

Stainless steel birth



Some say its birthday is on the 13th August, others take the 20th as the reference day. The fact is that in 2023 our mate, stainless steel, is 110 years. Happy birthday!

Here you have a short chronology:

- 1751 Axel Fredik Cronsted, Sweden, discovers Nickel
- 1778 Carl Wiheim Scheel, Germany, discovers Molybdenum
- 1797 Nicholas-Louis Vaquelin, France, discovers Chromium
- 1912 Eduard Maurer registers a patent for austenitic stainless steel in Germany
- 1913 Harry Brearley produces martensitic stainless steel in the United Kingdom

Here in 1913 is where we stop. As it has usually happened along the history of metals, stainless steel finds its development as a result of armed conflicts. In this particular case, the conflict was the I World War.

Harry Brearley was studying the erosion of rifle barrels, when on 4th June 1912 he wrote *"It might be advisable to start a few erosion trials with varying low-carbon high-chromium steels at once ..."* The following year, he tried with 6 to 15% chromium contents, without any luck. It was on the 13th August 1913, he tried the electric furnace and the cast was no good but the second cast on the 20th August turned out right, with 12.8 percent chromium, 0.24 percent carbon and other elements.

Some sources we recommend:

https://madeupinbritain.uk/Stainless_Steel

<https://wisconsinmetaltech.com/the-father-of-stainless-steel-part-2/>