

NOTES

**HAYNALD OBSERVATORY PHOTOSPHERE
OBSERVATIONS 1880–1919**

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The small but well equipped Haynald Observatory was founded in 1878 at Kalocsa, Hungary, by Cardinal Ludwig Haynald, archbishop of Kalocsa, with the support of the astronomer and landowner, Miklós Konkoly Thege, and it was directed by a succession of Jesuit astronomers until its suppression in 1950. Aside from its educational function, the observatory was mainly used for solar and meteorological research. Its principal instruments were a 7" Merz-Browning refractor of 222cm focal length equipped with a Hilger-type prominence spectroscopy, and a 4.5" Merz refractor of 155cm focal length that was used for photosphere observations.

The scientific results obtained at the observatory consist primarily in the series of drawings of the Sun's photosphere made between 1880 and 1919. These are mostly the work of Fr Gyula Fényi (Julius Fink, 1845–1927), director of the observatory from 1885 to 1913. Between 1886 and 1917 he observed the solar prominences and the photosphere on almost every cloudless day, for a total of nearly five thousand hours. These observations resulted in his nearly two hundred publications that have become part and parcel of modern astronomy, and in 1971 the International Astronomical Union named a lunar crater in his honour.

For the photosphere drawings the observer used the 4.5" refractor, the image of the Sun being projected at right angles to the optical axis of the telescope. A drawing of the photosphere 22cm in diameter usually took about ten or fifteen minutes, and showed the visible sunspots, faculae and sometimes prominences, the geographical east–west direction, the observational time in UT, and comments on such matters as the weather conditions. The drawings of the years 1881, 1882, 1889 and 1890 are missing as are some other pages, but 6,221 are preserved. These unique records have been digitized and are available on our Web pages: http://fenyi.sci.klte.hu/deb_obs_en.html.

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