



## **Watt a Man!**

Hi Students,

Probably you don't know me, but I invented the Industrial Revolution. You don't think so? Well, let me tell you my story. I was born in Scotland on January 19, 1736 (everyone in America thinks Scots are brilliant, and I was). Tom Newcomen and Tom Savery, a couple of British engineers, had already invented the steam engine, but it had a lot of bugs. I didn't start in steam engines, but when I was thirty I repaired one of those things and guess what I discovered?

I found that I could make major improvements in it.

How? Well, Newcomen's engine lost a lot of power because the steam escaped, so I rigged up a separate condensing chamber so the steam wouldn't escape from it. That made it more powerful. I took out a patent on this idea in 1769 and then turned to a number of other inventions that I applied to the steam engine that kept up the steam pressure and made the engine up to four times more efficient. Thanks to my efforts, the steam engine, which when I started was used only to pump water out of mines, could be applied to a lot more things—textile manufacturing, for instance. I also invented a rotary-motion steam engine that could be used to move things. This led to the railway. Railways were fundamental to the industrial revolution, as your professor will explain to you, and to a modern economy. I also invented a governor that automatically regulated



the speed of an engine, which, by the way, I think should be used on all cars—you drive too fast. Do you know how fast a fast locomotive went in my time? Thirty miles per hour—and we called it “The Rocket”! By the way, in the course of my work, I invented the concept of and the term horsepower. Do you know what horsepower means? I bet you think you do but I’ll bet you don’t. Look it up. By the way, the watt was also named after me. Do you know what a watt is? Really? Look it up.

Anyway, you know what? I quickly discovered that it’s not enough to be an inventor, you really have to know business and marketing. That’s why in 1775 I hooked up with Matthew Boulton. He had a coin-making operation that made him rich, and he applied the steam engine to his business. Our partnership was great and soon over 500 of our engines operated in Britain. Boulton invented a new system to sell our engines: the client paid for parts and labor plus a percentage of what he saved in the cost of coal over using a Newcomen engine; that’s how efficient our engines were. Not a credit card, but not a bad idea, eh? Pretty soon I was rich too.

We were so successful that people got envious and accused me of holding up the development of the industrial revolution just because I protected my patent rights and blocked other people from making other improvements to the steam engine. Can you imagine! I’m the one who practically invented the thing. There was plenty of time to make improvements after my patents ran out



and after I died on August 19, 1819. After all, as you know, the industrial revolution was just getting started, so what was the hurry?

James Watt  
Inventor

Spencer Discala, PH.D. Copyright 2007