



# Hungarian inventors and their inventions



Erasmus+



# Kempelen Farkas

Born in 1734 in Bratislava, Slovakia, died in 1804 in Vienna, Austria  
inventor, architect, engineer

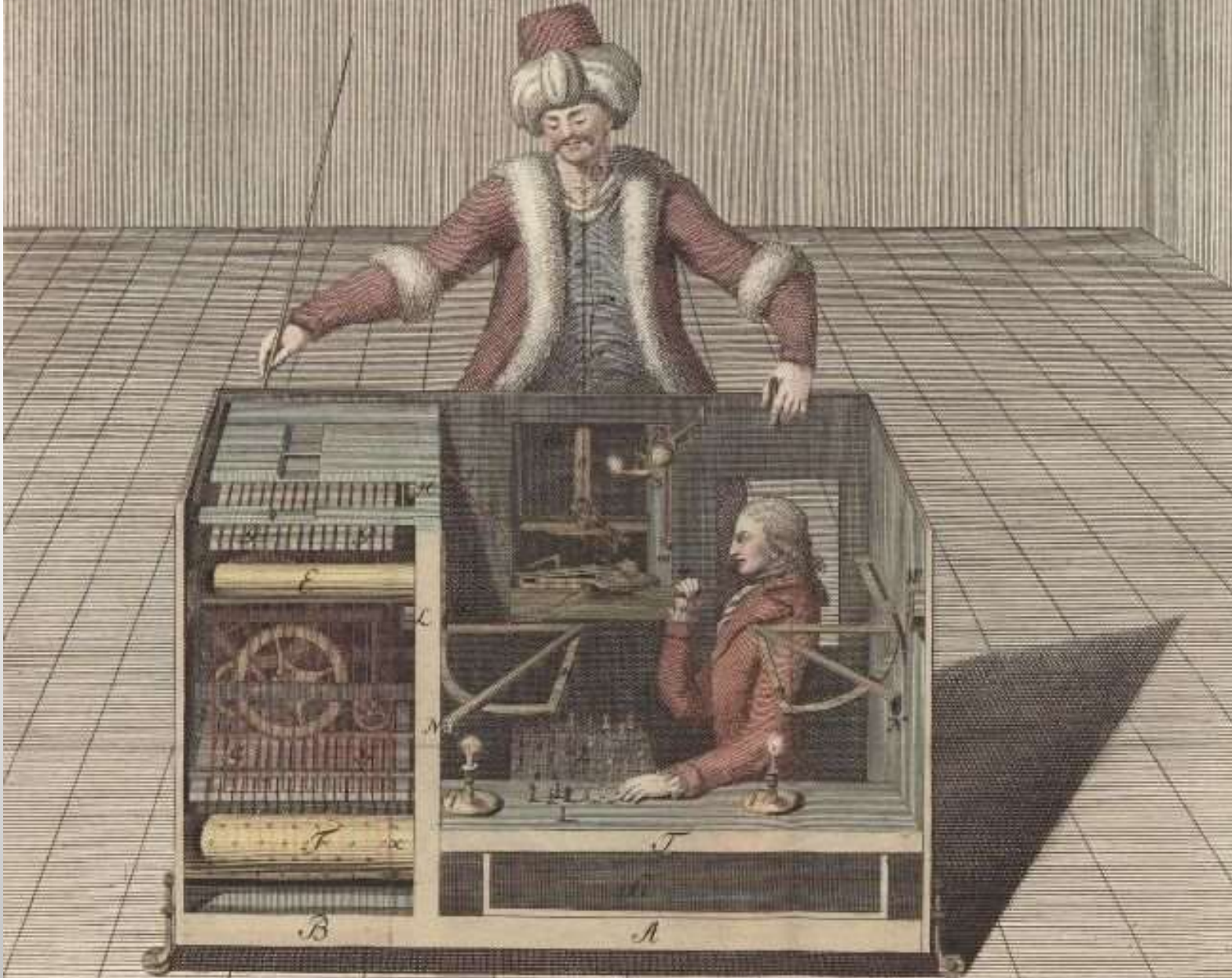


# Inventions

- The Turk, a chess-playing automaton
  - The machine consisted of a life-sized model of a human head, dressed in Turkish robes and a turban, seated behind a large cabinet on top of which a chessboard was placed.
  - The machine appeared to be able to play a strong game of chess against a human competitor

