

following list of stars for the detection of annual parallax.  $\beta$  *Hydri*,  $\alpha$  *Phœnicis*,  $\alpha$  *Eridani*,  $\alpha$  *Columbæ*,  $\eta$  *Argûs*,  $\delta$ ,  $\alpha^1$  and  $\alpha^2$ ,  $\gamma$  and  $\beta$  *Crucis*,  $\epsilon$ ,  $\beta$ ,  $\alpha^1$  and  $\alpha^2$  *Centauri*,  $\alpha$  *Circini*, B. A. C. 5233,  $\beta$ ,  $\alpha$  *Trianguli*,  $\alpha$  *Gruis*."

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*Observations of  $\alpha$  Centauri and other Double Stars made at Poona.* By W. S. Jacob, Esq., late Capt. Bengal Engineers.

These consist of several measures of  $\alpha$  *Centauri* extending over nearly three years, during which time the angle of position has increased  $8^\circ$ , and the distance diminished  $3''$ . There are observations of 6 other stars, some of which are deemed to be *probably* revolving. The author has appended elements of the orbit of  $\alpha$  *Centauri*, a star which is known to have a very sensible parallax.

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*On the Annual Oscillations of the Level and Azimuthal Errors of the Greenwich and Cambridge Transit Instruments.* By Mr. Henry, of the Royal Observatory, Greenwich.

On comparing the level errors of the Greenwich and Cambridge transits for every month through several years, Mr. Henry finds that there is in each instrument an annual variation of considerable regularity. The western pivot, in spring, is always higher relatively to the eastern pivot than at any other season, and lower in autumn. This maximum and minimum coincides pretty nearly with the months of March and September. As the Y adjustments of the Greenwich instrument have not been touched for eleven years (it is believed those of Cambridge have been almost as little disturbed), a tabular statement of the mean level errors for the months of March and September, during the last few years, will shew this variation very distinctly: each level error is the mean of four weekly observations: the sign + signifies that the west end is higher than the east, and — the contrary.

*Transit Level Errors.*

Years.	GREENWICH.			CAMBRIDGE.			
	March.	Sept.	Ann'. Var <sup>n</sup> .	March.	Sept.	Ann'. Var <sup>n</sup> .	
1836	+2.88	-0.28	3.16	1833	-0.86	-3.30	2.44
7	0.54	0.93	1.47	5	+2.11	1.96	4.07
8	2.32	0.18	2.50	7	-3.14	3.71	0.57
9	1.08	0.61	1.69	8	-3.23	-6.97	3.74
1840	1.64	0.49	2.13	9	+4.10	+1.78	2.32
1	2.21	0.54	2.75	1840	2.62	+1.68	0.94
2	3.03	-0.16	3.19	1	+0.49	-3.12	3.61
3	2.42	+0.93	1.49	1842	-3.18	-5.35	2.17
4	3.78	-0.16	3.94				—
1845	+2.76	-0.39	3.15				
			Mean 2.55				Mean 2.48