

EXPLANATIONS.

As several alterations have been made in the Astronomical calculations for the present year, and the whole adapted to mean time, some explanations may not be improper.

Mean time is that shown by a well regulated clock or time piece. Apparent time is that shown by a correct sun dial. The difference between mean and apparent time is called the equation of time. The equation of time depends upon two causes. 1st. The obliquity of the Ecliptic to the Equator, which causes an inequality in the daily increments of the Sun's right ascension. 2d. The unequal motion of the Earth in its orbit, while the motion on its axis is uniform. Mean and apparent time coincide only four times in the year, viz.—on the 15th of April, the 15th of June, the 31st of August, and the 24th of December.

It has been customary to give the rising and setting of the Sun according to the apparent time, and in another column to give the equation of time. In that case it was necessary, in regulating a clock or time piece by the rising, or setting of the Sun, to apply the equation to the time of rising or setting, given in the Almarac and also the amount of refraction, which in our latitude varies from two to four minutes. But as this matter is little understood by people generally, and is often done with some trouble, no notice is usually taken of these corrections, and in their endeavours to make their time pieces agree with the Sun, they find it necessary, if they run correctly, to alter them almost every day.

In the following Calendar, the times of the Sun's rising and setting, are the times shown by a correct time piece, when the Sun is in the horizon. The column marked ☉ South contains the times by the correct time piece, when the Sun is on the Meridian, or in other words, when it is noon by the noon mark, or dial. For example, when it is noon by the sun on the 1st day of January, it should be four minutes after twelve by the clock. Again, when it is noon by the Sun on the first day of November, it should be only forty-four minutes after eleven o'clock by the clock, or time piece. The other matters are so plain as to need no explanation.

NAMES AND CHARACTERS OF THE PLANETS.

☉ The Sun.	♃ Mercury.	♃ Jupiter.
☾ The Moon.	♀ Venus.	♄ Saturn.
♁ The Earth.	♂ Mars.	♃ Herschel or Georgian.

NAMES AND CHARACTERS OF THE ASPECTS.

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| ♋ Ascending Node. | ♏ Descending Node. |
| ♌ Conjunction, situated in the same Longitude. | |
| ♍ Quartile, or when their Longitude differs 3 signs. | |
| ♎ Opposition, or differing 6 signs. | |

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Taurus,
Gemini,
Cancer,

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Septuagesim
Quinquages
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Easter Day
Low Sunda

Spring
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