

- to improve steam navigation, 15; advocates railroads, 18; projects a line to join New York and Philadelphia, 19; builds first American locomotive, 20; proposes elevated railroad, New York, 20; death, 26; philosophical writings, 26; on yellow fever, 27; projected circular iron fort, 30; reminiscences of A. S. Hewitt, 35
- Stevens, John Cox, owns yacht *America*, 30
- Stevens, Robert L., designs a false bow for the *New Philadelphia*, 16; establishes a steam ferry, 16; plans a shelter for pilot, 17; designs T-rail, 21; imports a supply, 22; and "John Bull" locomotive, 23; devises elongated shell, 27; improves steamboats through, 27; gives eight wheels locomotive, 28; yachtsman, 28; builds the sloop *Maria*, 29; a founder N. Y. Yacht Club, 29; experiments with shot against armor, 31; contracts to build an armored warship, 31; experiments with screw propellers, 31
- Stimers, Alban C., directs *Monitor* on first voyage, describes fight with *Merrimac*, 249; gives faulty execution to plans of shallow gunboats, death, Ericsson educated Stimers' daughter, 258
- Stirling, Rev. Robert, invented regenerator, 225
- Stitches, chain, lock, 359
- Stockton, Robert F., orders two steamboats with Ericsson machinery, steamboat bearing his name, 231; the steam frigate *Princeton* built through his recommendation, 233; quarrel with Ericsson, 235
- Strasburg clock, 400
- Straw in paper, 376
- Strother, General, student of S. F. B. Morse, 139
- Swaim, James, telegraphic code, 151
- Symington, William, steamboat *Charlotte Dundas*, 57; instructs Fulton, 58

T

- Tailor bird of India, 346
- Taylor, Frederick, inslow, alumnus of Stevens Institute, 34; quadrupled output metal-cutting machines, his books on scientific management, 97
- Taylor, Samuel W., secretary to John Ericsson, 272
- Telegraphy foreran electrical engineering, 119; recent advances reported by Western Union Co., 172
- Tennessee buys patent rights from Eli Whitney, 90; suspends tax, 92
- Terminal Building, New York, foundations cut by Tilghman, 373
- Thimonnier, Barthelemi, sewing machine, 340
- Thomas, Henry, on Ottmar Mergenthaler, 405
- Thomson, Robert William, inventor pneumatic tire, 205
- Thorwaldsen, friendship with S. F. B. Morse, 136
- Thurber, Charles, writing machine, 323
- Tilden, Professor William, produces artificial rubber, 202
- Tilghman, Benjamin Chew, genealogy, birth, 369; education, 370; produces hard steel shot for treating stone, 372; enlists in Union Army, earns distinction, wounded, returns home, re-enlists, 374; unintentionally produces paper pulp from wood, 375; process detailed by himself, 377; process as since modified, 378; devises sand blast, 379; its development,