Why the name of the remarkable Siegfried Marcus has been all but erased from Austrian history

The Forgotten Inventor of the Motor Car

The grave of Austrian inventor Siegfried Marcus in Vienna's Central Cemetery Photo: Duncan J.D. Smith

by Duncan J. D. Smith

There are memorials to Siegfried Marcus all over Vienna – at least six by my count. So it is surprising that the 19th century inventor of the internal combustion engine is not better known. This was the man who paved the way for the motorcar, and so, you could say, one of the architects of 20th century life. What happened?

An age of technological progress

Siegfried Liepmann Marcus was born in 1831 in Mecklenberg in North Germany, where his father was a businessman and head of the local Jewish community. It was an age of rapid technological progress, and the young Marcus knew he wanted to be a part of it. As a teenager he studied at a technical school in Berlin, whilst also working for the engineering firm Siemens and Halske. They were busy erecting Europe's first long-distance telegraph line, and Marcus designed a telegraph relay system for them. It was the first of many important inventions.

Incredibly inventive

In 1852, Marcus moved to Vienna, where from 1856 until his death in 1898 he worked as a self-employed inventor. Wall plaques mark the former site of two of his workshops, at Mariahilferstrasse 107 and Mondscheingasse 4. So productive was he during this period that he logged 158 patents and applied for 38 imperial charters.

An enormously versatile man, Marcus's inventions included the incandescent spirit lamp, electromechanical triggers for naval mines (to protect the harbor of Trieste), the 'Artigraph' (used by lithographers and copper plate engravers to reverse their designs for printing) and a special whale-hunting knife used by the Austro-Hungarian North Pole Expedition of 1872. Empress Elisabeth hired him to install an electric bell system in the Hofburg.

Holy Grail for inventors

The Holy Grail for inventors of the late nineteenth century was undoubtedly the quest for a powered vehicle to replace the horse. The answer came in the form of the internal combustion engine, in which energy generated within an enclosed cylinder through the burning of liquid fuel with air, was brought to bear on the pistons of reciprocating engines, providing drive and thus motion.

As early as the 1860s Siegfried Marcus had suggested the petroleum distillate Benzine – called gasoline in America and petrol in Britain – as a suitable fuel. His choice was prompted by the fact that Austria-Hungary had been exploiting oil wells in its eastern province of Galicia since the early 1800s, indeed it was there that the world's first oil refinery opened in 1858.

In 1870 Marcus attached a petroleum two-stroke engine to a conventional wooden handcart; pedestrians were amazed as it trundled along Mariahilferstrasse. Although the vehicle no longer exists, documents and photographs confirm the early date. It was the world's first mobile internal combustion engine. Marcus also invented the mechanism required to ignite the engine's mixture of liquid fuel and air. An 1883 patent taken out for his *Wiener Zünder* ignition device makes mention of "carburating air", thus giving rise to the modern word carburettor.

The legacy of Siegfried Marcus

Siegfried Marcus died in 1898 in his apartment at Lindengasse 4, and was buried in Hütteldorf cemetery. And for the next forty years Austrian school children were taught as a matter of course that Marcus was the inventor of the motorcar.

However, following Hitler's annexation of Austria in 1938, most of Marcus's papers were destroyed by the Nazis, who were unable to accept that a Jew had made such an important discovery. As a result the legacy of Siegfried Marcus was all but expunged.

Fortunately, a second prototype vehicle dating from 1888 had been preserved in Vienna's Technical Museum, where it was hastily concealed in the cellar. Slightly younger than the earliest automobiles of Daimler and Benz, the museum's staff were determined that history should not be re-written in their favour by the city's new occupiers.

On the fiftieth anniversary of Marcus's death in 1948, the inventor's remains were transferred to a new honorary tomb (*Ehrengrab*) in Simmering's Central Cemetery. A bust of Marcus that the Nazis had removed from Resselpark, in front of the Technical University, was returned to its plinth, and another was placed at the mechanic's institute at Gumpendorferstrasse 130. Even a street was named after Marcus in the Fourteenth District. And yet despite all this, the memory of the German Jewish inventor who made Vienna his second home is all but forgotten.

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