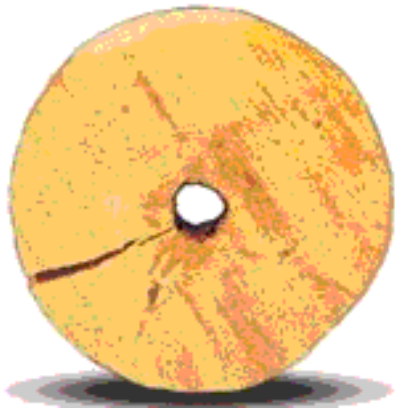


The Wheel

The wheel is probably the most important mechanical invention of all time. Nearly every machine built since the beginning of the Industrial Revolution involves a single, basic principle embodied in one of mankind's truly significant inventions.

It's hard to imagine any mechanized system that would be possible without the wheel or the idea of a symmetrical component moving in a circular motion on an axis. From tiny watch gears to automobiles, jet engines and computer disk drives, the principle is the same.



Based on diagrams on ancient clay tablets, the earliest known use of this essential invention was a potter's wheel that was used at Ur in Mesopotamia (part of modern day Iraq) as early as 3500 BC. The first use of the wheel for transportation was probably on Mesopotamian chariots in 3200 BC. It is interesting to note that wheels may have had industrial or manufacturing applications before they were used on vehicles.

