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Balance history

A BRIEF HISTORY OF THE BALANCE IN SOCIETY

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Abstract

One of the earliest measuring instruments used by human beings was the balance; evidence of this dates back more than 5.000 years. Initially, the weights of goods were measured rather of value than of mass. Besides yardsticks and graduated cups, scales are today the most widespread instruments, found in almost all laboratories, factories and households. Indeed, the balance accompanies us from birth to death.

The balance very early achieved a metaphorical meaning and was used for the comparison of ethical values. It first appeared as an instrument in the death tribunal in Egyptian religion and later in Christianity. In the hands of the Grecian Gods, weighing was a deciding factor as concerns victory or death. In Judaism and for the Romans, scales become the symbol of justice. Several trade and handicraft guilds currently use the balance as an attribute, demonstrating in this way their sincerity and accuracy. The balance is of dubious significance in astrology, as one of the signs of the zodiac.

Keywords: balance, history of techniques, scales, social history, weighing

Introduction

The vacuum balance is a rather young instrument: its history goes back 140 years for the vacuum macrobalance [1] and 80 years for the vacuum microbalance [2]. In contrast, the balance itself is a very old instrument, with 5.000-year-old findings [3].

History of balance

Figure 1 shows the oldest balance beam known, found in Upper Egypt, made of limestone and only 6 cm long. Figure 2 depicts a mural painting from an Egyptian tomb, with a set of weights and two balance beams [4]. It is an early demon-

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Remarks