

- Mercury—p. 137, 138.
 Venus—p. 138-141.
 Earth—p. 141.
 Moon of the Earth—p. 141-159.
 Mars—p. 159, 160.
 The small planets—p. 161; Flora, Victoria, Vesta, Iris, Metis, Hebe, Parthenope, Astræa, Egeria, Irene, Eunomia, Juno, Ceres, Pallas, Hygeia;
 Jupiter—p. 165-168.
 Satellites of Jupiter—p. 169, 170.
 Saturn—p. 170-174.
 Satellites of Saturn—p. 174, 175.
 Uranus—p. 175, 176.
 Satellites of Uranus—p. 176, 177.
 Neptune—p. 177-180.
 Satellites of Neptune—p. 180, 181.

III. The comets—p. 181-201.

IV. Ring of the zodiacal light—p. 201-204.

V. Shooting stars, fire-balls, meteoric stones—p. 204-226

Conclusion—p. 227-230.

Corrections and additions to vol. iii., p. xi., xii.

Index, p. 231-234.

Special analysis of the individual sections of the astronomical part of the Cosmos.

a. ASTROGNOSY.

I. *Cosmical space*: Only isolated portions are measurable—p. 30. Resisting medium, celestial atmosphere, cosmical ether—p. 31, note †, and p. 33, note *. Radiation of heat by the stars—p. 35, note ‡. Temperature of space—p. 37-39. Limited transparency?—p. 48. Regularly decreased period of revolution of the Comet of Encke—p. 39. Limitation of the atmosphere?—p. 40.

II. *Natural and telescopic vision*: Very different sources of light present similar relations of refraction—p. 44. Different velocities of the light of ignited solid bodies and that of frictional electricity—p. 45. Position of the Wollastonian lines—p. 45. Influence of tubes—p. 43. Optical means of distinguishing between direct and reflected light, and the importance of the means to physical astronomy—p. 45. Limits of ordinary vision—p. 48. Imperfection of the organ of vision; false diameter of the stars—p. 52. Influence of the form of an object upon the minimum visual angle in experiments as to visibility; necessity of a difference of luminous intensity of $\frac{1}{60}$; visibility of distant objects, positively and negatively—p. 48-56. On the visibility of stars by day with the naked eye from wells or upon lofty mountains—p. 56. A feeble light by the side of a stronger—p. 49, note *. Extending ray and star tails—p. 52. On the visibility of the satellites of Jupiter by the naked eye—p. 50. Undulation of the stars—p. 59. Commencement of telescopic vision; application to measurement—p. 60-62. Refractors of great length—p. 63. Reflectors—p. 63. Day observations; how strong magnifying powers facilitate the finding of the stars by day—p. 66.