The Wheel

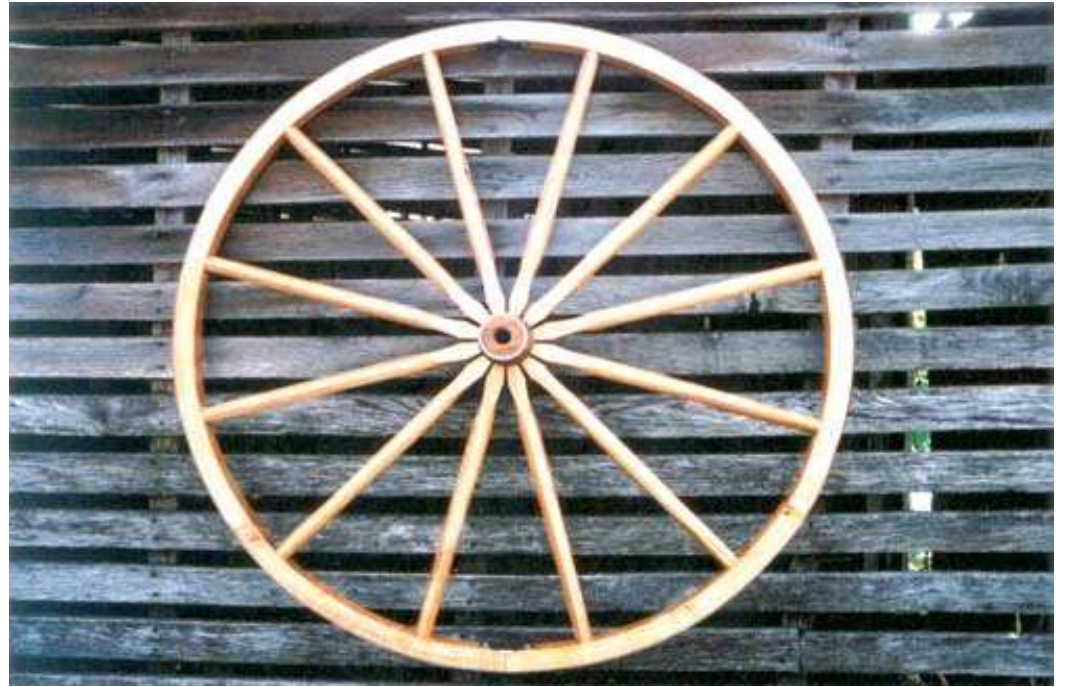


Ancient wooden wheel

Horse and Carriage

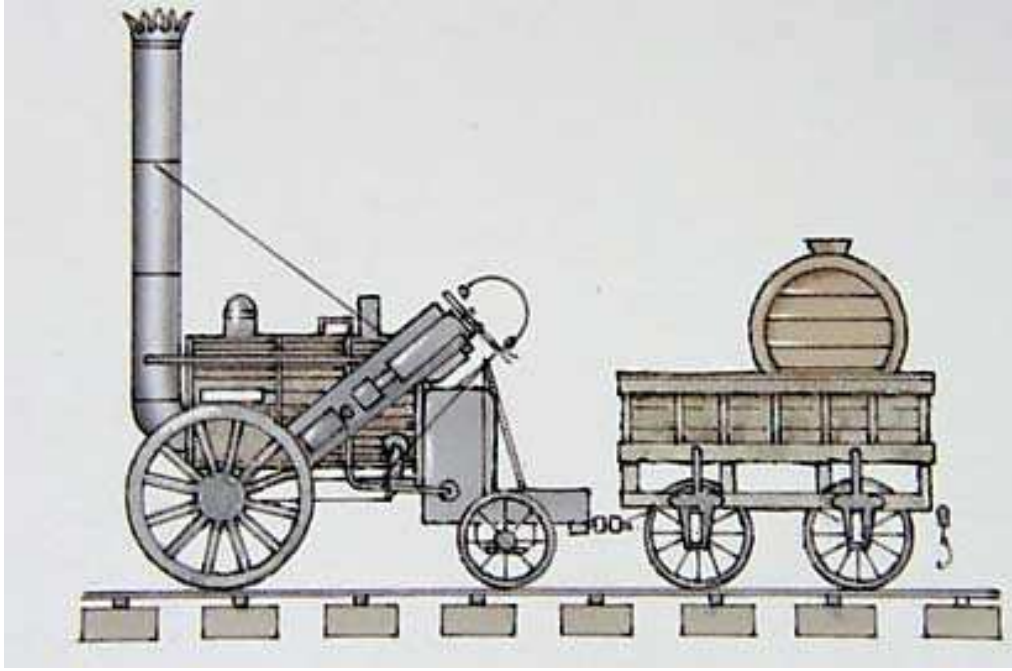


Chariot wheel



Wagon wheel

Trains



The first trains



Modern trains

Bicycle



Penny farthing



Modern bicycle

Motorcycle

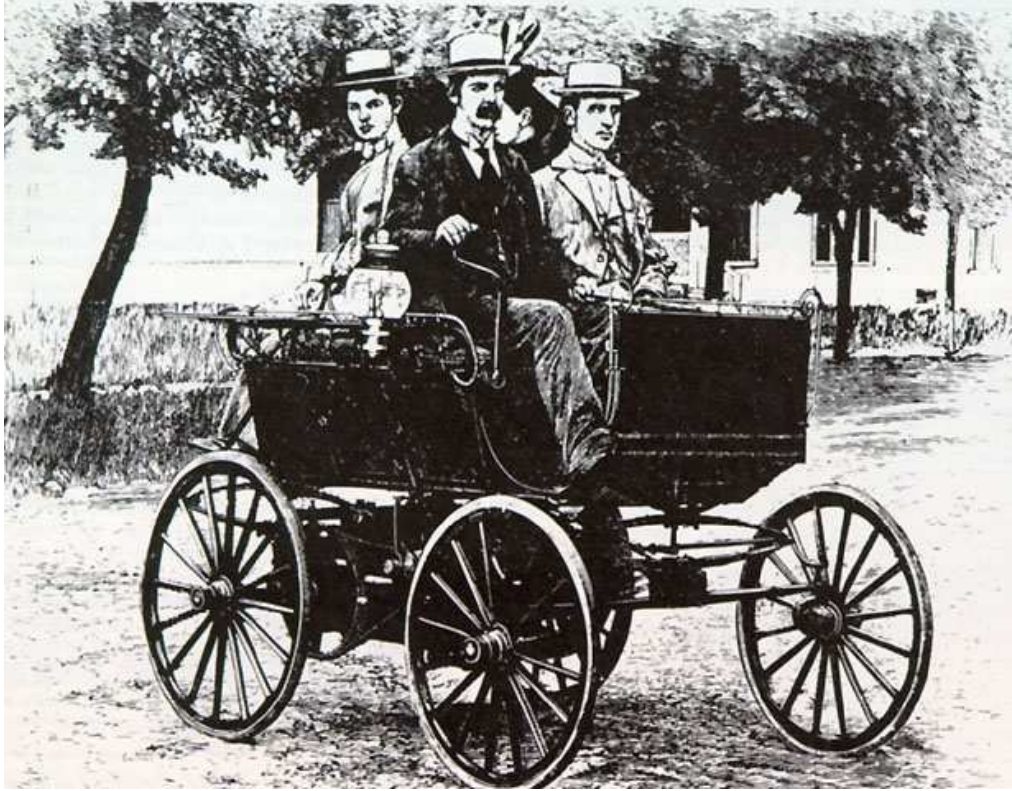


