Andrew Carnegie: The Richest Man in the World

Program Transcript

Narrator: For 700 years Scottish Bishops and Lords had reigned over Skibo Castle. In 1899 it passed to an American who had fled Scotland penniless. To Andrew Carnegie Skibo was "heaven on earth." "If Heaven is more beautiful than this," he joked, "someone has made a mistake." When Carnegie left Scotland at age 12, he was living with his family in one cramped room. He returned to 40,000 acres. And he wasn't yet the richest man in the world. Andrew Carnegie's life seemed touched by magic.

Owen Dudley Edwards, Historian: Carnegie was more than most people. Not only more wealthy, not only more optimistic. In his case it goes almost to the point of unreality. Carnegie is still right throughout his life, the little boy in the fairy story, for whom everything has to be alright.

Narrator: Carnegie was a legendary figure in his own time. A nineteenth century icon. He embodied the American dream - the immigrant who made it from rags to riches. Whose schoolhouse was the library. The democratic American whose house guests included Mark Twain, Booker T. Washington, Helen Keller, Rockefellers and royalty and the ordinary folks from his childhood. He would entertain them all together. Although he loved Scotland, he prized America as a land free from Britain's monarchy -- and inherited privilege. After King Edward VII visited Skibo, Carnegie told a friend all Americans are kings. But everyone knew there was only one king of steel.

Harold Livesay, Historian: He set out literally to conquer the world of steel, and that he did and became the largest steel producer not only in the United States, but Carnegie Steel by 1900 produced more steel than the entire steel industry of Great Britain.

Narrator: Carnegie was fond of saying "The man who dies rich dies disgraced." He made his fortune and then, unlike any industrialist of his time, began systematically to give it away. He

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was most famous as a benefactor of libraries, almost 3,000 around the world. He gave millions to support education, a pension plan for teachers and the cause of world peace. Carnegie wrote of the obligations of the wealthy -- how they should return their money to the societies where they made it.

Joseph Frazier Wall, Biographer: But then almost inadvertently, Carnegie as a kind of aside, tosses in a very revealing sentence. He wrote, "and besides it provides a refuge from self-questioning." In other words, this this old internal and eternal torment was still going on. Maybe with the giving away of his money he would justify what he had done to get that money.

Narrator: Carnegie presided over one of the darkest chapters in American labor history. He always saw himself as a friend of the working man. But the lives of his workers were not fairy tales where everything turns out alright.

Harold Livesay, Historian: By the standards of his time, he was less ruthless than many of his contemporaries, but certainly by the standards of ethics and conduct to which we would like to hold businessmen today, he indeed operated extremely ruthlessly.

Narrator: That was not how Carnegie's daughter Margaret remembered her father. At least in public.

Margaret Carnegie Miller, Carnegie's Daughter: My father was a kindly, friendly man. He always wanted to be remembered as one who loved his fellow men. He was a great optimist Incurably so. "All is well since all grows better." That was his motto. He lived by it and believed in it firmly.

Narrator: The private thoughts of Carnegie's daughter were harsher. "Tell his life like it was," she urged her father's biographer. "I'm sick of the Santa Claus stuff."

Carnegie was born in Dunfermline, the medieval capital of Scotland, in 1835. The town prospered as the center of a growing linen industry. Its highly skilled weavers were considered the aristocrats of craftsmen - though not the equal of shopkeepers on The High Street. Carnegie could remember the time before the Industrial Revolution forced the weavers from their homes. And forged the course of his life. Young Andrew fully expected to be a weaver like his father Will. He lived in a humble cottage at the foot of town, down the hill from The High Street. His father kept his hand looms at home. When Andrew was a little boy, Will's linens were in demand -- and he owned four looms. Andrew would sit at his father's feet mesmerized by the rhythmic sounds of the shuttle and the foot pedals. But the Industrial Revolution changed that. The steam powered looms that came to Dunfermline in 1847 put hundreds of hand loom weavers out of work. As Will Carnegie began to sell his looms one by one, Andrew's mother Margaret held the family together.

Molly Rorke, Dunfermline Heritage Guide: She opened a small shop in the front room of their cottage where she kept a kind of grocery shop. And she worked all the hours that God gave her mending shoes in order to keep the family in food, in respectability and in clean collars which was very important to her.

Owen Dudley Edwards, Historian: She wants to achieve affluence and she wants to be regarded as the equal of anyone she chooses. And the dwindling of the family income, bit by bit as the industrial revolution ate up the Carnegie sources of income, and the selling of the bases of their wealth, was a business of slow, growing shame for Margaret Carnegie. The boy would have been extremely conscious of this.

Narrator: Andrew would feel the pressure of his mother's shame as well as the preference she showed his younger brother Tom. The boys lived in one room with their mother and father. Margaret provided for them in that bitter winter of 1848 -- when hundreds of their neighbors went to bed early to forget the misery of hunger. "I began to learn what poverty meant," Andrew would later write. "Dreadful days came when my father took the last of his webs to the great manufacturers -- and I saw my mother anxiously awaiting his return. "It was burnt into my

heart then that my father had to beg (for work). And then and there came the resolve that I would cure that when I got to be a man." Andrew learned frugality from his mother -- and took the lesson to school. One day his teacher asked her pupils to recite a proverb from the Bible.

Molly Rorke, Dunfermline Heritage Guide: What Andrew said and gave as a proverb was what his mother had told him -- "look after the pennies and the pounds will look after themselves." The school dissolved in giggles. The master glared. The poor little boy didn't know what he'd said wrong he was only quoting his mother who was the center of his existence. And he never forgot it.

Narrator: Andrew lived in the shadow of the Abbey Church, the old religious center of Scotland. His family spurned the church -- but enjoyed walking the Abbey grounds. One of his earliest memories was their struggle to gain access to the historic ruins in Pittencrieff Glen, next to the Abbey. His grandfather Tom Morrison and his uncle Tom Jr. led the campaign against the Laird of Pittencrieff. They -- and Andrew's father -- were political radicals who wanted to abolish the monarchy and do away with inherited privilege. The sort of privilege the Laird of Pittencrief enjoyed. From the Abbey grounds Andrew could peek into his 60 acre private park which was "as near to paradise" as anything he could imagine. The court ordered the Laird to open the gates for one day a year. Then children could explore the wonders of the glen. But Andrew never could. Everyone in town was welcome -- except the relatives of his radical grandfather, Tom Morrison. The Laird of Pittencrieff banished his entire family in revenge.

