

Jungner nickel cadmium battery invention

Solid-State Battery Technology

"Ackumulator Aktiebolaget Jungner"?

"Nya Ackumulator Aktiebolaget Jungner"?

Waldemar Jungner was a Swedish inventor-engineer born to two church ministers in 1869. That was a year of failed harvests and famine throughout the nation. As a consequence, Jungner was a sickly child who also contracted measles and scarlet fever. None the less, this remarkable man invented rechargeable nickel-iron (NiFe), nickel-cadmium (NiCd) and alkaline silver-cadmium (AgCd) batteries in 1899.

Jungner studied chemistry, mathematics, astronomy, botany, geology, and Latin at Uppsala University. And then he continued his further studies at Royal Institute of Technology in Stockholm. Science Direct explains how he searched for a better battery than lead acid. Because in those days the "quantity and quality of their electrolyte varied during discharge".

And so it came to pass that he registered a remarkable patent on March 11, 1899. This related to a new role for electrolyte in batteries, according to Science Direct:

Jungner followed through with a patent on January 22, 1901. This described the operation of nickel-cadmium (Ni-Cd) and nickel-iron (Ni-Fe) cells. However, Thomas Edison had been working on a related NI-Fe system in parallel. He patented his idea on February 5, 1901, leading to litigation that Jungner lost. From then on Jungner focused in nickel-cadmium batteries,

Jungner commercialized his NiCad battery invention, although he also investigated cement production, and extracting radium from ores. The nickel-cadmium battery he originally invented played an essential role in early space exploration, and portable terrestrial electrical devices. Waldemar Jungner packed a great deal of punch into a short 55 years, before he died of pneumonia in 1924.

Frederik Helleesen's First Dry Cell Battery

Preview Image: Diagram of a NiCad Battery

Explainer Article in Science Direct

Jungner's Patent for the New Electrolyte



**Jungner  
invention**

**nickel**

**cadmium**

**battery**

Contact us for free full report

Web: <https://kary.com.pl/contact-us/>

Email: [energystorage2000@gmail.com](mailto:energystorage2000@gmail.com)

WhatsApp: 8613816583346