1880's motorcycle



Modern motorcycle

Automobiles

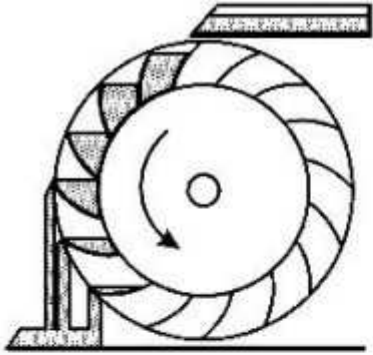


1896 car

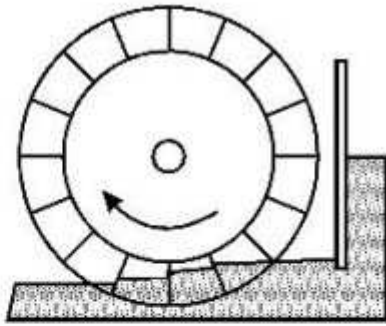


Modern car

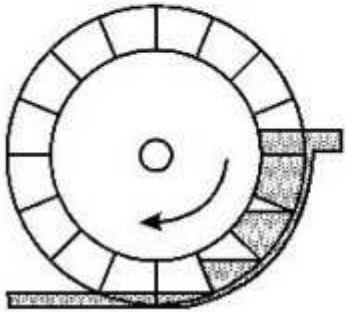
Water wheel



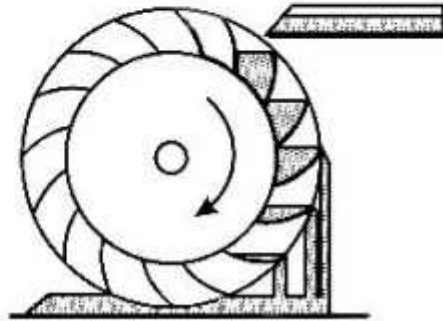
Overshot



Undershot

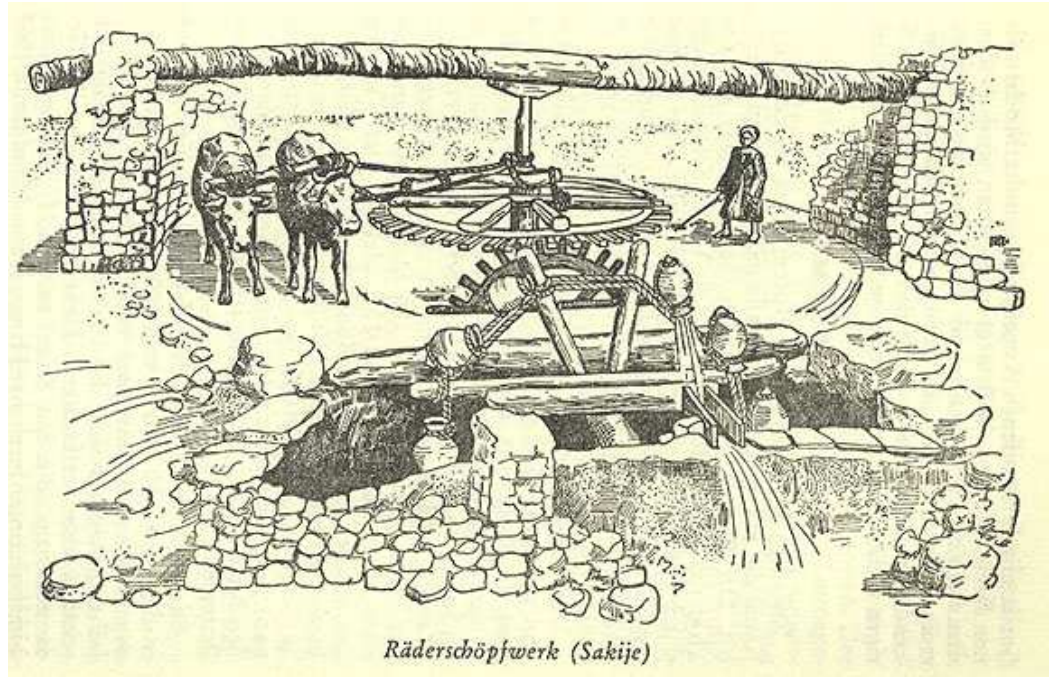


