Patent Pending – Answers



1709 - Hot Air Balloon

The first recorded use of hot air to lift a balloon was when a Brazilian priest, Bartolomeu de Gusamo, demonstrated the idea to the Portuguese Court. He used a candle to lift a small paper balloon. However, it is likely that the Chinese were using paper lanterns to send messages long before that. The first balloon flight with people on board wasn't until 1783.



1757 - Sextant

In 1714 the British Government launched a competition to find a way to accurately measure longitude - how far people had travelled around the globe from East to West. In 1957, John **Hadley** improved on an earlier invention to make the sextant, which could accurately measure the height of the sun and moon above the horizon to give you the time at your current location.



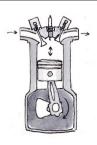
1804 - Steam Locomotive

Richard Trevithic was the first person to put a steam engine on wheels and run it on a track, inventing the steam "locomotive" (a steam "engine" was one that sat on the floor and used its power to pump or pull things). In 1804 he demonstrated it at an ironworks in Wales. A few years later he showed off the same idea on a circular track in London using the train in the illustration.



1817 - Bicycle

It may not look like what you are familiar with, but the invention of this bicycle is credited to the German, Baron von Drais. He made a wooden frame with 2 wheels that could be pushed along with your legs or be rolled down a hill. The trouble was, there were no breaks!



1823 – Internal Combustion Engine

It's hard to say exactly when the Internal Combustion engine was invented... The first patent for an engine that used the burning of a gas to create power (by driving a piston in a sealed chamber) was granted to Samuel Brown in 1823. An earlier engine was powered by flammable dust rather than gas, so doesn't quite qualify... The illustration shows one piston of a typical internal combustion engine. Ask your dad to explain it...



1835 - Computer

It doesn't look anything like the computer of today, but the first computer is considered to a machine designed by Charles **Babbage**. His Difference Engine (illustrated) could perform calculations and print the results. His next machine, the Analytical Engine, could be able to solve equations and had a "memory" and a "central processing unit" much like computers of today. Sadly, it was so complicated and needed so many parts it was never built.



1868 – Traffic Light

The world's first traffic light was a hand operated gas-lit signal installed next to the Houses of Parliament in London in December 1868. It was the creation of John Knight. It exploded less than a month after it was implemented, injuring its policeman operator! The illustration shows the signalling arms that were raised in the daytime. At night, red and green lights were used. Plenty of room for improvement on that idea, then!



1876 – Telephone

The story of the invention of the telephone is a fascinating one. Two men applied for patents for the idea on the same day, within hours of each other: Alexander Graham Bell and Elisha Grey. Bell was first and is still credited as the inventor of the telephone. He used his experience of working with the deaf to develop ideas for transmitting sound.



1888 – Box Camera

Cameras had been around long before this, but you needed to be a chemist to use one – they needed "plates" that took time to prepare and could only be used once. In 1888 George Eastman came up with the idea of a portable "Box" camera with a "film" that could take lots of photographs. He started the well-known company Kodak.



1935 - Monopoly



The game called "Monopoly" was first manufactured and sold by the Parker Brothers in 1935. However, it was based on a game created 30 years earlier by the American Lizzie Maggie, called the Landlord's Game. She was paid just \$500 for her patent! In between these dates, an opportunist called Charles Darrow took the game idea and started making his own version. He was the first to call it Monopoly.