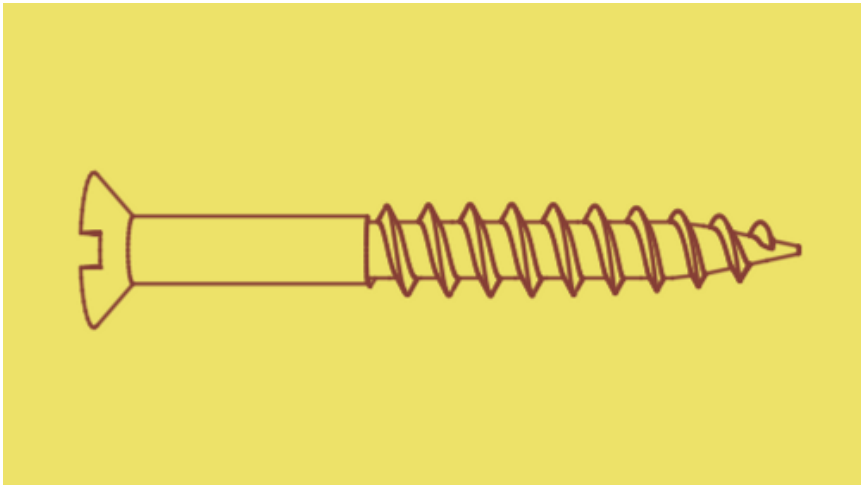


# Screw

A Simple Machine

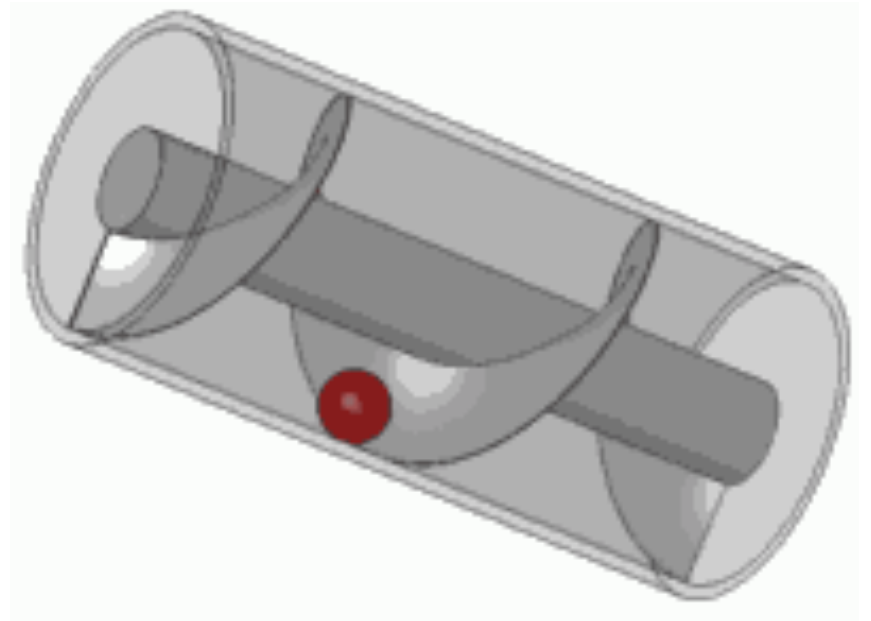
# What is a Screw?

- A screw is an inclined plane wrapped around a cylinder or a cone.



