

at Ottawa between July 19 and November 10, 1918, the plates earlier than these indicating a displacement of 0.4 angstrom, but with limits poorly determined. Had these earlier plates been included, the mean displacement would have been in the neighbourhood of 0.8 angstrom. Though the positions of the other bands were more or less roughly measured, this was the only one whose limits seemed sufficiently definite to base any conclusions upon.

In the case of Nova Aurigae 1892, while the literature on the subject is often contradictory, the results of Campbell, whose authority seems the best, showed that the emission bands were displaced to the violet 4 or 5 angstroms, though at times they were recorded much nearer their normal positions. But in recent cases, such as Nova Persei 1901 and Nova Geminorum 1912, where it is only natural to expect more accurate determinations, the emission bands were about 1 angstrom to the red in each case. This circumstance of a negative displacement in Nova Aquilae seemed to impress itself on the writer, and on coming to Victoria a few preliminary measures were made on the plates here with somewhat similar results.

Adams finds corroboration of this violet displacement on the Mount Wilson plates, as recorded in *Astrophysical Journal* for March, 1920, page 126. Lunt discusses the emission spectrum at some length in *Monthly Notices* for March, 1920, and gives results for the 3 hydrogen bands β , γ and δ , as well as for the nebular bands N_1 and N_2 . He finds an average displacement represented by -51.6 km. per sec., the equivalent at $H\beta$ of 0.84 angstroms to the violet. His displacement at $H\beta$ alone is 0.94 angstroms, but this is not comparable to my result because of a correction which I made—and which Dr. Lunt preferred not to make—namely, that required for the 20 km. per sec. approach as adduced from the sharp H and K lines. The consensus of opinion among astronomers, I believe, has been to regard these very fine, sharp calcium lines as reversals indicating the true velocity of the star. On such an assumption a correction of $+0.31$ angstroms would be required to Lunt's displacement, making it 0.63 angstroms. Lunt considers this view erroneous and looks upon the broad emission bands as giving the true velocity of the nova, namely, -51.6 km. per sec.

The purpose of this note is, however, not to discuss this phase of the question, but to give the results of additional measures. Looking over Lunt's results, I began to wonder if I had been too hasty in considering that no reliance could be placed on measures of the other bands. To that end I have examined many of the Victoria plates and 41 plates taken at Ottawa between July 1 and November 30, which the Director, Dr. Klotz, was kind enough to send me, and have not felt like changing my former opinion that measures made upon the other bands are only rough approximations at best. True, the nebular lines are occasionally definite, but the comparison lines are not always of the best. In the early stages $H\gamma$ is sharply defined by the absorption line at its violet edge and fades off very gradually into the continuous spectrum at its red edge and later it becomes blended with the nebular band $\lambda 4363$, so that uncertainty prevails in either case. However, occasion has been taken to measure $H\beta$ again on the 41 Ottawa plates