James Watt: Inventing the Modern World [B2]

Questo ingegnere scozzese è uno degli inventori più influenti di tutti i tempi. Mentre passeggiava in un parco di Glasgow ebbe un'idea geniale che diede impulso alla Rivoluzione industriale e cambiò il mondo per sempre.

In May 1765, while walking in a park in Glasgow, Scottish inventor James Watt had a revolutionary idea. He imagined a way to radically improve the primitive steam engines of the time. This idea would give birth to the Industrial Revolution and change the world forever.

LARGELY SELF-TAUGHT

Watt was born in Greenock in west Scotland in 1736. Often ill, he was educated at home by his mother and began learning a trade with his shipwright father. Moving to London in 1755, he worked in a scientific instrument maker's workshop. On completing his apprenticeship, and in fragile health, he returned to Scotland to set up his own business.

WATT'S OBSESSION

In 1764, Watt was given a steam engine to repair. These engines were used to pump water out of mines. Watt became obsessed with improving the machine's terrible inefficiency — it wasted most of the steam it produced. Walking on Glasgow Green one Sunday, inspiration struck. Watt's idea to increase efficiency was simple but brilliant: add a separate condenser which would condense the steam without cooling the rest of the engine, which was the original problem.

WIDESPREAD POTENTIAL

Fortunately, Watt then met industrialist Matthew Boulton and they started to work together. They realised that Watt's engine had incredible potential in various industrial applications, not just in mines. Boulton's skilled employees worked in a shared building known as a 'manufactory' (later abbreviated to 'factory') rather than in individual shops. This helped significantly in the development of the machine. Watt's engine was soon operating in hundreds of mines and factories all over the country.

RAPID REVOLUTION

The rapid incorporation of Watt's engine into many industries helped set off the Industrial Revolution. The steam engine, once crude and inefficient, became the mechanical workhorse of the country's industries. Before Watt's engine, human enterprise needing power had depended on natural resources, on fast-flowing water or horses or burning wood. Factories could now be built almost anywhere. Networks of factories and mines, linked by railways, sprang up all over the UK. Britain was transformed from an agricultural country into a nation of manufacturers. The rest of the world quickly followed.

THE GREATEST BENEFACTOR

The importance of Watt's invention cannot be overestimated. Watt was once even called the "greatest benefactor of the human race". In 2008, the Bank of England put Boulton and Watt on the new £50 note, with quotes from both men: "I sell here, sir, what all the world desires to have – POWER" (Boulton), and "I can think of nothing else but this machine" (Watt).

WATT ALTERED THE EARTH

Many scientists think that the processes unleashed by Watt have begun to physically change the Earth. Our technology-led capacity to exploit fossil fuels is changing the world. Our atmosphere has higher and higher levels of industrially-produced carbon monoxide, and we are scarring the Earth's surface in our search for coal and metals. Our industries are also acidifying the oceans, killing untold numbers of species. Some scientists argue that one of Watt's last improvements to his steam engine in 1784 should be considered the starting point of the Anthropocene Epoch.

Glossary

- **crude** = rudimentale
- **workhorse** = cavallo da tiro
- **sprang up** = sorgere
- **coal** = carbone
- **trade** = mestiere
- **skilled** = abile, esperto
- **note** = banconota
- **quotes** = citazioni
- **technology-led** = guidata dalla tecnologia
- **scarring** = lasciare una cicatrice
- **ill** = malato
- **wasted** = sprecare
- **apprenticeship** = apprendistato
- **struck** = colpire
- **set off** = scatenare, provocare
- **steam engines** = motori a vapore
- **workshop** = atelier
- **unleashed** = scatenare
- **untold** = incalcolabile
- **argue** = sostenere
- **improvements** = miglioramento
- **shipwright** = carpentiere navale
- **to pump** = pompare