## Start-Up

At the tail end of another brutal eastern Wisconsin winter in 1852, the wind was whipping icy whitecaps off immense Lake Michigan into the frontier village of Port Washington. Brisk winds off the water are common in town, and gales can gust more than thirty miles an hour, with swells two stories high on the lake that is larger than the contiguous combination of New Hampshire, Massachusetts, and Rhode Island. Toward winter's end it seldom gets warmer than 45° Fahrenheit on that northern shore. Snow is common well into spring. In the predawn of that day it was probably closer to 25° Fahrenheit, making it difficult to stay warm in the simple plank houses clustered near the water. Many of the buildings in the settlement would have been of native white pine, a wood that is light, soft, and loves a flame.

As the little town slept, the fire broke out on the southwest corner of Canal and Franklin streets at 3:00 A.M. and "in a very few minutes," the local newspaper reported, "the flames . . . were beyond all control." In a little more than an hour the entire block was a "heap of ashes." The wood frame building with a grocery store downstairs and Leland Stanford's office above burned quickly to the dirt street.

The doughty-appearing young man struggling to define himself beyond a reputation for slacking, ponderous speech, and an affinity for drink found his incipient legal practice among the cinders. Also cremated was a highly prized, costly collection of law books his father had given him for luck and fortune. Even worse, paperwork proving people owed him thousands of

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dollars—money he sorely needed—was destroyed. It was one of those moments when a man may be forged or sundered.

It was the capper of what might well have happened regardless of the flames. Business had fallen off steeply. The small lots of property Stanford had bought or taken in barter had depreciated so steeply he considered simply abandoning them. He was down more than a peg or two. Standing in the cold ashes along that massive northern lake, at this nadir of his young life, he followed his accustomed practice when the going got tough: he quit.<sup>2</sup>

His ancestors had not. For centuries they had struggled and persevered. Today the name has a brisk, clean, Anglo-Saxon sonance associated with privilege, affluence, and high station: Stanford. But six hundred to eight hundred years ago, when it likely took form, it would have signified a family at the very bottom of the social hierarchy. The clan would have belonged to a class, as historian Thomas Babington Macaulay put it, of "peasants degraded to the level of the swine and oxen which they tended." From this, a strain of Stanfords emerged that would not endure the yoke imposed by the invaders and their heirs.

The soldiers from the province of Normandy who crossed the Channel in 1066 to conquer England had brought their fashion of surnames with them as they slaughtered at will and took the land wholesale. William and his victorious Plantagenets—a derivative of the Latin name for the appropriately invasive bush called French broom—were among a small but growing class of Gallic landowners beginning to take family names to help ensure their hereditary property claims. As the fashion, and later necessity, spread across England, those with French surnames marked themselves far apart from the great unwashed of the previous Saxon invaders five hundred years before them. Instead of being able to claim a name originating in Normandy, the peasantry had to adopt names referring to their occupations, kinship, place, or the topography of where they lived. *Stan* comes from the Old English/Saxon for "stone" and *Ford* from "river crossing."

It was considered a "byname," and hardly able to help protect wealth, for there was likely little of that. And what little there was would have been taxed. From the thirteenth century on, the king's men began to record who paid, when they paid, and of course how much they paid. By the bloodstained reign of the Tudor dynasty, family names were required.

If the utility of a last name made harsh medieval existence a little easier for the crown to exact its due, even two hundred years later in the 1600s, everyday life for most of the then five million English remained a regular struggle to survive. Half the population died before age sixteen and few lived past sixty. Laws and cultural customs were feudal and oppressive. Civil and foreign wars and plagues were constants, especially under the notorious rule of King Charles I, who later found his head separated from his body by an executioner's axe. Getting meat on the table more than once a week was a luxury for most, and even then Britons were just starting to eat with forks and knives instead of just their hands. Toothbrushes were another emerging technology from China, with few early adopters. "In all this long, bleak intervening gap cold and dirt clung to the most fortunate and highest in the land," even Winston Churchill noted in his *Birth of Britain*.<sup>5</sup>

But some three thousand miles west promised a clean, sunlit shot at prosperity and property for those with pluck. It is here that Leland Stanford's first American ancestor enters the story.

