

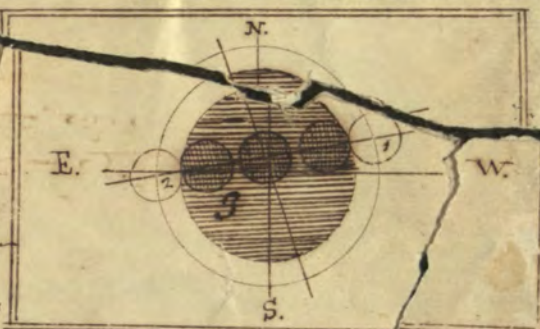
# Solar and Lunar Eclipses in 1841.

There may be reckoned six Eclipses this year, four of the Sun, and two of the Moon.

I. The first will be an extremely small eclipse of the Sun, January the 22d, 8 minutes past noon, invisible in New-England, and almost so every where else, by reason of the Moon's high south latitude, and of her being nearly at her greatest distance from the earth. Perhaps, it may be considered by some, as no eclipse at all, but only an apparent contact of the Sun and Moon.

II. The second will be of the Moon, February the 5th, on Friday Evening, visible and total, and by calculation as follows, according to apparent time; Sun slow of Clock, 15 minutes.

|                             | H.      | M. | Type of the Eclipse. |
|-----------------------------|---------|----|----------------------|
| Beginning                   | 7       | 19 |                      |
| Beginning of total darkness | 8       | 19 |                      |
| Ecliptic Opposition         | 9       | 5  |                      |
| Middle of the Eclipse       | 9       | 5  |                      |
| End of total darkness       | 9       | 53 |                      |
| End of the Eclipse          | 10      | 52 |                      |
| Duration of total darkness  | 1 hour  |    |                      |
| and 34 minutes.             |         |    |                      |
| Duration of the Eclipse     | 3 hours |    |                      |
| and 32 minutes.             |         |    |                      |



Digits eclipsed,  $20\frac{1}{2}$  nearly. From the north-shadowy side of the Earth's shadow. We cannot see the earth's shadow in the type, figure 3 represents the Earth's shadow, or rather a section of it, at the distance of the Moon. The line 1, 2, part of the Moon's orbit. The circle 1, the Moon's disk at the beginning of the Eclipse, and the circle 2, the disk at the end. The three shaded disks show the situation of the Moon at the beginning, middle, and end of total darkness.

III. The third will be of the Sun, February the 21st, at 6 h. 17 m. in the morning, invisible in our horizon.

IV. The fourth will be of the Sun, July the 18th, at 9 h. 23 m. in the morning, invisible to us; the Moon's shadow passing south of the New-England States.

V. The fifth will be of the Moon, August the 2d, on Monday Morning, visible (except the last part) and total, and by calculation as follows.

|                                       | H. | M. |                                |
|---------------------------------------|----|----|--------------------------------|
| Beginning                             | 3  | 8  |                                |
| Begins to be total                    | 4  | 14 | Apparent time of the day.      |
| Middle of the Eclipse                 | 5  | 7  |                                |
| End of total immersion                | 6  | 1  | Sun slow of Clock 6 minutes.   |
| End of the Eclipse                    | 7  | 7  |                                |
| Moon sets totally eclipsed            | 4  | 45 |                                |
| Visible duration of total obscuration | 0  | 34 | Hours and minutes of duration. |
| Visible duration of the Eclipse       | 1  | 40 |                                |
| Whole duration of total obscuration   | 1  | 47 |                                |
| Whole duration of the Eclipse         | 3  | 59 |                                |

Digits eclipsed  $0\frac{1}{4}$  +, from the northern limb of the Earth's shadow.

Moon's latitude  $22''$  nearly, north ascending.

VI. The sixth will be a Solar Eclipse, August the 16th, at 4 h. 46 m. in the afternoon, invisible in our latitude: the Moon's latitude being south.



I.

January — 31 Days.

[1841.]

