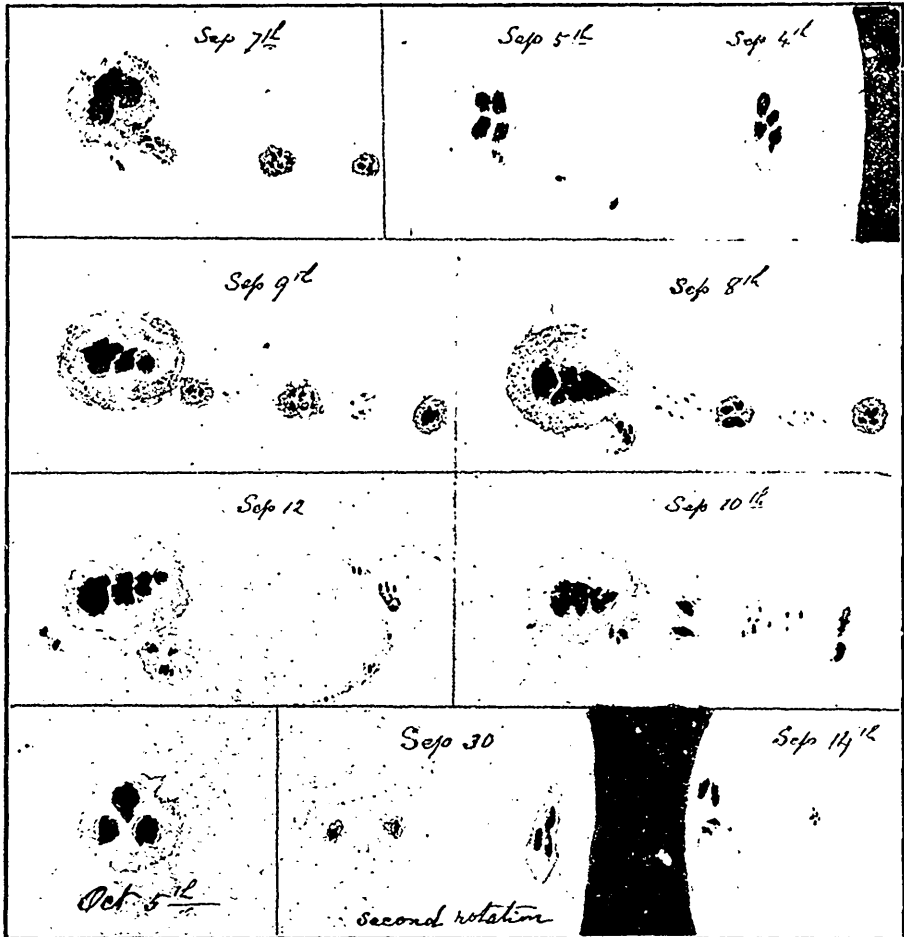


and D₁ and D₂ and many other lines widened. At 12.05 p.m. a small dark line attached to the H_α line extended obliquely toward the red end of the spectrum in the region just preceding the main spot. At 1.40 p.m., the entire disturbance had almost ceased."

September 9th.—The central spot in the train seems to be nearer the large spot than on the 8th, and the nuclei in all have kept changing; many fine black points are still visible along the line of the train.



September 10th.—The central spot in the train has moved onward and is now quite near the large spot. I think the spots must be situated at different depths in the solar atmosphere, and be moved by currents moving at different rates. Perhaps a cyclonic motion in a vertical plane nearly parallel with the sun's equator might best explain the motion.

I was not able to get a sketch on the 11th and I much regret it, for two sketches made on the 12th are very remarkable. The central group which was nearing the large spot on the 10th, has quite disappeared; has it ceased to exist?