

An ESSAY towards the Recovery of the Jewish Weights and Measures, Comprehending their Money, by help of Ancient Standards compared with ours of England. By Richard Cumberland, D. D. in Octavo, London, 1686.

THE Learned Author of this *Treatise*, has with a great deal of Industry and Judgment, Collected the several Testimonies both Ancient and Modern, Sacred and Profane, that may give any light into the discovery of the Ancient *Jewish Weights and Measures*: In the doing whereof he relies chiefly upon the Tryals of Mr. *Greaves*, whose Integrity was never yet questioned, and who with his own hands compared our *English Standard Foot* with the several *Foreign Measures* our Author has occasion to use: The Book consists of Four Chapters, whereof the *first* by way of *Preface*, gives an account of the Method proper to be used in this Discovery. The *second* proves by many Arguments the likelihood that the *Jewish Ammah* or *Cubit*, was the same with the present *Egyptian Cubit*; to do which, he alledges that the usual Rise of *Nilus*, necessary for the fertilizing of *Egypt*, was in the days of *Herodotus*, as well as now, about 16 *Cubits*; whence he concludes, that the old *Cubit* of *Egypt* is not altered, but the Divisions on the *Nilometrion* are the same as in all Antiquity: Also that the constant necessity of Surveying their Lands, by reason the Annual over-flowing does Efface their Land-marks, obliged them to observe a constant *Standard* to avoid confusion. Next he alledges this *Cubit* not to have been altered by any *Conquest*; the *Babylonian Cubit* of Five *Palms* being shorter, and that of Six being the same; that their next *Conquerors* the *Greeks* and *Romans*, have their *Cubit* considerably shorter, and that the *Turks* their present

present Masters have not introduced theirs, which is much longer, as appears by Mr. *Greaves*. Lastly, He proves out of *Greaves*, that the side of the Great *Pyramide*, and the length of the *Tomb* therein, are measured by an even Number of such *Egyptian Cubits*; wherefore he concludes they were so designed at first; viz. the Side of the *Pyramide* to be 380 *Cubits*, and the length of the *Tomb* just Four, which carries with it a great shew of probability. This done, he proves the *Jewish Cubit*, the same with the *Egyptian Cubit*, by several probable Arguments; among which the chief seems to be, That the whole Nation of the *Jews* had been for so many years Subjects of *Egypt*, and carried undoubtedly away with them their *Weights* and *Measures*: and there is no Testimony or Reason to prove that the *Jews* have since altered them. Hence he concludes the Old *Scripture Cubit* 21, 9 Inches *English fere*, equal to what Mr. *Greaves* found the modern *Egyptian Cubit*: and so makes a *Table* of all the other *Measures*, whose proportions to the *Cubit* are agreed upon.

The *third Chapter* treats of the *Epha*, and the other *Measures* of Capacity, endeavouring to prove the *Content* of *Epha*, equal to $\frac{1}{4}$ of the *Arduh*, or *Cube* of the *Egyptian Cubit*; that is, Seven Gallons and half, and half Pint *Circiter*, or very near the *Cube* of a Foot *English*, and containing just 1000 Ounces *Averdupoize* of Water; for the which he produces such Authorities, and compares them so well together, that he has almost put it out of doubt; giving at last a *Table* of the *Contents* of all the other *Scripture-Measures* of Capacity, having a known relation to the *Epha*.

The *fourth Chapter* treats of the *Weights* and *Coyns* mentioned in *Scripture*; and having by Tryal as well as Authority found the Weight of *Shekel* just half the *Roman Ounce*, equal to the half Ounce *Averdupoize*, he determines its value 2 s. 4 d. $\frac{1}{2}$ and thence derives the value of the *Gold* and *Silver Talent*, weighing 3000 *Shekels*. Lastly, He recommends for a Universal Standard, the length of the *Pendulum* vibrating

ting *Seconds*, to be the *Horary Yard*, which he says is 3 Foot 3 $\frac{1}{2}$ Inches *English*, following therein the Ingenious Mr. *Hugens* the first Proposer thereof. By the way, he takes notice of the Harmony that is between the *Measures* and *Weights* thus stated; for having the *Egyptian Cu'it* given, the sixth part of its *Cube* is the *Epha*, the tenth thereof *Homer*, the tenth of that *Cotyla*, the tenth of which is an Ounce *Averdupoise* in Water, whose half is exactly the Weight of *Shekel*. The whole Book being made up of very rare Remarks, is well worth the perusal of the *Curious Reader*.

Note, That the Learned Dr. *Edward Bernard* in his late Account of *Weights* and *Measures*, agrees nearly in the Capacity of *Epha*, with what Dr. *Cumberland* has determined; for he makes the *Cube* of the *English Foot* to contain 76 l. *Troy* of Spring-water, and the *Epha*, or rather *Bath* to contain 75 such Pounds, so that it is a Pound less than the *Cube* of a *Foot English*, which Dr. *Cumberland* has stated about 12 Ounces of Water more than the said *Cube*: And whereas Dr. *Bernard* says, the *Epha* contains 9 Gallons, 'tis a plain mistake of the *Printer*, of 9 for 7; for the *Cube* of a *Foot*, which is by his own account greater than *Epha*, scarce holds 7 Gallons and half, such as by Statute are to contain 231 *Cube Inches*. As to the Value of *Shekel*, Dr. *Bernard* says, that none but *Bishop Usher* ever made it so little as 2 s. 5 d., which yet Doctor *Cumberland* has reduced to 2 s. 4 d. !.

Ephemeris ad Annum a Nativitate Domini 1686, ad Longitudinem Urbis Londinensis; ex Novis Hypothesibus exactissime supputata, & Regiæ Societati dicata, Londini in Octavo. Impensis Gulielmi Cooper.

There being at this time a great want of *Ephemerides* of any tollerable exactness, several of our *Astronomers* were persuaded to undertake the Calculation of one for this
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present Year, which they have done from *Tables* of their own, whose Numbers, by many years observation, have been found to answer with great preciseness to the Celestial Motions, the *Moon* only excepted; whose Motion, by reason of her manifold Inequalities, not being yet reduced to the Nicety of the rest of the *Planets*, 'twas thought needless to do any more than reduce her *Tychonick* place in *Argol*, to our *Meridian*, and Compute the true *Latitudes*. The several Persons concerned have promised a Continuation thereof for some years to come, which will make it valuable to all Lovers of *Astronomy*.

Imprimatur,

May 15. 1686.

S. PEPYS. R. S. Pr.

L O N D O N,

Printed by *J. Streater*, and are to be sold by *Sam. Smith*,
at the Sign of the *Princes's Arms* in *St. Paul's Church-yard*.