

- Space, conjectures regarding**, 29; compared to the mythic period of history, 29; fallacy of attempts at measurement of, 30; portions between cosmical bodies not void, 31; its probable low temperature, 35.
- Spectra, the prismatic**, 44; difference of the dark lines of, according to their sources, 45.
- "Sphæra aplanæ" of Macrobius**, 27.
- Spurious diameter of stars**, 130.
- Star of the Magi, Ideler's explanation of the**, 154.
- Star of St. Catharine**, 137.
- Star systems, partial, in which several suns revolve about a common center of gravity**, 204.
- Stars, division into wandering and non-wandering, dates at least from the early Greek period**, 27; magnitude and visibility of the, 48; seen through shafts of chimneys, 57; undulation of the, 58, 59; observation of, by daylight, 66; scintillation of the, 73; variations in its intensity, 76; the brightest the earliest named, 89; rays of, 52, 127, 128; color of, 130; distribution of, 140; concentric rings of, 149; variable, 161; vanished, 163; periodically changeable, 164; non-luminous, of doubtful existence, 187; ratio of colored stars, 209.
- Steinheil's experiments on the velocity of the transmission of electricity**, 87; his photometer, 93.
- Stellar clusters or swarms**, 140.
- Struve on the velocity of light**, 82; his estimate of the number of the fixed stars, 117; on the Milky Way, 139; his Dorpat Tables, 205; on the contrasted colors of multiple stars, 207; calculation of the orbits of double stars by, 211.
- Sun, the, described as "a perpetual northern light" by Sir William Herschel**, 34; in intensity of light merely one of the fainter fixed stars, 95; its place probably in a comparatively desert region of the starry stratum, and eccentric, 150.
- Suns, self-luminous cosmical bodies**, 199.
- Table of photometric arrangement of 190 fixed stars**, 100; of 17 stars of first magnitude, 102; of the variable stars, by Argelander, 172, and explanatory remarks, 172-177; of ascertained parallaxes, 193; of the elements of the orbits of double stars, 213.
- Telescope, the principle of, known to the Arabs, and probably to the Greeks and Romans**, 42, 43; discoveries by its means, 61; successive improvements of the, 62; enormous focal length of some, 63; Lord Rosse's, 65; Bacon's comparison of, to discovery ships, 130; penetrating power of the, 145, 146.
- Telesio, Bernardino, of Cosenza, his views of the phenomena of inert matter**, 16.
- Temperature, low, of celestial space**, 35; uncertainty of results yet obtained, 36; its influence on the climate of the earth, 37.
- Temporary stars, list of**, 155; notes to, 155-160.
- Ternary stars**, 210.
- Timur Ulugh Beg, improvements in practical astronomy in the time of**, 91.
- Translation in space of the whole solar system**, 195; first hinted by Bradley, 195; verified by actual observation by William Herschel, 196; Argelander, Struve, and Gauss's views, 196.
- Trapezium in the great nebula of Orion, investigated by Sir Wm. Herschel**, 203.
- Tycho Brahe, his vivid description of the appearance of a new star**, 152; his theory of the formation of such, 154.
- "Ultimate mechanical cause" of all motion, unknown**, 24, 25.
- Undulation of the stars**, 58, 59.
- Undulations of rays of light, various lengths of**, 84.
- Unity of nature distinctly taught by Aristotle**, 13-15.
- Uranological and telluric domain of the Cosmos**, 26.
- Uranus observed as a star by Flamsteed and others**, 114.
- Vanished stars, 163; statements about such to be received with great caution**, 163.
- Variable brightness of multiple and double stars**, 209.
- Variable stars, 160-161; mostly of a red color**, 165; irregularity of their periods, 167; table of, 172.
- Velocity of light, 79; methods of determining, 80; applied to the determination of the parallax**, 195.
- Visibility of objects, 55; how modified**, 56.
- Vision, natural and telescopic. 41; average natural, 47, 48; remarkable instances of acute natural, 52, 55.**
- Wheatstone's experiments with revolving mirrors, 45; velocity of electrical light determined by**, 86.
- White Ox, name given to the nebula now known as one of the Magellanic clouds**, 91.
- Wollaston's photometric researches**, 95.
- Wright, of Durham, his view of the origin of the form of the Milky Way**, 149.
- Yggdrasil, the World-tree of the Edda-Songs**, 8.
- Zodiac, period of its introduction into the Greek sphere, 119; its origin among the Chaldeans, 120; the Greeks borrowed from them only the idea of the division, and filled its signs with their own characteristics, 120; great antiquity of the Indian very doubtful, 121.**
- Zodiacal light, Sir John Herschel on the**, 40.