Observations of the Red Spot on Jupiter.

By *D. P. Todd.*

The following are a few observations of transits of the red spot on Jupiter over the central meridian — made at such times as I happened to be looking at the planet for other purposes. They are not entitled to much weight, as I was supplied with only a small instrument, — a portable refractor of $3\frac{1}{2}$ inches aperture. The magnifying power employed was 140. The record is in Washington mean time.

1879, October 2.

Spot central at $12^h 59^m$. A white margin of even width throughout surrounds the dark spot. The preceding extremity is the sharper. The outline of the southern side of the spot is concave near the following end — making this extremity appear quite blunt. Estimated size, $3'' \times 13''$.

1879, November 30.

White ring about the spot, as on October 2. Ends blunt, and, in so far as I could pronounce, quite symmetric. Color of spot, medium dark brown. Spot central at $6^h 37^m$.

1880, January 24.

Spot central at $7^h 5^m$. Jupiter was at such an al-

titude that the seeing was poor: with the condition of the atmosphere, and the optical means at my disposal, I could not say that the appearance of the spot had at all changed since November 30.

1880, July 29.

$16^h 32^m$ Centre of spot not up.

35 Nearly up.

37 Centre of spot on central meridian.

$16^h 39^m$ Certainly past.

The preceding end of the great spot is much more blunt than the following end.

1880, August 5.

$16^h 56^m$ Preceding end at central meridian.

17 17 Spot estimated central — clouds and daylight made the spot very faint. Wt. 2.

Following end at central meridian not observable.

1881, January 10.

$6^h 59^m$ Preceding end at central meridian.

7 22 Centre of spot at central meridian.

7 47 Following end at central meridian.

Wt. 2. Spot faint from cloud, and seeing poor.

Washington, 18 March 1881.

Probably new Variable.

On Jan. 22., 1879 I observed, near α^2 Canis Majoris, a very remarkable double star, one component of which was a fiery red. 8.5 magnitude, and the other a blue 9. I have quite recently found that this double appears in the 2nd edition of Webb's *Celestial Objects* published in 1868, and that it was discovered by himself. But the red star appeared to him 6.5 magn. and the other 8, so that they differed very considerably in

magnitude when he observed them, while to me, eleven years afterwards, they seemed nearly equal. I therefore conclude that the red star is a variable. I made only a rough measurement for position which, for 1881, is $\alpha 7^h 10^m 44^s$, and $\delta - 23^\circ 6' 6''$.

Millbrook, Tuam, 1881 Apr. 9.

John Birmingham.

Beobachtungen des Cometen Swift.

1881 Mai 5. $13^h 45^m 35^s$ m. Zt. Kiel; $\alpha \zeta = 0^h 19^m 6^s 80$, $\delta \zeta = + 32^\circ 22' 56'' 4$.
 7. 13 33 11 $0^h 26^m 36^s 20$, $30^\circ 14' 14'' 2$.

Mittlerer Ort des Vergl.- * für 1881.0:

π Andromedae (539 Sterne) $\alpha = 0^h 30^m 31^s 63$, $\delta = + 33^\circ 3' 50'' 3$.

δ „ „ $0^h 32^m 58^s 03$, $30^\circ 12' 34'' 6$.

Kiel, 1881 Mai 8.

C. F. W. Peters.