Die Strahlenbrechung vergrössert den Sonnenhalbmesser und verschiebt den höher gelegenen Kern minder stark, was aber durch die Höhenparallaxe ausgeglichen werden dürfte. Der Strahlenbrechung könnte aber zugeschrieben werden, dass je nach der Grösse des Fernrohrs der Sonnenhalbmesser insofern grösser gesehen würde, als von jenem früher erwähnten matten Saum, der abgewandten Seite zugehörend, mit einem grösseren Fernrohr etwas mehr als mit einem kleineren Fernrohr sichtbar wäre. Die nicht erreichbare absolute Vollkommenheit des Fernrohrs, namentlich in Betreff der Achromasie, mag den persönlichen Fehler der Einstellung vermehren. Die Einstellung bei unrichtigem Positionswinkel vergrössert allemal die Distanzen, indessen scheint dies hier ohne Einfluss gewesen zu sein, da die berechneten und beobachteten Positionswinkel genügend übereinstimmen; der bei März 31

vorkommende Unterschied $= 1^\circ$ mag einem Schreibfehler zuzuschreiben sein, andererseits kann für das dem Sonnenrande parallele Gebilde die Distanz noch richtig beobachtet sein, wenn auch der Positionswinkel nicht genau dem Mittelpunkt des Kerns zugehört.

Der Sonnenhalbmesser ist nach dem Nautical Almanac etwas grösser als der Halbmesser des Berliner Jahrbuches, welcher für die beiden letzten Tabellen allein benutzt ist. Dieser Einfluss ist für $\rho > 60^\circ$ höchst unbedeutend, denn zu den ΔD würde bei Anwendung des Halbmessers nach dem Nautical Almanac nur hinzutreten $-u \cdot (1 - \sin \rho)$, wo u den Unterschied zwischen dem Nautical Almanac und dem Berliner Jahrbuch bedeutet.

Anclam, 1866 Dec. 20.

G. Spörer.

On a new Variable Star in Sagittarius. By Mr. Adolphus Quirling.

In July last year I succeeded in proving a star to be variable which we had suspected here to be so for a long time previous. The star in question is 6293 of the British Association Catalogue, the place of which for 1865 is:

$$R. A. = 18^h 23^m 30^s, \quad N. P. D. = 108^\circ 21'.$$

The star forms an object of our present Working-Catalogue at the Radcliffe Observatory and was looked for, for the first time, by Mr. Lucas in 1862 Sept. 5 and 19. On both nights no object was visible in the assigned place, and Mr. Lucas observed on both these nights another star, British Assoc. Catal. 6294, the place of which for 1865 is $R. A. = 18^h 23^m 31^s$, $N. P. D. = 108^\circ 30'$ and he then wrote down the following note in the Catalogue „B. A. C. 6293 Not seen 1862 Sept. 5, 19. Is this star variable?“ The star was not looked for in that year again, nor in the following year. In 1864 however I looked for the star on 3 nights, and not finding it visible, observed also B. A. C. 6294 instead of it, noting at the two first evenings, July 14 and Aug. 18, „B. A. C. 6293 not visible.“ Last year however, on July 29, when looking for the star, I was surprised at finding it of considerable brightness, but as the state of the sky was very bad on that night, I did not attempt to estimate its brightness, and merely noted down „looked about 9 mag.“ On Aug. 16 however I found it to be $7^m 7$, and wrote the following note „Decidedly a Variable star.“ On Aug. 22 the sky was very hazy, and I did not begin estimating magnitudes for some time after I had observed the variable star, but finding B. A. C. 6294 looking about the 6^{th} mag., which I thought at the time to be its proper

brightness (the star is rather brighter than 6 mag.) I noted B. A. C. 6293 to be of $9^m 0$ but put a ? to it, showing that I felt very uncertain about it. On the 24th Aug. I observed the variable again, and estimated it to be of $7^m 5$. I then intended to watch the star, but other work prevented me from doing so, and my attention was not drawn to the star again, before it came round anew to the Meridian this year, when I observed it on 3 nights: Aug. 4, 8, 9 calling it on Aug. 4 $7^m 6$ and on Aug. 9 $7^m 4$. As I did not find time for watching the star, I wrote to my friend and relative Mr. Julius Schmidt, at Athens, asking him, if time would permit him to do so, to take the variable under his patronage. According to his last letter the variable was about the middle of September of $9^m 10$.

The star has been observed by Piazzini 8 times, and he calls it 8^m . At Madras it has been observed 4 times, and Taylor calls it $6^m 7$. The star has also been observed by Lalande (34186), and he calls it 8^m Argelander observed only B. A. C. 6294 (Z. 391, 169) and, going in the direction of the variable star, would not have passed it over, if it had been at that time bright. The star has also been observed twice in Washington in 1860 and it is called on Aug. 8 of $6^m 7$; at Greenwich B. A. C. 6294 has been often observed but not the variable star. Finally the star is neither in Baily's Mayer nor in Gould's d'Agelet, though both Mayer and d'Agelet have observed B. A. C. 6294. Professor Argelander, I hope, will give the variable star its proper denomination.

Radcliffe Observatory,
Oxford, 1866 Dec. 4.

Adolphus Quirling.