



Europa-Universität
Flensburg

Institute of Mathematical, Scientific and
Technical Education

Department of Physics, its teaching methods and its history

HistoLab

Start > Mechanics > Jump on the model of 's Gravesande

Demonstration device for the parabolic flight curve according to 's Gravesande

🔊 Listen

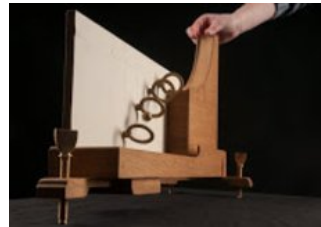
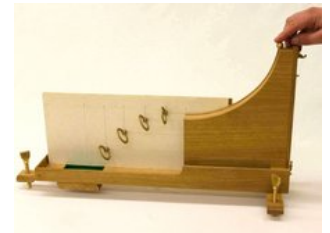
Branch of study: mechanics

Inventor: Pieter van Musschenbroek and Willem Jacob 's Gravesande, around 1742

The demonstration device according to 's Gravesande and van Musschenbroek is first mentioned in the 1742 edition of *Physices elementa mathematica, experimentis confirmata*. It demonstrates the gravitational pull on a horizontally flying body, which flies along a parabolic trajectory after leaving the jump.

The jump is made of wood, the tilt angle of its base plate can be adjusted by three brass screws. A line of brass rings is mounted behind the jump on a parabolic path.

The trajectory is predicted by the positioning of the brass rings. This device can be used to demonstrate Galileo's postulate on the superposition of the constant horizontal velocity and the accelerated free fall motion.



[Back to top](#) [Page # 16740](#) [Permalink](#) [06/17/2019](#) [Feedback](#)

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