

Signed to dial Dollond, London, with engraved brass dial divided for Furlongs, Miles, Poles and Yards, six-spoke wheel with steel rim tread, square mahogany fork body with hinged side for wheel removal, hoop handle, on modern brass and mahogany stand.

AN 18TH CENTURY WAYWISER

[Waywiser]

Author
DOLLOND

Publication date
[circa 1775].

Publisher

Publication place
London,

Physical description
Signed to dial Dollond, London, with engraved brass dial divided for Furlongs, Miles, Poles and Yards, six-spoke wheel with steel rim tread, square mahogany fork body with hinged side for wheel removal, hoop handle, on modern brass and mahogany stand.

Dimensions

Notes
The origins of mechanically measuring and recording distance can be traced speculatively to 336-323 BC when Alexander the Great employed bematists for his campaign into Asia. As Donald W. Engels theorises in his publication, ‘Alexander the Great and the Logistics of the Macedonian Army’,

“The accuracy of the measurements implies that the bematists used a sophisticated mechanical device for measuring distances, undoubtedly an odometer such as described by Heron of Alexandria.”

The re-introduction of this process in the seventeenth century, with the development of the waywiser, accounted for an influx of cartographic accuracy, and paved the way for the large-scale surveys of the 18th and 19th centuries. Each revolution of the wheel measured a set distance, while a counter kept track of the number of revolutions, thus allowing the surveyor to walk from one place to another and gain an accurate measurement of the distance in between.

John Dollond (1706-1761) was the son of a Hugenot refugee, a silk-weaver at Spitalfields. He originally followed his father’s trade, but found time to acquire a knowledge of Latin, Greek, mathematics, physics, anatomy and other subjects. In 1752 he abandoned silk-weaving and joined his eldest son, Peter Dollond (1730-1820), who, in 1750, had started in business as a maker of optical instruments; this business is now Dollond & Aitchison. His reputation grew rapidly and in 1761 he was appointed optician to the king.

Dollond’s greatest achievement was the invention of the achromatic lens, by combining crown and flint glass. Prior to this, all lenses had a degree of colour distortion. Dollond first showed how to compensate for those distortions, and then demonstrated how they could be eliminated, disproving one of Isaac Newton’s theories of optics. This discovery led the firm to become the preeminent English telescope-makers.

In 1766, Peter Dollond went into partnership with his younger brother John, and moved to a new shop in St. Paul’s Churchyard. There, the firm, trading as P. and J. Dollond, supplied a wide range of mathematical, philosophical, and optical instruments, including several items for Captain James Cook’s second voyage of exploration to the Pacific.

Bibliography

Provenance

Price:

Inventory reference: 2310

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