

with *low magnifying powers* of an envelope surrounding a nucleus in the general way above described, but the connexion was singularly varied, as if several jets of luminous (or illuminated) matter had been issuing from various parts of the nucleus, giving rise, by their more or less oblique presentation to the eye, to exceedingly varied appearances—sometimes like the spokes of a wheel or the radial sticks of a fan, sometimes blotted by patches of irregular light, and sometimes interrupted by equally irregular blots of darkness. From the 24th September to the 10th October, however, there were seen to form no less than *three distinct* caps or envelopes in front of the nucleus, each separated from that below it by a more or less distinct comparatively dark interval. These Professor Bond appears to consider as having been thrown off in intermittent succession, as if the forces of ejection had been temporarily exhausted, and again and again resumed a phase of activity; the peculiar action by which the matter of the envelopes was ultimately driven into the tail (or, as we conceive it an analysis of that matter performed by solar action, the *levitating* portion of it being hurried off—the *gravitating* remaining behind in the form of a transparent, gaseous, non-reflective medium), taking place, not on the surface of the nucleus, but at successively higher levels. Meanwhile, and especially from the 7th to the 10th of October, that is to say, when the full effect of the perihelion action had been endured, the nucleus and its adjacent sector offered every appearance of most violent, and, so to speak, angry excitement, evidenced by the complicated