

OBSERVATIONS OF THE OCCULTATIONS OF JUPITER AND HIS
SATELLITES BY THE MOON, APRIL 24TH, 1864. Lat. 42° 52' 13"
S., Lon. 9h. 49m. 29s. 6 E. BY F. ABBOTT, F. R. A. S.

The sky on the morning of the 24th was alternately clear and hazy after rain that fell on the previous night; a few bands of strata clouds were dispersed here and there which occasionally passed over the Moon and Jupiter, and at times caused both the planet and its satellites to have an unfavorable appearance for the occultation.

The light of both Jupiter and the Moon, was seen at intervals with good definition, but was notably less brilliant than could have been wished for at the time of conjunction, notwithstanding the air was calm and undisturbed.

Apparent conjunction of the—

	h.	m.	s.	
4th Satellite, 1st contact.....	6	19	40	0 a.m.
„ Disappearance	6	19	41	7 „
3rd Satellite, 1st contact.....	6	20	24	2 „
„ Disappearance		20	26	8± „
1st Satellite, 1st contact.....	6	22	20	0 „
„ Disappearance.....	6	22	21	9 „
Jupiter, 1st limb.....	6	23	35	5± „
„ 2nd ditto.....	6	25	24	8 „

Atmospheric pressure, 29.514 in.

Temperature, 47°.

Shortly after the disappearance of Jupiter, small vapory clouds accumulated and passed over the Moon, which prevented any observations being made on the 2nd satellite and the emersions.

The planet with the whole of its satellites passed behind the Moon in a chord near the centre, and if the sky had been clear at the time, both the immersion and emersion could have been correctly noted.

Jupiter at the first contact on the enlightened limb of the Moon appeared of a bluish-green color, and the out-line of the Moon's limb was at the time affected with a tremulous motion, which rendered the planet's actual immersion doubtful to two or three seconds. After once concluding upon its disappearance, a portion of its disc seemed to reappear for an instant in the fluttering of the Moon's edge.

The telescope used on the occasion was an unexceptionably good 5-foot achromatic with 4 inch clear aperture, power 135. Means for micrometer measures were provided, but the sky at the time was unfavorable.

The chronometer used was found by transit observation a few hours previous to be one second and sixty-seven hundredths fast (+1.67") which is not accounted for.

Private Observatory,
Hobart Town, 1864.