Little is known of Thomas Stanford except that he crossed a forbidding ocean despite the frighteningly difficult two-month westward journey in a small, cramped wooden sailing ship. At the other end of the cold and capricious Atlantic he landed in the terrifyingly unknown vastness of North America.

Thomas Stanford arrived in Concord, Massachusetts, in 1644, just twenty-four years after the landing of the *Mayflower* and two years into the best known of England's recurrent civil wars. <sup>6</sup> Unlike for those pilgrims, who departed Britain largely because their religious orthodoxy conflicted with the dogmas of the then 134-year-old Church of England, the carnage of the Great Rebellion alone would have been enough to prompt Thomas's emigration. <sup>7</sup> The first Europeans entering the town of Concord arrived just nine years before Thomas Stanford. Those dozen English families found a land densely forested with chestnut oak, red cedar, and scrubby pitch pine. Wetlands dotted the area filled with all manner of tiny creatures feasting on human blood. The pilgrims bought some six square miles from the Native Algonquins, whom were said to be friendly. <sup>8</sup>

As if Thomas Stanford didn't already face astonishing odds, colonial records indicate that he was blind—there are two documented references to his sightlessness but none explaining how it came about or the suffering it must have inflicted.

Concord, of course, in 1775 would be the site of the first battle for independence and today is comfortably proud to call itself the birthplace of the American Revolution. More than one hundred years after a blind but

determined Thomas Stanford lived in Concord, a great-grandson, Abner Stanford, served in the Continental Army as a corporal. His widow had to fight to get the small pension she was entitled to. Stanfords, whether by birth or by marriage, were accustomed to struggle.

Their son Lyman, still on the family quest for independence and room to grow, moved west again, to what was then the American outback seven miles north of Albany, New York. At the end of the revolutionary 1700s and the beginning of the tumultuous 1800s this new frontier, too, was choked with wild woods, abundant game, and clouds of mosquitoes during the torpid summer months. In the winter, a full yard of snow typically smothers the land, and the rivers and ponds and lakes freeze hard. Survivors would closely watch their larders, ensuring they and their surviving children would stay warm by burning the many cords of wood they had cut by hand, stacked and seasoned in the often stifling hot and humid summer months. Preserves of huckleberry, pigweed, and wild leeks known as ramp were put up for the long deep winter. Rabbit, grouse, and of course deer were hung, salted, smoked, and cured.

And there were beer and whiskey to keep a person warm and perhaps a little more fortified to face the dank, the cold, and the dark. Then, as today, true profit was made here.

Lyman Stanford—whose wife Betsey came from a family line including the surname Leland—ran the Bull's Head tavern on the Troy Road in what was then known as the village of Watervliet but would soon be absorbed by Albany. There is reason to believe he helped build the turnpike. It was sixteen miles long, one hundred feet across, with six-foot-wide footpaths on each side, all shaded by poplar trees and, most incredibly of all, said to be lit at night by silver lamps. Naturally, you had to pay a toll to use the thoroughfare. The road brought riches to those along it, although not as much as those who owned it. "It was a big thing at that time," reminisced Leland Stanford's oldest brother many years later. "That was a great event in those days."

Lyman's son Josiah, in turn, inherited the inn. Before the inheritance, however, he went through a bad patch when he attempted to strike out on his own as a young man. Josiah tried starting up a farm but it failed and he lost everything. His first-born son, Josiah Jr., would never forget it, though he was very young when it happened. "I remember them taking the stock away. Then, of course, he went down in the world, and had to begin at the bottom," he recalled late in life. <sup>10</sup>

Josiah Sr.'s famous fifth child, not yet born, sought and found the same fate.

Albany's hardscrabble past is often marked beginning in 1624, when it established itself as a Dutch trading post. Albany's borders have changed many times during its many years as a city. Settled largely by immigrants from the Netherlands appreciating the rich farmlands of the Hudson Valley, it became the state capital in 1797.