Joseph Frazier Wall, Historian: Carnegie was always torn between two great influences of his childhood. There was his father and his maternal grandfather who represented to Carnegie, the true idealism of democracy, of the rights of the people but there was also the dominating force of his mother: aggressive, materialistic, determined to get to the top. And so throughout Carnegie's life and this is what gives it interest is this internal tension between preserving the idealism of his forebears but determined to get to the top.

Narrator: For Andrew's mother getting to the top meant moving up the hill to the High Street, where the respectable shopkeepers lived, like George Lauder who had married her sister. But after the disastrous winter, that was impossible. She organized the family to move -- not to the High Street but to Pittsburgh where two other sisters lived. She auctioned the household belongings. She auctioned the remaining loom which brought almost nothing. She had to borrow the last 20 pounds for the passage to America. Like many of the nearly 190,000 who left Britain for America in 1848, the Carnegies left in shame. Andrew, aged 12, was determined that in the new world he would heal the wounds of his father's defeat in the old. When the Carnegies arrived in Pittsburgh, they found an iron-manufacturing center enveloped by slimy rivers -- and befouled by smoke. They had fled poverty and despair in a romantic Scottish town only to find in Pittsburgh the same poverty and despair amid squalor. They settled in a neighborhood called Slabtown where Margaret's sister rented them two small rooms in her house on Rebecca Street. Like many immigrant children, Andrew, after only five years of schooling, went to work.

At age 13 he stoked boilers in a textile factory 12 hours a day. The job gave him nightmares. He would bolt up in bed seeing the steam gauges falling too low to provide power or rising so high he feared the boiler would explode. He could not wait to escape the world of furnaces. His chance came with an innovation that was transforming America -- the first instantaneous long distance communication. In 1849 Carnegie entered the world of what he called "tamed lightning" as a messenger boy in a telegraph office -- determined to get to the top.

Joseph Frazier Wall, Historian: One of the first things he did was to memorize every street in downtown Pittsburgh. Once he had delivered a telegram to a particularly important business man, he never forgot that face. So that when he would see that individual on the street he would say "Good morning, Mr. So and so."

Harold Livesay, Historian: It's an opportunity for him to ingratiate himself. But also he's in and out of the Pittsburgh businesses, he's privy to the information that they're transmitting. He learns who the important people are in Pittsburgh business. He knows what kind of people they are. He learns about their credit rating. He learns about their reputations. And this is typical of

his ability to seize on the moment to seize the opportunity.

Narrator: One spring evening, Andrew was downriver dispatching messages by steamboat when he met his father, headed down the Ohio to Cincinnati to sell his tablecloths.

Joseph Frazier Wall, Historian: To his surprise he saw on deck his father with his package of hand loom weaving, too poor even to buy an inside cabin on a cold night. And there was this stark contrast; the young boy still in his teens, the success, his father, the failure in America. The father grabbed Andrew's hand and said in a broken voice, "Andrew, I'm proud of you." And Andrew simply took this as a compliment not seeing the kind of despair in his father's eyes about his own failure.

Narrator: After seven years in America, Will Carnegie died at age 51, a broken man, a victim of the Industrial Revolution. Andrew's career was just beginning. He took a job on America's leading railroad, the Pennsylvania. And he found a father figure who would be the most important influence on his young adult life. Thomas A. Scott, superintendent of the railroad's Western division.

Hugh Davids Scott Greenway, Scott's Great Great Grandson: Scott was in and out of the telegraph office all the time and Carnegie came to his attention as a bright, young, cheerful guy, and I think Scott saw something of himself in the younger man. They both started off very poor and were ambitious and working their way up. And Scott began to call him, "my boy Andy." And when he got the chance he hired Andrew to be his own telegrapher and assistant at the princely sum of $35 a month.

Narrator: Carnegie got a $10 raise and a chance to ride the railroad. For a 17 year old it was irresistible. He preferred to ride with the engineer. And he adored his new boss, Tom Scott. "All the hero worship that is inherent in youth," he would write, "I showered upon him." With Scott's help, Carnegie began to learn the complexities of railroads -- which had become America's biggest businesses.

Joseph Frazier Wall, Historian: One day, he came home to find his mother weeping, which was very unusual she was a tough, hard woman who had essentially kept the family together. He said, "Never mind mother, I'll take care of you. And someday we'll ride in a coach." She said, "What good would that do if the people in Dunfermline can't see us riding in a coach?" That became his goal, to be rich enough to take his mother back and for them to ride together in a coach through the streets of Dunfermline.

Narrator: Soon Andrew was able to buy a house at the edge of Pittsburgh away from the smoke and grime. Margaret would hire a servant. While Tom finished school, Andrew was pushing ahead.

Harold Livesay, Historian: One day Scott was gone and Carnegie was in the office. A message arrived about a wreck. The line is blocked, the trains have stopped moving and Carnegie steps in and takes charge although he doesn't have a specific authority to do this, he assumes the authority.

Joseph Frazier Wall, Historian: Carnegie sent out the messages, telling the men what to do about the wreck, get the trains moving again, signed them all TAS, Thomas A. Scott. He said to himself "my boy, this is death or Westminster Abbey."

Harold Livesay, Historian: When Scott returned he assessed the situation. He saw what had happened and what Carnegie had done and he glowered at Carnegie and said nothing and Andy feared for a time that perhaps he had done wrong, but a story got back to him that Scott had told an associate, "let me tell you what that little white haired Scots devil of mine did."

Narrator: Faced with another wreck, Carnegie wired boldly "Burn the cars." Scott was amazed, but burning cars became standard procedure following wrecks to cut delays and cut down costs. Carnegie worked with Scott to develop bigger cars, bigger locomotives, longer trains to carry bigger loads. All to cut costs. They were the first to keep telegraph stations open around the

clock. The first to keep trains moving 24 hours a day. Carnegie learned from Scott what made the Pennsylvania Railroad a model to the world: cut costs -- by running 'em fast and running 'em full. Cut costs by cutting wages. By demanding 13-hour days. By avoiding strikes -- like the ones the freight men called in the winter of 1856. When a worker informed Carnegie that maintenance men also threatened to strike, Carnegie gave Scott a list of those involved whom Scott promptly fired. Young Andy would not forget the value of spies -- nor Scott the value of his boy Andy.

