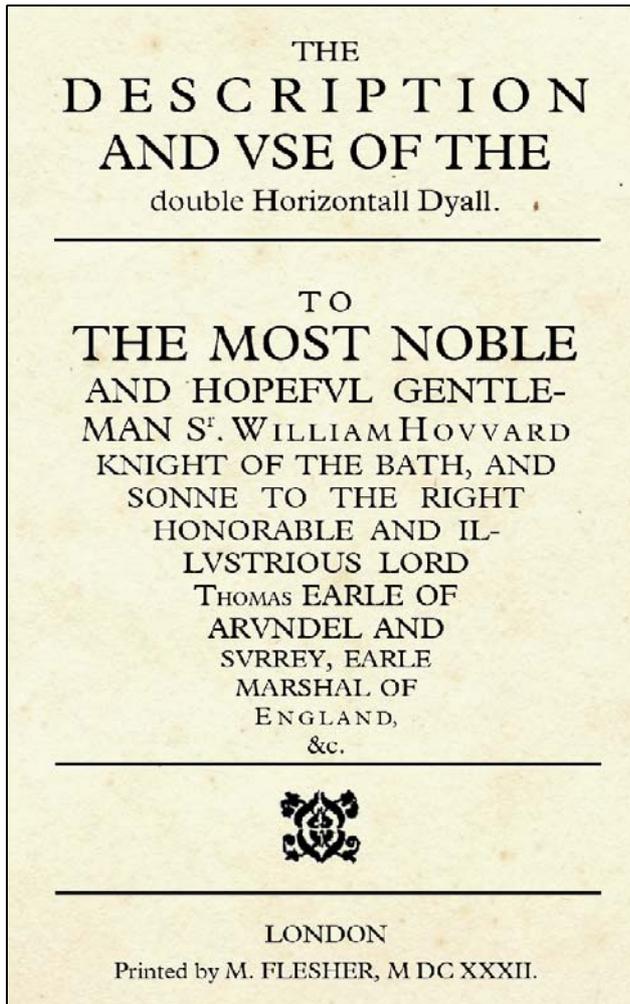


# WILLIAM OUGHTRED, THE DOUBLE HORIZONTAL DYALL

London 1632



“THE DESCRIPTION AND VSE OF THE double Horizontall Dyall” is a small booklet of text only, describing how to use this dial:

The description, and use of the double Horizontall diall.

There are upon the Plate two several Dyals. That which is outermost, is an ordinary dial, divided into howers and quarters, &c every quarter into three parts which are five minutes apeece: so that the whole hower is understood to containe 60 minutes. And for this Dyall the shadow of the upper oblique, or slanting edge of the stile, or cock, doth serve.

Later there follow 20 uses for this dial.

And thus by the eye and view onely to behold and comprehend the course of the sunne, throughout the whole yeare both for his annuall and diurnal motion, may be the first use of this instrument.

II. use. To finde the declination of the sunne every day.

III. Vse. To find the diurnall arch, or circle of the sunnes course every day.

IIII. Vse. To find the rising and setting of the sunne every day.

V. use. To know the reason and manner of the Increasing and decreasing of the dayes & nights throughout the whole yeare.

VI. Vse. To find how farre the sunne riseth, and setteth from the true East and west points, which is called the sunnes Amplitude ortive and occasive.

VII. Vse. To finde the length of every day and night.

VIII. Vse. To finde the true place of the sunne upon the dyall, that is, the point of the instrument which answereth to the place of the sunne in the heavens at any time, which is the very ground of all the questions following.

IX. Vse. To find the hower of the day.

X. Vse. To find out the Meridian, and other points of the compasse.

XI. Vse. To find out the Azimuth of the sunne, that is the distance of the Verticall circle, in which the sunne is at that present, from the Meridian.

XII. Vse. To find out the Declination of any Wall upon which the sunne shineth, that is, how farre that wall swerveth from the North or South, either Eastward or Westward.

XIII. Vse. How to place the dyall upon a post without any other direction but it self.

XIIII. Vse. To find the height of the Sun at high noone every day.

XV. Vse. To find the height of the sunne at any hower or time of the day.

XVI. Vse. The height of the sunne being given to finde out the hower, or what it is a clocke.

XVII. Vse. Considerations for the use of the instrument in the night.

XVIII. Vse. To find how many degrees the sunne is under the horizon at any time of the night.

XIX. Vse. To find the length of the Crepusculum, or twylight, every day.

XX. Vse. If the day of the month be not known, to find it out by the dyall.

Finally:

These Instrumentall dyalls are made in brasse by Elias Allen dwelling over against S<sup>t</sup>. Clements Church without Temple-barre.

FINIS.