

Mr. Baxendell, on the Period and Changes of α Herculis. 201

On June 3 *Isis* passed exactly over a star of the 10th magnitude, at $13^h 16^m$ Mean Time. The night being hazy and definition consequently very bad at so low an altitude, a power of 65 was preferred, though much too small for such an observation.

At $13^h 12^m 20^s$ G.M.T. *Isis* was so close to the star as to be inseparable, though decidedly elongated.

At $13^h 16^m 20^s$, the two objects appeared as one sharp round star.

At $13^h 19^m 20^s$, they again began to look elongated.

At $13^h 21^m 20^s$, the planet and star distinctly separated.

The mean of the first three times, viz. $13^h 16^m 0^s$, may be taken as the true time of occultation. If the planet had passed either above or below the star, instead of occulting it, a rapid twisting of the angle of position would have been evident. Nothing of the kind was, however, seen; and it may be safely assumed that a good meridian position of this star will fix the place of the planet at the above time with great accuracy. Its approximate mean place for 1856.0 is,—

R.A. $16^h 1^m 1^s$ N.P.D. $105^\circ 44'$

On the Variability of 13 Lyræ. By Josh. Baxendell, Esq.

(Communicated by Sir John Herschel.)

“In December last I was led to suspect that 13 *Lyræ* was subject to a slight periodical change of brightness. A series of observations, which I have since made, has confirmed the suspicion, and given an approximate period of 48 days. The range of variation is about 3-10ths of a magnitude, the highest maximum which I have yet observed being 4.28, and the lowest minimum 4.60. The last minimum occurred on the 14th of June. Like many of the other variables, 13 *Lyræ* belongs to the list of ruddy stars.

“Manchester, July 3d, 1856.”

On the Period and Changes of α Herculis.

By Josh. Baxendell, Esq.

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The period in which α *Herculis* completes all its changes of brightness was supposed by Sir Wm. Herschel to be about $60\frac{1}{4}$ days. More recently M. Argelander has been led to conclude that it may be estimated at 66 days 8 hours. Some years ago I found that Sir Wm. Herschel's period would not satisfactorily represent a number of observations which I had occasionally made; but assuming it to be sufficiently near the truth to serve as an approximation, I obtained a mean period of 63 days. Although this period was decidedly preferable to one of $60\frac{1}{4}$ days, or indeed to any