As the railroad expanded West, Scott taught Andy how they, too, in an era of unregulated business, could make a profit along the tracks. Together they invested in Theodore Woodruff's new sleeping cars -- which Scott bought for the Pennsylvania Railroad. Carnegie's $217 investment soon paid $5,000 a year. Woodruff, shunted aside, went bankrupt. Carnegie foresaw the need for iron bridges to replace wooden ones and formed a company to make them. He held Scott's shares in his name while railroad president J. Edgar Thomson put his in his wife's name to avoid the perception of conflict as they bought their own iron bridges for the Pennsylvania Railroad. To make the iron for the bridges that Scott would buy for the Pennsylvania Railroad, Carnegie followed his brother Tom into the iron business. Carnegie's investments along the tracks became so profitable that a salary of $2,400 a year from the railroad represented a mere 5% of his income. In 1865 he left the Pennsylvania Railroad to pursue his other ventures. He could rejoice in the 12 years that had passed since Thomas Scott first called him "My Boy Andy." Along with his mother Margaret, Andrew, still a bachelor, moved to New York. They took a suite at the St. Nicholas, New York's most fashionable hotel. Margaret could now wallow in luxury and banish the memories of immigrating in steerage, of stitching shoes by candlelight down a muddy alley in Slabtown. Her boy was now a wealthy man -- but dissatisfied.

At age 33 Andrew took stock of his life. He wrote himself a letter vowing to work for only two more years, to educate himself, and then to devote his life to "benevolent purposes." Simply making more money, he wrote, "must degrade me beyond hope of permanent recovery."

Owen Dudley Edwards, Historian: It was a very curious type of spirituality, and it reflects the voices of his father, who spoke of the religion of altruism. Or the voice of his uncle who spoke of an egalitarian political society. And the voice of his grandfather who agitated so strongly against the aristocracy. All of these ghosts are urging Andrew Carnegie onward.

Narrator: Carnegie had moved to New York at the beginning of the Gilded Age -- marked by the fortunes of an emerging industrial elite. He may have found the pursuit of wealth "degrading," but to others it was a natural expression of progress.

English philosopher Herbert Spencer was gaining popularity justifying "the survival of the fittest" in this free market jungle. As for the poor, Spencer felt nature meant to cast them aside. Carnegie encountered these ideas in New York's literary salons as he prepared for a life of good works. "Light came in as a flood," he wrote, "and all was clear."

He reduced 30 volumes of Spencer's writings to what became his motto "All is well since all grows better." And the simple phrase "upward and onward." His self doubts seemed to vanish.

Owen Dudley Edwards, Historian: Spencer told him that it was a scientific fact that somebody like him should be getting to the top. That there was nothing unnatural about it, wrong about it, evil about it. From that point of view it's clear that the ghosts of his family's egalitarian origins. Spencer seems to be helping him to clear that away. So he's very grateful to Spencer, Spencer in a sense puts ghosts to flight.

Narrator: By 1872 Carnegie had worked two years beyond what he said he would in his letter to himself. What he saw in England that summer would make him work 30 years more. For centuries craftsmen had been able to purify small batches of iron, which is brittle, into steel, which can be shaped. Now industrialist Henry Bessemer's pear shaped furnace could convert large batches of iron into steel.

Carnegie saw British iron mills expanding as steel plants. He knew the age of iron was over. He

committed his own money and borrowed heavily for a new steel plant at Braddock, near Pittsburgh, and began to haul Bessemer convertors to the site. That was when he got a desperate call from his old mentor, Tom Scott. Wall Street was in a panic, and Scott's risky investments in a Texas railroad had gone sour.

Hugh Davids Scott Greenway, Scott's Great Great Grandson: Carnegie was extremely successful. And Scott felt that his old protege would be able to help him out. So he arranged a meeting in Philadelphia, went down thinking that here he had, he and Carnegie had been in business together for 20 years, and that Scott had given Carnegie his first loan to start out, had backed him in virtually all his endeavors, and in fact Scott's greater prestige when Andy was just starting out, in effect, underwrote Carnegie's ambitions when he was a young man. So he had every reason to expect now that he was in trouble that Carnegie would help him.

Joseph Frazier Wall, Historian: Here was a true test of Carnegie's friendship with Scott. Carnegie said flatly, No. I cannot endanger my own financial position by endorsing what he was certain was a sinking ship.

Hugh Davids Scott Greenway, Scott's Great Great Grandson: And for Scott this was a terrible personal blow. He felt hurt and betrayed, and it was a professional embarrassment, and a financial disaster.

Narrator: Five years later Scott was stricken with what a New York paper called a "paralysis" and sailed to Europe to recuperate.

Hugh Davids Scott Greenway, Scott's Great Great Grandson: Carnegie wrote to Scott this letter that we've had in the family ever since. And the letter said, "I am so sorry. A line in the New York papers picked up here gives me the terrible news. All our miserable differences vanish in a moment. I only reproach myself that they ever existed. This blow reveals there lay deeper in my heart a cord which still bound me to you in memory of a thousand kindnesses for which I am your debtor." I think this shows how Carnegie was haunted by what he'd done to Tom Scott.

Narrator: "All my capital was in manufacturing," Carnegie would explain. But the regrets -- and protests -- came later. At the time in 1873 Carnegie simply slammed the door on Scott -- and on his own past life. He was looking forward -- to the opening of his huge new plant at Braddock. Looking forward -- to the Age of Steel.

On August 22, 1875 Carnegie witnessed the greatest fireworks display modern industry could produce. Blasts of air burned out impurities in his molten iron and a silver white liquid -- steel -- was poured into waiting molds that would form ingots -- ingots that would be rolled into rails. With calculated flattery, Carnegie named his plant the Edgar Thomson Works for the president of the Pennsylvania Railroad. It was known as E.T. His first order was 2,000 steel rails -- for the Pennsylvania Railroad. Carnegie shocked a meeting of mill owners who divided the rail market among them -- by demanding a share equal to the largest.

Harold Livesay, Historian: Carnegie arrives and announces that he's bought stock in all their companies, he's read their reports and he sees, as he goes around the table pointing at various people, that this president makes $50,000 a year, and had a $80,000 a year expense account, and so on and on whereas his president makes $5,000 a year and has no expense account. I know my costs, he says, and I know yours. And if you don't give me the share I want, in effect he says, I'll run you all out of business. Because you can't compete with me.

Narrator: Carnegie knew his plant was efficient; his approach unique. His competition would eye profits; he would eye costs, and he developed a system to track them day by day, penny by penny. His dictum at the Edgar Thomson Works was "watch the costs and the profits take care of themselves." He would move steel in big volumes. Like the railroads, run his furnaces fast and full. Data on costs and volume were wired to Carnegie in New York. From there he badgered his managers and tried to inspire a spirit of competition among his workers. It seemed to work.

