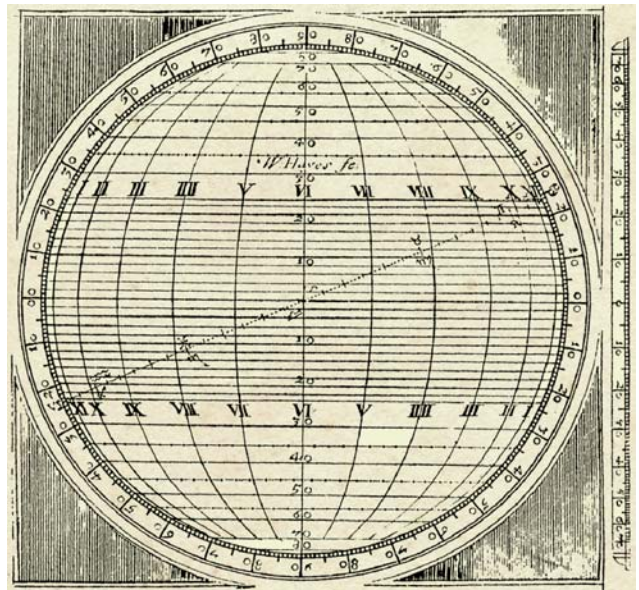
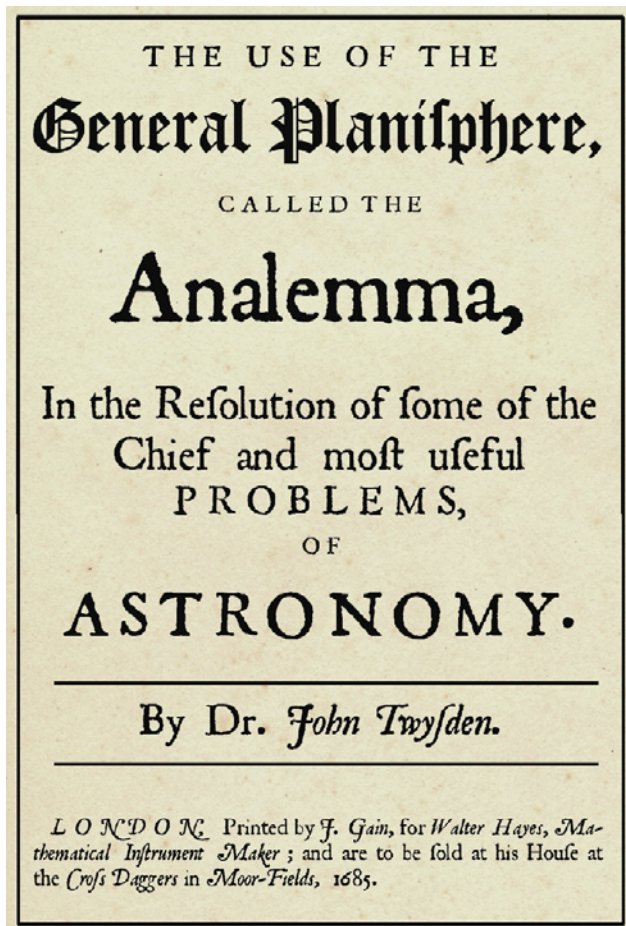


JOHN TWYSDEN, THE USE OF THE GENERAL PLANISPHERE

London 1685



Planisphere

PROB. VII.

To find the Oblique Ascension of any other Point in the Ecliptick, not reckoning from the Æquinoctial points, by which you may know whether the said Sign doth ascend Right, or Obliquely.

PROB. VIII.

To find the Hour of the day, the Altitude of the Sun being first observed.

PROB. IX.

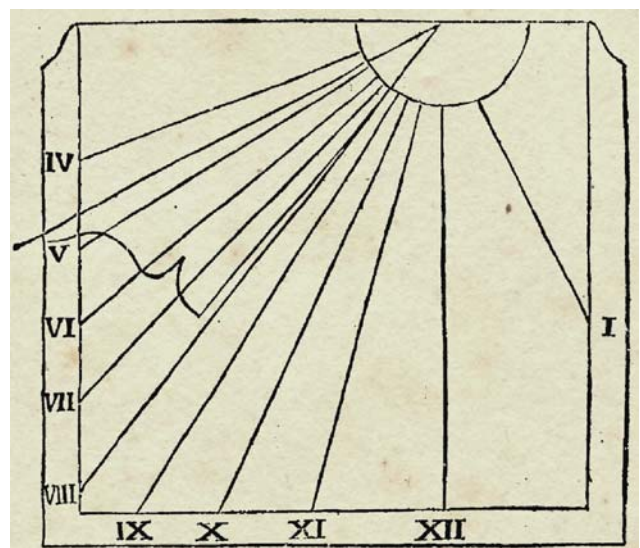
To find what Degree of the Ecliptick is in the Meridian at any hour given.

PROB. X.

To find the Sun's Azimuth at any Altitude given.

PROB. XI.

To make an Horizontal DIAL.



Vertical Declining Dial

"THE USE OF THE General Planisphere CALLED THE Analemma" is a small book containing the following:

PROBLEM I.

The Sun's Place being given, to find his Declination.

PROB. II.

Contrarily, the Declination being given, to find the Sun's Place.

PROB. III.

The Place of the Sun being given, to find his Right Ascension.

