at the South Pole, 187; important results of the Antarctic magnetic expedition in 1839, 192; rarity of electric explosions in high northern regions. 337.

- Rossell, M. de, his magnetic oscillation experiments, and their date of publication, 186, 187.
- tothmann, confounded the setting zodiacal light with the cessation of twilight, 143.
- Lozier, observation of a steady luminous appearance in the clouds, 202.
- Rümker, Encke's comet, 106.
- Rüppell denies the existence of active volcanoes in Kordofan, 245.
- Vabine, Edward, observations on days of unusual magnetic disturbance, 178; recent magnetic observations, 184, 185, 187, 188.
- lagra, Ramon de la, observations on the mean annual quantity of rain in the Havana, 333.
- kaint Pierre, Bernardin de, Paul and Virginia, 26: Studies of Nature, 347.
- ginia, 26; Studies of Nature, 347. lalses or mud volcanoes, 224-228; striking phenomena attending their origin, 224, 225.
- alt-works, depth of, 158, 159; temperature, 174.
- antorino, the most important of the islands of eruption, 241, 242; description of. See note by Translator, 241.
- Jargasso Sea, its situation, 308.
 Satellites revolving round the primary planets, their diameter, distance, rotation, &c., 94, 99; Saturn's, 96–98, 127; Earth's, see Moon, Jupiter's, 96, 97;
- Uranus, 96–98. Yaurians, flying, fossil remains of, 274, 275.
- Saussure, measurements of the marginal iedge of the crater of Mount Vesuvius, 232; traces of ammoniacal vapors in the atmosphere, 311; hygrometric measurements with Humboldt, 334-336.
- Schayer, microscopic organisms in the ocean, 342, 343.
- Scheerer on the identity of eleolite and nepheline, 253.
- Schelling on nature, 55; quotation from his Giordino Bruno, 77.
- Scheuchzner's fossil salamander, conjectured to be an antediluvian man, 274.
- Schiller, quotation from, 36.
- Schnurrer on the obscuration of the sun's disk, 133.
- Schouten, Cornelius, in 1616 found the declination null in the Pacific, 182.
- Schouw, distribution of the quantity of rain in Central Europe, 333.
- Schrieber on the fragmentary character of meteoric stones, 117.
- Scientific researches, their frequent result, 50; scientific knowledge a requirement of the present age, 53, 54; scientific terms, their vagueness and misapplication, 58, 68.
- Scina. Abbate, earthquakes unconnected with the state of the weather, 206, 207.

- Scoresby, rarity of electric explosions in high northern regions, 337.
- Sea. See Ocean.
- Seismometer, the, 205.
- Seleucus of Erythrea, his astronomical studies, 65.
- Seneca, noticed the direction of the tails of comets, 102; his views on the nature and paths of comets, 103, 104; omens drawn from their sudden appearance, 111; the germs of later observations on earthquakes found in his writings, 207; problematical extinction and sinking of Mount Ætna, 227, 240.
- Shoals, atmospheric indications of their vicinity, 309.
- Sidereal systems, 89, 90.
- Siljerstrom, his observations on the Aurora, with Lottin and Bravais, on the coast of Lapland, 195.
- Sirowatskoi, "Wood Hills" in New Siberia, 281.
- Snow-line of the Himalayas, 30-33, 331, 332; of the Andes, 330; redness of longfullen snow, 344.
- Solar system, general description, 90-154; its position in space, 89; its translatory motion, 145-150.
- Solinus on mud volcanoes, 225.
- Sömmering on the fossil remains of the large vertebrata, 274.
- Somerville, Mrs., on the volume of fireballs and shooting stars, 116; faintness of light of planetary nebulæ, 141.
- Southern celestial hemisphere, its picturesque beauty, 85, 86.

Spontaneous generation, 345, 346.

- Springs, hot and cold, 219-225; intermittent, 219; causes of their temperature, 220-222; thermal, 222, 345; deepest Artesian wells the warmest, observed by Arago, 223; salses, 224-226; influence of earthquake shocks on hot springs, 210, 222-224.
- Stars, general account of, 85-90; fixed, 89. 90, 104; double and multiple, 89, 147; nebulous, 85, 86, 151, 152; their translatory motion, 147-150; parallaxes and distances, 147-149; computations of Bessel and Herschel on their diameter and volume, 148; immense number in the Milky Way, 150, 151; star dust, 85; star gaugings, 150; starless spaces, 150, 152; telescopic stars, 152; velocity of the propagation of light of, 153, 154; apparition of new stars, 153.
- Storms, magnetic and volcanic. See Magnetism, Volcanoes.
- Strabo, observed the cessation of shocks of earthquake on the eruption of lava, 215; on the mode in which islands are formed, 227; description of the Hill of Methone, 240; volcanic theory, 243; divined the existence of a continent in the northern hemisphere between Theria and Thine, 289; extolled the varied form of our small continent as favorable to the moral and intellectual development of its people, 291, 292.

Struve, Otho, on the proper motion of the