Joseph Frazier Wall, Historian: All you had to do was pit one furnace against another. For the prize of being the best producer of that week, you got to post a steel broom at the top of your

smoke stack. And the men actually got into the spirit. It was part of the competitive spirit of America. And when one plant would triumphantly say we broke all records this week, Carnegie's response was "What about next week?"

Narrator: The new record raised next week's quota. If a manager or work crew fell behind, they would be fired. Competition was a driving force -- but it drove the workers 12 hours a day, seven days a week. The only holiday they got was the 4th of July. The efficiency of the plant, so important to Carnegie, reduced workers to unskilled tenders of machines, easily replaced, often dehumanized.

Those who had dominated the metal business before the Age of Steel found it especially hard. They were craftsmen who were used to controlling the process of making wrought iron, literally cooking it in small batches.

Harold Livesay, Historian: And it's an art not a science. And it was an art practiced by these people called puddlers. Who pushed it and stirred it and literally spat upon it and judged it by its color and the color of the flames that shot out of it to announce when this cooking was done. With the shift from puddling to the Bessemer process comes also a shift in control of the work place. But this of course the union was most reluctant to see happen and Carnegie and the other managers were most anxious to see happen.

Narrator: From the moment E.T. opened, workers and their unions battled Carnegie for liveable wages and control of the shop floor. A decisive battle would come in a matter of years. But the days of the puddler -- of all creative labor in a mill -- were numbered. At E.T. Carnegie introduced a scale of production that was daunting -- and irreversible. As the Industrial Revolution had claimed the jobs of hand loom weavers like his father, it would now claim skilled craftsman like the puddlers. The change from the Age of Iron to the Age of Steel had human costs. But not for Carnegie. He was able to foresee the revolution -- and to harness it.

John Ingham, Historian: I think Carnegie's genius was, first of all, an ability to foresee how

things were going to change. Once he saw that something was of potential benefit to him, he was willing to invest enormously in it. If he was told by one of his mill managers that a plant that they had built, or a department in a plant that they had built was not operating as efficiently as they hoped it would or they thought it would, his answer would be to simply rip it out. Rip it out and start all over again, because he wanted to have the most efficient kind of operation. I think for other business men at the time this just didn't seem to be good business practice at all. And I think that they regarded him as someone who was very audacious, who was very reckless in what he was doing, and I think for a long period of time probably felt that he was doomed to failure.

Narrator: They were wrong. Carnegie's brash assault on the world of steel was a success from the start. He was mass producing steel -- cheap steel that fueled the growth of a nation. Three years after E.T. opened, Carnegie got the contract to supply the structural steel for the Brooklyn Bridge. A minister at the dedication remarked on the metal that built the bridge. Steel, he declared, is "the chiefest of modern instruments, the kingliest instrument of peoples for subduing the earth." The industry Carnegie was beginning to dominate had come to symbolize America's technological development and national greatness. Carnegie was so proud of his new plant, he begged his English mentor Herbert Spencer to come to Pittsburgh to see how a new industrial order had evolved.

Joseph Frazier Wall, Historian: Carnegie believed he was playing out Spencer's concept of progress toward Utopia. He finally succeeds in getting Spencer to come to Pittsburgh. And Spencer saw what Carnegie thought was the industrial utopia as the kind of nightmare of the late 19th industrialism. Spencer said, "Six months residence in Pittsburgh would be justification for suicide."

Narrator: In 1881 Carnegie could keep a promise he had made to his mother Margaret in leaner times. They would ride in a coach -- and return in triumph to Dunfermline which they had left in shame 33 years before.

Andrew wanted his friend Louise to join them. Louise Whitfield was the 24-year-old daughter of a New York merchant whom Andrew, age 45, had courted for a year. They enjoyed riding together in Central Park.

Molly Rorke, Dunfermline Heritage Guide: Andrew got more and more friendly with this girl who was not conventionally pretty, who was not vivacious, not flirtatious. She was quiet. She was serious. She was sensitive. And Andrew obviously liked her very much indeed. But it's a bit iffy if a bachelor invites a young lady to go on such an expedition. So Andrew plead hard with his mother that she would go and extend a kind invitation to Louise and then Louise would be able to go as well. So Mrs. Carnegie put on the best black silk and went to see Louise and her mother. And Louise's mother wasn't sure when Mrs. Carnegie extended a rather terse invitation. And she said, well, if it was your daughter, do you think this would be suitable? And Mrs. Carnegie drew herself up and said, "If she was any daughter of mine she'd be going nay place of the kind." End of coaching trip for Louise.

And then to make it worse the insensitive old so and so asked Louise to dinner where everybody at the dinner table was chatting about this wonderful excursion that they were going to have. And Louise wasn't going. The only person who wasn't going and she had to sit and eat humble pie and watch Mrs. Carnegie preening herself at the top of the table.

Narrator: When the spires of the Dunfermline Abbey Church came into view, Margaret Carnegie could share her excitement with Andrew alone. The coach passed the walls of Pittencrieff Park, the paradise of privilege always denied to Andrew as a boy. It headed up the hill past the Town Hall bedecked to welcome Andrew who had donated a library. Then the coach turned right onto The High Street where the rich shop keepers lived and where Margaret had aspired to live before she left for America. The High Street -- where her sister lived after she married well -- married George Lauder. It stopped in front of George Lauder's shop. Andrew was at the reins. And Margaret was up on top -- dressed in her best black silk. Up on top -- where all Dunfermline could see her.

With E.T. a success, Carnegie bought another mill -- across the river at Homestead. It was a bargain -- but it would cost him dearly. Homestead's new open hearth furnaces made it the steel mill of the future. Novelist Hamlin Garland would write of "a roar as of a hundred lions." "A thunder as of cannons." A "burst of spluttering flakes of fire." He described "fierce ovens giving off a glare of heat, and horrible stenches of gases." "Everywhere the deafening hiss of escaping steam."

"I saw men prodding in the deep soaking pits where ingots glowed in white-hot chambers. I saw other men in the hot yellow glare from the furnaces. (It was) a place into which men went like men going into war for the sake of wives and children, urged on by necessity. "A man works in peril of his life for 14 cents an hour. "Upon such toil rests the splendor of American civilization." The town itself was foul. Garland wrote of "great sheds, out of which grim smoke stacks rose with a desolate effect like the black stumps of a burned forest of great trees."

