

## SIR HENRY BESSEMER AND THE STEEL AGE.

SIR HENRY BESSEMER, the inventor and metallurgist, died in London, March 14. The death of this great man brings a realizing sense of the importance of his contribution to the world's progress, revolutionizing as it did, many vast industries.

Sir Henry was born in Hertfordshire, England, in 1813. From his earliest youth he was fond of modeling and designing, and at the age of twenty he was an exhibitor in the Royal Academy. He had always a leaning toward mechanical pursuits, and when he was demonstrating to the French military authorities at Vincennes the results of his system of firing elongated projectiles from high smooth-bore cast-iron guns, Commander Minie said: "Such projectiles will be of little use if you cannot get stronger metal for your guns." This led Sir Henry to consider the possibility of extending his researches to the kinds of metal most suitable for artillery purposes. At first he did not have the least idea of how he was going to do it, as the science of metallurgy was not familiar to him, but he was not daunted, as he worked on the theory, which is sometimes a good one, which he formulated as follows: "I find that persons wholly unconnected with any particular business have their minds so free and untrammelled to view things as they are, and as they would present themselves to an independent observer, that they are the men who eventually produce the greatest changes."

He studied all the literature on the subject and visited large manufacturing concerns to judge of the defects of the methods then employed. He then began experimenting in London, and after a year he produced a cast iron almost as white as steel. He made a small gun of this metal, which he took to Paris and presented to the Emperor Napoleon III., who encouraged him to keep up his experiments.

Sir Henry continued his labors, taking out patents for each improvement, and at the end of eighteen months the idea struck him of rendering cast iron malleable by the introduction of atmospheric air into the fluid metal. His first experiment was made in a crucible in the laboratory. The samples produced were so satisfactory that facilities were offered him at the Woolwich Arsenal, and the first sample of "Bessemer" steel rolled was preserved by Sir Henry as a memento. He took out a patent embodying his idea in October, 1855. His experiments brought on a severe illness, and after his recovery he built a large experimental plant at Saint Pancras, London, with a converter three feet in diameter and five feet high. The classic trial rendered famous the premises once the home of Richard Baxter. The engine forced streams of air under high pressure through the bottom of the converter, and the workmen were told to pour in the melted iron. Instantly came a dazzling shower of sparks and the dangle lid melted in the fierce heat. The air cock was beside the converter and no one

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