

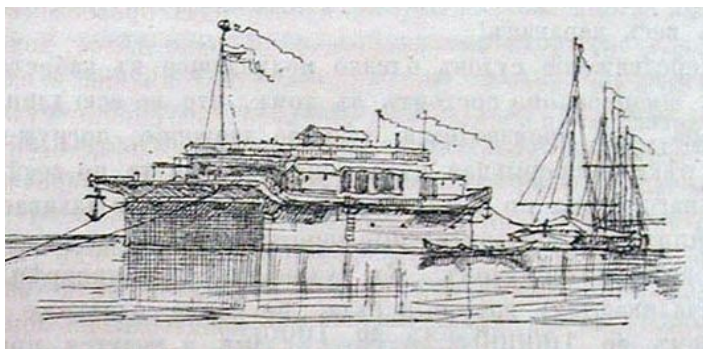


## Association “Russian House of International Scientific and Technological Cooperation”

### ELECTRONIC INVENTION INFO 7<sup>TH</sup> INT’L INVENTORS’S DAY (IID) VIRTUAL CELEBRATION 2014 JUNE 13, HUNGARY

#### FIRST RUSSIAN INVENTOR WITH BREVET DE INVENTION

##### Ivan PUADEBARD

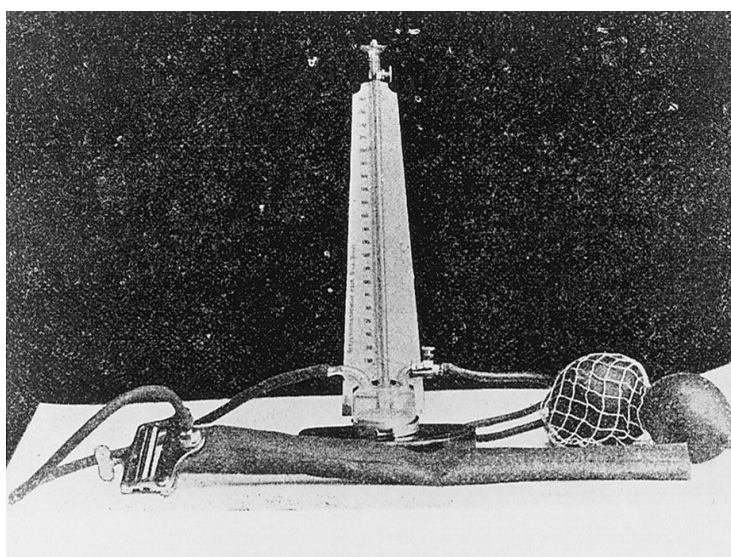


In accordance with the First Patent Law of the Russian Empire from 1812 the first brevet-privilege was granted for 10 years mechanical engineer Ivan Puadebard for *the machine for charging the boats against the current of water* on

**May 29, 1814**

#### TOP THREE RUSSIAN PATENTED INVENTIONS IN THE 20<sup>TH</sup> CENTURY

##### Nikolai KOROTKOV



Every day, all over the world, many thousands of physicians, nurses, and paramedics measure systemic arterial pressure by applying a cuff with an inflatable bladder around the patient's arm and using a stethoscope to listen to the sounds in the brachial artery. Many care providers know that they are listening to “Korotkoff sounds,” but very few know that the method was introduced by a Russian doctor and scientist, Nikolai Korotkov. Indeed, a report on a *method of measurement of arterial pressure* was presented on **November 8, 1905**, at a scientific seminar of the Imperial Military Medical Academy, Saint Petersburg, Russia

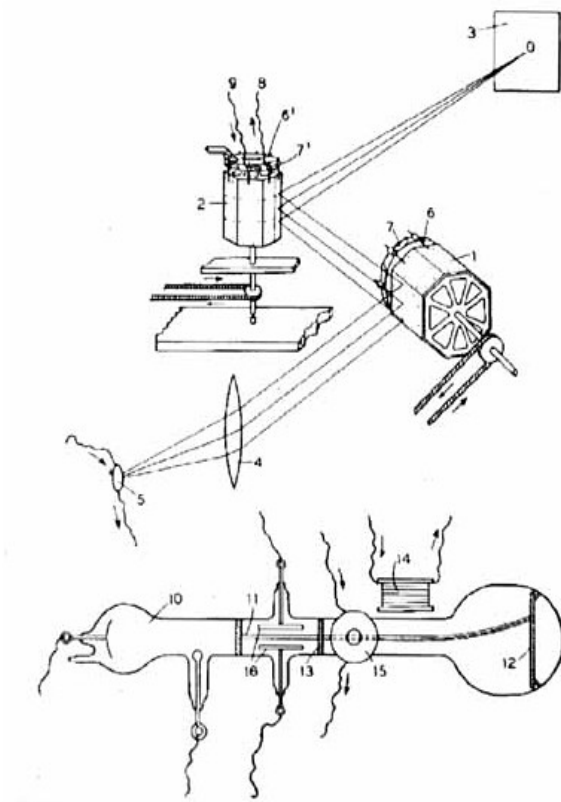
## Boris ROSING

He first envisioned a Television system using a cathode-ray tube as a receiver. Rosing filed a patent application for *The method of electrical transmission of images over a distance* in Russia, Germany and England on **November 26, 1907**

Rosing's invention expanded on the designs of Paul Nipkow and his mechanical system of rotating lenses and mirrors. Accordingly, Rosing's system employed a mechanical camera device, but used very early cathode ray tube as a receiver.

