Marc Isambard Brunel.

Published in: Salem Press Primary Encyclopedia, 2023, Topic Overviews K-5

Engineer

- **Born:** April 25, 1769
- **Birthplace:** Hacqueville, France
- **Died:** December 12, 1849
- **Place of death:** London, England

Sir Marc Isambard Brunel was a British inventor who was born in France in 1769. He was a well-known inventor and engineer in both Britain and the United States.

Portrait of French-born engineer Marc Isambard Brunel. Library of Congress

In 1793, after fleeing the French Revolution, he became the city engineer for New York City. Later he went to England where, in 1799, he patented mechanized mass-production machinery to make pulley blocks for ships. While he was there, he produced innumerable other inventions —including improved sawmills.

In the early 1800s, Brunel invented a machine that could make pulley-blocks from logs. The machine, which made three different sizes of pulley-blocks at the rate of 130,000 a year, was a great help to the British Royal Navy.

From 1825 to 1843, Brunel was the engineer of the Thames Tunnel in England . It was during this time that he created his most famous invention: the tunneling shield. The device was used by the miners who were digging through the ground beneath the Thames River. The shield could be pushed forward as the miners dug away at the surrounding area.

Because the shield was divided into pockets with doors, the workers were able to remove the material from the front of the tunnel. Also, there was a platform on which the workers could stand. As the shield moved forward the lining of the tunnel was put solidly into place. By using the shield, no part of the excavation was left unsupported.

Brunel is also known for the invention of the steering motor. This invention was used to turn the heavy rudders of ocean-going ships. Inside the motor, an inlet valve, which admitted steam to a cylinder , was opened by the turning of the helmsman's wheel. Another linkage

constantly compared the angle of the wheel, and closed off the steam as the rudder swung around to the desired position.

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By Phyllis Barkas Goldman

Bibliography

Book

James, I. M. *Remarkable Engineers: From Riquet to Shannon* . Cambridge: Cambridge UP, 2010. Print.

Website

"Sir Marc Isambard Brunel." *Encyclopedia Britannica* . Encyclopedia Britannica, 2014. Web. 6 Nov. 2014.

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