

the following usage: Eight-rayed stars will indicate first magnitudes; six-rayed stars, second magnitudes; four-rayed stars, third magnitudes; ordinary round dots, fourth magnitudes; minute round dots, fifth magnitudes or sixth magnitudes.

We shall not burden the map with the Greek letters; first, because they mask the configurations of the stars; second, because many of our readers will probably lack the nerve to master the simple Greek alphabet, and might be alarmed at the apparition of

Grecian ghosts that in battle were slain,
And unburied remain
Inglorious on the plain!

We may change our mind, however, at any time on this point.

Again, to foster an accurate and mathematical knowledge of the face of the sky, and the position of heavenly bodies, we indicate the *right ascension* on the horizontal margins, and *declination* on the vertical margins. Thus, Orion is between five and six hours R. A. Right ascension in the sky corresponds to longitude on the earth. Declination corresponds to terrestrial latitude. The north and south poles in the sky are the north and south poles of the earth produced. And as the equator is midway between the terrestrial poles, so is the equinoctial line midway between the celestial poles. Produce the plane of the equator of the earth into the sky and it will mark out the equinoctial.

In our star map the equinoctial line is marked 0° , and it passes right over the three stars in the centre of Orion. The line 10° below, is 10° south declination. The line 10° above, is 10° north declination. Our map ranges from a little more than 30° south declination to 50° north declination—a little north of the zenith, in the Atlantic provinces.

Right ascension lines are drawn like lines of longitude on the earth, from the north pole to the south pole, cutting the equinoctial at right angles. We draw every 15th degree line in our map, because the sky appears to revolve 15° in one hour. In twenty-four hours it will revolve 360° . Instead of measuring in degrees, however, as longitude on the earth, we measure in hours and minutes. It is so convenient. Stars in six hours R. A., will be on the meridian exactly one hour after those on the five hour R. A. line. Remember the sky rotates to our senses as if the axis of the earth produced to the north and south pole stars were its axis.

Right ascension is measured eastwards, from the point in the equinoctial where the sun crosses it to the north, on the 22nd of March—that is, from the first point of Aries. The line passing through this point to the north and south pole stars, is to the sky

what the meridian of Greenwich is to the earth. But on the sky R. A. is always measured easterly until it becomes 24h; which is always equal to 0h.

But we may be asked the question, Why are your lines of R. A. not drawn converging on each side of the equinoctial? Simply for convenience of drawing. The position of the stars between 30° and 50° N. D., for instance, will be slightly distorted. Their east and west distances will be a little too great for absolutely correct configurations. But the map will, on the other hand, enable the R. A. and Dec. to be read off more easily, and the amount of distortion will not, in the slightest, affect the ease with which the stars can be recognized. For north polar stars beyond 40° and 50° N. D., a conical projection will give good results. South polar stars are invisible, and we shall, therefore, have nothing to do with them.

At the end of February Orion will be exactly south at about 6.30 P. M., local time. About the middle of March, at 5.30. In a word, every star souths about a half an hour earlier every week, or two hours earlier every month.

Astronomical Notes.

Venus is brilliant in the western sky, in the constellation *Pisces*.

Mars is nearer the horizon, in the constellation *Aquarius*, in the neighborhood of *Mercury* nearing the sun.

Mercury was clearly visible to star-gazers on the evening of the 30th ult., and for several evenings following, and was in line with *Venus* and *Mars*. The new moon on the evening of the 2nd inst., and these three planets, made the western heavens unusually bright and conspicuous. It is a planet of a pinkish color, shining with a twinkling light, and from its nearness to the sun may have been mistaken for a fixed star.

Saturn is in *Leo* not far from the first magnitude star *Regulus*.

Jupiter is conspicuous as a morning star in the constellation *Sagittarius*. Early risers may get a view of him from three hours before until nearly sunrise.

The *Halifax Chronicle* recently devoted a leading article to amateur astronomy, with a plea for more attention in academies and high schools to this important subject. It recommends that each academy in Nova Scotia be provided with a small telescope. Such an instrument would be a boon, not only to the school, but to the whole neighborhood. It is surprising how few people of intelligence know the courses of the planets, or even have an approximate idea of the structure of the heavens.