Chapter 1: Coming to America

"The Inventor," New York City, April 12, 1859

Dear Cornelius,

When I came to the United States from Great Britain, in November of 1839, my young bride Amelia and I were fortunate to begin lodging at the John Jacob Astor House in New York City. It was fortunate because I, who was an inventor by profession and a Swede by birth, had, just two years earlier, been languishing in British debtor's prison on Fleet Street, due to some surreptitious thefts of patents, which caused me a devastating bankruptcy. As I often told my associates, one can live in ostentatious surroundings, as I have lived in the Astor House, and still be destitute. As the philosopher Kierkegaard would say, engineering was my "existential conditioning" for the first twenty-five years of my life here in America. My work was my salvation, but it was my wife's downfall.

Amelia, God love her, was the only decent event to happen to me during my stay in England. And she had some good humor about her when she told me why they call the United Kingdom the Emerald Isles. "Because we're green with envy, and we want all the riches of the world!" she said, her sparkling blue orbs flashing with coquetry. When I attended the church to marry my Amelia, it was the first time I had been inside a house of worship in ten years. I whispered to my nineteen-year-old bride that I hoped it would be another ten years before I returned. I have no patience with superstition and myths that cannot be observed with careful scientific experiment.

I must agree with my wife, even though her years are a score fewer than my own two. I have noted in my travels that the British are jolly good fellows to visitors, as long as you are doing creative things for them on their home soil. But, alas, once they become colonial masters, as was the case in the United States, for instance, they at once wax into tyrannical overlords who demand total obedience and financial obsequiousness.

However, unlike Kierkegaard's *Fear and Trembling*, I thank my stars that I am not philosophically rooted in angst about my fellow man. I simply put forth that I am misanthropic by nature, and over which incarceration I had no control, I knew my time in the Emerald Isles had been spent when I saw that British authorities were locking me up for dishonesty.

I must say that I am fond of the American philosopher, Ralph Waldo Emerson, and I am especially pleased with his essay, "Self-Reliance." For it was this brand of "self-reliance" upon which I have based my life. For example, at twelve years of age, I was commissioned to produce drawings for the Gota Canal Company in Sweden. At sixteen, I was a cadet in the Mechanical Corps of the Swedish Navy and then an officer in the Army at seventeen. And, at twenty-two, I traveled to London to see what my acquired engineering skills could gain on the free market.

I am a rather stone-faced man, a bit under six feet in height, with a massive forehead that reminds me of a drawing I once viewed, by anthropologist Dr. Raymond Pile, in the *Encyclopedia of Homo Sapiens* in which an ape-man entitled "Cro-Magnon" is stupidly glaring out at the reader with a club slung over his hairy shoulder. People have said, I must admit, that I have "a bludgeoning self-confidence."

My years in England are noteworthy, if only for the excitement I caused with my inventions. First, I devised an air- compressor pump for removing water from the mines. I also perfected coolers for breweries and refrigerators, and applied new tubular condensers for marine boilers. In point of fact, I had a direct hand in developing the means whereby Sir John Ross's Arctic exploration ship, *Victory*, was able to navigate with its entire engine system below the freezing waterline. But Sir Ross, who was impatient with modern machinery because it "kept him up at ungodly hours," had it disconnected and thrown overboard. I, of course, as the impudent young foreigner, was blamed for the failure.

But perhaps my best venture in England came when the 1829 Liverpool Line was being planned, and inventors were asked to develop a "steam-driven coach" to compete for a 500-pound prize. The conditions of the contest were that the engine must be capable of drawing a weight of twenty tons at the rate of ten miles per hour.

I built my *Novelty* in seven weeks. My only competitor was an engine designed by George Stephenson called the *Rocket*. There were thousands of spectators assembled on the grounds of the railway in October 1829. My vehicle started admirably enough, getting up to a speed of thirty miles an hour in minutes. However, the engineer, a usually quiet man, suddenly began pouring on the steam; he was obviously trying to impress all those gathered with his speed. The *Novelty* did impress, gaining a maximum speed of sixty . . . when the boiler burst . . . hurtling shattered metal and wood thousands of yards in every direction! Thank goodness, the flying debris injured no person.

Although I lost the competition, I did, four years later, build a caloric heat engine that actually worked and could be considered the first internal combustion engine. Rudolph Diesel also built a similar creation that used another fuel. Michael Faraday, a respected senior scientist of the day, called my youthful effort, "A fine contrivance, but I can't for the life of me see how it works at all!"

In general, it is said, Swedes are a rather oafish and stubborn breed of men. Perhaps we are. At least, when I arrived in New York City, I felt as though I had been thrust into a zany, illogical world, where citizens ran wild in the streets, and where it took every ounce of courage I could muster just to walk with my wife around Central Park.

In fact, in all my years in New York, I have never ridden the satanic transportation that rumbles through the skies above the chaos they call "city life." I came upon the monstrosity called the Brooklyn Bridge one day, quite by accident. I have no use for what New Yorkers call their engineering "wonders of the world." Rather than ride the elevator trains or cross that grotesque bridge, I would that they tie me to a steam-driven propeller of one of my frigates and let me spin my way across the seas—underwater!

