

(Plate M)—"SHADOW METHODS" OF RECORDING DAILY TIME. The following demonstrate the continued use of shadow-gauges 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 MEN 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 "C." Laborers in Egypt still use this 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 Plot's Shadow recording the Hours on the Flower-bed Dial. That indicates how our Indians 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

Selling in London

Printed 6 and 12 Copies
Quartern 35
Duty 13

For use of the Sun Dial

For a further knowledge of the use of the Sun Dial, see the Traveller's Almanac for 1712, page 100. The Shadow shows the Sun's position at the 1st and 6th columns of "The Natural Gauges for the Sun," ex 1712 Almanac on Plate N.

January last 1712 Days

Days	IX	X	XI	XII	VI	VII	VIII	IV	III	II	I
1	3 05	3 31	3 51	4 11	4 31	4 51	5 11	5 31	5 51	6 11	6 31
2	3 15	3 41	4 01	4 21	4 41	5 01	5 21	5 41	6 01	6 21	6 41
3	3 25	3 51	4 11	4 31	4 51	5 11	5 31	5 51	6 11	6 31	6 51
4	3 35	4 01	4 21	4 41	5 01	5 21	5 41	6 01	6 21	6 41	7 01
5	3 45	4 11	4 31	4 51	5 11	5 31	5 51	6 11	6 31	6 51	7 11
6	3 55	4 21	4 41	5 01	5 21	5 41	6 01	6 21	6 41	7 01	7 21
7	4 05	4 31	4 51	5 11	5 31	5 51	6 11	6 31	6 51	7 11	7 31
8	4 15	4 41	5 01	5 21	5 41	6 01	6 21	6 41	7 01	7 21	7 41
9	4 25	4 51	5 11	5 31	5 51	6 11	6 31	6 51	7 11	7 31	7 51
10	4 35	5 01	5 21	5 41	6 01	6 21	6 41	7 01	7 21	7 41	8 01
11	4 45	5 11	5 31	5 51	6 11	6 31	6 51	7 11	7 31	7 51	8 11
12	4 55	5 21	5 41	6 01	6 21	6 41	7 01	7 21	7 41	8 01	8 21
13	5 05	5 31	5 51	6 11	6 31	6 51	7 11	7 31	7 51	8 11	8 31
14	5 15	5 41	6 01	6 21	6 41	7 01	7 21	7 41	8 01	8 21	8 41
15	5 25	5 51	6 11	6 31	6 51	7 11	7 31	7 51	8 11	8 31	8 51
16	5 35	6 01	6 21	6 41	7 01	7 21	7 41	8 01	8 21	8 41	9 01
17	5 45	6 11	6 31	6 51	7 11	7 31	7 51	8 11	8 31	8 51	9 11
18	5 55	6 21	6 41	7 01	7 21	7 41	8 01	8 21	8 41	9 01	9 21
19	6 05	6 31	6 51	7 11	7 31	7 51	8 11	8 31	8 51	9 11	9 31
20	6 15	6 41	7 01	7 21	7 41	8 01	8 21	8 41	9 01	9 21	9 41
21	6 25	6 51	7 11	7 31	7 51	8 11	8 31	8 51	9 11	9 31	9 51
22	6 35	7 01	7 21	7 41	8 01	8 21	8 41	9 01	9 21	9 41	10 01
23	6 45	7 11	7 31	7 51	8 11	8 31	8 51	9 11	9 31	9 51	10 11
24	6 55	7 21	7 41	8 01	8 21	8 41	9 01	9 21	9 41	10 01	10 21
25	7 05	7 31	7 51	8 11	8 31	8 51	9 11	9 31	9 51	10 11	10 31
26	7 15	7 41	8 01	8 21	8 41	9 01	9 21	9 41	10 01	10 21	10 41
27	7 25	7 51	8 11	8 31	8 51	9 11	9 31	9 51	10 11	10 31	10 51
28	7 35	8 01	8 21	8 41	9 01	9 21	9 41	10 01	10 21	10 41	11 01
29	7 45	8 11	8 31	8 51	9 11	9 31	9 51	10 11	10 31	10 51	11 11
30	7 55	8 21	8 41	9 01	9 21	9 41	10 01	10 21	10 41	11 01	11 21
31	8 05	8 31	8 51	9 11	9 31	9 51	10 11	10 31	10 51	11 11	11 31

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 copied 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 Almanac on Plate N.



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