







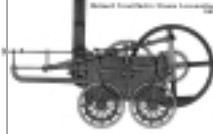



# Wheels - spin a tale

Off to Shimla? Well, book a train ticket or just drive. Today, you can choose the mode of transport that suits you best...buses, cars or trains. But there was a time when humans could travel only as far as they could walk. How did the transport system evolve? Step back into the past to see what changed the way we travel.




## WHEELS AND BEASTS OF BURDEN

3000 BC	2700 BC	1500 BC	300 BC	200 AD	700 AD
 <p>1st known chariot used in Mesopotamia (now modern Iraq)</p>	 <p>Spoked wheel (a major innovation) allowed greater manoeuvrability.</p>	 <p>Egyptians developed wooden yoke more suited to horses.</p>	<p>Chinese made the breast-collar harnessing system for horses. Used in Europe much later in the 10th century AD.</p>	 <p>Saddles used in Europe.</p>	<p>Horseshoes used in Europe. New horse drawn carriages designed.</p>

DAWN OF THE MACHINE		
<p>1700s</p> <p>Stagecoaches popular as public transport. They carried mail and passengers on established routes.</p>	<p>1834</p>  <p>Two-wheeled carriage designed and patented by Joseph Hansom.</p>	<p>Mechanically powered transport changed the face of the transport industry</p>
<p>1602-1649</p>  <p>1st wooden rails 'tramways' were laid down to carry coal.</p>	<p>1670</p> <p>Chinese were using a vehicle powered by steam turbine</p>	<p>1680</p> <p>Isaac Newton suggested the use of steam power for carriages.</p>

NEW AGE VEHICLE				
<p>1769</p> <p>Nicholas J. Cugnot made a self-propelled vehicle. This machine did not run on rails and may be considered as the origin of the modern car.</p>	 <p>Richard Trevithick designed the first locomotive to run on rails.</p>	<p>1813</p> <p>locomotive 'Puffing Billy' patented by William Hedley. Used till 1872.</p> 	<p>1825</p>  <p>Stokton and Darlington – 1st railway opened. A 40 kilometres long track.</p>	<p>1829</p>  <p>Stephenson designs locomotive for Liverpool &amp; Manchester railway. Potential of railways realised.</p>

Invention of internal combustion engine is comparable to the invention of wheel because it changed the way we travel.

<p>1860</p> <p>Jean Lenoir built the internal combustion engine powered by gas.</p>	<p>1876</p> <p>Nikolaus Otto developed 4-stroke gas engine – predecessor of modern automobile engines.</p>	<p>1888</p>  <p>Frank Sprague built first working electric streetcar system.</p>	<p>1892</p>  <p>Rudolf Diesel patented diesel engine. In 1897 built working model.</p>	<p>1913</p> <p>1st diesel rail car enters service in Sweden</p> 
---	--	---	---	---

The first train in India was signalled off on April 16th, 1853. A train with 14 carriages and 400 guests left Bombay's Bori Bunder for Thane. The journey took an hour and fifteen minutes.