(Plate M)—"SHADOW METHODS" OF RECORDING DAILY TIME. The following demonstrate the continued use of shadows down to the end of the 18th Century—especially in Egypt during Napoleon's Expedition:

EXCERPT from MEMOIRS OF EGYPT by the FRENCH EXPEDITION of Scientific Man following General Bonaparte's Campaign, 1798 and 1799.

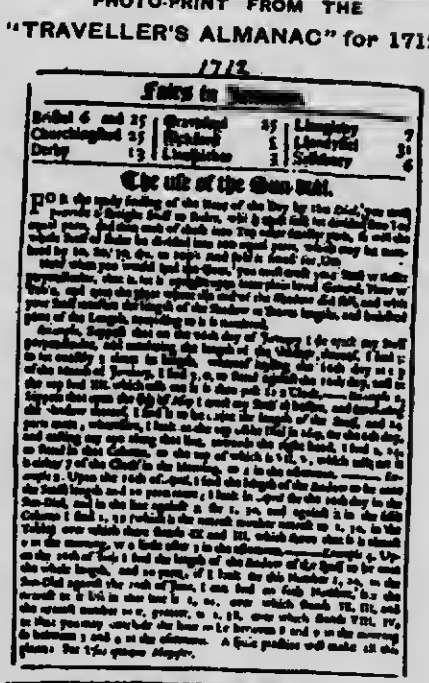
Translated by R. Phillips, London, 1800.

Page 294.—"The Arabs measure their day by "the stated times for prayers. They measure "Time by the Length of their Shadow: the "Shadow is measured with their naked feet, which "they place alternately one before the other. "Their rules for estimating are: that in the "Summer Solstice mid-day is 1 foot from the "vertical point; that in Winter at the same hour "the Shadow is 9 feet in length: that in Summer "the Shadow which answers to the middle point "of the interval from noon to sunset is 7 feet "beyond the place of the Shadow at noon. These "measurements are exactly conformable to the "Latitude of the Country."

The term "Latitude" was probably derived from such "LAT" erections as that ending Front-plate "G." Laborers in Egypt still use that method, and for timing hours locate shadows from sticks by arranging pebbles equidistant on the ground to mark "times to change oxen," etc.

II. The Garden Pole's Shadow recording the Hours on the Flower-bed Dial. That indicates how our Dials were derived for Clocks and Watches. The Shadow is pointing the Time at 2.0 p.m.

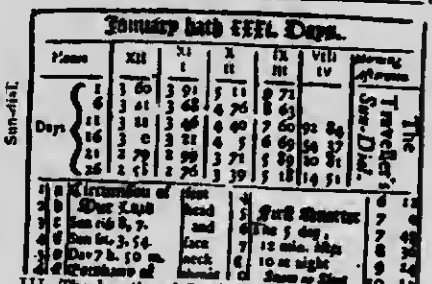
PHOTO-PRINT FROM THE "TRAVELLER'S ALMANAC" for 1712



1712

Fairs in

The use of the Sun-Dial.



January hath XXXI. Days.

III. The lengths of Shadows cast on every 5th day in January are shown hourly from 8.0 a.m. to 4.0 p.m. These Calendar Records of proportionate shadow-lengths were generally used until watches became plentiful. The above described Dial-staff is depicted in use on Fig. IV, as was "Aaron's Rod," vide Pyramid Plate 5.

IV. The Traveller's Sun-dial-staff (as used before Watches) notched into 100 parts. The Shadow shows for May 21st being .59 of the Staff's length, indicates Noon; vide the 1st and 6th columns of "The Natural Gauges for the Sun," ex 1712 Almanak on Plate N.

V. Obelisk at Lhassa (Thibet), still used by the priests to locate the Seasons. Note the coned apex to "sight" the Sun and point the daily Shadows.