The *New York Weekly Tribune* noted Homestead's lack of sewers and drainage. "There are deep gutters on both sides of every street, but whenever it rains, the gutters fill up with water which stagnates and becomes covered with green, slimy scum which sends up odors sickening to the extreme."

This was home to thousands. The English speakers with the skilled jobs lived on the hill. They could look down on those they called "the Hunkies," the Slavs and Hungarians, who did the dirty work and lived in the cluttered alleys by the tracks behind the mill.

But like war, the mill forged a brotherhood. The mill was their life. And it would be their children's lives. "There is a fascination about the mill," a sociologist wrote, "against which even unwilling mothers find themselves helpless to contend."

Something else made Homestead unique. Workers ran the town. And through their unions, they helped run the mill. The strikes which had forced the former owners to sell to Carnegie on the cheap would now be his problem.

Paul Krause, Historian: Homestead was a workers' town. And the unions, the steel unions in Homestead, were very, very strong. Both the Amalgamated Association of Iron and Steel Workers, and the Knights of Labor. Not only were they strong but they were bastions of 19th or indeed by 20th century standards, bastions of inter-ethnic solidarity. And there were a number of workers who had come to Homestead from the greater Pittsburgh area who were distinguished by their commitment to a certain kind of labor politics that made Carnegie and his colleagues quite uncomfortable.

Narrator: Homestead would become the most famous steel mill in America. Famous for what its workers made: the structural steel for America's first skyscrapers, the armor plate that transformed the Navy from hulls of wood to world-dominating hulls of steel. And famous for what happened when its workers clashed with Andrew Carnegie. To help manage Homestead, Carnegie would rely on a savvy new partner, Pittsburgh coal tycoon Henry Clay Frick. He may have wished he hadn't. Carnegie met Frick at The Windsor then New York's swankiest hotel, where he and his mother had moved.

Harold Livesay, Historian: Carnegie had never met Frick, until one day in New York City, Frick is there on his honeymoon and Carnegie, accompanied by his mother, as he often was, invites Frick and his bride to lunch. And Carnegie at the conclusion of lunch, toasts the future partnership of Frick and Carnegie.

Joseph Frazier Wall, Historian: This came as a complete surprise to everyone there including Henry Clay Frick himself. The first words that were spoken came from Andrew's mother. "That's all very well," she said, "for Mr. Frick? But what's in it for us?"
Narrator: What was in it for Andrew Carnegie -- and mother Margaret -- was guaranteed access to Frick's vast supply of coke in southwestern Pennsylvania. Coke is coal partially burned in what were called "beehive" ovens. It is a key ingredient in making iron, and without iron, Carnegie could not make steel.

Henry Clay Frick was the very model of an American Gilded Age capitalist -- driven by money and power. He started with a $10,000 loan, and after 10 years of 18-hour days, by age 30, he was the undisputed "King of Coke."

Carnegie had bargained for a supply of coke. He got an extra dividend -- a manager who would become his chief executive and make him "the richest man in the world."

John Ingham, Historian: Frick had what Carnegie himself called an absolute genius for management. But he also shared a long range vision. A long range vision of rapid technological change. And I think building an empire of business, that was very, very important to Carnegie. Carnegie had been fighting with his brother and fighting with other partners over the years, over this whole issue of technological change. No one else was willing to go as aggressively or as rapidly as Carnegie was willing to. And finally with Frick, he found a man that shared that kind of vision.

Narrator: Their first venture together was an attack on a new mill upriver at Duquesne. It was a masterpiece of business deception. When the Duquesne Works opened in 1889, it began to beat Carnegie at his own game -- innovative technology that cut costs and threatened his markets. They could roll continuously from ingot to rail and avoid a reheating process that was costly to Carnegie.

John Ingham, Historian: Carnegie, who was very worried, and very concerned about this level of competition, decided to circulate a note to the various railroads warning them not to use the steel from the Duquesne Works because it lacked what he called "homogeneity." Now nobody in this Carnegie mill had any idea what this thing homogeneity was. None of the people in the railroads had any idea what the term homogeneity meant. But it sounded good. I mean it sounded like this was something that was important. And so the railroads were scared off of buying this new kind of a steel process.

Narrator: Carnegie had convinced the railroads that rails made at Duquesne were defective. Within a year Frick scooped up the Duquesne Works for Carnegie. It was the greatest industrial bargain of the 19th Century. Carnegie called Frick a "marvel." Carnegie and Frick promptly introduced at their other mills the same process they had warned against at Duquesne. Letters warning of lack of homogeneity promptly ended. Frick was proving his worth. In his first year as Carnegie's chief executive, profits nearly doubled.

Narrator: Andrew Carnegie spent the summer of 1886 at Cresson, his retreat in the Allegheny Mountains. But it was a trying time. He would leave Cresson often to visit his brother Tom -- bedridden in Pittsburgh. Tom was an important partner but had drunk too much for years -- many felt to escape the demands of his ambitious older brother.

Joseph Frazier Wall, Historian: Andrew had never felt Tom was aggressive enough. Andrew was always jealous of Tom even though Tom was the younger brother, always felt that the mother loved Tom more than she loved him. And when Herbert Spencer came and preferred the company of Tom to Andrew, this was a severe blow to Andrew's pride intellectually as well as personally.

Narrator: At Cresson their mother Margaret, age 76, got pneumonia. Then Andrew took to his bed in the adjacent room. He wrote Louise he had a bad cold. But he had typhoid.

In October Tom died at age 43. Carnegie had often dismissed Tom as being "born tired." But he adored his mother. "Perhaps someday I may be able to tell the world something of this heroine, but I doubt it," he would confide. "I feel her to be sacred to myself and not for others to know. After my father's early death, she was all my own."

In November 1886 while Andrew was still ill, Margaret Carnegie died.

Molly Rorke, Dunfermline Heritage Guide: They were concerned that he did not hear that his mother had died of pneumonia because it would occasion a relapse a very serious one.

They had to lower Mrs. Carnegie's coffin out of the window so that Andrew couldn't hear it being carried past his room because the risk to his own health was so great. They told him a week later that she had died. And Andrew was devastated.

