brighter than the corresponding V magnitudes. Stanton found the same result from provisional AAVSO chart magnitudes; this is readily understood if these data were derived from calibrations based on McCormick sequences. Thus it is clear that different results can be obtained from bright stars (Hopp) and faint ones (Stanton). It should be noted that Stanton's use of a "VIS" filter is redundant; the transformation from B, V to  $\mathbf{m}_{\mathbf{V}}$  is closely linear and the Johnson colours are needed anyway to convert "VIS" magnitudes to visual ones.

I have also independently carried out calculations of the type reported by Steffey and by Stanton (Journal, 7, 10 and 14) to determine the relationship between  $(V-m_V)$  and (B-V), obtaining results very similar to theirs. However, as those authors point out, the variation in the relative contributions of rod and cone vision and in colour sensitivity from observer to observer and under changing conditions is difficult to estimate, which is why an empirical approach was preferred.

It cannot be emphasised too strongly that no single sequence will suit even some of the people all of the time, nor all of the people some of the time (unless all sequence stars are chosen to have the same B-V colour as the variable). It is difficult to see how much improvement can be gained over the compromise represented by equation (1).

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## FERNALD 8-INCH SPRINGFIELD TELESCOPE

The 68th Spring Meeting of the AAVSO was held in Orlando, Florida in honor of our distinguished longtime members, Cy and Emily Fernald, and in celebration of the new home of the Fernald 8-inch Springfield Telescope, in Geneva, Florida. Our hosts were, the members of the Central Florida Astronomical Society, who now own the Fernald 8-inch Springfield Telescope. The following historical information about the famous 8-inch telescope and its astronomical accomplishments is based, in part, on Cy's paper in Orlando.

We were deeply saddened by Cy's death on October 19, 1979. The Association has lost a truly outstanding member.

The first Springfield mounting for telescopes was put together in 1920 and tried at Stellefane in Springfield, Vermont. The mounting was conceived, designed, and developed by one of the geniuses of telescope makers, Russell Porter, and it was named for the Vermont community in which the work was done.

In 1933 Mr. Porter wrote "since 1920 many amateurs have chosen this type of support for their telescopes. They seem to have taken very kindly to the comfort afforded by a fixed eyepiece, with all controls and setting circles within easy reach." Amateur Telescope Making, 1933, p. 333.

The attractive characteristic of a Springfield equatorial mounting is the fact that the observer's position is fixed and comfortable. The light from a star reaches the eye via two prisms. Thus, instead of being forced to assume uncomfortable observing positions, the observer is always looking down, as if using a microscope.

The Fernald 8-inch Springfield was built by Donald Patch, the optical worker under Russell Forter, and it was the first large Springfield mounting that Patch made. Cyrus F. Fernald purchased it in 1932 and set it up in Wilton, Maine. Cy observed double stars and nebulae until 1937, when he joined the AAVSO. His first variable star observation was made on May 2, 1937, and it was of R Leonis - the same star that Leslie Peltier used to start his observing on March 1, 1918.

Cy soon became AAVSO's leading observer, holding the top observer's place for about ten years. During the 1940's, Cy recalls making over 6000 estimates in less than 100 hours of observing time (i.e., l estimate in less than a minute!).

Emily Fernald, besides being an inspiration to Cy, joined him with her observations. Cy made over 118,000 observations of variable stars, and several thousand observations of the sun, and Emily observed about 100 variables, with the 8-inch Springfield, between 1937 and 1973.

Besides leading the AAVSO with his observations, and contributing thousands of valuable data, it was with this telescope that Cy discovered the outburst of the recurrent nova, RS Ophiuchi on July 13, 1958. This was the third observed outburst of RS Ophiuchi. The others were in 1898, and 1933.

This famous telescope was donated to AAVSO in 1973 when Cy and Emily moved to Florida. It was loaned to Chandler Holton of South China, Maine until 1977. In 1977 AAVSO Council decided to give the telescope to the members of the Central Florida Astronomical Society where it will continue serving "the lovers of the Starry Heavens," at its new home in Geneva, Florida.



Janet A. Mattei

Cy Fernald with his Springfield telescope.