Breastshot



Pitchback

Types of waterwheel



Windmills



Traditional windmill



Windmill

Other wheels

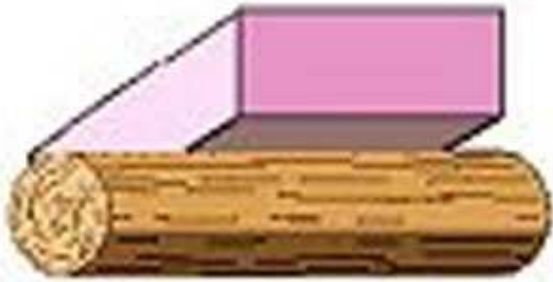


Wind turbines

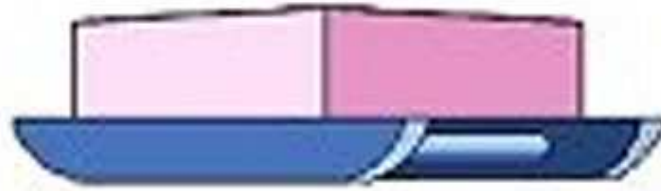


Ferris Wheel

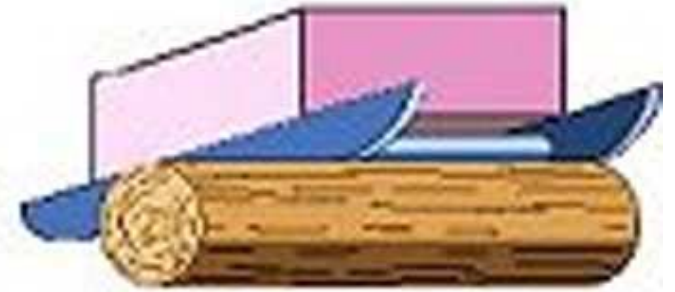
roller



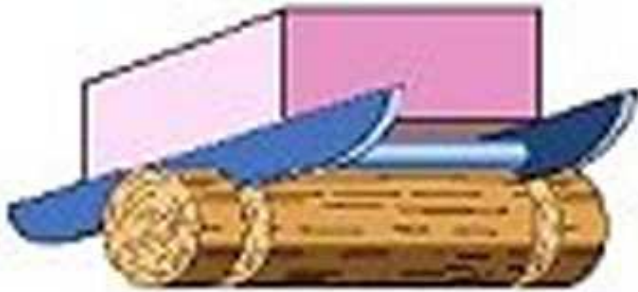
