

space around us well stocked with material particles. They are not uniformly distributed; by their mutual attractions they are gathered into swarms. The swarms are not motionless; they are drawn toward every attracting body in the universe. They are not changeless; by degrees each swarm grows as long as it has a separate existence, by the accession of other swarms. As these swarms sail majestically through the ocean of immensity, some are brought under the control of distant suns, and start on long journeys to pay their flying visits. They approach now as comets. If they are induced to circle perpetually about given suns, they finally go to pieces again, and the parts are either drawn to their central suns, or distributed among the planets. If they escape from the systems entered, they steady themselves across the gulfs of space which separate systems, and in the progress of centuries, float into other ports and new excitements.

But some of these swarms remain floating in the depths of extra-firmamental space, and gather to themselves, by their increasing power of attraction, all other swarms and particles from their region of immensity. They become *Nebulæ*. They are luminous because pounded by the fall of other swarms, and lighted by the collisions of their internal parts. They are composed of matters solid, liquid, and gaseous. They rotate. Poised in space, the impacts of gathering matters have started them on their axes of motion. There they are before our eyes. The background of the heavens is phosphorescent with the glow of these distant fields of world-stuff. Each is a living picture of that primordial state in which we fancy the matter of the solar system existed when that history of cooling began which we endeavored to trace to a starting point.