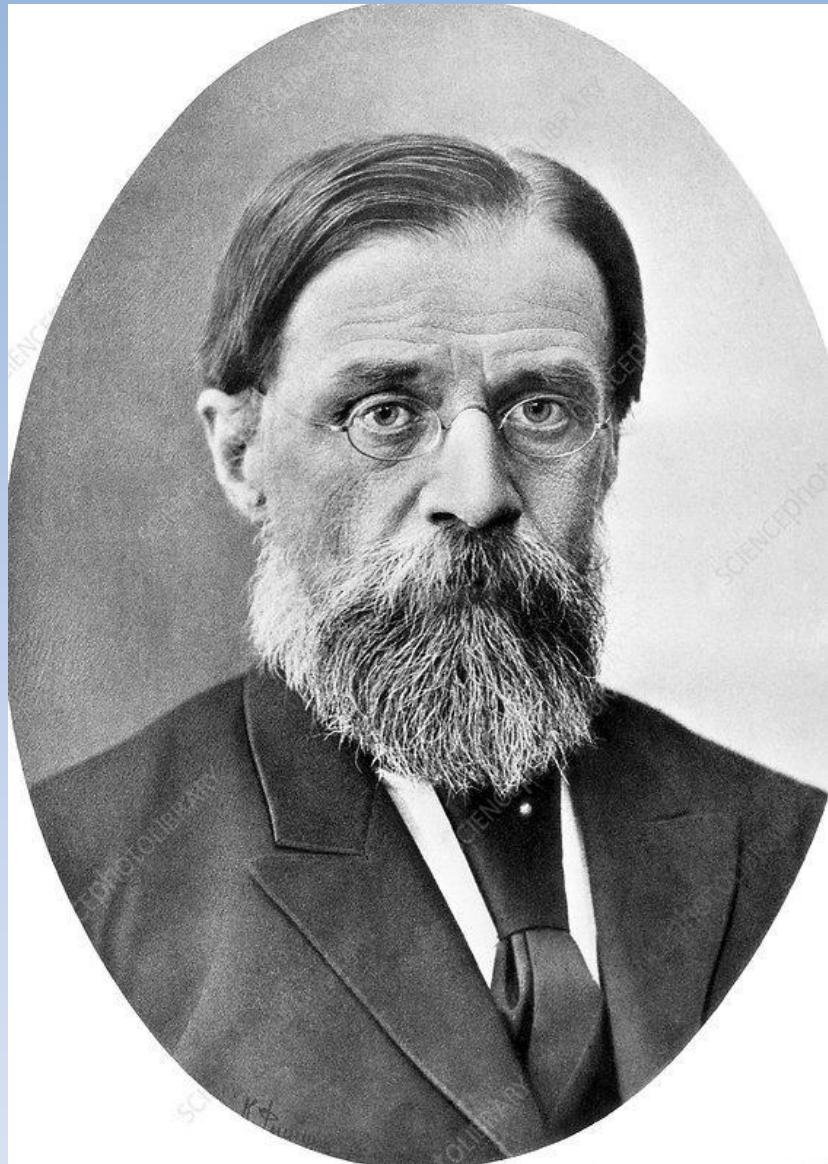




Aleksandr
Stoletov

**Alexander Grigorievich
Stoletov** was
a Russian physicist, founder
of electrical engineering, and
professor in Moscow
University.

