

not see it double on any other night on which measures were made. Only the most perfect atmospheric conditions are equal to so minute a pair, and even then it would be overlooked by the most experienced observers not possessing Mr. Barnard's rare acuteness of vision.

A and H (Barnard's star).

1888.928	178.6	7.74	—, 16	36
9.077	178.2	8.14	—, 16	36
1889.00	178.4	7.94	—, 16	

C and H.

1888.928	275.1	9.17	—, —	36
9.049	276.1	8.41	—, —	36
9.077	275.7	8.29	—, —	36
1889.02	275.6	8.62	—, —	

H and H'.

1889.073	274.0	1.32	16, 16.5	36
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Mr. Barnard has also discovered another excessively faint star within the trapezium on the line joining the bright stars B and C, and nearer the latter. I have not been able to see it, at least not with certainty, but I have no doubt of its existence, and hope to be able to measure it hereafter.

The accompanying diagram shows the relative positions of the stars of this interesting group as determined by the foregoing measures. A comparison of these measures with those made by  $\Sigma$ , Hall and others shows beyond question that the six principal stars are absolutely fixed with reference to each other so far as any change is concerned which could be detected by observations covering more than half a century.

For the purpose of making an accurate map, I had intended to connect each of the small stars near the trapezium with the bright stars by measuring the position angles from two points, but after a few observations it was given up as using time which could be better employed elsewhere. Of the stars observed in this way, four are north of the trapezium, and three south. These are all comparatively bright stars, and are probably found in the catalogues of stars in this region.

1888.895	52.7	B and a
.895	17.7	D and a
.895	48.6	B and b
.895	22.1	D and b
.895	335.5	A and c
.895	305.8	B and c
.895	350.8	A and d
.895	326.4	B and d
.928	195.1	C and e
.928	176.1	A and e
.928	140.7	C and f
.928	190.2	D and f
.928	115.8	C and g
.928	143.5	D and g

S. 503.  
RA. 5<sup>h</sup> 49<sup>m</sup> 10<sup>s</sup> Decl. +13° 56'.

A and B.

1889.096	9.1	3.40	7, 8	36
.104	8.8	3.32	7, 8	36
.128	7.9	3.36	7, 8	36
1889.11	8.6	3.36	7, 8	

A and C.

1889.096	163.1	20.83	—, 10.5	36
.104	163.7	21.04	—, 11	36
.128	162.9	20.89	—, 11	36
1889.11	163.2	20.92	—, 10.8	

An interesting object from the proper motion of the larger star. The minimum distance must have been reached not far from 1883, and the nearer stars are now drifting apart. There are no measures between those of South in 1825 and Dembowski's in 1873. The former measured a distant star (201.76), which in 1883 I found was 234.09 from A. The small star, C, was first measured by me in 1878.

A and B.

1825.07	134.1	39.94	S 2 n
1873.93	120.1	8.08	A 3 n
1881.18	99.3	3.58	$\beta$ 3 n
1883.11	82.6	2.90	$\beta$ 3 n
1889.11	8.6	3.36	$\beta$ 3 n

