

Simon Stevin

Simon Stevin, (born 1548, Bruges—died 1620, The Hague or Leiden, Neth.), Flemish mathematician who helped standardize the use of decimal fractions and aided in refuting Aristotle’s doctrine that heavy bodies fall faster than light ones.

Stevin, detail of an oil painting by an unknown artist; University Library of Leiden, Neth.

Courtesy of the University Library of Leiden, Neth.

Stevin was a merchant’s clerk in Antwerp for a time and eventually rose to become commissioner of public works and quartermaster general of the army under Prince Maurice of Nassau. He engineered a system of sluices to flood certain areas and drive off any enemy, an important defense of Holland. He also invented a 26-passenger carriage with sails

for use along the seashore.

In *De Beghinselen der Weeghconst* (1586; “Statics and Hydrostatics”) Stevin published the theorem of the triangle of forces. The knowledge of this triangle of forces, equivalent to the parallelogram diagram of forces, gave a new impetus to the study of statics, which had previously been founded on the theory of the lever. He also discovered that the downward pressure of a liquid is independent of the shape of its vessel and depends only on its height and base.

In 1585 Stevin published a small pamphlet, *La Thiende* (“The Tenth”), in which he presented an elementary and thorough account of decimal fractions and their daily use. Although he did not invent decimal fractions and his notation was rather unwieldy, he established their use in day-to-day mathematics. He declared that the universal introduction of decimal coinage, measures, and weights would be only a question of time. The same year he wrote *La Disme* (“The Decimal”) on the same subject.

Stevin published a report in 1586 on his experiment in which two lead spheres, one 10 times as heavy as the other, fell a distance of 30 feet in the same time. His report received little attention, though it preceded by three years Galileo’s first treatise concerning gravity and by 18 years Galileo’s theoretical work on falling bodies.

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