Narrator: In late November Andrew wrote Louise: "Today as I see the great light once more, my first word is to you... I am now wholly yours... I live in you now... Til death, Louise, yours alone." Five months later Andrew Carnegie, age 51, married Louise Whitfield, age 30, in a private ceremony. "He is so much more thoughtful in little things than... before we were married," Louise wrote her mother from their honeymoon in Scotland." But she seemed daunted by Carnegie's demanding social life. "We are in a whirl, nothing but a rush... I begin to realize how important it is for a woman not to have any wants or wishes of her own." The suppression of her desires, so evident in five years of courtship, made possible a happy marriage. But there was one feeling that Louise could not suppress forever. As an older woman she confided that Margaret Carnegie had been the most unpleasant woman she had ever known.

The year before his marriage, Andrew Carnegie published *Triumphant Democracy*, a best selling book that saw the promise of America realized in growing industries such as his.

But it was a promise workers felt they had been denied. In the previous decade, they had wracked American cities with violent strikes and riots. The worst destruction was in 1877 after railroads arbitrarily cut wages. Strikers in Pittsburgh burned 2,000 freight cars on the Pennsylvania Railroad, which served Carnegie's plants.

Workers nationwide were unleashing their frustration at feeling trapped in the new industrial order that the railroads had forged and that Carnegie had come to symbolize.

Paul Krause, Historian: Tens of thousands of American workers came to believe in the late 1860s early 1870s that upward mobility would not be open to them, that they would never be able to become self-employed, they would never become capitalists. And they therefore saw their status in American society as wage slaves. They saw themselves as forever dependent on the will

of another for their livelihood.

Narrator: Amid this turmoil Carnegie found the voice of his radical forbearers and stunned the business world with an essay in which he championed the right of workers to organize into unions.

As he did so labor leaders in 1886 called a nationwide strike for an eight-hour day. The worst violence was in Chicago when a bomb exploded at a labor rally in Haymarket Square and the police opened fire. Carnegie felt compelled to write a second essay reaffirming his faith in labor.

Joseph Frazier Wall, Historian: But he said, there is a temptation for violence and that should never be forgotten. When labor sees it's only asset, its job being threatened then there is a natural tendency to violence. And he proposed a new commandment -- thou shalt not take thy neighbor's job. It was a remarkable piece. Labor was going to regard it as its Magna Carta.

Harold Livesay, Historian: But his peers found these statements almost insufferably outrageous. Because it seemed to them to threaten not only businesses, the owners of businesses right to manage their affairs as they saw fit, but to encourage labor to organize and to perhaps participate in activities that in the 19th century, and for that matter, much of the 20th century, could be seen as subversive and anti-American.

Narrator: Among those who disagreed with his writings sympathetic to labor was Carnegie's own partner Henry Clay Frick. Frick believed passionately that the H. C. Frick Coke Company, the fruit of his hard work, was his to manage as he saw fit. Labor was a commodity with no rights.

Martha Frick Symington Sanger, Frick's Great Granddaughter: My great grandfather was extremely tough on strikes and labor, and it, it's all rooted very much in childhood. He was brought up by a German Mennonite, grandfather, whose motto really was, "If you want to know who's boss, just start something." And this was a very, very angry man, and the Mennonites were

very dutiful people. They were very hard-working people, and you did what you were told. And my great-grandfather was often very severely punished for such little things as climbing an apple tree and stealing an apple.

Narrator: Frick viewed workers who would not accept his terms as disobedient. When English speaking workers went on strike in his coal fields in 1884 he fired them and imported Hungarian and Slav scab labor. When another strike over wages loomed in 1887, Frick organized all the coke companies to stand firm. The strike closed the coke works and cut off the supply of coke to Carnegie's mills.

Harold Livesay, Historian: Frick's normal response to such a situation was to defy labor absolutely and refuse its demands. Tough it out. But by this time, Frick no longer owned a majority interest in his own company. The Carnegie partners owned the majority share of the Frick Coke Company. Because times were good, because Carnegie Steel could sell all the steel it could make, Carnegie instructed Frick to grant the union its demands, and settle the strike.

Narrator: Carnegie forced Frick to retreat from his hard line stance on labor, and Frick was furious. But Carnegie's views were never tested. He emerged as the businessman both fair to labor and watchful of his bottom line. The next year they were put to the test -- at his Edgar Thomson Works when the union resisted his efforts to reduce the cost of labor. In his autobiography, Carnegie recounted the role he played. How he closed the plant and settled down in New York to wait it out. He saw himself as he wanted to be remembered -- the benevolent employer.

Harold Livesay, Historian: After some weeks, a delegation from the union arrived, he welcomed them to his home, he showed them about, he wined and dined them, he treated them with great courtesy and announced that he would soon appear in Pittsburgh with a plan to settle the strike and to put everyone back to work. And indeed shortly thereafter, he comes to the mill. His partners are quite nervous about this and afraid of what may happen when he appears at

this mass meeting, but in fact, he does appear at a mass meeting of his workers and after some general discussion of the situation, he asked people to talk about their specific grievances.

Joseph Frazier Wall, Historian: And one of the workers got up and said, Mr. Carnegie, take my job for instance. At which time Carnegie with his ready wit said, "Mr. Carnegie takes no man's job." This broke the ice. The whole hall roared with laughter.

Harold Livesay, Historian: And that was the key to the whole situation. The meeting breaks up in an atmosphere of mutual joy and love, and shortly thereafter the contract is signed giving Carnegie essentially what he wanted.

Narrator: In Carnegie's fairytale ending, everything turned out all right. He passed his test with flying colors. He remembered in his memoirs the idealistic Carnegie who settled the dispute without violence. What he neglected was the Carnegie determined to get to the top -- by starving workers into submission -- by casting aside his idealism and destroying their union. The next year, in March 1889, Carnegie gave Braddock, Pennsylvania, home of the Edgar Thomson works, a magnificent library. It was more than reading rooms. It was an elaborate community center with a music hall. And athletic facilities.

In his dedication, he stressed the obligation of the wealthy to give away their money for the public good, a theme he would develop and publish later as The Gospel of Wealth.

Paul Krause, Historian: He called the library a testimony to his partnership with the workers of Braddock, and he suggested that soon he would build a library in Homestead, but only on the condition that the workers in Homestead would become his partners, only he meant, if the workers at Homestead would give up their affiliation with their trade unions. I don't think that that rhetoric went over very well with the workers and their unions at Homestead.

Narrator: Across the river at Homestead the Amalgamated Association of Iron and Steel Workers was the only union left in Carnegie's steel plants. That summer of 1889 the workers

won concessions from Carnegie. They not only survived as a union, they emerged from negotiations more determined and powerful than ever. But that was before Henry Clay Frick was in charge. When their new contract expired in 1892, they would be dealing with Frick. How he handled an intervening strike in his coke fields would make him more determined and powerful than ever.