The Turk

III. 87



- Speaking machine
  - An early version (though not the original) can still be seen in the Musical Instruments section of the Deutsches Museum in Munich
- Steam-engines
- Waterpumps

The speaking machine

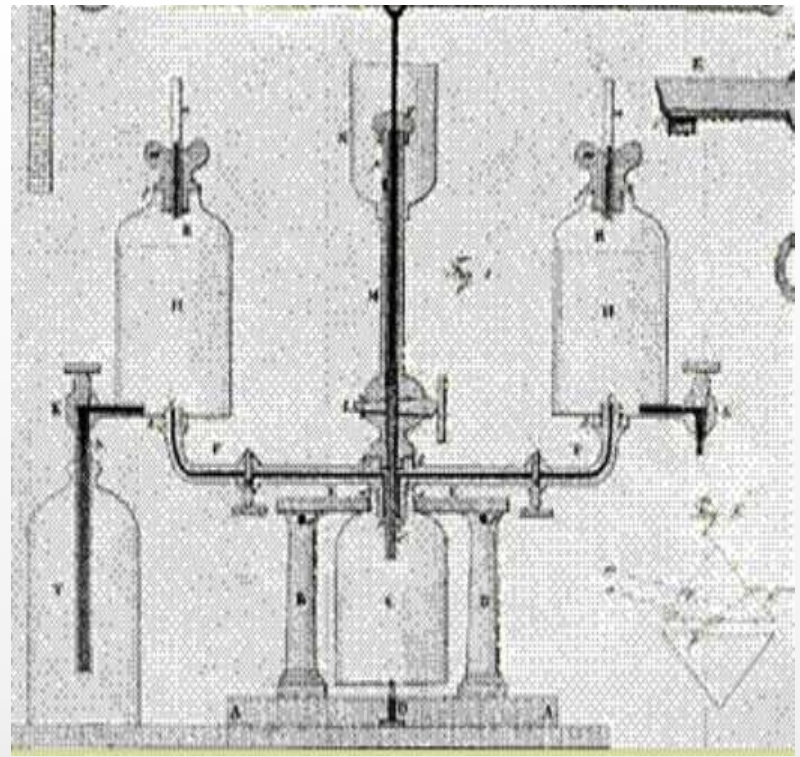




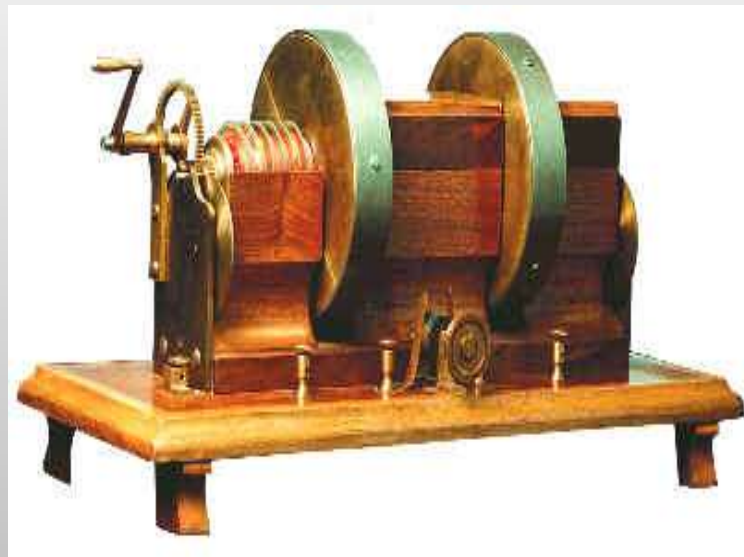
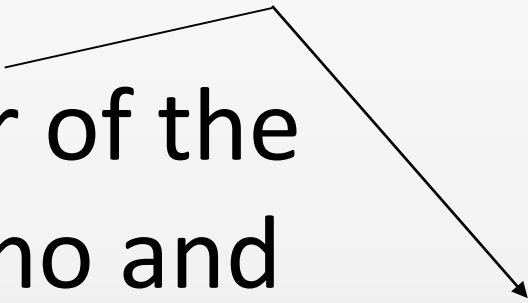
## Jedlik Ányos