Many found it delightful. A memoir by a French aristocrat who escaped her nation's slaughterhouse revolution of 1789 was written long after she and her family had decamped from hiding out for several years in and around Albany. Henriette Lucie, the Marquise de La Tour du Pin, found herself startled at first by passing Mohawk Indians walking "stark naked" down a road in the region. But from the start she also found herself arrested by the area's natural graces, writing sometime before her death in 1853,

On the very day of our arrival in Albany, as we were walking in the evening down a long and lovely street, we came across some enclosed grounds, surrounded by a plain white fence. It was a well-tended park, planted with beautiful trees and flowers, and in it stood a pretty house, simple in style and with no outward pretentions to art or beauty.  $^{11}$ 

On the other hand, Yale University president Timothy Dwight damned the area after touring it in 1792, saying he found "the scenery remarkably dull and discouraging." He warmed to the topic, adding that "the appearances of these houses [are] ordinary, dull and disagreeable." By 1804 he had visited again and although found the homes of Albany itself much improved, wrote of the region's buildings: "A great number of them were taverns; generally, however, of so wretched an appearance, as must, one would think, prevent the entrance of any traveler." Then, abandoning all pretense of charity, Dwight took a general swipe at the people of the area: "Early as it was, were gathered a number of persons from the neighbourhood; idling, and drinking away their time; rude in their appearance, and clownish in their manners." 13

One of the local taverns was the Bull's Head, which Josiah Sr. inherited after Lyman Stanford passed away. Business began to prosper as westward movement gained momentum. As many as two thousand wagons would rumble past in a day after the trail had evolved into a hard-packed dirt and

later macadam turnpike. Eventually there were thirty-five hotels along the Troy Road, one every half mile.

It was here, at the Bull's Head, the year when the White House was home to America's last founding father, <sup>14</sup> that on March 9, 1824, Elizabeth Phillips Stanford gave birth to a healthy baby boy she and her husband named Amasa Leland Stanford.

The choice of Amasa may seem, well into the twenty-first century, a little odd, especially since the name usually translates to hardship or burden. But it was not uncommon at the time. A cousin on his mother's side, whom his parents likely knew, was an Amasa, and the name has a tenuous biblical tie to the name Abner, Leland's great grandfather who fought in the War of Independence. One of the abundant begets of the Old Testament, Amasa was a less-than-favored nephew of the duplicitous warrior king David. The story says Amasa, in turn, joined a failed rebellion against his crafty uncle. King David, however, offered Amasa a rare second chance. But justice being what it is in the Old Book, Amasa soon fell by the sword of another treacherous rival. There is then no reason to wonder that by age twenty Amasa Stanford refused to use his given name for the rest of his life and instead took his more benign middle one, Leland, which derives from the Old English for meadowland.

He was the fifth of eight children, six of whom survived the not infrequently cruel frontier life into adulthood. Time was not measured in shifts, or days off. The work at the tavern could run deep into the night. And at the adjacent family farm it would begin at or before dawn and end at or shortly after dusk.

"We dug ditches and everything else that we were called upon to do without asking father if there was any money in sight," Leland's oldest brother Josiah Jr. recalled in 1889. There was no hired help and "no carpets on the floor." Josiah Jr. particularly remembered having to haul manure on the farm, though it smelled atrociously bad—especially the "slushy" waste. But the family considered it "so much richer." Josiah Jr. thought Leland a slacker, saying,

I never called him a good worker as a boy. He did not take the interest in it that the rest of us did, and while we would be fixing our teams and tools, he would go around a corner . . . and when the time came to go to work we would have to call him; he did not care whether the work went on or not.<sup>15</sup>

Older brother Josiah added that his younger brother would, instead, rather open a book.

Although Leland liked reading more than manual labor, it also eventually became clear that his work ethic was questionable even in his studies. "He was, perhaps, a little impatient of purely scholastic methods," would be one of the kinder descriptions of Stanford many years later. <sup>16</sup> A late nineteenth-century San Francisco journalist, writing a flattering tribute to the by then celebrated Stanford, took a rare left turn and noted Stanford's performance in school as "rather dull."

During the first half of the nineteenth century, the young nation was very much on the move. The western frontier, which had drawn the Stanfords first from England to America and then from New England to the Hudson River valley, was a powerful lure for tens of thousands. Pressure to absorb the rest of the North American continent into the United States was amplifying—the term Manifest Destiny began to be heard.

