### Inventions from Slovakia and Slovak inventors in the World

#### 1. Miroslav Trnka

Miroslav Trnka is a co-founder and chief technology officer of Eset. One of the best antivirus programs in the world, used by millions of people all over the world NOD antivirus has been developed by Slovak company ESET. ESET is an IT security company headquartered in Bratislava, Slovakia that was founded in 1992 by the merger of two private companies. The company is privately held and has branch offices in San Diego, California; Wexford, Ireland; London, United Kingdom; Buenos Aires, Argentina; and Prague, the Czech Republic. ESET's first product was NOD, an antivirus program for computers running MS-DOS.



## 2. Ivan Alexander Getting

(January 18, 1912—October 11, 2003) was an American physicist and electrical engineer credited (along with Roger L. Easton and Bradford Parkinson) with the development of the Global Positioning System (GPS). Ivan A. Getting was born on 18 January, 1912 in New York to family of Slovak immigrants from Bytča, Slovakia and grew up in Pittsburgh, Pennsylvania. Ivan Getting was the inventor of the GPS. This is a form of the global positioning device . We now use this instrument to help us find our way when we drive. As time goes on, scientists will become more innovative and GPS becomes smaller. GPS has a positive impact on people. There is no longer a need for a compass. This device is small enough to fit in a car.



car navigation



**Gps** Satellite

#### 3. John Dopyera (born Jan Dopjera)

**John Dopyera** (born *Ján Dopjera*) (1893-1988) was a Slovak – American inventor and entrepreneur, and a maker of stringed instruments. His inventions include the resonator guitar and important contributions in the early development of the electrical guitar.



Resonator guitar with single inverted resonator

The name originated in 1928 when the Dopyera brothers formed the Dobro Manufacturing Company. "Dobro" is both a contraction of "**Do**pyera **bro**thers" and a word meaning "good" in their native Slovak language. An early company motto was "Dobro means good in any language."

The Dobro was the third resonator guitar design by John Dopyera, the inventor of the resonator guitar.

The Dobro resonator guitar was fundamental to the evolution of bluegrass music. The design cut through all musical boundaries, however, proving equally at home in folk, rock country, blues and jazz.

**4. Peter Danišovič** (1907) – professor, engineer and builder of dams in Slovakia. He is the author of the Gabčíkovo - Nagymaros project, of which Gabčíkovo Dam was completed. Other projects he worked on include, Orava Dam , Ilava Dam, Ladce Dam, and Dubnica Dam.

**Gabčíkovo – Nagymaros Dam** is a large barrage project on river Danube. It was initiated by Budapest Treaty in 1977 between Czechoslovakia and Hungary. Its purpose is to prevent catastrophic floods, to improve sailing quality and produce clean electricity. Only a part of the project has been finished in Slovakia - under the name **Gabčíkovo Dam/Waterworks**.

**Gabčíkovo dam** consists of two main structures: power plant and two lock chambers. This level of Waterworks was designed to use difference of water level for producing electricity, to allow ships to pass safely through locks and to take flood water away. Chambers are on the left side of Danube and difference of water level is about 16 meters. Power plant on right side produces 2650 GWh annually. Above this complex a 10 m wide road bridge leads. Operating of power plant is fully automated. The Waterworks fixed several environmental problems in the territory:

- Protection of the area against floods, which caused big damages in the past;
- Regulation of water level of Danube, which means navigability of the river during whole year;
- Stabilization of the stream means improving environmental parameters: improving quality of water and stopping decreasing of groundwater level and improving conditions for agriculture.
- stabilization of the bottom and stream of the Danube river.



# 5. Štefan Banič (Stefan Banic)

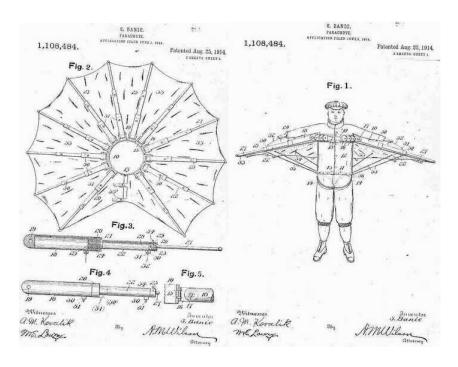
(23 November 1870 - 2 January 1941) ethnic Croat of today Slovakia inventor of the military parachute and of the first actually used parachute.

Born on 23 November 1870 in Neštich, Kingdom of Hungary, Austria-Hungary now part of Smolenice, Slovakia. Banič immigrated to the United States and worked as a coal miner in Greenville, Pennsylvania.

Štefan constructed a prototype of a parachute in 1913 and tested it in Washington D.C.in front of the U.S. Patent Office and military representatives by jumping from a 41-floor building and subsequently from an airplane in 1914. Banič donated U.S. Patent (No. 1,108,484) to the U.S. Army. He received little fame or fortune for his invention.

Although the idea of parachutes was known long ago, and Banič's invention is a radically different type of a parachute from the type known today (it was a kind of umbrella attached to the body), it was the first parachute known to be actively used—it was used by the US Air Force during World War I and saved the lives of many aviators.

After World War I Banič returned to Slovakia.



Students of Gymnazium L. Stura Trencin, Slovakia