

## THE BAKU NOBEL PRIZE

The international prizes established by Alfred Nobel are renowned worldwide and the subject of intense interest and speculation. In contrast, a prize established in Baku to honour Alfred's nephew, Emanuel Nobel, had been all but forgotten until scholars in Azerbaijan unearthed material about the prize. The article below has been abridged for Visions from a paper by Mir-Yusif Mir-Babayev and Bahram Atabeyli, presented at the Branobel Conference in Stockholm in September 2013.

The Russian (Baku) Emanuel Nobel Prize was established in November 1904, during Emanuel's lifetime, by the Baku Branch of the Imperial Russian Technical Society. The prize was awarded four times, in all, for contributions to the development of the oil industry. Before we consider the prize and its winners in detail, we'll take a look at the life of Emanuel Nobel and his place in the history of Azerbaijan.

### *EMANUEL NOBEL*

Emanuel Ludvig Nobel was born in St Petersburg in 1859, the first son of Ludvig and Mina Nobel, grandson of Immanuel Nobel and nephew of Albert and Robert. He went to the St Anna German High School in the imperial Russian capital and trained at the Ludvig Nobel Machine- Building Factory. Emanuel worked at the factory from 1877 and made several trips to study oil production in Baku. Under Emanuel's management, wide-ranging social programmes were carried out in St Petersburg. Residential areas and schools for factory workers were constructed, and free health care provided.

After his father Ludvig's death in 1888, Emanuel, who was just 28, took over management of the Nobel Brothers Petroleum Production Company, Limited, (abbreviated to Branobel - the company's telegram address) in Baku. His younger brother Carl, meanwhile, took over management of the St Petersburg factory. From a rocky start in 1888 as a young head of Branobel, Emanuel developed his skills as a manager to become a man of importance in Russian society, Nobel biographer Brita Asbrink wrote in her paper for the Branobel Conference.

On Emanuel's initiative, Branobel set up schools, libraries and evening courses in technical education for their workers in Baku. He donated huge funds towards the establishment of the Institute of Experimental Medicine during the cholera epidemic in the city in 1892. In the future, he would repeatedly donate large sums to the institute and for medical purposes in general. In 1890, Emanuel became treasurer of the Society of Moral, Intellectual and Physical Development of Young People.

In 1889, Emanuel Nobel took Russian citizenship after he hosted Tsar Alexander III and his wife Maria Fedorovna in Baku. On his 50th birthday, 10 June 1909, Alexander's son, Tsar Nicholas II, bestowed on Emanuel the rank of Actual State Counsellor in recognition of his contributions to science and national education. He was also awarded the orders of St Anna and St Vladimir.

Emanuel never married and lived most of his life in St Petersburg. Unlike his uncles, he seems to have written few letters, so relatively little is known about him. Emanuel managed to escape from Yessentuki in the North Caucasus, where he was caught in the turmoil of 1918, and spent the rest of his life in Stockholm where he died in 1932. Branobel was nationalised by the Bolsheviks.

### *EMANUEL AND THE NOBEL PRIZES*

It's largely thanks to Emanuel that the prizes outlined in his Uncle Alfred's will saw the light of day. He faced down opposition from his Uncle Robert and family, who were concerned at most of their inheritance going towards the prize fund, and from the king of Sweden, Oscar II. Oscar, grandson of Napoleonic Marshal Bernadotte, was adamantly opposed to the peace prize in particular. He invited Emanuel to his palace where he tried to persuade him to prevent the execution of the will, saying: "These peace fanatics have affected your uncle, especially that Austrian woman!" This was a reference to Baroness Bertha von Suttner who had briefly been Alfred Nobel's secretary and later became a leader of the burgeoning peace movement in Europe. The nephew was not afraid of objecting to the king: "Sir, I would not like to neglect my duty before my descendants and to deny to science funds which belong to it and nobody else." In 1897, on the demand of Emanuel Nobel, all of Alfred's capital was withdrawn from the Nobel companies and used to establish the Nobel prize fund. At that time the fund constituted some two million pounds sterling and became the financial basis of the Nobel prizes.

