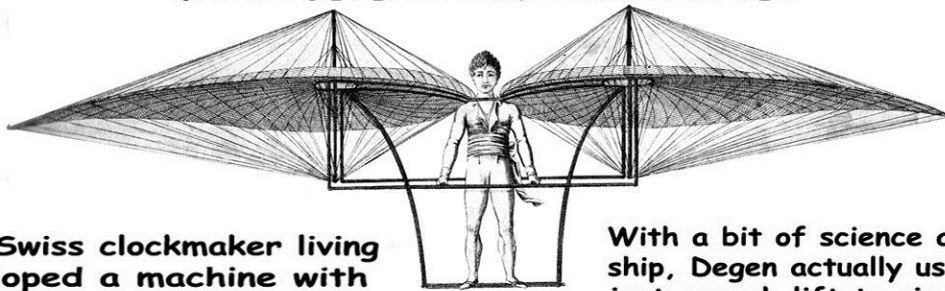




JACOB DEGEN'S 1809 ORNITHOPTER



Jacob Degen, a Swiss clockmaker living in Vienna, developed a machine with beating wings which he tested while suspended from a cord connected to a counterweight, which he made lighter as he improved his machine. Later, he replaced the counterweight with a small balloon and thus carried out a number of publicized ascents in Vienna and Paris.

With a bit of science and a lot of showmanship, Degen actually used his wings to provide just enough lift to rise with the help of the balloon. Basically, he was just balloon jumping in large leaps on a parade ground. Soon people dropped the idea of flapping like a bird and set out on a new concept: fixed wing aircraft.

There was a major setback in the Champ-de-Mars when a furious crowd broke the machine into pieces. Picking himself up, so to speak, Degen returned to the circuit and 'flew' until 1817.

