

Automobiles

Introduction

The invention of the automobile radically changed the culture of the entire western world and eventually the entire world.

1. History

A. 1680 Isaac Newton – power in steam

B. Steam Engine

i. 1712 Thomas Newcomen – invented first steam engine, used to water out of British coal mines.

ii. 1807 Robert Fulton – invented the steam boat

ii. 1825 George Stephenson – developed the first steam powered locomotive, thus the first steam powered railroad

C. The Steam Car

i. 1770 Nicolas Joseph Cugnot – three steam tractor for hauling military equipment, thus the first road vehicle that could travel by its own power, thus the first automobile, traveled at the speed of 3 mph

ii. Complaints – noisy frightened horses, dirtied the air, and scattered hot coals on the road which set the fields on fire

iii. American automobiles manufactured in Detroit, Cleveland, etc. where carriages were being made

iv. Most famous steam autos in the U.S. – Stanley Steamer, made by Francis and Freeland Stanley from 1897 to 1924.

v. Steam powered cars proved to be impractical because they were hard to start and to operate. Also they had an open fire which was dangerous.

D. The Electric Car

i. In 1890's they were very popular – no open flame, no smoke, no fumes, ran quietly, could travel over 20 mph for about 50 miles, but batteries were costly and heavy to handle.

E. The Gasoline Cars

They gradually put the other cars out of business and had an “internal-combustion” engine.

i. 1860 Jean Josephus Etienne Lenoir – French inventor, who built an internal-combustion engine that burned fuel in street lights

ii. 1885 Gottlieb Daimler and Karl Benz, Germans, developed the first gasoline engine, Daimler used his in a motorcycle and Benz installed his in a three-wheeled carriage. They never knew one another.

iii. 1893 Charles and J. Frank Duryea built the first American gasoline-powered automobile, and in 1895 they established the first American company for the manufacturing of gasoline automobiles.

iv. 1895 The first American road race, eight hours in time, 70 miles in length