# How does a screw work?

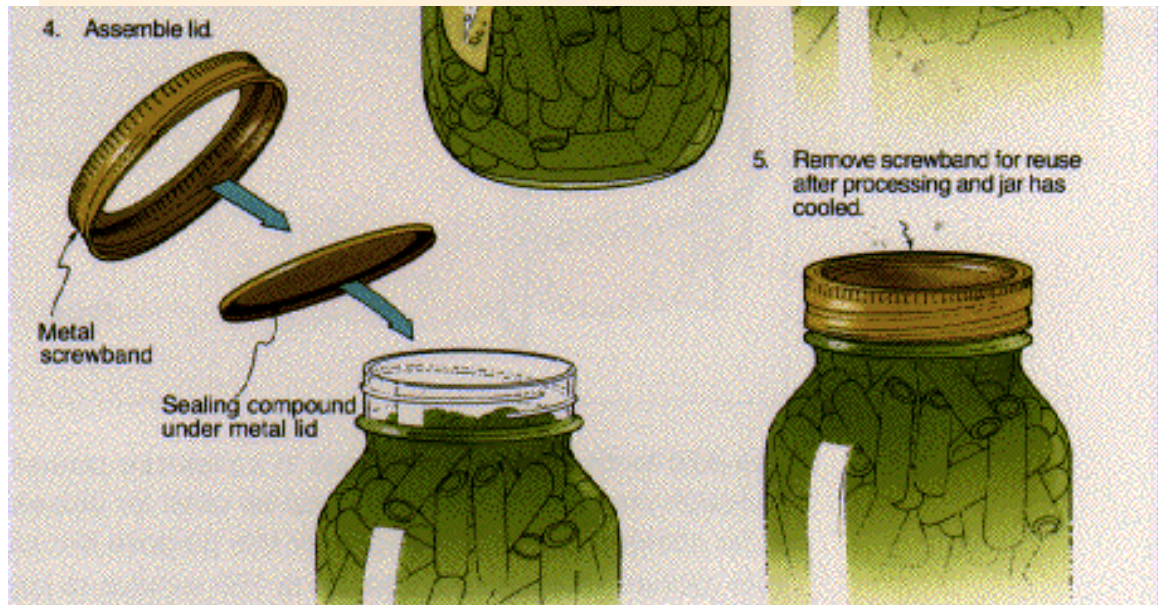
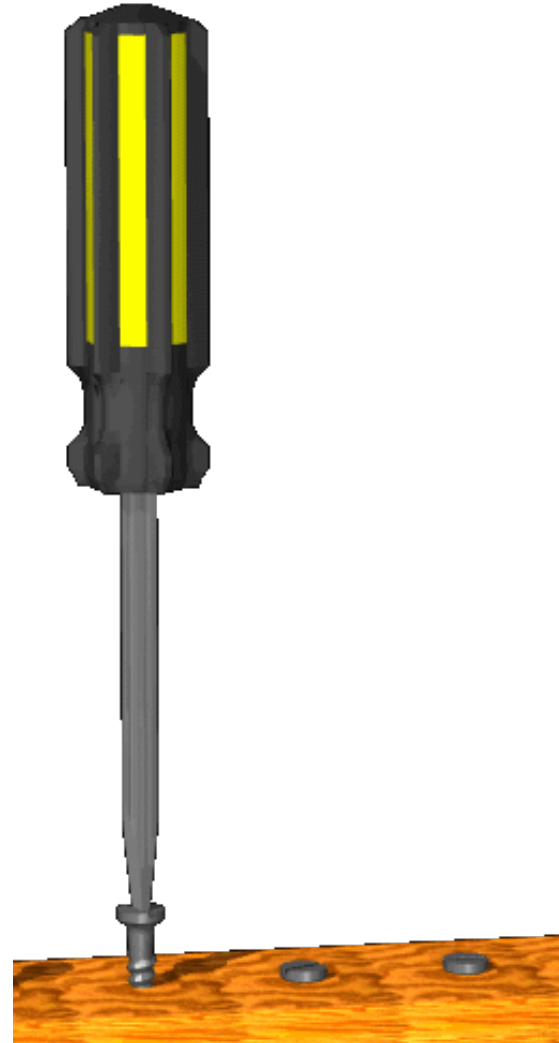
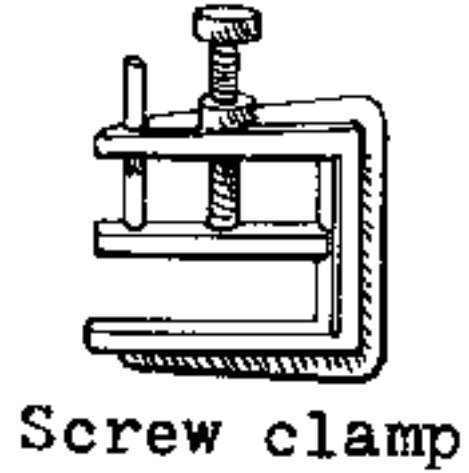
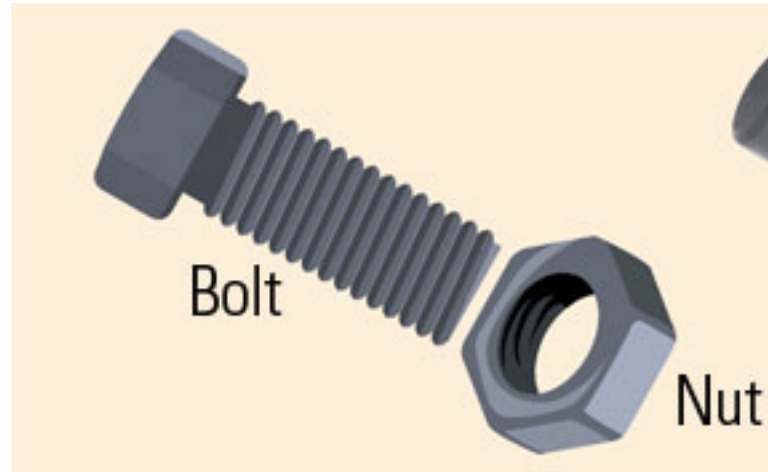
- Screws change **circular** force into **linear** force.