When I arrived in America in 1839, I entertained notions of building a big frigate for the Navy. The result was the unconventional 600-ton frigate *Princeton* that was built during the period 1841-44. The hulk was constructed in the Philadelphia Navy Yard and the engine in New York. It was with great admiration that the newspapers of the time boasted that my craft was a first in many areas of navigational genius.

The *Princeton* was the first direct-acting, screw-driven metal-hulled steamship of war with all machinery below the waterline, furnaces designed for anthracite, forced draft by blowers, telescopic stack—and the biggest gun ever carried by a fighting vessel, of twelve-inch caliber. I was quite pleased to be producing this craft because it was far superior to any British frigate of the time.

However, there was an accident, which occurred aboard the vessel that was the fault of an early American partner of mine, one Captain Robert F. Stockton. I first became acquainted with the Captain when my wife and I crossed the Atlantic—England to America—in his ship, a little twin-propeller steamer that he financed, the *Great Western*. He was a tall, pipe-smoking gentleman, with willowy black hair and big spectacles, which encircled his great ears like grappling hooks. Captain Stockton, like many Americans I have met, was enamored of "bigness." If it were his choice, it was better to be bigger. "America is for big thinkers like us, Swede," he used to tell me, puffing on his pipe like one of the boilers in the *Princeton*. "If we don't think big, then we won't succeed!"

So, it was the captain's idea to take the ship out for a test firing of weapons; but, unbeknownst to me, he was also sailing out with one of his own cannons added to the *Princeton's* arsenal. It was nicknamed the "Peacemaker," and it was a foot more in diameter at the breech than the ones I had constructed and much heavier. It was "the largest mass of iron to be brought under the forging hammer," Stockton later told me. But it also had an Achilles' heel: unlike my guns, the Peacemaker was not reinforced with hooplike iron rings forged into the breech and extending for a partial length to protect the metal during the concussion of firing.

As a result, on February 28, 1844, a notable party headed by President John Tyler went on board our ship docked on the Potomac River, for a cruise and demonstration of Stockton's wondrous "Frankenstein" naval rifle. It was a bright unusually warm winter's day, an electioneering candidate's delight with some four hundred political and social leaders and their ladies coming on board to see the event.

I was not present, but Stockton reported the news to me shortly afterward. I had to meet him at a pub in downtown New York, near those dreaded cable cars. He was already "three sheets to the wind" when I approached. His eyes glared at me intensely from out of the smoke-filled darkness, and I thought he was going to fall off his stool.

"Swede! It was disastrous! I put the fire to her fuse myself. There was a flash of light—then an explosion like hell itself erupted from that black beast! We felt the vessel lurch under the concussion. When the smoke cleared, there they were. Five persons dead. Secretary of State Upshur and Navy Secretary Gilmer. Three others. President

Tyler was on board but below decks at the time—thank God! A score were seriously wounded and were writhing in agony on the decks. Blood was everywhere! The Peacemaker blew-up, Swede! What are we going to do?"

It was something I had expected, given Captain Stockton's proclivity for "bigness." I reassured him and told him I was working on other projects, and that I still needed his financial help. But he was obviously shocked to the marrow. "The United States Government will not pay us the rest of our money, Swede. And I ... I have murdered the Secretary of State!"

This fiasco was to come back to haunt me, but I did continue with my other tasks, leaving Captain Stockton to his despair. I heard rumors that he took to drink and was eventually committed into a sanatorium by his wife, Rachel. This was not the last time I would see rich and noble men come to ruin.

I devoted much of my time on smaller projects. It was in this time period that my wife, Amelia, advised me she was heading back to London to stay with her parents for a while. I must admit, I was quite busy, and I had been neglecting her. Women are quite soulful beings, forever parading about and wanting you to pay them constant attention. I spent most of my time working at my drawing boards or supervising construction at the shipyards, so I am ashamed to say that I was a bit relieved when she told me the news. I could finally get down to some real work at last.

The 260-foot *Ericsson*, powered by my caloric engine, sank in a squall off New Jersey but was raised and refitted for steam. Steam machinery for various light tonnage vessels earned me as high as $84,000 in one year—1845—but I lost my money on the *Iron Witch*, a New York-to-Albany Hudson River steamer equipped with both a propeller and paddles. She vibrated so much that none wanted to embark on her pulsating decks. This craft served as a metaphor for my marriage, it seemed.

I spent most of my time defending my patent rights to the screw or "spiral" propeller in the courts, especially with respect to those U.S. Government steamers found using them. I failed, however, to win a $15,000 claim. In spite of my rebuffs and shabby treatment with regard to funds owed to me for the *Princeton* (I was blamed for Captain Stockton's escapade on the Potomac), I became a naturalized citizen in October 1848.

I remember the day clearly. I walked down to the doorman, Alfred, and I told him I was now an American, at the age of 37. The grizzled old ruffian looked me up and down, shook his head, and exclaimed, "Well, the country was named after an Italian explorer, Vespucci, discovered by an Italian explorer, Columbus, but some have said the first man who founded these United States was from your area, Captain."

"Oh? And who might that be, Alfred?" I asked.

"I don't exactly remember his right name, but I think it was somethin' like Leaf. Yes, that's it! Leaf Ericson! He had the same damned name you have, Captain!"

Thus, I was initiated as an honorary relative of the Scandinavian Viking founder of these United States, Leif Ericson.

Yours truly,

John Ericsson