Martha Frick Symington Sanger, Frick's Great Granddaughter: The Hungarian and Slavs who worked in those coke works refused to work at the price that the H.C. Frick Coke Company was paying. They not only refused to work for it they refused to allow anybody else to work. And so, as my great-grandfather began to bring people in to work, they marched on the Morewood plant, not once, but twice and in the middle of the night, and to the sound of beating drums, they were absolutely drunk, they were armed with guns, and pipes, and shovels, and brooms. They burned up all the coking tools, they tore the fence down and they did, you know, hundreds of thousands if not millions of dollars worth of damage. And for my great-grandfather this was intolerable. And he did say, these are ignorant people, they are not naturalized American citizens, they do not speak English. They are the ignorant tools of the labor leaders, he said always, well, what is going to rule our great commonwealth? The law or mob violence?

Narrator: The law sided with the property owner. With the help of the Pennsylvania militia, Frick reopened his coke ovens after three months of guerrilla war. The skirmish at his Morewood plant left seven strikers dead. Frick cabled an associate in Chicago: "This will likely have a good effect on the riotous element up there."

The striking Hungarians and Slavs were replaced by Italians -- protected by a private police force, the Pinkerton guards. Frick broke the union. This time Carnegie did not interfere. Carnegie and Frick now controlled their labor costs everywhere -- except at Homestead where the Amalgamated was entrenched. They had introduced the most modern machinery and technology at Homestead. The mill now required fewer workers. And the skills needed were not the obsolete skills of the old craftsmen, the puddlers. Yet it was these craftsmen who ran the union and, unlike Carnegie's non-union mills, had a say in who was hired and how the work was

done. No one believed more in the union cause than Homestead's activist mayor, John McLuckie.

Paul Krause, Historian: John McLuckie and his associates in Homestead believed above all in the idea that all American workers should be entitled to a job, a livelihood, and to having a sufficiency of means for living comfortably...They believed that this was an essential American right, and that individuals such as Carnegie couldn't be allowed to continue to accumulate wealth unfettered, untrammeled and that the power, the wealth that the Homestead Steel Works represented and the power and wealth that Carnegie had over the lives of ordinary workers such as McLuckie and his associates was tyranny. It was a step backward, not a step forward.

Narrator: In the spring of 1892 Carnegie had Frick roll as much armor plate as possible before the union's contract expired at the end of June. America's largest steel producer had decided to eliminate America's largest craft union. How they would do it was still uncertain. Carnegie departed for his usual lengthy vacation, but this year at Loch Rannoch, in the remote Scottish Highlands. Better that a champion of unions about to crush one be inaccessible to the press. If Frick's terms were not accepted, Carnegie instructed him to close the plant and wait the men out. Later he gave Frick more leeway: "We... approve of anything you do," he wrote from England. "We are with you to the end."

What Frick did was build a fence three miles long and 11 feet high around the entire plant. The workers called it "Fort Frick." On June 25th, Frick announced the company would no longer negotiate with the union but only with workers individually. Leaders of the Amalgamated were willing to concede on every issue to save their union. They tried to reach Carnegie in Scotland -- the Carnegie who took no man's job -- but could not find him. "This is your chance to reorganize the whole affair," Carnegie wrote Frick. "Exact good reasons for employing every man. Far too many men required by Amalgamated rules."

Carnegie did not believe there would be much of a struggle. He gambled the workers would rather keep their jobs than their union. But they stood firm.

At the end of June Frick began closing down his open hearth and armor-plate mills. He locked out 1,100 men. On July 1st, the remaining 2,400 went on strike. The furnaces that roared like a hundred lions were quiet. The mills that thundered like cannon were still. Frick planned to open on July 6 and replace union workers with a non-union work force.

Paul Krause, Historian: The workers believed because they had worked in the mill, they had mixed their labor with the property in the mill, they believed that in some way that property had become theirs. Not that it wasn't Andrew Carnegie's, not that they were the sole proprietors of the mill, but that they had an entitlement in the mill. And I think in a fundamental way the conflict at Homestead in 1892 was about these two conflicting views of property. But it also was about American rights.

Narrator: Journalists flocked to Homestead from across the country. Carnegie's plants represented the future of industrial America. At stake was what role unions would play. Frick requested the sheriff to post notices saying he intended to protect the mill. The workers tore them down. He knew the sheriff could not protect the mill. But Pinkerton guards had never failed him. Once again Frick called industrial America's hired guns.

Early in the morning of July 6, tug boats pulled two barges with 300 armed Pinkertons -- slowly up the Monongahela toward Homestead. The town stood solidly behind Mayor McLuckie. "We do not propose that Andrew Carnegie's representatives shall bulldoze us," he told the workers. "We have our homes in this town, we have our churches here... and our cemeteries. We are bound to Homestead by all the ties than men hold dearest and most sacred. The Carnegie Company has imported men of all nationalities in other places. They never have imported a man into Homestead, and... they never will."

It was daylight in Scotland. Carnegie returned to the Central Highlands from nearby Aberdeen where he had dedicated a library to wild applause. He was eager to test a new fly in the trout streams.

Union lookouts were at their posts along the Monongahela. A Pittsburgh journalist wrote that at about 3 am a "horseman riding at breakneck speed -- dashed into the streets of Homestead giving the alarm as he sped along." Men, women and children burst from their homes and rushed to the banks of the Monongahela. "It is evident there is no bluffing at Homestead," the *New York Times* had observed. "The fight there is to be to the death."

Shortly before sunrise, the barges landed near the pump house. Workers begged the Pinkertons not to come ashore. Armed with Winchesters and pistols, the Pinkertons ignored them. No one knows who fired the first shot.

For nearly 14 hours, workers and Pinkertons traded gunfire. The strikers set a freight car on fire and rolled it down the tracks at the barges. They tried dynamite and pumped oil into the river to set it on fire. When the Pinkertons surrendered at 4 pm, three detectives and nine workers were dead or dying. But the workers had won the battle.

Then they began to lose the war. Union leaders promised safe passage but could not control the mob. Enraged workers and their wives made the Pinkertons "run the gantlet." "The men screamed for mercy," the *New York World* wrote. "They were beaten over the head with clubs and the butt ends of rifles. You could almost hear the skulls crack... and when they finally escaped it was with... blood in streams rushing down the backs of their heads.

