

The industrial revolution**Fire and brimstone****Why it started in Britain**

Aug 12th 2010



Later it became the museum of iron

The Most Powerful Idea in the World: A Story of Steam, Industry, and Invention. By William Rosen. *Random House*; 400 pages; \$28. *Jonathan Cape*; £20. Buy from [Amazon.com](#), [Amazon.co.uk](#)

"REVOLUTION" is an overused word; the latest footling change often hyped into the biggest revolution since the last one. But in the case of the industrial revolution, the mechanical transformation of Britain, and later Europe, during the 18th and 19th centuries, it is entirely justified. William Rosen, an American former editor and publisher, ranks it alongside the invention of agriculture as one of the two most important developments in history.

One peculiar characteristic of the industrial revolution is that it was, at least at first, confined to Britain. That is the mystery this book sets out to explore. Rather than a history of inventions, Mr Rosen's book is a study of invention itself, the process of tinkering with an existing mechanism to make it better.

It begins with an evocative description of George Stephenson's Rocket, a famous early steam engine, and traces the developments needed to make each of its individual components possible. Mr Rosen subscribes neither to the "great man" or the "historical inevitability" schools of history, and his account is wonderfully eclectic. Stalwarts of the industrial revolution such as Thomas Newcomen, a West Country engineer, rub shoulders with John Locke, a political philosopher, and Edward Coke, a lawyer and jurist who did much to shape the common-law traditions of intellectual property.

Mr Rosen discusses why good inventors require a healthy dose of delusion and just how much practice (at anything from tennis to blacksmithing) is required to turn a journeyman into a master. The pace sometimes verges on the frenetic. Important figures are introduced only to vanish from the scene a couple of pages later, but it is an enjoyable read, nonetheless.

The author dismisses the more traditional explanations about why the industrial revolution began in Britain—such as an abundance of coal or the insatiable demands of the Royal Navy—concluding, instead, that it was England's development of the patent system that was the decisive factor. By aligning the incentives of private individuals with those of society, it transformed invention from a hobby pursued by the idle rich into an opportunity for spectacular commercial gain open to anyone with a bit of skill and a good idea. That allowed England to harness the creative potential of its artisan classes in a way that no other country had managed before.

It is a plausible conclusion and Mr Rosen makes a powerful case. Having wisely waited until the very last chapter to reveal that his book, in the end, plumps for intellectual property as the biggest single spur, Mr Rosen retires, content with that thought. That is appropriate in a history, but it would have been interesting to know what Mr Rosen thinks of the way intellectual-capital laws are being challenged at the moment. Biotechnology companies patent genes, the very stuff of life, while scientists worry that this risks compromising basic research. Technology companies take out controversial patents on software or on such "ideas" as being able to order books with a single click, opening patent systems to ridicule. The duration of copyrights, an idea closely related to patents, has been extended again and again by governments captured by vested interests. These are debates of vital importance. After all, the industrial revolution is far from finished.

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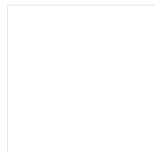
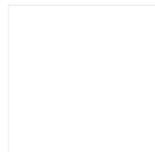
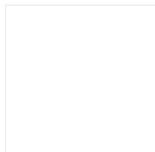
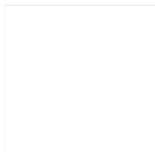
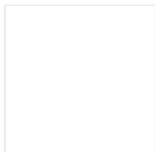
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