**Stephenson, George (1781–1848)**

Nicholas Oddy

George Stephenson (1781–1848) is most noted as a railway engineer. He undertook all aspects of railway

design and was largely responsible for the two pioneering “town-to-town” railways, the Stockton & Darlington

(opened 1825) and the Liverpool and Manchester (opened 1830). He came to particular public fame after his

“Rocket” locomotive won the Rainhill Trials (1829) for steam locomotives to work the latter. The “Rocket” is

perceived to have set the pattern for locomotives thereafter, particularly in its cylinder arrangement.

Stephenson locomotives were often those first employed in other nations, most notably the “Der Adler” in

Germany (1835).

George Stephenson was also famous in the northeast of England as the inventor of the miners’ safety

lamp, introduced in 1815 (which, though oil powered with a flame, would not ignite highly flammable gases).

This invention caused considerable controversy, mainly because the Royal Society, which had offered a prize

for such an invention, refused to believe that Stephenson (who had no formal education) could have thought

the design up. Instead they awarded the prize to Humphry Davy (a noted physicist) who had developed a

different design that was first trialled in 1816.

Stephenson was the son of the fireman of the pumping engine at Wylam Colliery and illiterate until

early adulthood, when he paid for night classes. His humble background coupled with his great success as an

engineer were seen as an example of how one could prosper in the “mechanical arts” without needing the

“classical education” of private schools and universities, nor having to negotiate restrictive professional

hierarchies (as illustrated by the safety lamp). Stephenson died a national hero. He was used as a case study by

Samuel Smiles in his book *Self Help—Or the Lives of the Great Engineers* (1859), which was to become strongly

influential to concepts of entrepreneurship and arguably founded modern ideas of “self –help,” which abound

in business and career development.

**References and further reading**

Smiles, Samuel. [1857] 2012. *The Life of George Stephenson, Railway Engineer*. Cambridge: Cambridge

University Press.