What is now called the Midwest was, until Leland Stanford's youth, difficult to reach because of the almost impassable Appalachian Mountains, running fifteen hundred miles from Alabama to Maine, one hundred to three hundred miles in breadth and up to three thousand feet in elevation. George Washington was among the first to recognize and address the concern that as the restless nation pushed over the Appalachians, it might break away from the young United States, especially with the Spanish, English, and French coveting the West. "The western settlers (I speak now from my own observations), stand, as it were, upon a pivot," Washington famously wrote in the autumn of 1784. <sup>18</sup>

As trails and then roads began to breach the Appalachian wilderness at gateways such as Cumberland Gap, another massive undertaking began to its north: the Erie Canal. This was a youthful, boisterous, independent nation confident it no longer had to fight its parent and instead could put its back into its own work. When Stanford was just twenty months old, when he would have been clambering to walk on his own and starting to put words together, what is still widely regarded as the greatest engineering feat of its time officially began operation. The Bull's Head was a five-minute stroll from the Erie Canal. Business was good.

Completed in 1825, the canal connected the Great Lakes to the Hudson River, and the Hudson, of course, empties its monumental payload into the Atlantic Ocean. Bolting the lakes to the Atlantic—which in effect connected the western Plains to the Eastern Seaboard—had profound, lasting

consequences for the emerging nation. That such an audacious undertaking could actually take place quickened the bumptious belief that Americans were a can-do people. It was a remarkable accomplishment, especially considering the work was done with little more than shovels, axes, mules, and blasting powder through forests, swamps, shale, and limestone. The mostly male laborers, as well as some hardy females disguised as boys and men, were in large part the pariah immigrants of the day: Irish. 19 The canal effectively took Boston and Philadelphia out of the running as America's biggest city and bestowed that mixed honor on New York. The canal's effect on the Hudson River valley was particularly striking. Albany was not just growing, it was bursting. According to the U.S. Census, in 1800 there were a little more than 5,000 people living there, but by 1840 the population was more than 33,000. The canal not only opened the East to the Great Lakes and consequently the Midwest, it revolutionized commerce as it broke open the transportation chokehold that had restricted the adolescent nation that was pushing west. The pace of commerce greatly quickened, the cadence of American life briskly conforming.

For example, the opening of the canal reduced shipping time between Buffalo on Lake Erie and New York City from twenty to eight days. Freight costs plummeted from \$100 to \$5 a ton. And the project almost immediately started paying for itself. The Erie Canal cost some \$17 million to build but soon was making \$1 million annually in tolls. New York State financed the venture by selling bonds, which because of the success of the canal were paid back by 1837, well ahead of schedule. Naturally, there were some qualifications. Ice in the winter effectively shut down the canal to traffic, also freezing business. <sup>20</sup> Most of the traffic was commercial cargo, as passengers found the novelty of traveling the canal soon turned to monotony and returned to the stagecoaches that advanced with greater celerity.

Nevertheless, the canal's bestowal of bounty overcame most obstacles. As the jobs that came with building and running the canal created a significant new source of capital, merchants of all stripes were quick to come and exchange their goods for workers' money. Some were met with less enthusiasm than others by the good people of the region. "While a toll collector and his assistants examined a boat and its cargo," noted a canal historian, "the boat's crew and passengers visited neighboring stores and taverns." 21

A letter written in 1843 lamented that "3 to 6 grogeries, and all these for the benefit of the travelling public . . . Rum, Gin, Brandy, Wine, Beer, Cider, Bread, Milk, and Groceries meet the eye every few miles."<sup>22</sup> Watervliet, where Leland Stanford's birthplace and childhood home, the Bull's Head tavern, prospered, was an epicenter of the lucre—and wantonness. The riverfront village not only had a national armory, it was also at the junction of the Champlain and Erie Canals. Furthermore, the township was the site of a handful of weigh and pay stations for canal traffic. It was also where the rowdy canal men got paid. Watervliet swiftly earned notoriety for being "a center of saloons, gambling and prostitution."<sup>23</sup>

Testimony before the state-created Canal Board in 1839 cemented the slander, speaking specifically to Watervliet's infamy: "The Boys who Drive the horses I think I may safely say that these boys are the most profain beings that now exist on the face of this hole erth without exception," one exasperated, if semiliterate, witness asserted.<sup>24</sup>

For the Stanfords, the canal changed everything. The waterway itself was no more than three hundred downhill yards from the Bull's Head tavern, which meant traffic, which meant money, which meant prosperity for the clan.

