This is the published version of a paper published in .

Citation for the original published paper (version of record):

Schantz, P. (2019)
Alfred Nobel och hans okände medarbetare: Alfred Nobel and his unknown coworker
Norrbottens-Kuriren, (18 december): 20-21

Access to the published version may require subscription.

N.B. When citing this work, cite the original published paper.

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http://urn.kb.se/resolve?urn=urn:nbn:se:gih:diva-5972
Alfred Nobel and his unknown coworker

By Peter Schantz

Alfred Nobel; without his work and testament, no Nobel Prize. Accordingly, a toast to the memory of Alfred Nobel is raised by the Swedish king, Carl XVI Gustav, when the Nobel Party is held in December 10.

Nobel died unexpectedly on that date in 1896. He had then not written a description of his life in which his gratitude to those who had contributed to the success of his inventions and industrial development protrudes. A number of biographies give clues about it, but the question of who would be included in Nobel’s own thanksgiving toast at the end of his life still hangs in the air, and the answers thus become hypothetical.

It would surprise me if he did not, first and foremost, pay tribute to his parents, the ones who gave him life. His father was also the extremely diverse and creative person who initiated the development of explosive production methods, set up the factory at Heleneborg at Södermalm in Stockholm in 1862, and got Alfred interested in this line of development. At the same time, I am aware that their relationship sometimes was deeply problematic. Probably Alfred would also have paid tribute to those who lost their lives in the development and production of explosives, including his 20-year-old brother Emil. Others in his family would also likely be addressed with great gratitude.

A natural clue to widening a possible circle for Nobel’s thanksgiving toast is his will. Particularly, there are good reasons to seek closer acquaintance posthumously among individuals who received legacies, especially if they were large. My gaze is directed at Alarik Liedbeck, who received 100,000 Swedish Crowns. He then lived at Sturegatan 26, in Stockholm. Who was he, and why did he get this big sum from Nobel? Furthermore, what can explain the fact that, despite so many
biographies, he doesn’t protrude more in them? Could it be due to that the vast majority of people who have sought to capture the life of Nobel have lacked an inside perspective, in that they have neither the technical subject knowledge, nor have they worked within the industrial setting of Nobel?

Someone with this inside perspective was the explosives technician Ragnar Sohlman, one of Nobel's two testament executors, and founder of the Nobel Foundation. He was an assistant to Nobel for the last three years when Nobel lived in San Remo in Italy. In an obituary over Liedbeck in Teknik Tidskrift (Technical Journal), Section for Chemistry, Mining and Metallurgy Sciences, booklet 4, from 1912, Sohlman writes: “Alfred Nobel, like his father Immanuel, was, in the first place, the ingenious inventor, tirelessly working with new principal ideas; moreover, unlike inventors in general, he was a prominent organizer and had great financial ability. The purely technical issues, on the other hand, interested him less as problems; the solution of the same, and especially of the questions related to constructions, were handed over to aides, among whom most prominently is noticed the man whose name stands above this obituary, Alarik Liedbeck. Thus, Liedbeck's most significant lifework is closely linked to the Nobels – father and son – whose well-trained and skilled assistant he was for about 30 years as factory manager, ingenious constructor and experienced consulting engineer. The technology of nitroglycerine, dynamite and ballistics manufacturing has also, in particular during the 25-year period 1867-1892, developed substantially through his involvement and constructive work. Among those in the explosives industry commonly used devices that originates from Liedbeck should particularly be mentioned: the air injector for the nitration of glycerine, the dynamite presses and rolling mills, presses and cutting machines for smoky gunpowder."

What else is known about Per Fredrik Alarik Liedbeck? He was born on February 11, 1834 in Uppsala, studied at the Stockholm Lyceum, and began thereafter to study as a mechanic at the Technological Institute in Stockholm. He graduated in 1851, but then switched to chemical technology, and thanks to scholarships he was able to study chemical-technical factories in Germany, England and France. The experience was turned into an experimental workshop of his own, and rebuilding and extension of alum, vinegar, starch and wood distillation factories in Sweden and Finland. In 1863 he began to translate and publish Rudolf von Wagner's Handbook of Chemical Technology in five parts, but with edits in the Swedish edition based on his own findings.

At this time, the manufacturing of explosives was very dangerous. In the Nobel factory at Heleneborg an explosion in 1864 claimed the lives of six people, including Emil Nobel's. This led to a change of factory site to a hollow area between two framing mountain structures at Vinterviken, a little further into the Lake Mälaren. The idea was that this placing would reduce the scattering effect of any new explosions. In 1866, Liedbeck was hired by Nobel to work at the new factory. Two years later he was involved in a major explosion. In 1872 Alfred wrote to his brother Robert: “I like Liedbeck more and more. More honest, heartily and wise man can be searched for by day with the lantern.” The popular's life could have ended when another major explosion occurred at Vinterviken in 1874. However, its effects were significantly limited by the fact that Liedbeck, along with a few workers, carried out the remaining nitroglycerine to a safe storage place, and this was undertaken at the same time that the wash house for this nitroglycerine was burning. One of his hands was burnt, and he became half deaf for the rest of his life. However, he was honored with the gold medal "for outstanding achievements". But that was the only award given to the modest Liedbeck, and it is despite the fact that he developed the glycerine nitrating air injector, a method that
significantly reduced the risk of explosions during the manufacturing process.

Liedbeck left the factory in Vinterviken in 1875, to assist in building and developing a large number of Nobel dynamite and gunpowder factories in Sweden, Norway, England, Germany, France, Italy and Spain for almost two decades. Ragnar Sohlman wrote that Liedbeck personified “all the best qualities of a distinguished engineer and a good work manager. Inventive, calm and fearless, tireless in his work, friendly and kind-hearted, and personally unassuming to the highest degree, he made friends among all with whom he came in contact.”

Liedbeck's friendship with Alfred Nobel was established already during their childhood, and lasted until his death, and yet he could be critical of Nobel's proposals, often adding his own solutions when implemented. He himself survived Alfred Nobel by 16 years. After the burial in Solna church on March 31, 1912, his coffin was taken to Annelund at the shore of Lake Brunsviken, to be buried there in his grandfather Per Henrik Ling's open air grave.

Thus, Liedbeck's and Nobel's working lives were intertwined, and through Liedbeck's kinship to Ling they are also united through that they are both descendants of the universal genius Olof Rudbeck, the Elder, (1630-1702). At the age of 23, Rudbeck discovered the lymphatic system, for which he would have become a Nobel laureate if he had been born in another time.

Although we have much to thank our ancestors for, it is unlikely that Nobel would have mentioned such a distant relative as Rudbeck in his thanks. But his own family, his father Immanuel, Alarik Liedbeck and those who lost their lives in the production of explosives would probably be given high priority in Nobel’s own thanksgiving toast.

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