- Rhone, delta of, 113.
- Rhyncholites, 281.
- Rhynchosaurus, 291.
- Rivers, their geological agency, 108.
- Roches moutonnes, 133.
- Rock salt, where found, 53; in the United States, 53; in the eastern world, 53.
- Rocking stones, 72; in Barre, 72; at Fall River, 73.
- Rocks, chemical composition of, 47, 93; how worn down, 94; aqueous, 18; igneous, 18; azoic, 42; fossiliferous, 41; hypo-zoic, 41; metamorphism of, 211; their lithological characters, 59; their palæontological characters, 246; smoothed and striated, 192; embossed, 183; plicated, 24; stratified, 18, 41; un-stratified, 42; relative age of, 90; metamorphic, 21; sedimentary, 59; chemical, 59; soluble in water, 95; their endurance, how tested, 404.
- Rogers, Professors, their system of classification, 43; their experiments on solu-bility of rocks, 95; the Henry D.'s report on Pennsylvania, 406. Roman cement, 29.

Rutiodon, 287.

SABRINA, 178.

Sauroid fishes, 367, 284.

Saurian reptiles, 271, 285.

- Sauropus, 273.
- Saliferous rocks, 68, 126.
- Salt, its origin, 169; in Siberia and Mexico, 169.
- Salt springs, 126; their origin, 126; in United States, 415, 418.
- Sandstone for structures, 403.
- Sandwich Islands, volcanic, 174

Sao, 257.

Saturn covered by a fluid, 209.

Saurians, 287.

Sauroid fishes, 284.

Scalites, 253.

- Scandinavia a center of drift dispersion, 129.
- Scaphites, 297, 825.

Scelidotherium, 851

- Scheuchzer on fossil fishes, 234.
- Schoharie Grit, 65.

Scolithus, 248.

- Scorpion, fossil, 282.
- Scrope on Auvergne, 181.
- Sea bottoms, ancient, 148.
- Sea beaches, ancient, 148.

Beals, their number, 164; fossil, 387.

Seam defined, 18.

- Secondary rocks, 67; plutonic, 91; period,
- Section, ideal of the earth's crust, 86, 87; ideal of terraces, 150; across the Alps, 25; across the Appalachians, 27; of the bottom of the Atlantic ocean, 17; in New York, 68; in Derby, Vt., 225. Sedgwick on metallic veins, 896.

- Sedimentary rocks, 59. Semiophorus, 383.

Seneca oil, 128.

- Sepia, 297, 298.
- Septaria, 29.
- Series of rocks, 38.
- Serpents, fossil, 887.

Serpentine, 51 ; where found, 52 ; a metamorphic rock, 51, 62.

Serpula, 299.

- Shale, 59.
- Sharks fossil, 334; from N. Carolina, 834.
- Shells, chambered, 281, 297; their vertical range, 298; the number of fossil,
- Shepherd, Forrest, on the Pluton Geysers, 218.

Ship Rock, 132.

Shoading, S97.

- Shrew, fossil, 340.
- Siberia rich in gold, 57; no proper drift there, 180. Sigillaria, 276.

Silica in the earth, 48.

- Siliceous marl, 75; sinter, 75, 122. Silliman, Prof. B. Senior, his journal, 406; his views of the Mosnic days, 887.
- Silurian system, 63; lower and upper, 64; in North America, 411.
- Silver, where found, 56.
- Simple substances in the earth, 47; minerals in the rocks, 48.

Sinaite, 80.

Sinter siliceous, 75.

Sirenia fossil, 337, 339.

- Sivatherium, 888, 850.
- Skaptar, Jokul, quantity of lava from, 188. Shark, tooth of, \$33.
- Shepard, Prof. C. U., on Adamsite, 225.
- Silicates in trap and granite, 92.
- Slides on the Green and White Mts., 105.
- Slime-pits near the Dead Sea, 182.

Slope in mining, 895.

Snipe, tracks of, 856.

Sonpstone, 403.

- Soda in the earth, 48.
- Soils, their composition, 73, 404; a proof of Divine benevolence, 378; their formation, 165, 404; from different rocks, 405; mixed, 405. Solitaire, 844.

Solfatara, 170.

Somma, 174.

- Spalacotherium, 309.
- Species had once a wider range, 866; their distribution, 861; living and fossil compared, 866, 867; in the different formations unlike, 361; new, how introduced, 878; not transmuted, 270, 878; had a limited duration, 861.

Sphagnum, 166.

Sphenopteris, 266.

Sphenophyllum, 280.

Sphinx, its geological character, 831.

Spiders, fossil, 800. Spirifer, 252.

Spirula, 297.

Spondylus, 824.

- Springs, phenomena of, 128; salt, in United States, 126; their origin, 126; mineral, 125; gas, 126. Squalidæ, 833. Squirrel, fossil, 840. Stabræ, burled, 178.

Stamping of ores, 819. Stentite, 61.

Stelleria, 163, 855.

- Stability secured by change, 882.
- Stalactites, 74.

Stalagmites, 74.

S.