Then something never imagined roared up along the Erie just six years after the canal opened. It rolled into America signaling the most monumental change in human history since the Agricultural Revolution of 10,000 B.C.E.: the Industrial Revolution. Leland Stanford was turning eight years old. The force trundling through town profoundly disrupted how Stanford and his family conducted their lives and legacy. They could have called this primal machine Big Tech. But initially it was branded a Steam Wagon. When it screeched and squalled into already turbulent upper New York State, it jolted the entire economy, environment, and consequently, most everyone's life.

A locomotive in the early to mid-1800s typically weighed forty tons. One heavy horse weighs about one ton, or two thousand pounds. Rails were made of iron until the latter part of the century, when steel was found to have better wear and tear, was much less brittle, and pound for pound was far stronger. The first railcars could carry ten tons each of wheat, machinery, and livestock and, of course, people. The first locomotives had twelve-horsepower engines that could haul the cars four times faster than a horse's average gait of four miles per hour. And a train could run day and night, simply fed abundant timber or coal for fuel and requiring little downtime. Its metal and wood skin protected freight and passengers from ice storms, scorching heat, outlaws, or Native Americans trying to defend their ancestral homelands. If the dirt roads washed out, the rails would usually hold smooth and solid. Ice and snow were usually little worse than nuisances.

If success can be measured in part by powerful enemies, the railroad was a triumph even before the first rolling stock throttled down the brand-fresh iron tracks. Canal and steamboat forces joined with the Albany and Schenectady Turnpike Company to stop the Mohawk & Hudson Railroad, but they might as well have tried stopping the third law of thermodynamics. The M & H is widely recognized as the first chartered railroad in the nation.

And of course, there was the money—and the fight over it. The New York State Legislature at first required the railroad's stockholders and directors to be personally liable for all debts contracted by the company. It did not take long for that news to get downriver. The New York City financiers who were the majority investors in the enterprise balked, and after a two-year fight, won. Albany lawmakers amended the requirement to reduce Wall Street's liabilities, and the Mohawk & Hudson became the second railroad in America, after the Granite Railway in Massachusetts, to go into operation.

The first train soon began to roll the approximate fifteen miles between Albany and Schenectady. And, as with the Erie Canal, it almost immediately became prosperous. Records from the first year of operation reveal receipts of \$16,319 and expenses of \$7,477.13. That left \$8,842.66 in net earnings. This was a time when making \$1 a day was decent money and a steak dinner at good New York City restaurants cost 25 cents. The railroad was the talk of the town.

There were engineering challenges. The train had to surmount a plateau of about three thousand feet while carrying about fourteen passengers on each car, or "coach." At first the locomotives did not always have the power for the ascent, so railroad men employed horses to haul the train up the steeper grades. Within months, however, engineers found the means to adequately harness the pitch-pine fuel energy firing the steam engines. Although that generated the necessary horsepower, there were other novel bugs in the cutting-edge technology.

There was "sufficient force to jerk the passengers who sat on seats across the top of the coaches, out from under their hats, and in stopping they came together with such force as to send them flying from their seats," recalled a passenger thirty-nine years after the train's first trip. The burning pitch pine from the locomotive sent up a "thick volume of black smoke strongly impregnated with sparks, coals and cinders," prompting passengers to shield themselves from this onslaught using their umbrellas—but the umbrellas burned to the frames. This caused a "general melee... each whipping his neighbor to

put out the fire." When the ordeal was over, the passengers "presented a very motely appearance on arrival at the first station." <sup>26</sup>

The railroad drew crowds along the tracks, and not knowing the danger, people brought their horses defenselessly close. As the train approached, "the horses took fright and wheeled, upsetting buggies, carriages and wagons and leaving for parts unknown to the passenger if not their owners, and it is not now positively known if some of them have yet stopped."<sup>27</sup>

Who cared? To be near the train track was to be near money. To be near a railroad station was to be adjacent to prosperity. Coupled with the fortunes brought by the Erie Canal, the change wrought by the new technology can be seen in the Stanford family, as they eventually moved from above the tavern on the seamy river road into an affluent inland home framed with colonnades. Even the dullest could see that real money and power was in owning a railroad, not just being astride one. The railroad could not help but impress a young man such as Leland Stanford. He wrote to his family about the building of the railway near their land, expressing great interest in how much money they could make from being adjacent to the line.