## ***DIESEL ENGINES***

As head of the Branobel company, Emanuel Nobel worked to develop its power division in every possible way, promoting Rudolf Diesel's new engines in Russia. It was under Emanuel Nobel's leadership that the St Petersburg factory in 1899 became the first in the world to manufacture Diesel's motors on an industrial scale. The figures show his success: the Nobel factory in St Petersburg produced seven diesel engines in 1900, but 50 in 1904.

This is how Emanuel Nobel explained his enthusiasm for the Diesel engines in a speech to the board of the Branobel company: We guessed that the diesel engine would be most suited to Russia where enterprises are not so large. We took into account that there is a naturally rich supply of fuel for diesel engines here. So demand for new production will be constant and will grow rapidly.

## ***OIL TANKERS***

The Nobel brothers were known for their innovations. It was under Ludvig's management that the world's first oil tanker steamship, the Zoroaster, was launched in 1877, with a capacity of 15,000 poods (approximately 245 tonnes). Under Emanuel's management, the first oil tankers with diesel engines, the Vandal and Sarmat, both with a capacity of 50,000 poods (approximately 820 tonnes) were launched in 1903 and 1904 respectively. The Vandal, constructed in Sormovo, had three three-cylinder diesel engines with full electric transmission.

Russia became the first "diesel power" in the world, thanks to Emanuel Nobel's mass production of diesel engines for his fleet of oil tankers. The huge diesel-powered tanker Kirghiz was launched on 2 October 1908 in Sormovo, Nizhniy Novgorod, ordered by Branobel. The Kirghiz could carry up to 600,000 poods (over 10,000 tonnes) of liquid cargo. In just two years, four motor-powered tankers were plying the Caspian Sea - three belonged to Branobel and one to the Merkuryev brothers - and made up to 4,000 voyages a year.

In 1913, 70 of the world's 80 motor vessels were in Russia. The Russian trade journal Teplokhod (Motor Vessel) wrote in 1915: The development of the motorship business is closely connected with the development of the oil industry. And, in this respect, as Branobel workers canteen the general manager of the Nobel brothers partnership, Emanuel Ludvigovich did motor shipping a considerable service by regulating the home market, bringing the product closer to the population, making special sorts of fuel and lubricating oils and exploring new oilfields. He also contributed to the regulation of the Russian oil market, gaining a hard-won victory in foreign markets and succeeding in getting and safeguarding the independence of the partnership which was a major Russian enterprise.

## ***THE RUSSIAN (BAKU) EMANUEL NOBEL PRIZE***

The Baku Branch of the Imperial Russian Technical Society founded the prize in honour of Emanuel Nobel in November 1904. (The Baku Branch of the society had been established on 24 March 1879.) Interestingly, one of Branobel's competitors in the Baku oil industry, the Rothschilds' Mazut company, contributed capital of 10,000 roubles to create the prize fund.

The Emanuel Nobel Prize was to be presented annually for the best works or inventions in the oil business with a sum of 1,000 roubles for the winner. The prize winner was decided by a commission, which included renowned architect Col Nikolay (Nikolaus) von der Nonne (1832-1908).

The rules for awarding the prize were:

- Both Russian and foreign citizens were eligible to apply.
- Candidates should submit their work in Russian no later than three months prior to the awarding of the prize, that is, not later than 25 February of the year in question.
- The winner of the prize was announced on 25 May, that is, the anniversary of the founding of the Branobel company.
- Work had to be submitted under a pseudonym with the real name of the candidate written in a closed, sealed envelope, which would be opened only after the prize winner had been determined.
- Results of the competition were to be declared both to the Branobel company and to the companies that contributed to the prize fund.

The Baku Emanuel Nobel Prize was awarded in Baku four times: in 1909, the year of Emanuel's 50th

birthday and the 30th anniversary of the Branobel oil company, in 1910, 1911 and 1914.

### ***VIKTOR HERR***

The first Emanuel Nobel Prize was awarded to Baku oil chemist Viktor Fedorovich Herr in 1909 for his work on "Isolating two main fatty acids of the oxalic acid series through the oxidation of fractions of Baku oil from 500s to 1630SC with 1.4 density nitric acid".

Viktor Fedorovich Herr was born in Taman, Ukraine, in 1875. He was a German subject but later became a citizen of the Soviet Union.