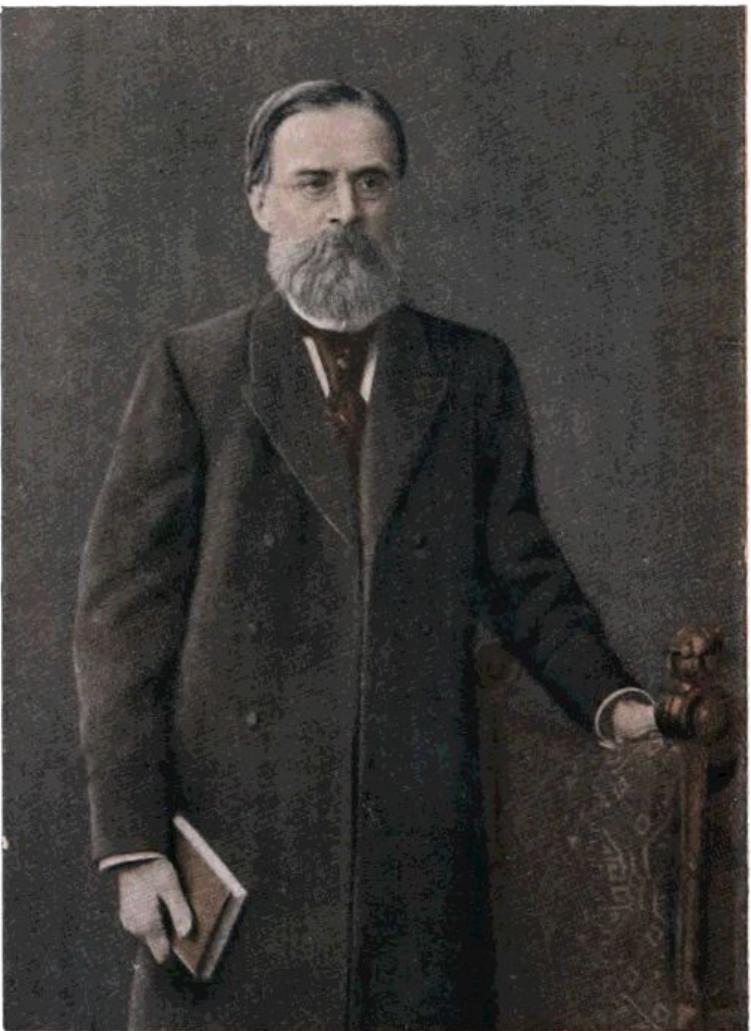
He was born on the 10th of
August, 1839 in Vladimir.





He studied at the Vladimir gymnasium. After graduating from high school with honors, he entered the physics and mathematics Department of the Imperial Moscow University and also graduated with honors.

He took an internship abroad, studying physics in Heidelberg, Gottingen, Berlin and Paris.



