

## Medical Philately



Stamps issued on Alexis Carrel Transkey 1993, Sweden 1972

50<sup>th</sup> anniversary of Lindberg's Transatlantic flight, Stamp-USA 1985

### ALEXIS CARREL (1873-1944)

Carrel studied at the University of Lyon, obtaining his medical degree in 1900. He quickly proved himself a deft surgeon. In 1904, he left for Canada and joined the Rockefeller Institute of medical research in New York in 1906, remaining there till his retirement in 1939.

Carrel's surgical research in the Institute was directed towards the replacement or transplantation of organs. For this to be successful, it was necessary to ensure proper blood supply in the Organ's new location. Carrel successfully developed a new technique, whereby blood vessels could be delicately sutured together, end to end, in 1892. Around that time, blood transfusion became practical and Carrel's procedure became useful for the purpose. Though development of anticoagulant made it unnecessary, it remained vital for many surgical operations. Carrel was awarded Nobel Prize in 1912 for his work in medicine and physiology.

However, suturing per se still did not make transplantation and organ replacement possible. Carrel then went on to keep the organ or its parts alive, by perfusing blood or its substitutes continuously, through its own blood vessel. He kept the embryonic chicken heart alive, and growing, by periodical trimming for over 34 years, before the experiment was deliberately terminated!

To make the process more efficient, he collaborated with the engineer, Charles Lindberg (solo transatlantic flyer) in early 1930s, to design a sterile perfusion pump ("Carrel-Lindberg pump"), which ultimately led to an "artificial heart".

Carrel served the French army during WW-I and devised an antiseptic solution of sodium hypochlorite, which lowered the death rate, from infected wounds. In 1939, he returned to France, just before the outbreak of WW-II. The French government employed him in the field of public health. In 1940, France was defeated and a part of the nation was placed under control of a government, centered in Vichy, becoming subservient to the Germans. His philosophy, as expressed in his book, *Man the unknown* (1935), was rather authoritarian and visualized the world, run by intellectual cities. Carrel accepted the authority of Vichy government and worked for it.

When France liberated, he was dismissed from his post, and was to be tried for "collaboration" with Nazis. However, he died within a matter of months before it could be initiated.

Contributed by

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