

**AN ASTRONOMICAL
VOCABULARY, AN
EXPLANATION OF ALL TERMS IN
USE AMONGST ASTRONOMERS
AT THE PRESENT DAY**

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An astronomical vocabulary, an explanation of all terms in use amongst astronomers at the Present Day by J. Russell Hind

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J. RUSSELL HIND

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AN
ASTRONOMICAL VOCABULARY:

BEING

An Explanation of all Terms

IN USE AMONGST ASTRONOMERS AT THE
PRESENT DAY.

BY

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P R E F A C E.

IN order to keep pace with the requirements of modern astronomy, many new terms have been introduced of late years, and the significations of some of the old ones extended or altered; the Constellations have been wholly revised, proper names assigned to some of the Satellites, and the list of Planets greatly augmented. In the present little work I have endeavoured to embody, as far as possible, the whole of these additions and alterations; and the reader will find a short explanation of every term he is likely to meet with in astronomical publications. As far as my limits allowed, I have also attempted to extend the use of the work by the introduction of descriptive notices and facts bearing upon the different subjects.

It must be understood that this Vocabulary is not intended to include optical or mechanical terms, which *could not* have been inserted without greatly extending

its limits. But few of these, therefore, will be found. The reader who wishes for information respecting astronomical instruments and their minutise, will do well to consult Capt. Smyth's 'Cycle of Celestial Objects,' without exception, the most useful and instructive work of the kind with which I am acquainted.

J. RUSSELL HIND.

GROVE ROAD, ST. JOHN'S WOOD, LONDON,

October, 1852.

EXPLANATION

or

ASTRONOMICAL SYMBOLS AND ABBREVIATIONS.

SIGNS OF THE ZODIAC.

| | | | | | |
|--------------|---|---------------|---|-------------------|---|
| Aries . . . | ♈ | Leo . . . | ♌ | Sagittarius . . . | ♐ |
| Taurus . . . | ♉ | Virgo . . . | ♍ | Capricornus . . . | ♑ |
| Gemini . . . | ♊ | Libra . . . | ♎ | Aquarius . . . | ♒ |
| Cancer . . . | ♋ | Scorpio . . . | ♏ | Pisces . . . | ♓ |

THE SUN AND LARGER PLANETS.

| | | | |
|---------------------|--------|-------------------|---|
| The Sun | ☉ | Mars | ♂ |
| The Moon | ☾ | Jupiter | ♃ |
| Mercury | ☿ | Saturn | ♄ |
| Venus | ♀ | Uranus | ♅ |
| The Earth | ⊕ or ♂ | Neptune | ♆ |

THE MINOR PLANETS.

| | | | |
|------------------|---|----------------------|---|
| Ceres | ♁ | Hygeia | ♁ |
| Pallas | ♁ | Parthenope | ♁ |
| Juno | ♁ | Victoria | ♁ |
| Vesta | ♁ | Egeria | ♁ |
| Astræa | ♁ | Irene | ♁ |
| Hebe | ♁ | Eunomia | ♁ |
| Iris | ♁ | Psyche | ♁ |
| Flora | ♁ | Thetis | ♁ |
| Metis | ♁ | Melpomene | ♁ |

Fortuna ♁

VARIOUS.

| | | | |
|---|----------------------|-----------|-----------------------|
| ♈ | Ascending Node | h | Hour |
| ♉ | Descending Node | m | Minute of <i>time</i> |
| ♊ | Conjunction | s | Second of <i>time</i> |
| ♋ | Opposition | α or R.A. | Right Ascension |
| ♌ | Quadrature | N.P.D. | North Polar Dis- |
| ° | Degree | | tance |
| ' | Minute of <i>Arc</i> | δ | Declination : |
| " | Second of <i>Arc</i> | | |

NOTE.—Some astronomers have adopted a different series of symbols for the minor planets to that given above. Each planet is distinguished by its number in order of discovery inscribed within a circle: thus Ceres is called (1), Pallas (2), . . . Fortuna (19), and a planet named *Massalia* (announced while these sheets are passing through the press) will be (20). Although this plan may have some advantages, it is more difficult to call to mind the number belonging to any planet, without a table of reference constantly at hand, than it is to remember the symbols given above. The rainbow and star for *Iris*, and the butterfly's wing with star for *Psyche*, are more easily fixed upon the memory than their numbers in order of discovery—(7) and (16). It is, however, more usual to distinguish the planets by their names than by either system of symbols.

ASTRONOMICAL VOCABULARY.

A.

Aberration of Planets and Comets, is an apparent displacement of their positions, arising from the progressive motion of light, whereby we always see them *behind* their true places in the heavens at the moment of observation. To distinguish this phenomenon from the *aberration of the fixed stars*, which is quite a different effect, it might be more properly termed the *Equation of Light*.

Aberration of the Fixed Stars, is an alteration of their mean positions, caused by the earth's orbital movement, the effect of which is to make each star apparently describe in the heavens a small ellipse, having for its centre the point which the star would occupy if the earth were at rest.

Aberration, Constant of.—Light travels at the rate of 191,400 miles in a second of time, and is $8^m 17.8^s$ in coming from the sun to the earth. In this interval the earth has moved, with her average velocity, through an arc of $20.45''$, which is therefore the amount of displacement in the sun's longitude, arising from the progressive motion of light, and is termed the *Constant of Aberration*.

- Achernar*.—The bright star in Eridanus, called also α Eridani.
- Achronical* rising or setting of the heavenly bodies. A star is said to rise or set achronically when it is in the horizon at sun-setting.
- Aerolite*.—A name (amongst many others) given to those solid masses which occasionally fall to the surface of the earth from the upper regions of the atmosphere. They are also termed meteoric stones, meteorites, bolides, and, more popularly, *fire-balls*, because in their descent they appear to be burning, and sometimes explode with a report like that of thunder.
- Age of the moon*. The interval of time which has elapsed since the previous new moon.
- Aldebaran*.—The bright star in the constellation Taurus called also α Tauri.
- Algenib*.—One of the principal stars in the constellation Pegasus, known also as γ Pegasi.
- Algorab*.—The chief star in the constellation Corvus, called also α Corvi.
- Alioth*.—One of the seven bright stars in the constellation Ursa Major.
- Altair*.—The bright star in the constellation Aquila, termed also α Aquila.
- Altitude*.—The angular distance of a heavenly body from the horizon, measured in the direction of a great circle passing through the zenith.
- Amplitude*.—The horizontal distance of a star from the east or west points.
- Andromeda*.—One of the ancient northern constellations.