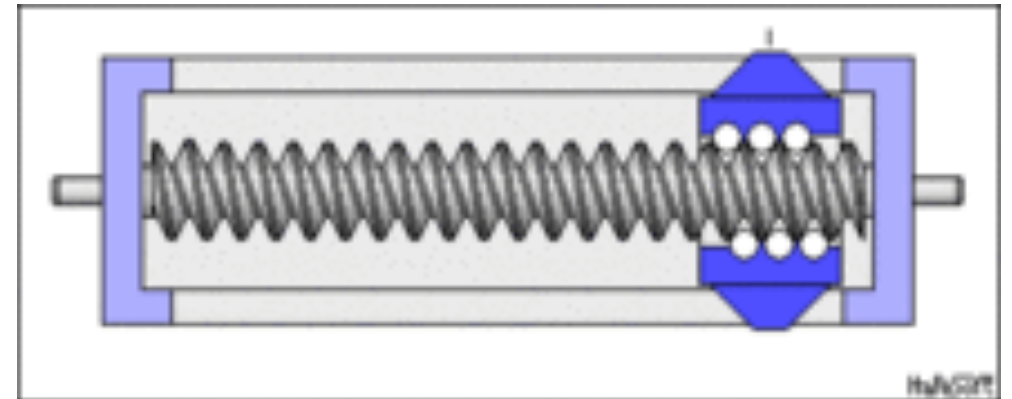
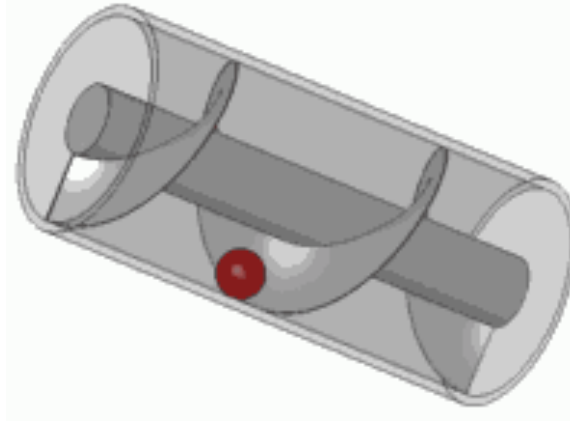
# Screws can be used in different ways

- To hold things together or in one spot
- To move an item out of the way

# Using Screws to HOLD TOGETHER

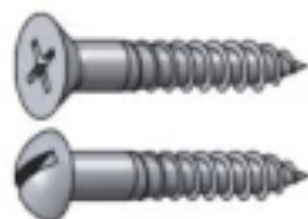


# Using Screws as MOVERS





## Fastener Categories



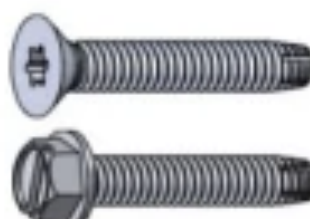
### Wood Screws

Screws with a smooth shank and tapered point for use in wood. Abbreviated WS



### Machine Screws

Screws with threads for use with a nut or tapped hole. Abbreviated MS



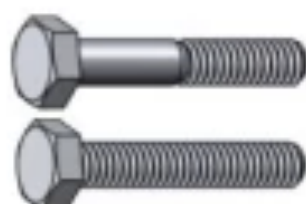
### Thread Cutting Machine Screws

Machine screws with a thread cutting (self tapping) point.



### Self Drilling SMS

A sheet metal screw with a self drilling point.



### Hex Bolts

Bolts with a hexagonal head with threads for use with a nut or tapped hole. Abbreviated HHMB or HXBT.



### Carriage Bolts

Bolts with a smooth rounded head that has a small square section underneath.



### Socket Screws

Socket screws, also known as Allen Head, are fastened with a hex Allen wrench.



### Set Screws

Machine screws with no head for screwing all the way into threaded holes.



### Eye Bolts

A bolt with a circular ring on the head end. Used for attaching a rope or chain.

## Nut Types



### Heavy Hex

A heavier pattern version of a standard hex nut.



### Nylon Insert Lock

A nut with a nylon insert to prevent backing off. Also referred to as a Nylock.



### Jam

A hex nut with a reduced height.



### Wing

A nut with 'wings' for hand tightening.



### Cap

A nut with a domed top over the end of the fastener.



### Acorn

Acorn nuts are a high crown type of cap nut, used for appearance.



### Tee

A nut designed to be driven into wood to create a threaded hole.



### Square

A four sided nut.



### Prevailing Torque Lock

A non-reversible lock nut used for high temperature applications.



### Coupling

Coupling nuts are long nuts used to connect pieces of threaded rod or other male fasteners.



### Slotted

Slotted nuts are used in conjunction with a cotter pin on drilled shank fasteners to prevent loosening.



### Castle

Castle nuts are used in conjunction with a cotter pin on drilled shank fasteners to prevent loosening.