

LETTERS TO THE EDITOR

## EARLIEST AAVSO PEP OBSERVATIONS?

To The Editor,

I became a member of the AAVSO in 1921 and, having achieved a small measure of success with selenium photometry, I presented a brief paper at the 1922 Fall Meeting of the AAVSO at the Harvard College Observatory, outlining the initial results of observations on  $\alpha$  Orionis and  $\alpha$  Herculis. At that time, I was assistant to Frank E. Seagrave, who had a private observatory near Providence, R. I. He generously allowed me to use his 8 1/4-inch Clark refractor in carrying out these experiments.

By early 1923, a really workable selenium photometer had been developed and an observing program on  $\alpha$  Orionis began in November, 1923, and continued until April, 1924, when we set aside the work to prepare for a solar eclipse soon to be visible in New England.

The 1923 - 1924 observations were recorded in my observatory logbook but no light curve was made and the observations were not released. I am bringing attention to the observations now, not because they have any particular value as such, but because they may possibly be the first observations made by an AAVSO member with photoelectric equipment. Therefore some historical worth is, perhaps, present. It may also be of interest to members of the AAVSO to learn that even in 1922 the Association was pioneering in astronomical photoelectric photometry.

For comparison stars, Rigel and Aldebaran were selected. Briefly, the observing procedure was to first measure one of the comparison stars and adjust the cell voltage to produce a standard mid-scale galvanometer reading. Next the photometer was shifted to the variable, and making certain that none of the electrical circuit values had changed, the galvanometer reading was again noted. Since the galvanometer scale was calibrated to read in tenths of a magnitude, the number of scale divisions above or below the first reading indicated the number of tenths of a magnitude the variable was above or below the comparison star.

However, selenium was soon superceded as a light-sensitive element, mainly because it was not suitable for stars fainter than  $1^m_6$ , and stars could be observed visually or photographically to much fainter limits. More sensitive photometric materials, alloys of the alkali metals, were developed.

My observations of  $\alpha$  Orionis (see figure) remained tucked away in the logbook because as noted above, we were preparing for the solar eclipse. Our photoelectric observations of the solar corona at the January 24, 1925, eclipse were carried out exactly as planned and were later found to agree quite well with determinations by other observers.

Yours Truly,

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