## Sun's Declination

| D. | South. | D. | South. | D. | South. | D. | South. | D. | South. | D. | South. |
|----|--------|----|--------|----|--------|----|--------|----|--------|----|--------|
| 1  | 23 1   | 6  | 22 31  | 11 | 21 49  | 16 | 20 57  | 21 | 19 41  | 26 | 18 43  |
| 2  | 22 56  | 7  | 22 23  | 12 | 21 39  | 17 | 20 45  | 22 | 19 27  | 27 | 18 23  |
| 3  | 22 50  | 8  | 22 15  | 13 | 21 29  | 18 | 20 33  | 23 | 19 9   | 28 | 18 12  |
| 4  | 22 44  | 9  | 22 7   | 14 | 21 19  | 19 | 20 21  | 24 | 18 53  | 29 | 17 56  |
| 5  | 22 38  | 10 | 21 58  | 15 | 20 8   | 20 | 20 8   | 25 | 18 58  | 30 | 17 40  |

## Moon's Changes, Fulls, and Quarters.

- Full Moon, 7th day, 10h. 8m. in the m.  
 ☾ Last Quarter, 14th day, 7h. 34m. in the morn.  
 ● New Moon, 22d day, 0h. 8m. after noon....  
 ☽ First Quarter, 30th day, 6h. 6m. in the m.  
 D. in the morning...

| M. | Week   | Remarkable Days,                  | ☉ R. | ☉ S. | High  | D's    | R.D.S. |       |
|----|--------|-----------------------------------|------|------|-------|--------|--------|-------|
| D. | Days   | Courts, Aspects, Weather, &c.     | H.   | M.   | Water | place. | H.     | M.    |
| 1  | Frid.  | Circumcision. Perhaps             | 7    | 33   | 4     | 27     | 4      | 52    |
| 2  | Satur. | *s south, 8h. 43m. a storm.       | 7    | 33   | 4     | 27     | 6      | 14    |
| 3  | S.     | Battle at Princeton, 1777. D 7*3. | 7    | 32   | 4     | 28     | 7      | 37    |
| 4  | Mon.   | Twilight ends, 6h. 15m. Rather    | 7    | 32   | 4     | 28     | 8      | 48    |
| 5  | Tues.  | se. 7h. 40m. windy.               | 7    | 32   | 4     | 28     | 9      | 49    |
| 6  | Wed.   | Epiphany. ☉ perigee. Signs        | 7    | 31   | 4     | 29     | 10     | 37    |
| 7  | Thurs. | ☉ fulls, N.W. of snow             | 7    | 31   | 4     | 29     | 11     | 27    |
| 8  | Frid.  | Bat. at leans, 1815. or           | 7    | 30   | 4     | 30     | morn.  | h'art |
| 9  | Satur. | rain.                             | 7    | 30   | 4     | 30     | 0      | 8     |
| 10 | S.     | and                               | 7    | 29   | 4     | 31     | 0      | 49    |
| 11 | Mon.   | ash. bity.                        | 7    | 28   | 4     | 32     | 1      | 29    |
| 12 | Tues.  | rr.                               | 7    | 27   | 4     | 33     | 2      | 7     |
| 13 | Wed.   | 9 h. 5. The                       | 7    | 26   | 4     | 34     | 2      | 47    |
| 14 | Thurs. | weather                           | 7    | 25   | 4     | 35     | 3      | 36    |
| 15 | Frid.  | m. changes.                       | 7    | 24   | 4     | 36     | 4      | 34    |
| 16 | Satur. | 777. Move                         | 7    | 23   | 4     | 37     | 5      | 33    |
| 17 | S.     | 706. D 4.                         | 7    | 22   | 4     | 38     | 6      | 57    |
| 18 | Mon.   | 81. snow                          | 7    | 21   | 4     | 39     | 8      | 0     |
| 19 | Tues.  | Bri. R.                           | 7    | 20   | 4     | 40     | 8      | 5     |
| 20 | Wed.   | re                                | 7    | 19   | 4     | 41     | 0      |       |
| 21 | Th.    |                                   | 7    | 18   | 4     | 41     | 0      |       |
| 22 | F.     |                                   | 7    | 17   | 4     |        |        |       |
| 23 | S.     |                                   |      |      |       |        |        |       |
| 24 | M.     |                                   |      |      |       |        |        |       |
| 25 | T.     |                                   |      |      |       |        |        |       |
| 26 | W.     |                                   |      |      |       |        |        |       |
| 27 | Th.    |                                   |      |      |       |        |        |       |
| 28 | F.     |                                   |      |      |       |        |        |       |
| 29 | S.     |                                   |      |      |       |        |        |       |
| 30 | M.     |                                   |      |      |       |        |        |       |