clusters of stars?—p. 13 (note §, p. 22, and p. 23, note \*). Historical particulars—p. 14 (note \*, p. 28). Number of nebulæ whose positions are determined—p. 26 (notes \* and †). Distribution of nebulæ and clusters of stars in the northern and southern hemispheres—p. 27; spaces poor in nebulæ, and the maxima of accumulation—p. 28, and note \*. Configuration of nebulæ: spherical, annular, spiral, and planetary nebulæ—p. 31. Nebula (cluster of stars) in Andromeda—p. 16—31 (note †, p. 31); nebula in Orion's sword—p. 17-39 (notes \*, p. 18, †, p. 23, §, p. 36, \*, p. 38, §, p. 39, and \*, p. 40); large nebula round \$\eta\$ Argûs—p. 40; nebula in Sagittarius—p. 41; nebula in Cygnus and Vulpes; spiral nebula in the northern Canes Venatici—p. 41. The two Magellanic Clouds—p. 43 (note \*, p. 48). Black spots or Coal-sacks—p. 51.

- β. The Solar region; planets and their moons, ring of the zodiacal light, and swarms of meteor-asteroids—p. 53-88.
- I. The Sun considered as a central body: Numerical data—p. 59 (note \*, p. 59, and p. 62, note \*). Physical constitution of the surface; envelopes of the dark solar globe; Sun-spots, faculæ—p. 61. Diminutions in the daylight recorded by the annalists; problematic obscurations—p. 73, and note. Intensity of the light in the center and at the edge of the Sun's disk—p. 79, and note; also p. 81, note \*. Correlation of light, heat, electricity, and magnetism; Seebeck, Ampère, Faraday—p. 84. Influence of the Sun's spots upon the temperature of our atmosphere—p. 80.

## II. The Planets:

- A. General comparative considerations:
  - a. Principal Planets:
    - 1. Number and epoch of discovery—p. 89. Names, planetary days (week), and planetary hours—p. 92, and note †; also p. 94, note \*.
    - 2. Classification of the planets in two groups-p. 102.
    - 3. Absolute and apparent magnitudes; configuration—p. 105.
    - 4. Order of the planets and their distances from the Sun; the so-called law of Titius; old belief that the cosmical bodies which we now see were not all visible from the beginning; Proselenes—p. 106, note \*, p. 108, and p. 120, note \*.
    - 5. Masses of the planets-p. 118.
    - 6. Densities of the planets-p. 119.
    - 7. Periods of sidereal revolution and axial rotation-p. 120.
    - 8. Inclination of the planetary orbits and axes of rotation; their influence upon climate—p. 121, and note ‡, p. 126.
  - b. Secondary planets-p. 127
- B. Special consideration; enumeration of the individual planets and their relation to the Sun as central body.

The Sun-p. 135-137.

Mercury-p. 137, 138.

Venus; spots-p. 138-141.

The Earth; numerical relations-p. 141.