In his teens, writing to one of his brothers, there is the first glimpse of his sharp attention to this development: "The settlement with the Rail Road Company is full as equitable as I expected; and on the whole if there is that to be made from the making it, which is stated as probably." Young Stanford's tormented prose suggests the new rail line had made a land deal that would likely affect his parents. "I think it will be no great injury; for I have an idea that there will yet be a store house built on the premises in consequence of the Rail Road; the advantages of which you will readily perceive if there is any." And then using a word reborn, if used rather too liberally, in Silicon Valley, he concluded: "Likely you will consider this as rather visionary but I am not exactly certain but that it is so myself." Visionary, it might be noted, once denoted someone who was impractical or a woolgatherer. A flake, if you will.

The entire ecology of the Hudson River valley altered as workers began to clear-cut wide swaths of forest for fuel to drive the trains and make cheap coal, not to mention for building the flourishing number of homes, factories, and warehouses. And of course, there would be telegraph lines and railroad ties. In the not far away Catskills, the hills actually turned from dark blue to green after the indigenous hemlocks were first stripped of their bark for tanning, then the dead trees chopped down, naturally giving way to second-growth hardwoods.<sup>29</sup> Crucial wetlands were also often drained to provide water for

the four-foot-deep Erie Canal, leaving what an early nineteenth-century visitor called "desolate confusion" and a twentieth-century historian termed "a ghostlike and disorderly cemetery." In the nineteenth century this was considered the price of progress.

The abrupt realignments from an ancient agrarian way of life to an industrial-technological one had significant if unexpected ramifications for many ways of life. For example, the so-called Second Great Awakening—a religious frenzy of the first half of the 1800s—was so acute in and around Albany that the area was called the Burned-Over District, because the fury roared across the region like a wildfire.

There were the Shakers, for one, the popular name for the United Society of Believers who fled England and found themselves centered in Stanford's Watervliet by the late eighteenth century. This utopian, communal, and vegetarian group of men and women spent much of their Sundays dancing, prompting the nickname. They also called for, not incidentally, their members to remain celibate. <sup>31</sup>

There was also the Perfectionist Oneida movement, also utopian and communal but with at least one significant difference: it advocated "Free Love." Farther upriver, a young man named Joseph Smith said he had met an angel named Moroni, who had given—and later taken back—golden tablets that Smith said he transcribed and later called the Book of Mormon. Calling themselves Latter-day Saints, the Mormons fled west to avoid persecution. Smith was later killed by a mob in Illinois, in part because of his adherence to polygamy. The Saints then trekked farther west in search of their own Zion, where there would be new opportunities and problems, some involving Leland Stanford. 32

And there was a preacher named William Miller, from a New England Baptist background, who held camp meetings where thousands subscribed to "Millerism," which prophesied that the second coming of Jesus would take place in 1844. Miller died greatly disappointed five years later.

There is no reason to suggest that Stanford, nominally Presbyterian, found himself much swayed by any of this. But a growing political upheaval did have some effect on the young man: a deepening unease regarding the enslavement of four million Americans in the South. New York State had outlawed slavery in 1827, when Stanford was three years old. Despite oldest son Josiah Jr.'s declaration that the family had no help, there is reason to believe that an African American couple named Freeman and Trueblood worked for the Stanfords.

The couple raised a large family during their years on the Stanford property, but they had to do so in a Stanford barn, relegated to living in a loft.<sup>33</sup>

The Underground Railroad, which rescued slaves from the South and brought them North, was particularly enterprising in the Hudson River valley and up into northern states and Canada. Slavery would underscore what next confronted Leland Stanford in the tumultuous environment in which he came of age. He was eighteen years old, with little or no formal education, and had no record of much accomplishment. In fact, his résumé for indolence and dubious distinction as a reader of books preceded his parents' decision to decree a drastic change in young Leland Stanford's life.

In this, however, he would struggle mightily—and fail pitifully.