

RELATIVE SIZE OF JUPITER, 1864.

Jupiter is the *king of planets*, being about 11.2 the diameter of the Earth, and having a bulk of 1,456 such worlds as ours. It appears larger and brighter at its opposition to the Sun on the 13th of May. Jupiter has four moons, each a good sized world; it revolves on its axis in less than ten hours, and its year is equal to 4,332.58 of our days.

RELATIVE SIZE OF SATURN, 1864.

Saturn shines with a pale light. This Planet is next beyond Jupiter, and has seven moons, and anomalous bodies termed rings, which are visible through a good telescope the whole of this year, their northern surface being turned towards the Earth.

PHASES OF MERCURY AT GREATEST ELONGATION.

This planet exhibits all the lunar phases, and on the 18th of February this year, the 17th of June, and the 24th of October it will be at its greatest elongation west; and on the 9th of January, the 30th of April, the 28th of August, and the 22d of December it will be at its greatest elongation east, being a Morning Star at the first named dates, and an Evening Star at the others. It will be brightest and slightly gibbous and visible three days after the western elongation, and three days before its eastern elongation. When within and on this side of its points of greatest elongation, it presents to the earth a crescent form.

Mercury will be brightest and visible three days before its greatest elongation east, on the 6th of January, 27th of April, 25th of August, and 19th of December, being then in the west soon after sunset. It will be visible also in the east just before sunrise, three days after its greatest elongation west, on the 21st of February, 20th of June, and 12th of October.

THE APPARENT SIZE OF MARS AND ITS PHASES, 1864.

Mars is little more than half the size of the Earth. It is one of the superior planets, and its distance from the Sun is about 145,000,000 miles. When it is in opposition to the Sun, as will be the case December 1, its apparent size is greatest, because it is then nearest the earth. Its configuration is that of a perfect circle generally. When at either quadrature, it exhibits a well-defined gibbous phase, seen this year on the 18th of August.

THE PHASES AND APPARENT SIZE OF VENUS, 1864.

Venus is one of the inferior planets, and exhibits all the phases seen in the Moon during a lunar month; but at no time during this year will Venus come within the points of greatest elongation east and west, and therefore it will not appear as a crescent this year. After the 18th of July, when it will be in superior conjunction with the Sun, its illuminated limb changes from left to right.