images, shown by the scattered points in the right hand parts of Figures 2 and 3.

As a byproduct of the present investigation the following position of Antares as a double star was obtained:

1931·311, $\Delta\alpha \cos\delta$ = 158·88 μ or 3″·004, $\Delta\delta$ = 13·41 μ or ″·254
mean error: ± ·27 ± ·005 ± ·25 ± ·005

or 274°·82 ± °·09 (274°·43 for the epoch 2000), 3″·015 ± ″·005.

The uncertainty in this position is merely due to defects of the photographic images.

On the orbital motion of ADS 2755, by *Ejnar Hertzsprung.*

The most probable interpretation of the observations of the double star ADS 2755 = β 536 = Gaultier 86 Pleiadum is that they represent orbital motion in the course of which the quadrant suffered a reversion about 1893 according to BARNARD's observations with the 36-inch Lick refractor. His statement in *A.J.* 447, Vol. **19**, p. 113 is as follows:

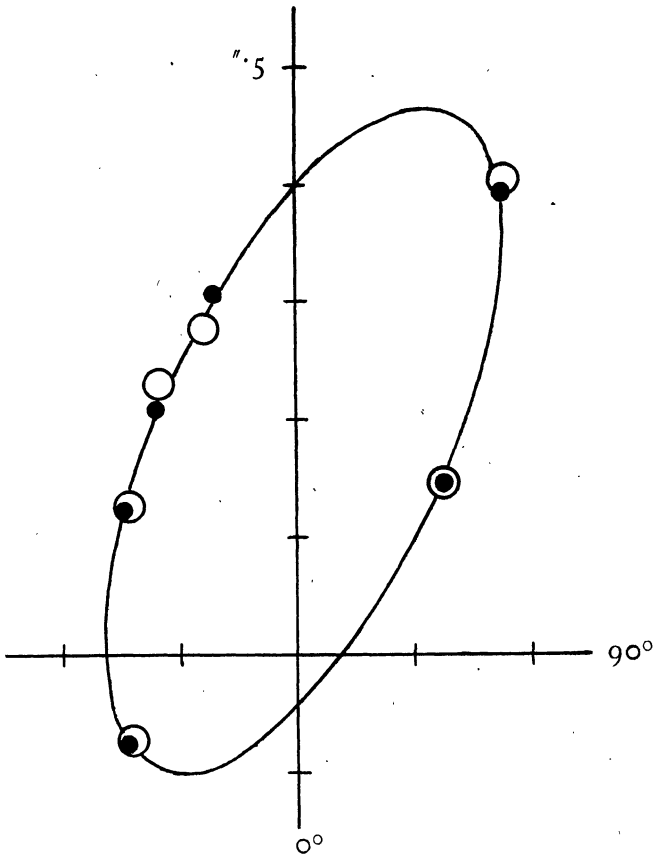
„1892 and 1893 examined carefully. No elon-
„gation especially 1893 Sept. 17, when with first-
„class seeing and certainly identified it was perfectly
„round with the highest powers."

To the observations given in BuGC and in ADS I have added those made by VAN DEN BOS in 1931–35 (*U.O.B.* No. 94) and formed the 6 normal places given below, which are well represented by the following elements after reversal of the position angles before 1895 : e = ·8, n = 3°/ª·5, T = 1895 and

$$\Delta\alpha \cos\delta = -\cdot00500 \times X - \cdot25254 \times Y$$
$$\Delta\delta = +\cdot22776 \times X + \cdot27783 \times Y$$

The corresponding distance at the time of BARNARD's failure to see the star double, 1893·71, is ″·06.

With the semi-major axis a = ″·433 the dynamical parallax p is found to be ″·016 according to the formula



$$\cdot85 \log p = \log a - \frac{2}{3}\log P + \cdot03 m_A - \frac{1}{3}\log(1 + 10^{\cdot09\,(m_B - m_A)}) + \cdot01$$

given in *B.A.N.* No. 208, Vol. **6**, p. 58.

The dynamical parallax thus found for a physical member of the Pleiades is rather high. From the combination of spectrum and brightness of physical members of the group SCHWASSMANN derived a parallax of ″·0063 (*Mitt. d. Hamburger Stw. in Bergedorf* **6**, 150). If the proper motion is considered as reflecting the sun's motion of 20 km/s only, the corresponding parallax is ″·013.

ADS 2755 = β 536 = Gaultier 86 Pleiadum

epoch	ϑ	ρ	M	X	Y	$\Delta\alpha \cos\delta$			$\Delta\delta$		
						O	C	O—C	O	C	O—C
1878·69ª	336°·4	″·44	— 57°·08	— 1·007	— ·587	″·176	″·171	+ ″·005	— ″·403	— ″·392	— ″·011
1891·275	319·75	·19	— 13·04	— ·106	— ·432	·123	·123	0	— ·145	— ·144	— 1
1900·73	297·3	·159	20·06	— ·294	·517	— ·141	— ·145	+ 4	+ ·073	+ ·077	— 4
1915·49	228·5	·191	71·72	— 1·202	·549	— ·143	— ·149	+ 6	— ·127	— ·121	— 6
1922·744	207·25	·259	97·10	— 1·462	·451	— ·119	— ·120	+ 1	— ·230	— ·208	— 22
1932·314	196·16	·286	130·60	— 1·684	·281	— ·080	— ·071	— 9	— ·275	— ·306	+ 31