

# JOHN PALMER, THE CATHOLIQUE PLANISPHER

London 1658

## The Catholique PLANISPHER. Which Mr. Blagrave called The Mathematical Jewel;

Briefly and plainly described, in  
Five Books.

The first shewing *The making of the Instrument.*

The rest shewing the manifold Use of it.

1. For representing several Projections of the Sphere.
2. For resolving all Spherical Triangles.
3. For resolving all Problemes of the Sphere; Astronomical, Astrological, and Geographical.
4. For making all sorts of Dials, both without Doors and Within; upon any Walls, Cielings, or Floores, be they never so Irregular, where-so-ever the Direct or Reflected Beams of the Sun may come.

All which are to be done by this Instrument, with wondrous Ease and Delight.

*A Treatise very usefull for Marriners, and for all Ingenious Men, who love the Arts Mathematical.*

By JOHN PALMER. M. A.

Hereunto is added a brief Description of the *CROSS-STAFF*.  
And a Catalogue of Eclipses, Observed by the same I. P.

*The Heavens declare the Glory of Gods; and the Firmament sheweth his Handi-work.* Psal. 19.

London, Printed by Joseph Moxon, and sold at his Shop on  
Corn-hill, at the Signe of Atlas. 1658.

“The Catholique PLANISPHER. Which Mr. Blagrave called The Mathematical Jewel” is a book divided into ‘five books’; Book 5 being on Dialling. The whole volume contains:

The first book of the  
*Catholique Planisphear.*

Wherin

The whole Fabrick or making thereof is plainly Described.

The second Book.

Of the several Projections of the

SPHEAR;

which are represented by this

PLANISPHEAR.

The Third Book.

Of the Resolution of all Spherical Triangles,  
by the

PLANISPHEAR.

The fourth Book.

Shewing the Solution of the

SPHERICAL PROBLEMES,

Both

Astronomical, Astrological, and Geographical,

by the

PLANISPHEAR.

The Fifth Book.

*Shewing the way to resolve all*

GNOMONICAL PROBLEMES.

And to make all sorts of *SVNDYALS*,  
very easily by the

PLANISPHEAR.

CHAP. I. *The Preface.*  
*Of the kinds of Dyals.*

CHAP. II.  
*Theorems premised.*

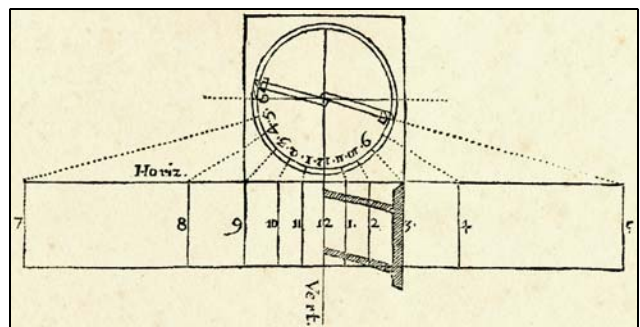
CHAP. III.  
*How to draw an Horizontal or Vertical line, upon any plain.*

CHAP. IV.  
*How to make the Polar Dial, and how to place it.*

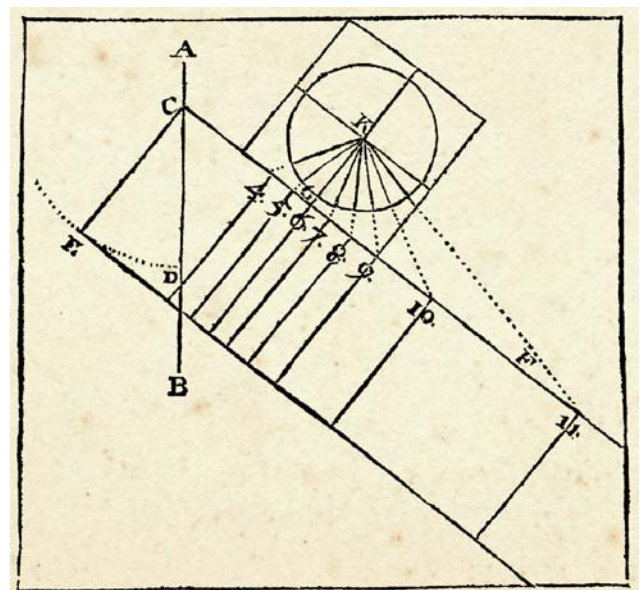
CHAP. V.  
*How to make the South Equinoctial Dial, or Parallelomonical Dial direct.*

CHAP. VI.  
*How to make the East Equinoctial Dial, or the West.*

CHAP. VII.  
*How to make the Declining Equinoctial Dial.*



*An South Equinoctial Dial*



*An East Equinoctial Dial*

Number of Pages: 231, 58 Pages on The Art of Dyaling.

