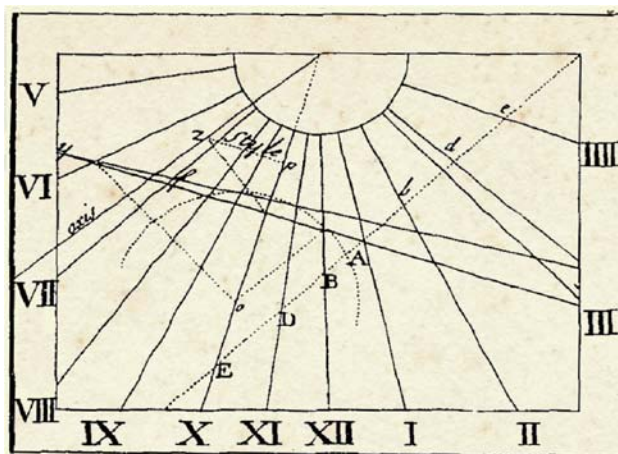


Showing how to Draw Dials



A Vertical Declining Dial.

“A NEW UNIVERSAL HISTORY OF ARTS and SCIENCES” is in two volumes. It has the following section on Dialling:

Of DIALLING.

with no sub-headings. The text commences:

DIALLING is the art of drawing schemes upon a plane or surface of any given body, so contrived as to find out the measure of just time, by the sun, moon and stars.

The antiquity of *dials* is beyond doubt: some attribute their invention to *Anaxinenes Milesus*; others to *Thales*. *Vitruvius* mentions one made by the antient *Chaldee* historian *Berosus*, on a reclining plane, almost parallel to the equinoctial. *Aristarchus Samius* invented the hemispherical *dial*. And there were some spherical ones with a needle for a gnomon. The discus of *Aristarchus* was an horizontal *dial*, with its limb raised up all around, to prevent the shadow stretching too far: but it was late ere the *Romans* became acquainted with *dials*. The first *sun dial* at *Rome* was set up by *Papyrius Cursor*, about the year of the city 460, before which time, says *Pliny*, there is no mention of any account of time, but by the sun's rising and

setting; it was set up at or near the temple of *Quirinus*, but went ill; about 30 years after, *M. Valerius Messala* being consul, brought out of *Sicily* another *dial*, which he set up on a pillar near the *Rostrum*; but for want of its being made for that latitude, it could not go true. They made use of it 99 years, till *Martius Philippus* set up another more exact.

This then continues for some time.

The author explains the methods of drawing various types of dials, with reference to his dial sketches.

He includes Dials by Reflection, a Moon Dial, a Ring Dial, Astronomical Ring Dial and a Quadrantal Dial.