## WILLIAM LEYBOURN, DIALLING <br> London 1682

## D I A LI N G: <br> PLAIN, $\}\left\{\begin{array}{l}P R O F E C T I V E, \\ R E\end{array}\right.$ $\left.\begin{array}{l}\text { CONCAVE, } \\ \text { CONVEX, }\end{array}\right\}\left\{\begin{array}{l}\text { REFLECTIVE, } \\ \text { REFRACTIVE, }\end{array}\right.$ foher SHEWING, fawel,

Hove to make all fuch DIALS, and to adorn them with all ufeful


ARITHMETICALLY, GEOMETRICALEY INSTRUMENTALLY and MECHANICALLY:

A N D
Illuftrated by SCULPTURES, Engraven in Copper.

Comprifed in XI. Diftinct TRACTATES the Contents whereof follow next after the Preface to the R E A DER.

Colleted, Methodifed and Pubifined;
By WILLIAMLETBOVRN.
$L 0 N D 0 N$,
Printed for Arwllam Cburcbill at the Black Swan, at the Lower End of Patmofer Row, near Amen Comer. 1682.

Leybourn's "D I A L I N G" is a full size book, probably the best known of all early dialling works. It is in 11 Tractates as shown below:

A NECESSARY INTRODVCTION, Consisiting of DEFINITIONS and PROBLEMS, Geometrical \& Astronomical.

ASTRONOMICAL DEFINITIONS.

## PLAIN

DIALLING,
DEMONSTRATED.
The First TRACTATE.
GEOMETRICAL

## DIALING

## Demonstrated.

The Second TRACTATE.


At the front is a full page portrait of William Leybourn, probably added later as it is dated 1690

## IN S TRUMENTAL

## DIALING

Performed by
Scales of Natural Sines \& TANGENTS.
The Third TRACTATE.
OF THE
FURNITURE
With which
S U N-D I A L S
May be Beautified.
The Fourth T R A C T A TE.
HOW THE

## FURNITURE

OF
S U N-D I A L S,
May be Inscribed upon all Sorts of Plains, by the Scales of NATURAL
TANGENTS and SECANTS.
The Fifth TRACTATE.


An Horizontal Dial with its Furniture
A Supplement
To the Two foregoing

## TRACTATES

A
CONNEXION
OF
TABLES
Of divers Kinds.
The Sixth TRACTATE.
A
Succinct and Demonstrable
Way of Describing
HOUR-LINES
Upon all Sorts of
PLAINS.
Translated from a Latine Manuscript written, Anno 1640. By Samuel Foster, sometime Professor of Astronomy in Gresham Colledge, LONDON.

The Seventh TRACTATE.
Concave and Convex
Spherical and Cplínorical
DIALING.
The Eighth TRACTATE.
PROJECTIVE
DIALING
The Ninth TRACTATE.
REFLECTIVE


The Pyramidical Dial in the Privy Garden, Whitehall

## DIALING

The Tenth TRACTATE.

## REFLEX DIALING

By John Twysden, M.D.C.L.

## A NOTHER W AY

OF
REFLEX DIALING
Written by Mr. Im. Halton from Grays-Inn.

## REFRACTIVE <br> DIALING

The Eleventh TRACTATE.
A BRIEF
E X P L I C A T I O N OF THE

## Pyramidical DIAL,

Which was set up in the
King's Majesty ${ }^{\text {,s }}$ Privy Garden AT
WHITE-HALL ANNO 1669.

