



Vladimir Shukhov

— and his oil achievements



# Vladimir Shukhov

He is considered to be the creator of the first main oil pipelines, oil storage facilities and thermal oil cracking plants, and after all, there were his innovative pumps for pumping oil, the first bulk barges, etc.

# The first steps in a career

Vladimir Grigorievich Shukhov was born in the town of Grayvoron, Kursk province, into a poor noble family. Since childhood, he has shown a penchant for mathematics and other exact sciences. In 1871, Shukhov became a student at the Imperial Moscow Technical College (now Bauman Moscow State Technical University). Shukhov patented his first invention while still a student.

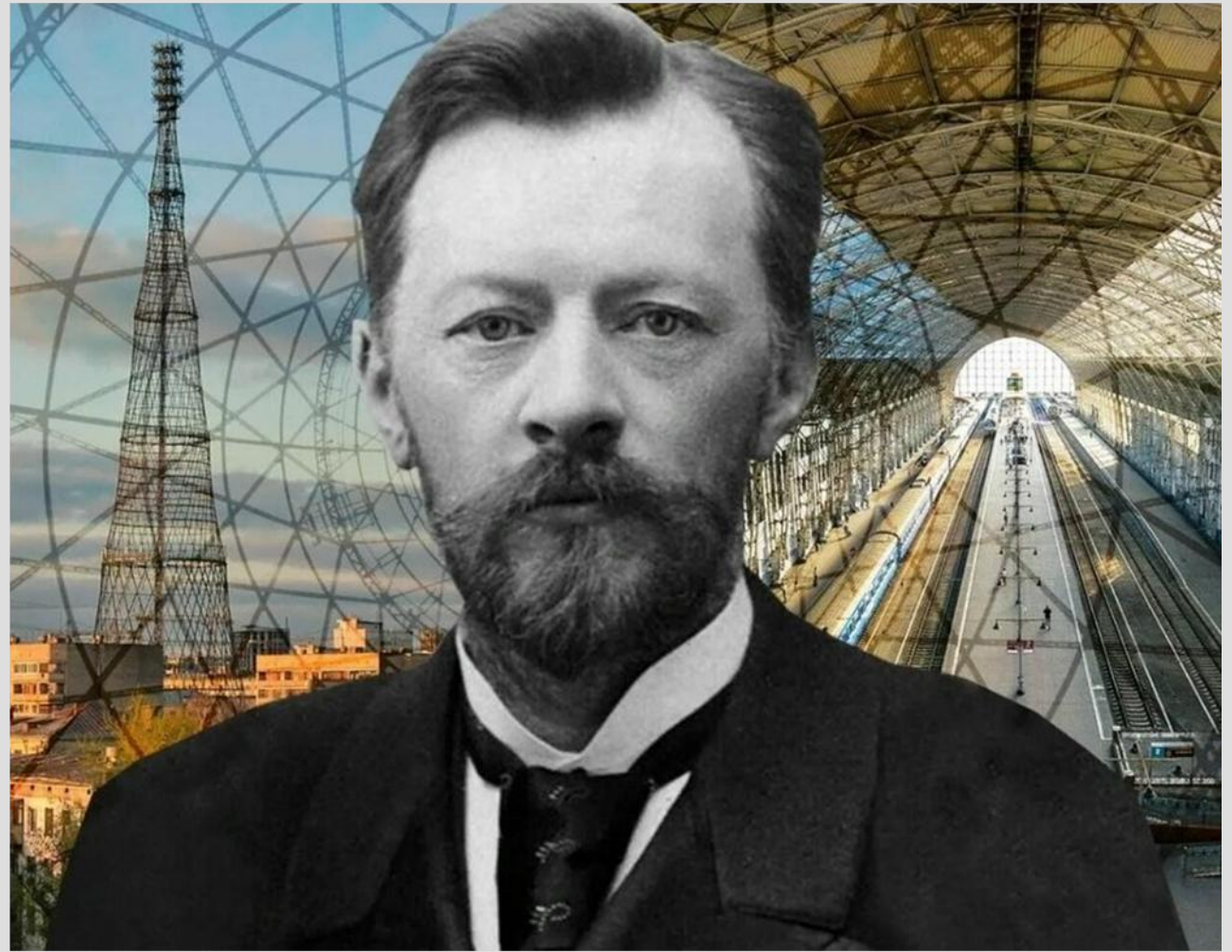
The "device that sprays fuel oil in furnaces using the elasticity of water vapor," or steam nozzle, had a huge impact on the oil industry and is still used in various fields.





# World fame

After graduating from college with a gold medal in mechanical engineering in 1887, he traveled to the United States as part of a scientific delegation to familiarize himself with industrial achievements at the World's Fair. There Shukhov meets Alexander Veniaminovich Bari, who acted as a "guide" for the Russians at the exhibition. Bari will soon come to Russia at the invitation of the Nobel brothers. He will become the chief engineer of their partnership and, remembering the young talented engineer, will offer him to head the company's branch in Baku. That's how their creative union was born.





# Progress

The first oil pipeline in the Russian Empire was designed by Vladimir Grigoryevich Shukhov. It was completed in 1878 and connected Balkany and Chernyy Gorod near Baku. It marked a significant step in the development of the oil industry in the country. To construct the pipeline various manufacturing techniques were used.

- To prepare them, steel was cut into the desired lengths and widths.
- The overlapping sections were joined together using rivets.
- The rivets were heated until they were red-hot and then hammered to create a tight seal. As the rivets cooled, they expanded, ensuring a secure connection between the plates.
- This additional layer of protection helped to ensure the integrity of the pipeline.
- These manufacturing techniques were a significant achievement for their time. They laid the foundation for the subsequent expansion of oil pipelines in the region and contributed to the growth of the oil industry in the Russian Empire.

