



HistoLab

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Hydrostatic Balance on the model of 's Gravesande

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Branch of study: hydrostatics

Inventor: Willem Jacob 'sGravesande, 1737

This device is used to determine the density of liquids. To do so the two cups below the scale pans are filled with different liquids. Attached to the bottom side of the scale pans are weights which then are submerged into the respective liquids. A difference in the liquids' densities would result into one side being lifted up more due to buoyancy. This can be levelled again by adding weights onto the top side of the scale's pans. The added weight serves as a measure for the difference in the density of the liquids.

The instrument was described for example in 'sGravesandes *Mathematical elements of natural philosophy, confirm'd by experiments (1737)* or *An introduction to Sir Isaac Newton's philosophy (J.T. Desaguiliers, Trans.), London*. The instrument's original is on display in the Museum Boerhaave in Leiden, Netherlands [Museum Boerhaave Leiden](#).



Literature

Matthiesen, Hans-Lorenz: Eine hydrostatische Waage. In *DrehseMagazin* 32 (2015), 22-23

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