Born in 1800 in Szímő, died in 1895 in Győr  
Scientist, inventor, Benedict monk and teacher

– Founder of the  
soda-water  
maker



– Father of the  
dynamo and  
electric motor.





# Semmelweis Ignác

Born in 1818 in Buda, died in 1865 in Vienna)  
doctor, discoverer



- Ignác Semmelweis was born on July 1, 1818 in Tabán, and he died on August 13, 1865 in Vienna.

"savior of mothers"



Semmelweis discovered that women who gave birth in hospitals died, because of high fever, caused by doctors' infected hands.

He made doctors wash their hands in antiseptic liquid.

# Csonka János

Born in 1852 in Szeged, died in 1939 in Budapest  
Inventor and honorary mechanical engineer



## Inventions

- the petrol engine, the carburetor and the first Hungarian motorcycle and motor-boat (with Bánki-Donát),
- the first Hungarian gas engine
- several other engines and vehicles including the first motor tricycle and postal automobile of the Hungarian Post, which were used for decades



His first leaf collector tricycle



The first Hungarian car planned by Csonka János

# Bánki Donát

Born in 1859 in Bakonybánk, died in 1922 in Budapest  
Mechanical engineer, inventor and university professor



Inventor of the petrol engine and carburetor (with János Csonka), high-pressure combustion engine (Bánky engine), front wheel drive car , steam turbine and water turbine, high-compression engine with a dual carburetor



- The carburetor mixes fuel and air in the engine.
- Invented by Donát Bánki and János Csonka in 1893.



## **József Galamb**

Born in 1881, in Makó, Hungary and died in 1955 in Detroit USA  
engineer, car designer

- Studied at Budapest Industrial Technology Engineering Course (Today: Bánki Donát Politechnical College)
- Went to see the world (Vienna, Dresden, Berlin, Hamburg, Bremen) and worked for several big automobile companies
- Joined the Ford Motor Company as a designer in 1905
- redesigned the cooling system of the Model N
- chief designer of the first mass produced car in the world, the Ford Model T



Ford Model N

Ford Model T





- He was one of the co-developers of the assembly line in 1913
- From 1915 he worked on the Fordson tractor design
- During World War I he designed several military hardware, e. g. anti-submarine detection systems



Fordson tractor



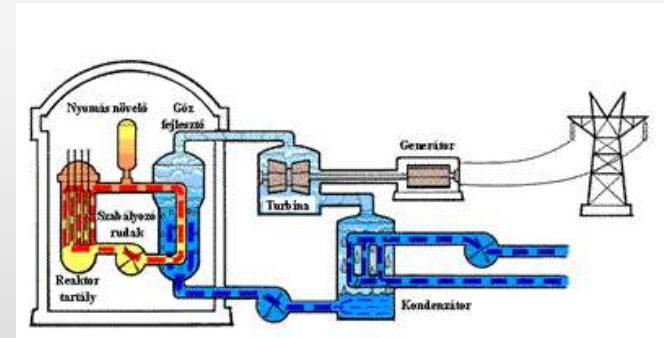
## Szilárd Leó

Born in 1898 in Budapest and died in 1964 in California, USA

Physicist, biologist and inventor

# Work

- First invention: Wireless telegraph apparatus, prepared to own use
- Patents: particle accelerators, electron microscope, a new type of refrigerator (along with Einstein), pumps, piston
- Main invention developed to help the USA in World War II:  
→ nuclear chain reaction → [nuclear reactor](#)
- He realised the uranium transforms into plutonium within a few days which can be an atomic bomb.
- He demonstrated against the atomic bomb.
- After World War II he switched to biology.
- He was involved in the first cloning of a human cell.
- Examined bacteria
- After diagnosed with bladder cancer he invented radiation treatment to cure himself (radiotherapy).