Rosing's tubes consisted of two parallel metal plates that were used to electrically shift the electron beam itself before it was scanned and reached the screen. These two plates were connected electrically to the photoelectric cell in the camera. Depending on the output of the photoelectric cells, the beam would be deflected up or down before entering the concentrating plate. Since this movement increased or decreased the number of electrons passing between the plates, it had the effect of varying the brightness of the electron beam.

The system was primitive, but it was definitely the first experimental demonstrations where the cathode ray tube was employed for the purposes of television.





## Sergei KOROLEV



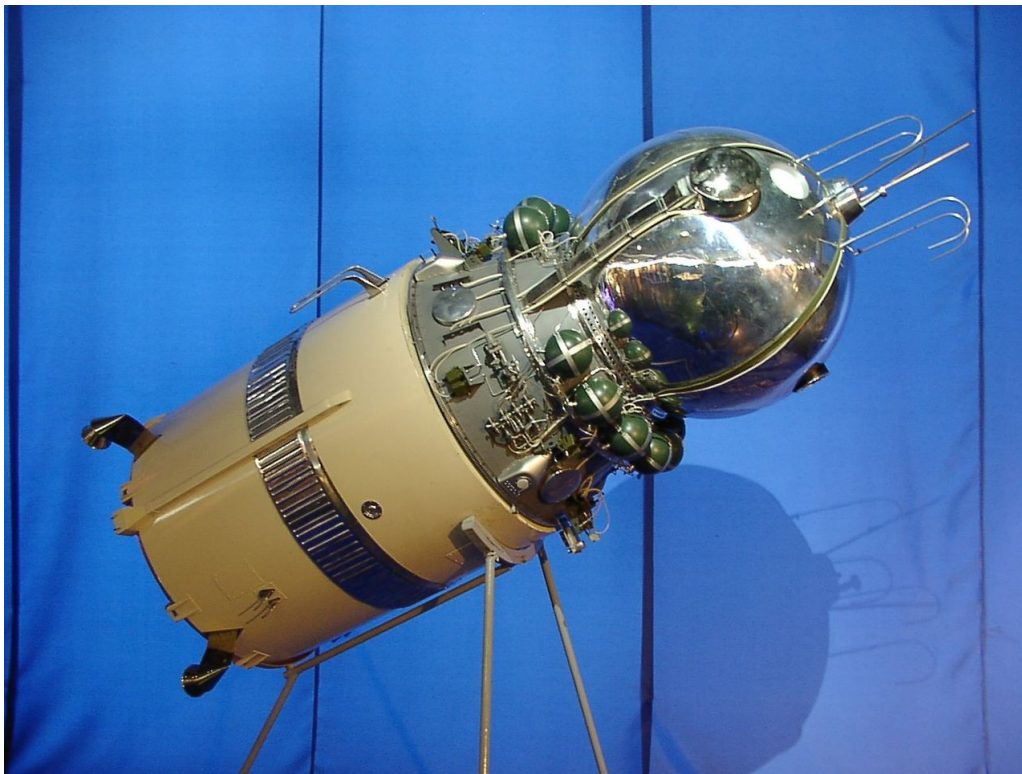
### *The first human in Space and Earth orbit*

The flight of Vostok 1 – was a defining moment of the 20th century and opened up the prospect of interplanetary travel for our species.

Korolev's planning for the piloted mission had begun back in 1958, when design studies were made on the future Vostok spacecraft. It was to hold a single passenger in a space suit, and be fully automated. The capsule had an escape mechanism for problems prior to launch, and a soft-landing and ejection system during the recovery.

An unpowered prototype performed 64 orbits of the Earth, but failed to return. Four tests were then sent into orbit carrying dogs, of which the last two were fully successful. After gaining approval from the government, a modified version of the rocket R-7 was used to launch Yuri Gagarin into orbit on **April 12, 1961**.

The Nobel Prize committee attempted to award Korolev but the award was turned down by Khrushchev.



## TOP TWO RUSSIAN PATENTED INVENTIONS IN THE 21<sup>st</sup> CENTURY



**Renat AKCHURIN**

*Portable self-contained vacuum system for coronary bypass operations on the beating heart "KOSMEYA"*

Patent № RU 2216284 from **November 20, 2003**



The complex "KOSMEYA" autonomously creates a vacuum can be used in any category of operating equipment, including in the field, with coronary artery bypass surgery on a beating heart, as well as in wounds of the heart. The complex is designed for: local vacuum fixation of surgical procedure without cardiac infarction; vacuum fixing and holding in position the working apex of the heart during surgery on the posterior surface.



**Marina MYAGKOVA**

*The screening method DIANARK - Diagnostics of drugs of abuse intake fact*

Patent № RU 2250467 from **December 24, 2003**

Drug addiction is social and medical problem. One of the achievements in its solving is fundamentally new immunochemical mean for drug abusers reveal that don't have any analogue in the world.

The screening method DIANARK is based on the detection of specific markers (antibodies) which form in the organism after drug intake. The method is revolutionary as it reliably and authentically reveals drug intake in 2-4 months after last drug use, even if periodicity of drug usage is ones in 1-2 weeks.

The diagnostic kits DIANARK® are produced for determination of blood markers for the following groups of drugs: opiates, cannabinoids, amphetamines, barbiturates, cocaine, ephedrone.