Page Size: 7<sup>1</sup>/<sub>2</sub>" x 5<sup>1</sup>/<sub>2</sub>"

Illustrations: 22 in the Fifth Book.

CHAP, VIII.  
*Of the kinds of Oblique Dyals.*

CHAP, IX.  
*How to make the Vertical Dial.*

CHAP, X.  
*How to make the South and North Horizontal Dial.*

CHAP, XI.  
*How to Observe the Declinations of any Declining Plain.*

CHAP, XII.  
*How to make a Declining Horizontal Dial.*

CHAP, XIII.  
*How to Observe the Reclination or Inclination of any Plain.*

CHAP, XIV.  
*How to make a South and North Reclining Dial.*

CHAP, XV.  
*How to make an East or West Reclining Dial.*

CHAP, XVI.  
*How to find the Arches and Angles that are requisite for the making of the Reclining Declining Dial.*

CHAP, XVII.  
*How to find the Horary distances of a Reclining Declining Dial.*

CHAP, XVIII.  
*How to draw the Reclining Declining Dial.*

CHAP, XIX.  
*How to know at what Reclination any Declination Plain shall become a Declining Equinoctial Dial-Plain, to be delineated after Chapter 7. And how to find the Oblique Ascension of his Meridian or Substyle, and the difference of Longitude, which are requisite for his Delineation.*

CHAP, XX.  
*An Admonition concerning the five several Cases of Declining Recliners.*

CHAP, XXI.  
*How to make the Declining Horizontal Dial, another way then was shewed Chapter 12.*

CHAP, XXII.  
*To make the Reclining Declining Dial, another way.*

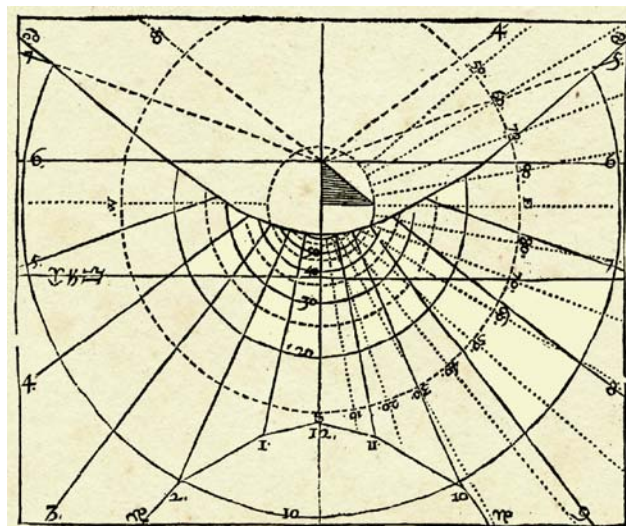
CHAP, XXIII.  
*To draw the proper Hours of any Declining Dial.*

CHAP, XXIV.  
*To know in what country any Declining Dial shall serve for a Vertical Dial.*

CHAP, XXV.  
*To set a Plain Parallel to the Horizon of any Country proposed.*

CHAP, XXVI.  
*How other Circles of the Sphere besides the Meridians may be Projected upon Dyals.*

CHAP, XXVII.  
*How to describe on any Dial the proper Azimuths and Almucantars of the Plain.*



*A Horizontal Dial Ch 30*

CHAP, XXVIII.  
*How by the help of the proper Azimuths and Almucantars of the Plain to describe the Equator and his Parallels, on the Polar or Orthognomonical Dial.*

CHAP, XXIX.  
*How to inscribe the Equator and his Parallels, in the Equinoctial or Parallelognomonical Dial.*

CHAP, XXX.  
*How to inscribe the Equator and his Parallels, in an Oblique or Scalenognomonical Dial.*

CHAP, XXXI.  
*To do the same by the Hour-lines of the Place, although the Plain Decline or Recline.*

CHAP, XXXII.  
*How to inscribe the Horizon of the Place, with his Azimuths and Almucantars, in the Horizontal Dial.*

CHAP, XXXIII.  
*How by the help of this Furniture to place any movable Dial-Plain in his true Situation, and consequently to find the Meridian-line of the Place, without any other Instrument then the Dial it self.*

CHAP, XXXIV.  
*How to make a Vertical Dial upon the Ceeling of a Floor within Dores, where the Direct Beams of the Sun never come.*

*The end of the Fifth Book.*

A breif Description  
Of a  
*CROSS-STAFF.*

*FINIS.*

A Catalogue of Eclipses.  
*Observed since the Year of our Lord 1637.*

*FINIS.*

The Rudiments of Astronomy  
Put into plain Rhythmes.