At the III International Oil Congress in Bucharest (8-13 September 1907), Viktor Herr and A.T. Predit gave a report on the chemical composition of Baku oils, which sparked great interest. Herr had isolated naphthenic acids from the water of Boyuk Shor Lake, which gathered run-off water from the oil fields at Balakhani. He managed the laboratory of the Baku Branch of the Russian Imperial Technical Society and was editor-in-chief of the world's oldest oil journal, The Proceedings of the Baku Branch of the Russian Imperial Technical Society, which was founded in Baku in 1886. During the Soviet period, Viktor Herr was professor of organic chemistry at the Azerbaijan Teacher Training Institute and worked closely with Yusif Mammadaliyev. In 1926, ceramic muffle furnaces designed by Herr and G.P. Ulyanov were put into operation.

During Stalin's mass repressions Viktor Herr was arrested on charges of spying for Germany. He was shot in 1940.

### ***MORE WINNERS***

The second Baku Emanuel Nobel Prize was awarded to mining engineer Konstantin Moiseyevich Ilgisonis for his "Design for apparatus for drilling and at the same time plugging wells".

The third Baku Emanuel Nobel Prize was awarded to Moscow University Professor A.M. Nastyukov and his assistant K.L. Molyarov in 1911 for their work on "Acquiring the properties of liquids through the condensation of unsaturated hydrocarbons of oil with formalin"

The fourth and last Baku Emanuel Nobel Prize was awarded in 1914 to a Baku mining engineer, Candidate of Natural Sciences Saak Grigoryevich Isaakov for his work on "A sand reel, operated exclusively by hand, with a bailer attached to the sand reel pulley to prevent dragging".

### ***FIRST NOBEL PRIZE***

Emanuel and Alfred were not the only Nobels to have prizes named after them. In fact, the very first Nobel prize was named after Ludvig Nobel. On 31 March 1889, a year after Ludvig's death, a memorial assembly in his honour was held in the Imperial Russian Technical Society (IRTS). The establishment of the Ludvig Nobel Prize with a gold medal bearing his image was announced at this meeting. The prize was to be awarded for "the best composition or research on the metallurgical or oil industry (in general or in part) or for outstanding inventions or improvements to the equipment used in these industries, bearing in mind their greatest practical application to development in Russia". On 18 January 1891, the IRTS Council approved the regulations for "the prize and medal named after Ludvig Nobel, established under the IRTS by the Nobel Brothers Petroleum Production Company":

- Prizes were awarded by the IRTS Council.
- The session at which the final prize was awarded should always be held on 31 March to commemorate the date of Ludvig's death.
- Information about forthcoming deadlines for the Ludvig Nobel Prize should be published not less than once a year in the IRTS Notes and in the most widely read newspapers in the capital, and also in the Baku provincial press.

The IRTS set the prize at some 1,200 roubles. The first Russian awarded to engineer Alexey Stepanov (1866-1937) in March 1896 for his research on "The fundamentals of lamp theory". The second Nobel prize was awarded in March, 1898 to IRTS member, State Counsellor, Doctor Vsevolod Baskakov for his work on "The oil heating of apartment houses without a fuel oil burner", in which he solved the problem of the full burning of oil without atomisation. In May 1905, the last award of the Ludvig Nobel Prize was made to engineer Alexander Nikiforov for his work "Method of acquiring benzene and its homologues from Russian oil".

### ***ALFRED NOBEL***

The founder of the renowned international Nobel prizes, Alfred Nobel, made most of his money from

dynamite. Alfred, who lived mainly in Paris, visited St Petersburg at the request of his brothers Robert and Ludvig to help them both practically and financially with their companies, of which he was a co-owner. For example, Alfred worked to raise capital for the Branobel Baku oil business from established western banks in order to develop the company. Alfred never visited Baku, despite his brothers urging him to visit the oil fields and refineries.

Ludvig wrote to Alfred in Paris: You render us invaluable support, and I hope that one-day people will cease to think that the Branobel partnership is only Ludvig Nobel.

Alfred Nobel signed his last will and testament, which included the clauses on the establishment of the Nobel prizes, in 1896, seven years after the Ludvig Nobel Prize was announced.

All of the Nobel prizes - those named Ludvig, Alfred and Emanuel - of innovation and enterprise, embodied by the Nobels themselves, and specified the importance of innovation for the benefit of mankind.

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