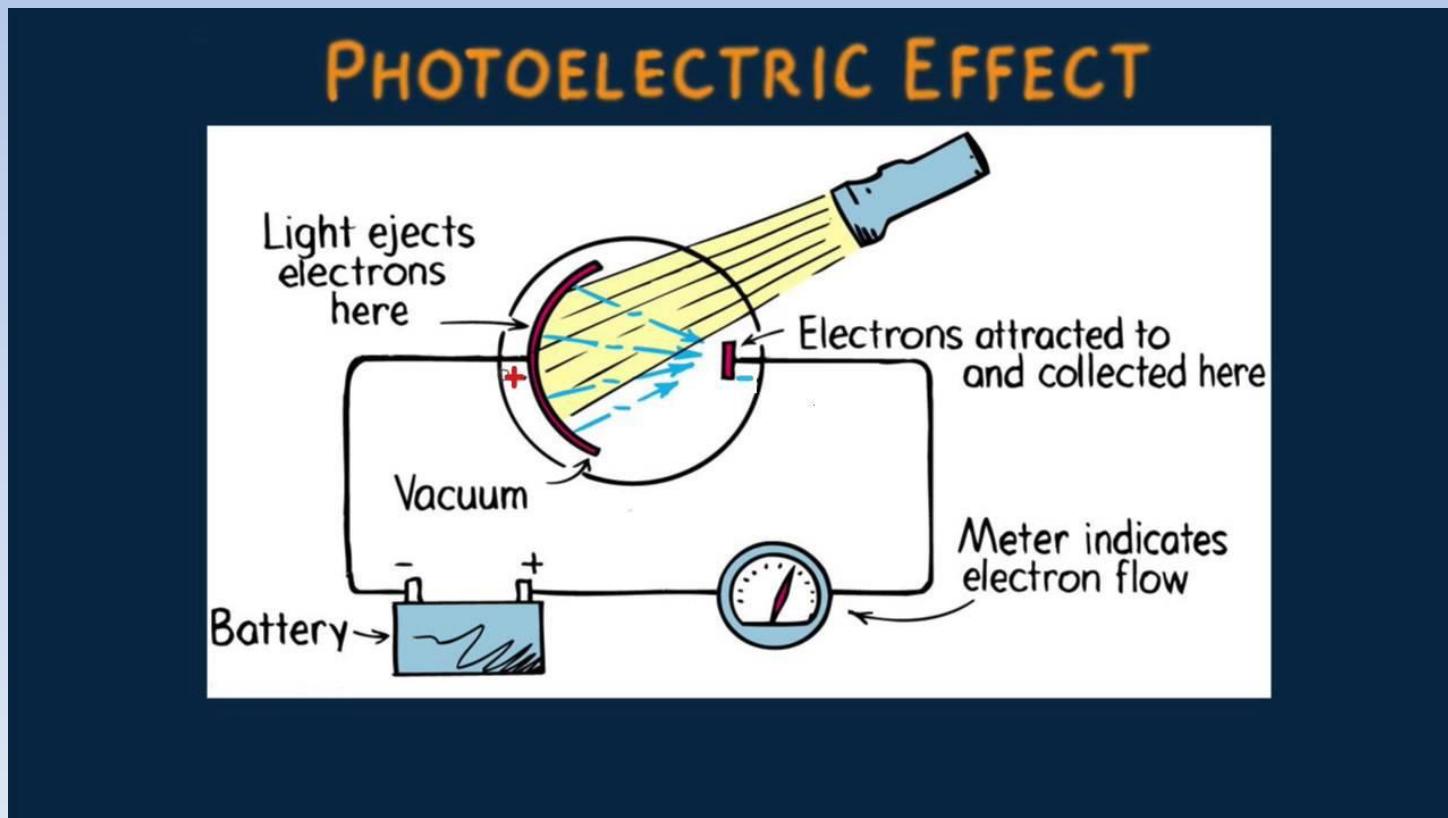
Stoletoff

In February 1866 he began lecturing on mathematical physics and physical geography at the Imperial Moscow University.

Stoletoff was considered a strict teacher. He was known for asking all sorts of tricky questions, then looked blankly at the student with a stony face and mercilessly failed one by one.

Contribution to science

- His major contributions include pioneer work in the field of ferromagnetism and discovery of the laws and principles of the outer photoelectric effect.



Magnetism

- Stoletov was the first to show that with the increase of the magnetic field the magnetic susceptibility of iron grows, but then begins to decrease.
- He built the curve of the magnetic permeability of ferromagnetics, known as the Stoletov curve.
- Also he developed two new methods for measuring magnetic properties of various materials.

Photoelectric effect

- Studied the outer photoelectric effect, discovered by Hertz in 1887. Published the results in six works.
- Developed quantitative methods for the study of the photoelectric effect.
- Discovered the direct proportionality between the intensity of light and the corresponding photo induced current (Stoletov's law)
- Discovered the Stoletov constant which defines the ratio between the intensity of the electric current and the gas pressure under the maximum current.
- Built the first solar cell based on the outer photoelectric effect and estimated the response time of the photoelectric current.
- Discovered the decrease of the solar cell's sensitivity with time (fatigue of solar cells).

- Also he calculated the proportion between electrodynamic and electrostatic units, producing a value very close to the speed of light.



- Today there is a monument to Stoletov in front of the building of physics department of the MSU on Vorobyovy Gory.
- Since 2009, Vladimir state University has been named after Stoletov.
- The Russian Academy of Sciences awards the A. G. Stoletov Prize for outstanding work in physics.

