

LOCAL STUDIES EDUCATION SERIES

ISAMBARD KINGDOM BRUNEL



THE LITTLE GIANT
(1806 - 1859)

Isambard Kingdom Brunel earned a reputation as Britain's greatest engineer during the Industrial Revolution. He built some of the world's finest bridges, tunnels, ships and railways. Amongst his finest achievements was the design of ocean-going vessels Great Britain and Great Eastern; the architectural splendour of Paddington Railway Station; the Clifton Suspension Bridge spanning the Avon Gorge at Bristol and the Royal Albert Bridge at Saltash, designed to carry trains across the River Tamar.



ISAMBARD

THE LITTLE GIANT (1806 - 1859)

Born in Portsmouth, the son of a famous French engineer, Isambard went to work for his father after completing his education. At the age of 26 he was appointed Engineer to the newly formed Great Western Railway supervising the construction of the London to Bristol line which opened in 1841. After extending the line from Bristol to Exeter, he then undertook the building of the South Devon Railway from Exeter to Torquay. Whilst working in the area, he bought some land with a magnificent sea view at Watcombe.

During the last years of his life, he spent many summers staying in a rented villa at Watcombe. He involved himself in local affairs and in 1854 spoke on behalf of the neighbourhood in the House of Lords, successfully overturning a decision to build a Gas Works on Babbacombe Beach. Brunel's premature death at the age of 53 prevented him from retiring to Torquay where he had designed a house for his Watcombe estate. Brunel was not very tall and admirers of his great engineering feats nicknamed him 'The Little Giant!'



D BRUNEL

ATMOSPHERIC RAILWAY

Brunel attempted to introduce a revolutionary new system to South Devon called the Atmospheric Railway. Instead of trains being pulled by locomotives, they were pushed by air pressure. Stationary engines, housed in sheds called Pumping Stations, were placed every 5 kilometres along the track. Air was pumped along a pipe laid between the railway tracks which moved the train forward when linked to the leading carriage.

Trials took place between Exeter and Teignmouth, but the new system proved unreliable. The project had to be abandoned when rats chewed

through leather valves along the line allowing air to escape. Brunel built pumping stations at several places including Exeter, Starcross, Dawlish, Teignmouth, Newton Abbot, Torquay and Totnes (pictured above on the left in 1925; it is now a Unigate factory). The system was in many ways ahead of its time and was a mechanical method of how electricity is now carried by overhead cables on tramways or electrified railroads. The Pumping Stations of the Atmospheric Railway can be compared to modern-day Power Stations which generate electricity to our homes!

DID YOU KNOW?

Isambard Kingdom Brunel was born on 9 April 1806. His birth sign was Aries.

He was named after his parents. His father was Sir Marc Isambard Brunel and his mother was Plymouth-born Sophia Kingdom.

He fulfilled his ambition to become a great engineer like his father who was knighted by Queen Victoria.

By the age of six, Isambard was an accomplished artist and understood the principles of geometry. Whilst at junior school in Brighton he made architectural sketches of the town's most important buildings.

In 1825, whilst building the Thames Tunnel, Isambard was almost killed when the river burst into the tunnel. Six men drowned, but he escaped with only a broken leg.

His work meant that he spent long periods away from his family. In 1838, he spent Christmas Day in his workshop trying to improve the design of a railway engine.

Brunel's first ship, Great Western, caught fire on its maiden voyage and Brunel narrowly missed serious injury when he slipped whilst trying to put the flames out.

To prevent such fires, Brunel decided he would not build another wooden ship. The Great Britain launched in 1844 was the first iron steamship to be built.

Brunel's Great Western Railway was nicknamed 'God's Wonderful Railway'.

Many of Brunel's Atmospheric Railway Pumping Stations still stand including one on the Newton Road in Torquay (now used by wholesale company Frank H Mann).

FURTHER INFORMATION

Books about the life of Isambard Kingdom Brunel available from Torbay Library Services include:

Isambard Kingdom Brunel - Richard Tames (1972)

Isambard Kingdom Brunel - David & Hugh Jenkins (1971)

Isambard Kingdom Brunel - John Malam (1996)

For more about the history of Torbay - visit the Local History Collection at Torquay Central Library or view the Torbay Council website (www.torbay.gov.uk) for information on the following subjects:

History of Torbay/Torbay's Heritage/People and Places/Famous People. The site also contains opening times, news of forthcoming events and general information about the following historic buildings and museums which are all well worth a visit:

Torre Abbey Historic House & Gallery, King's Drive, Torquay. Torquay. Tel: 01803 293593

Torquay Museum, 529 Babbacombe Road, Torquay. Tel: 01803 293975

Oldway Mansion, Torquay Road, Paignton. Tel: 01803 201201

Brixham Heritage Museum, Bolton Cross, Brixham. 01803 856267