PROB. IV.

The Elevation of the Pole, and Degree of the Ecliptick being given, to find, 1st. The Orive Latitude, 2dly. The Rising and Setting of the Sun. 3dly. The Semidiurnal Arch.

PROB. V.

The same things being given, to find the Ascensional Difference.

PROB. VI.

To find the Oblique Ascension.

PROB. XII.

To make an Upright Vertical DIAL.

PROB. XIII.

To make a Upright Declining DIAL.

PROB. XIV.

To draw the Hour-lines upon a Reclining Plain, whose Face looketh directly toward the North or South.

PROB. XV.

In any Spherical Triangle whatever, having two sides given with the Angle comprehended to find the rest.

PROB. XVI.

To find when the Twilight begins and ends.

PROB. XVII.

Of Spherical Rect-angled Triangles in all their Varieties.

PROB. XVIII.

How to erect a Figure of the Heavens.

PROB. XIX.

In order to find the Cusps of the other Houses, divers Spherical Triangles are to be Resolved.

This ends the section on Dialling but there are two short sections following:

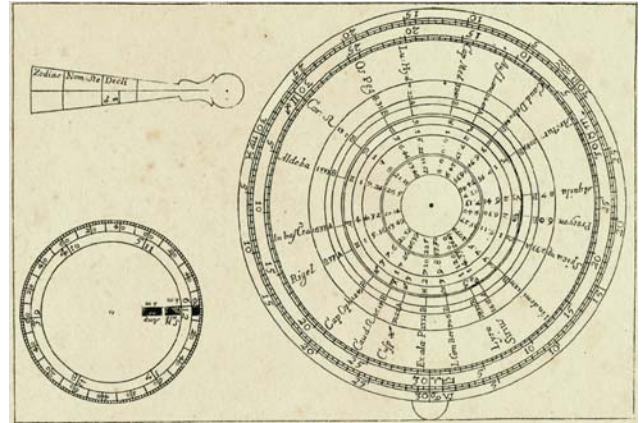
THE

Planetary Instrument.

OR THE

Description and Use of the Theories of the Planets : drawn in true Proportion, either in one, or two Plates, of eight Inches Diameter ; by Walter Hayes, at the Cross-Daggers in Moor-Fields.

Being excellent Schemes to help the Conceptions of Young Astronomers ; and ready Instruments for finding the Distances, Longitudes, Latitudes,



Parts of the Nocturnal

Aspects, Directions, Stations, and Retrogradations of the Planets ; either Mechanically, or Arithmetically ; with Ease and Speed.

By Mr. John Palmer, Rector of Ecton, and Arch-Deacon of Northampton.

The Description and Use of the NOCTURNAL; By Mr. Samuel Foster, late Reader of Astronomy in Gresham-Colledge.

With the Addition of a Ruler, shewing the Measures of Inches and other Parts of most Countries, compared with our English ones,; Being useful for all Merchants & Tradesmen.

The Use of the Nocturnal.

Additions to the Instrument, in Brass , made by Mr. R, Aug. 1st. 1684.

This is then followed by a short Table with details of the commoner stars.

FINIS.

In the Diagonal Scale you have London foot divided into 1000 Equal parts, Whereof										
(France)										
Paris Foot is . . .	0.868									
Lions Ell . . .	0.976									
Bologna Ell . . .	0.976									
The XVII Provinces										
Amsterdam foot . . .	0.952	Germany	Nuremberg foot . . .	1.006	Toledo foot . . .	0.899	Constantinople foot . . .	0.899	Other Places	
Antwerp foot . . .	0.940	Strasbourg foot . . .	Ell . . .	2.227	Vare . . .	0.889	Ell . . .	1.240	Danzick foot . . .	0.944
Brill foot . . .	1.103	Bremen foot . . .	Bavaria foot . . .	0.974	Italy		The Greek foot . . .	0.607	London foot . . .	1.000
Dort foot . . .	0.884	Cologne foot . . .	Spain & Portugal	0.971	Roman foot (antique) . . .	0.967	Naples Palm . . .	0.864	Amoy measure of length . . .	0.505
Leiden foot . . .	0.877	Crane-foot . . .	Spanish foot (Castilian) . . .	0.971	Manuscript of Spital . . .	0.972	Cauna . . .	0.860	A Pendulum of 12 inches in length will vibrate 120 times in a minute . . .	1.000
Ell . . .	0.880	Moscow S. foot . . .	Spanish foot (Castilian) . . .	0.971	Manuscript of Spital . . .	0.972	Cauna . . .	0.860	China cubit . . .	0.510
Lorain foot . . .	0.880	Ell . . .	Spanish foot . . .	1.001	Manuscript of Spital . . .	0.972	Cauna . . .	0.860	Turk foot . . .	0.510
Moscow foot . . .	0.945	Hamburg Ell . . .	Spanish foot . . .	1.001	Manuscript of Spital . . .	0.972	Cauna . . .	0.860	India cubit . . .	0.510
Middleburg foot . . .	0.991	Leipzig Ell . . .	Spanish foot . . .	1.001	Manuscript of Spital . . .	0.972	Cauna . . .	0.860	India cubit . . .	0.510
		Lubeck Ell . . .	Spanish foot . . .	1.001	Manuscript of Spital . . .	0.972	Cauna . . .	0.860	India cubit . . .	0.510
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