# *Rememberance*

- **On the other side of the moon a mooncrater bears his name**
- **Two minor planets are named after him**
- **The American Physical Society named an award after him**
- **Szilard Leo Award of the Hungarian Nuclear Society, Szilárd Leó Professorial Fellowship**



## **Asbóth Oszkár**

Born in 1891 in Pankota, Romania and died in 1960 in Budapest  
Engineer, director and a Hungarian helicopter erector.



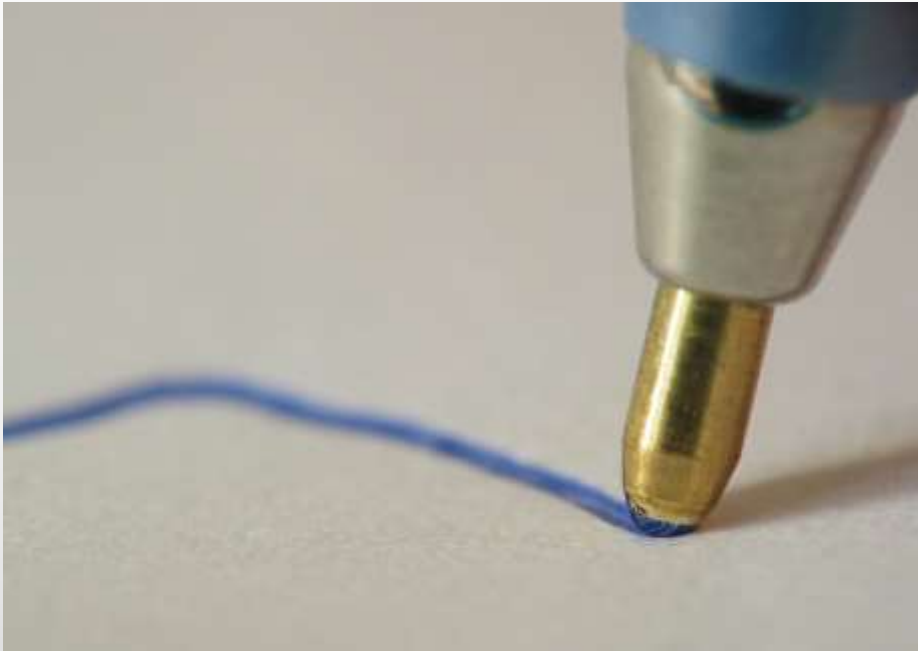
- First he was an engineer, later he became the director of the Propeller institute.
- A few years later he planned a lot of propellers more than one thousand
- 10 years later he invented a helicopter, that was able to float in the air.

# Bíró László József



Born in 1899 Budapest and died in  
1985 in Buenos Aires  
Hungarian journalist, artist and  
inventor