sledge



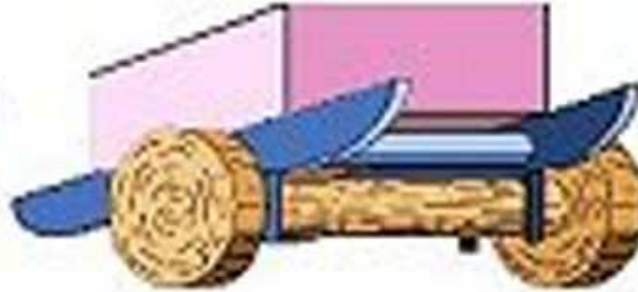
sledge on roller



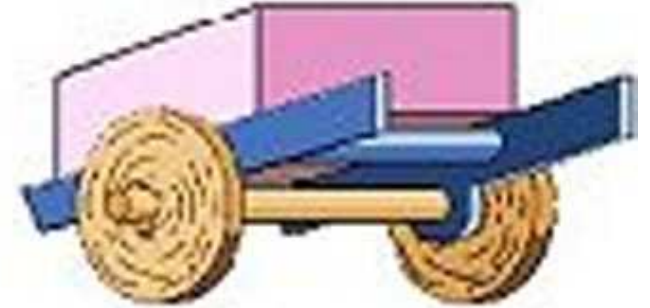
sledge on
grooved roller



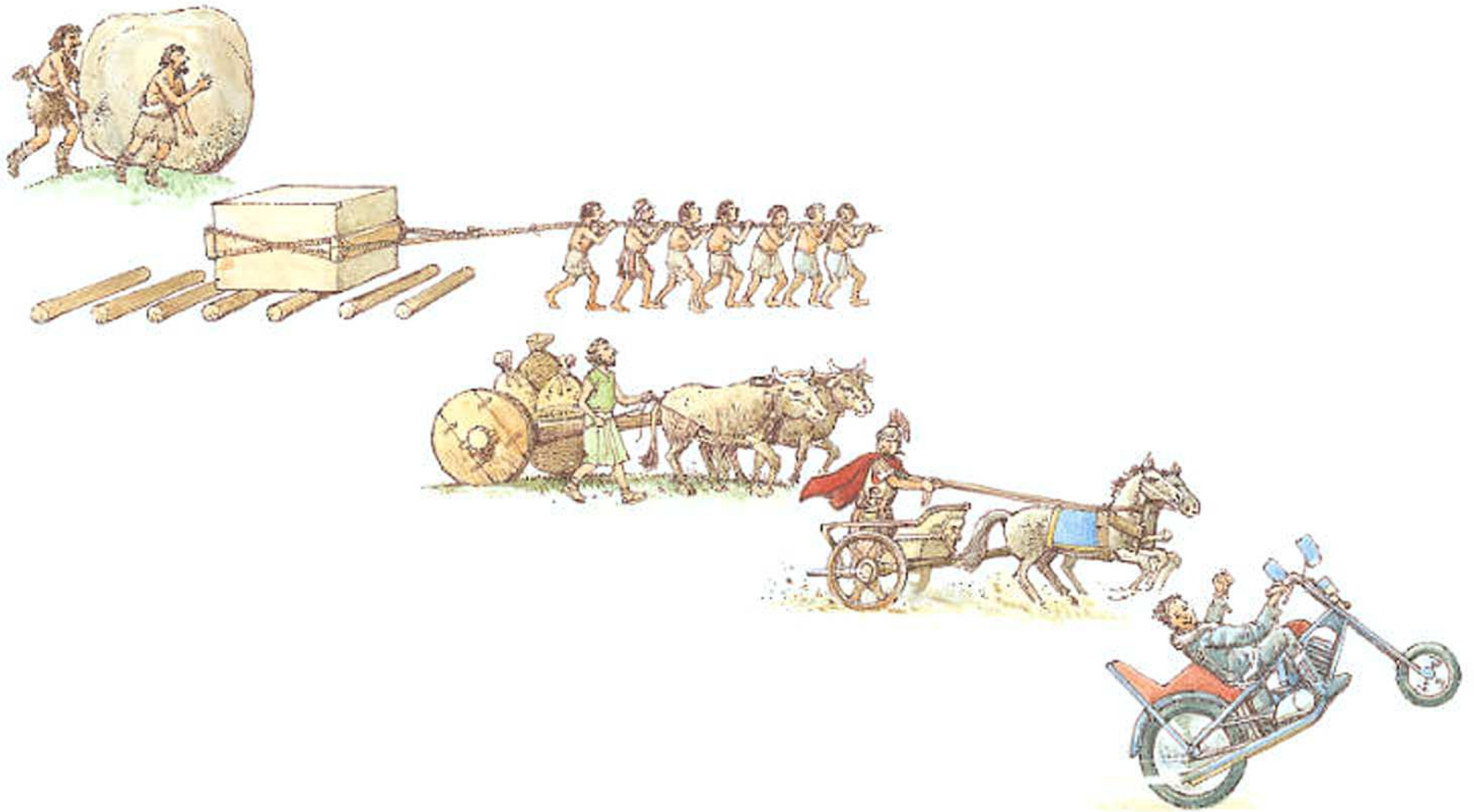
roller joined
to sledge



sledge joined
to axle



Development of early wheels and rollers



from rolling stones to motorbikes!