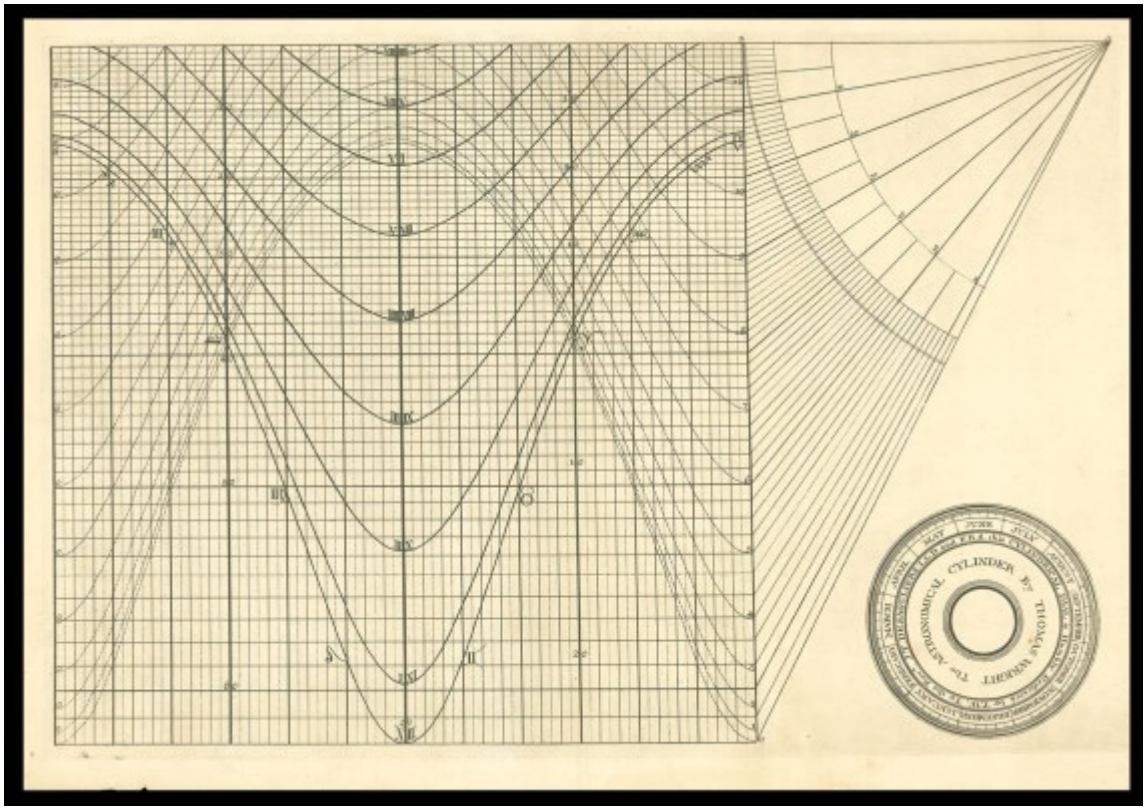


Engraved print, good condition.

A EXPLANATORY DIAGRAM OF A THREE-DIMENSIONAL CYLINDRICAL SUNDIAL

The astronomical cylinder By Thomas Wright. To the Rev.d J.T. Desaguliers, LL.D. and F.R.S this Cylindrical Dial; is Humbly Dedicated by T.W.

Author
WRIGHT, Thomas

Publication date
1737

Publisher
John Senex (?)

Publication place
London

Physical description
Engraved print, good condition.

Dimensions
312 by 470mm. (12.25 by 18.5 inches).

Notes
A explanatory diagram of a three-dimensional cylindrical sundial, also known as a shepherd’s dial. It was a relatively simple device, favoured by farmers hence the name, for telling the time simply by knowing the date.

This plate was described in a biographical note published in The Gentleman's Magazine for January 1793: "In 1737… [Wright] went down with the earl of Pembroke to his seat at Wilton, where he… also invented his Cylindrical Dial, and presented it to the earl; published the design, in copper-plate, at the command of the duke of Richmond and lord Pembroke, dedicated to Dr. Desaguliers" (p. 11).

The biography is accompanied by an engraving of a cylindrical dial, with a guide for its use: "Set the brass index at the top to the day of the month and then place the cylinder perpendicular; afterwards turn it about to the sun, till you find the projecting index or gnomon to have no shadow, except that of its own thickness, and that there will be shown to you all at once the things required: viz. 1. The shadow will cut the horizon, and give you the time of sun-rising and setting. It will show you his place in the zodiac. 3. The shadow point will shew you the sun's altitude. 4. Among the hour-lines, give you the time of the day. Lastly, If you turn the index to the opposite degree (or the earth's place) on the cylinder, you will find in the same manner, the sun's amplitude, his azimuth, and, if sought, his declination, all at the same time."

A cylindrical sun dial would normally be engraved upon copper or brass; this engraving is simply an attempt to demonstrate the underlying mathematics of the dial, illustrating the different features incorporated and how they can be used to give the required information about the sun.

The squared grid represents the barrel of the cylinder, the circular dial the rotating headpiece and the triangular dial a protractor showing the altitude of the sun, serving for the gnomon, the projecting "arm" that, correctly aligned over the headpiece and cylinder, would cast a shadow from the sun pointing to the correct results. The rotating headpiece would be turned to the correct date and the arm placed pointing directly at the sun.

This is the only example of this sheet traced; however Durham University, in their Thomas Wright collection, list "Photocopies of Thomas Wright's plans for his Pannauticon and his "The astronomical cylinder; or sun-dial" from a book at Holkham Hall."

Bibliography

Provenance

Price:

Inventory reference: 11274

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