

Great Inventions of the 19th Century | Innovative technologies | Steel industry

Steel was the backbone of heavy industry in both civic and military realms.

Steel production technology took a huge step forward by using what was known as the Bessemer process, which got rid of excess carbon and other impurities in pig iron using oxidation. The Siemens-Martin open-hearth process was the second gigantic step forward, using a more efficient regenerative furnace, steel mass production started from molten pig iron. The availability of inexpensive steel made the construction of large bridges possible and enabled the construction of railways, sky scrapers and large steel ships. With high-quality steel it was also possible to take the production of handguns, guns in general, tanks and other armoured military vehicles to an unprecedented level. The products of the steel industry changed the technical and social landscape, military structure and even warfare. The Ottoman and Arab world was at the receiving end of this equation.



Working Number: JO 069

Name: Section of a rail from Hijaz Railway with commemorative inscription

Holding Museum: Numismatic Museum (Ahli Bank)

Date: 1907

Materials: Cast steel

Curator Justification: The Hijaz Railway is one of the most famous examples of the use of the products of the steel industry. It was built by the Ottoman Sultan 'Abd al-Hamid, as a work promoting the unity of all the Muslims.



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Working Number: SA 001

Name: A railway track with the opening date (1908) engraved

Holding Museum: Saudi Commission for Tourism and Antiquities

Date: 1908

Materials: -

Curator Justification: The Hijaz Railway is one of the most famous examples of the use of the products of the steel industry. It was built by the Sultan 'Abd al-Hamid with the support of Germany and by raising money through donations, revenues of the Ottoman state raised from the sale of stamps, and a special tax.



Working Number: JO 080

Name: Revolver

Holding Museum: Jordan Folklore Museum, Department of Antiquities

Date: Late 19th century – early 20th century

Materials: Cast steel

Curator Justification: The steel industry also changed warfare as new armaments became widespread. This revolver was used during the Arab Revolt and in World War I.



Working Number: JO 081

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Holding Museum: Jordan Folklore Museum, Department of Antiquities

Date: Late 19th century – early 20th century

Materials: Cast steel

Curator Justification: The steel industry also changed warfare as new armaments became widespread. This revolver was used during the Arab Revolt and in World War I.