

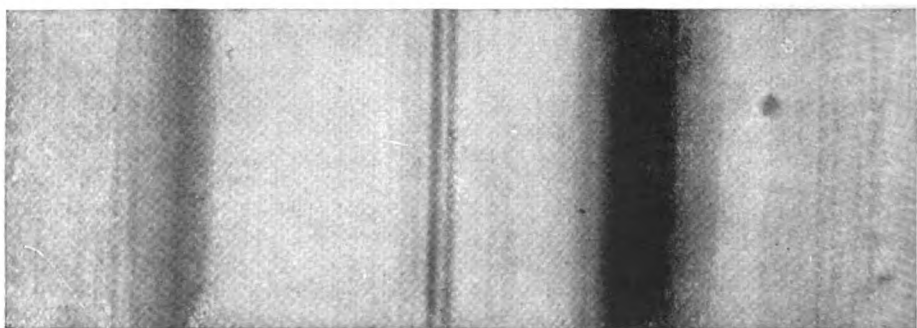
Enlargement of Spectrum of Beta Aurigae, 1889, Dec. 30, 17h. 6 G.M.T.

It was not until after the completion of his great twenty-eight-inch telescope, in 1872, that Dr. Draper secured his first successful photograph of the spectrum of a fixed star. This photograph, obtained without slit or lens, by using a quartz prism placed just inside the focus of the smaller mirror, was the result of a long investigation carried on by him for several years. He made gradual improvements in his methods, and was greatly aided in his work by the invention of dry plates in 1879. In October, 1879, he read a paper before the National Academy of Sciences, which attracted much attention, and from August, 1879, until his death, he made seventy-eight photographs of stellar and planetary spectra.

Although in the photographing of stellar spectra may be counted Dr. Draper's most valuable contributions to science, other branches of astronomy deeply in-

terested him. In 1874, he was appointed Director of the Photographic Department of the United States Commission established to observe the transit of Venus. Devoting himself to this work for three months, in spite of the fact that his home duties prevented his actually joining the expedition, the success of the observations was so largely due to him, that Congress ordered a special gold medal struck in his honor at the Philadelphia Mint.

Dr. Draper also organized and directed a small expedition to view the total solar eclipse of July 29, 1878. The party was a notable one, consisting of Dr. and Mrs. Draper, Mr. Thomas A. Edison, Prof. Henry Morton, and Mr. Geo. F. Barker. The station, Rawlins, Wyoming, had been selected by Dr. Draper on account of its favorable atmospheric qualities; and the expedition was so well equipped, that Dr. Draper was able to reach the conclu-



Enlargement of Spectrum of Beta Aurigae, 1889, Dec. 31, 11h. 5 G.M.T.