



Some alternative spectrohelioscope designs

Maurice Gavin's stimulating 1997 Presidential Address, published in the June 1998 issue of the *Journal*, prompts me to suggest some alternative spectrohelioscope designs which may be of interest.

First, may I point out that it is possible to move two slits in opposite directions with high precision, if they are rigidly attached to a lightweight pivoted bar (Figure 1). The stability of the system can be improved if the collimator lenses and grating are also fixed to this bar, which therefore carries a complete monochromator unit in permanent adjustment. Provided the overall length of this unit is not too small, and the diameter of the solar image is not too large, the fact that the slits move in a short arc rather than a straight line is unimportant.

Figure 2 shows a neater alternative system in which the monochromator section is stationary and image scanning is achieved by two reflections from an oscillating mirror. Wavelength adjustment is made by tilting the reflector which follows the transmission grating.

In both diagrams, a field lens precedes the entrance slit to ensure correct pupil imagery.

George Y. Haig

35 Dalmahoy Crescent, Bridge of Weir, Renfrewshire PA11 3JB, Scotland.

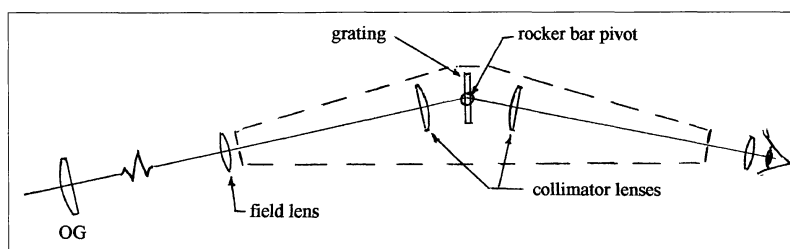


Figure 1. Monochromator slits mechanically coupled by rocker arm (broken line).

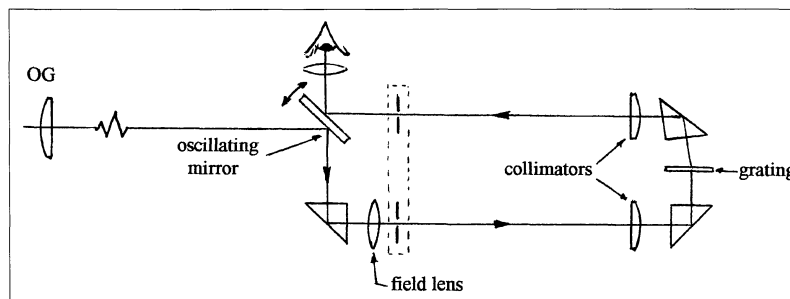
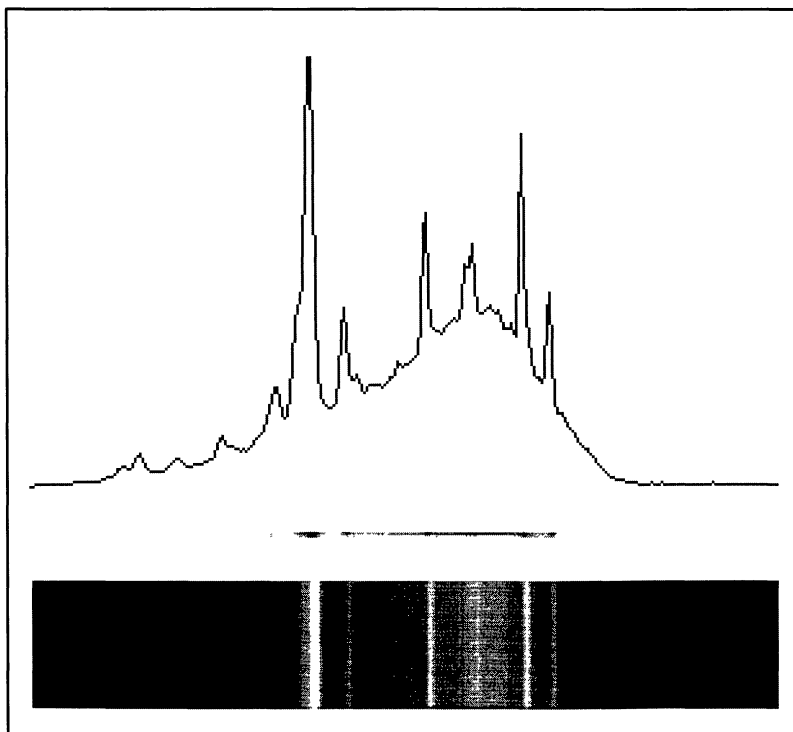


Figure 2. Oscillating mirror spectrohelioscope. As an alternative, scanning could of course be performed by vibrating the slit carrier.

A spectrum of a Wolf-Rayet star



A low-resolution spectrum of the Wolf-Rayet star HD192163 in Cygnus, obtained by Maurice Gavin on 1998 August 17 at 00.28 UT at his Worcester Park Observatory in Surrey. The star is assumed to be associated with the adjacent emission nebula NGC 6888. 30sec exposure with spectroscope + 30cm SCT, MX5-16 CCD. Trace from original spectrum via PIXWIN software. *M. V. Gavin.*