# Ball pen/ Biro



- Patented in Hungary in 1938
- It spread very quickly in Europe and America

Easy to use in wet weather



# János Neumann

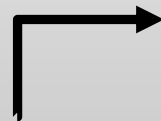
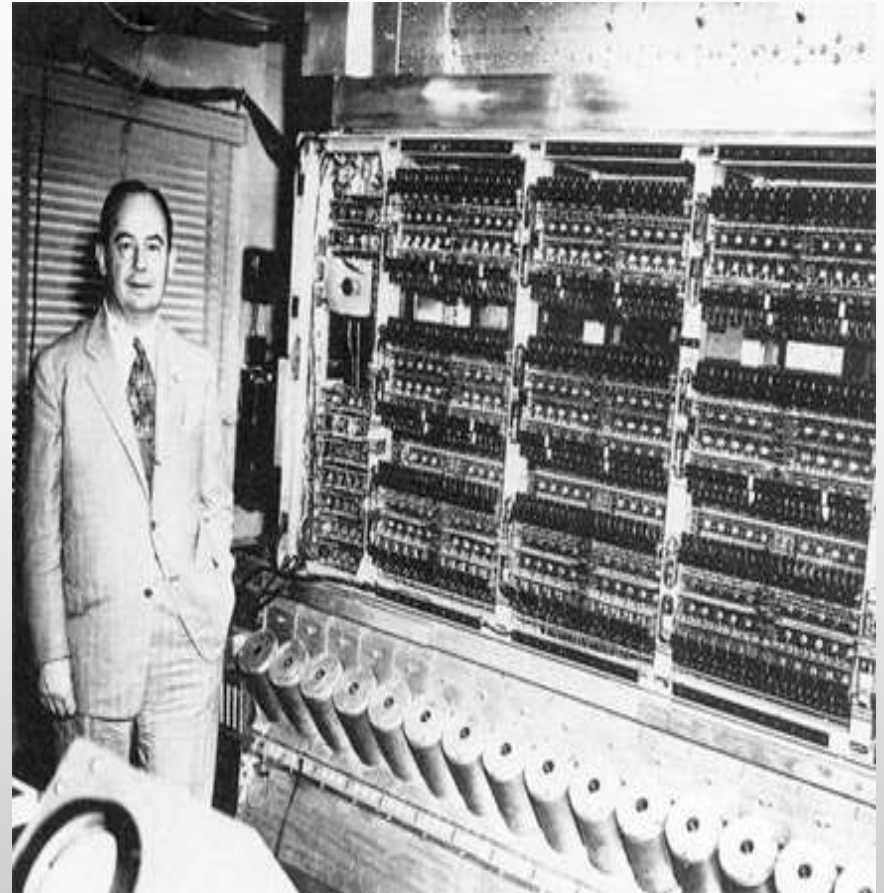
Born in 1903 in Budapest and died in 1957 in  
Washington

Mathematician



# • Inventor of the computer

- The „Neumann’s principles:
  - Binary number
  - Memory
  - Saved programs
- Member of the Manhattan Project  
(Hydrogen bomb)



**Neumann with the IAS – one of the first computers**

# Goldmark Péter Károly

He was born in 1906 in Budapest and died in 1977 in  
Wetchester county, New York, U.S.A  
engineer, physicist and inventor



- Demonstrated the first commercial color-television system
- Developed the long-playing (LP) microgroove disc, revolutionizing the recording industry.
- In 1950 he developed a scanning system that eventually allowed the U.S. Lunar spacecraft to relay photographs from the Moon.



LPs record  
(vynil)



Colour television

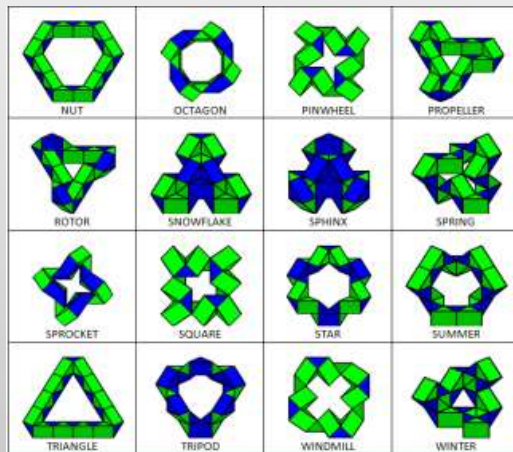
# Ernő Rubik

He was born on July 13, 1944 in Budapest.  
Hungarian inventor, architect and professor of  
architecture



# Inventions

He is best known for the invention of mechanical puzzles including Rubik's Cube (1974), Rubik's Magic, Rubik's Magic: Master Edition, and Rubik's Snake.





# Losonczi Áron

He was born in 1977 in Szolnok.

He is an architect.



- The name of his invention is litracon.
- It is a new generation of concrete which is light transmitting
- The translucent concrete products are made out of optical fibres and concrete
- Litracon™ is protected by Swedish patent and other patents are also pending
- Won several awards and is used all over the world