After the surrender, the barges were set aflame. The *Pittsburgh Commercial Gazette* reported: "Twilight now being about ended, the entire river front was lit up -- while 2,000 throats shouted, 'Hooray for Homestead.'"

Carnegie cabled Frick from Scotland: "Never employ one of these rioters. Let grass grow over works. Must not fail now... "But in a letter to his cousin George Lauder, he was critical of Frick.

Joseph Frazier Wall, Historian: He indicated that to him, part of the tragedy was due simply to the stupidity with which the preparations for the battle had been handled. In other words he was accusing Frick of bad generalship in this, not so much accusing him of bad morals and principles in fighting the battle.

Narrator: At Homestead the workers continued to protect the plant. What they thought was their plant. They were certain the Pinkertons would be arrested. Surprised when they were put on a night train for their protection. When the workers refused to surrender the plant to the sheriff, the governor of Pennsylvania sent the militia to reclaim the mill for Carnegie Steel. Frick brought in strikebreakers to reopen the works.

The strikers' fortunes suffered another blow when Alexander Berkman, a Russian anarchist unconnected to the union, tried to assassinate Frick on behalf of the working people. He fired two bullets into Frick's neck and stabbed him three times.

Martha Frick Symington Sanger, Frick's Great Granddaughter: After Berkman's attack, a carpenter was on top of Berkman, and he had a hammer in his hand. And he was going to bash Berkman's head in. And my great-grandfather said, and at this point, he's got the two bullet wounds in his neck, he's really bleeding to death, and knife wounds, blood all over the floor, and down his legs. He says to the carpenter, don't hit him, leave him to the law. Don't hit him, leave him to the law. So they take Berkman away. In the meantime, my great-grandfather suddenly got up from his desk, this was after the surgeons had dug the bullets out without any anesthesia, then he gets up and he goes back to his desk and he completes his entire day's of work and business. tells Carnegie, don't bother, don't come home, we'll fight this strike out, even if it kills me.

Narrator: Carnegie had won his victory, but at a huge price. His image as a radical reformer, so carefully cultivated, was in shambles. A Congressman from Ohio called him "the arch-sneak of this age."

The *Edinburgh Dispatch* bewailed the strikebreaking methods "which prevail in the land of Triumphant Democracy." The *St. Louis Post-Dispatch* editorialized: "Ten thousand 'Carnegie Public Libraries' would not compensate the country for the direct and indirect evils resulting from the Homestead lockout. Say what you will of Frick, he is a brave man. Say what you will of Carnegie, he is a coward. And gods and men hate cowards."

Joseph Frazier Wall, Historian: It's easy to say that Carnegie was a hypocrite. And there is an element of hypocrisy clearly in between what he said and what was done. But it's a little too easy to simply dismiss the whole incident on Carnegie's part as an act of hypocrisy. There is this curious reason as to why Carnegie felt it necessary to even enunciate the rights of labor. Frick was the norm not Carnegie in management's relationship with labor at that time. And, one can only answer it that once again it's being torn between wanting to pose as a great democrat and liberal and at the same time wanting to make sure Carnegie Steel came out on top.

Narrator: As Christmas approached, 1,800 men were out of work. Their leaders would be blackballed in the steel industry for the rest of their lives. There would be no steel workers union for 45 years. They lost their jobs, their homes, everything. Hungry men and their families had to stand outside the plant and watch what *The Pittsburgh Press* called "a lost paradise". "If you look forward to a happy Christmas, not having put forth a helping hand, your turkey ought to choke you." "Europe has rung with Homestead, Homestead, until we are sick of the name," Carnegie cabled Frick from Italy. "But it is all over now. So once again -- Happy New Year to all." The year of the battle at Homestead was the year Henry Clay Frick moved back to Clayton, his elegant Victorian mansion refurbished to reflect his status as chief executive of Carnegie Steel. It was here that Frick recovered from his assassination attempt.

Carnegie stayed with the Fricks at Clayton that winter. At dinner Frick amused his guests when he said to the butler, "Ask the orchestra leader to play something." Carnegie must have been pleased. Just months before, he had helped with the details of shipping this elaborate automatic orchestra from Freiberg, Germany to Pittsburgh. Only the royalty of Europe and Maharajahs of India could afford an orchestrion.

Carnegie came to Pittsburgh to talk to the workers at Homestead; to assert his full confidence in Frick as a manager. But the surface civility hid a growing tension. Homestead had taken its toll on Frick.

Martha Frick Symington Sanger, Frick's Great Granddaughter: Well, in 1894 my great-grandfather really essentially had a nervous collapse. This man, was absolutely exhausted, he'd had two children die. And he'd broken the back of labor, but in turn that in a way, really broke his back. And Carnegie was going around telling everybody that my great-grandfather was essentially a disordered man. And my great-grandfather really turned on him and said, I am sick of your telling people that I am a disordered man. I am tired of your absurd newspaper articles, your absurd interviews, your personal conduct, and your interference in matters that are absolutely no concern of yours because you happen to know nothing about them anyway. He had had it.

Narrator: Frick resigned as chief executive, but Carnegie convinced him to become chairman of the board. With Homestead behind him, Carnegie began to challenge the world. He invested in new machinery -- to further cut labor costs. He began to rebuild all his plants. His profits in 1893 were three million, four million in '94. His oldest partners began to cry for dividends. "There is between 6 and 7 millions" available wrote his cousin George Lauder in 1895. "Why do you not make dividends?" Another wrote of a ship forever in sight of port but never landing. Brother Tom's widow began to write asking for her share. There were no dividends because Carnegie continued to reinvest the profits. He secured a vast supply of cheap iron ore in the Mesabi Range in Minnesota, invested in lake boats to bring the ore through the Great Lakes, built his own railroads to haul the ore from the shores of Lake Erie to Pittsburgh. He kept hammering at costs, running his plants full. And it paid off. In 1896 he drove the price of rails from $28 a ton to 18 -- and to capture some orders as low as 14 a ton. His competitors were astonished. By 1900 Carnegie was producing more steel than the entire steel industry of Great Britain.

John Ingham, Historian: Carnegie sets a standard for American industry. And I think that the fact that America grows to become by the turn of the century, the greatest industrial nation in the world and an industrial nation that far outstrips any of the other nations by that point in time, to a large extent has to be credited to someone like Carnegie. I think he stood the American industrial world on its ear. I think he stood the world on its ear, in many ways. And so that he introduced into America, and into the world a whole new way of doing business. A whole new way of making products. And stamped this on the American industrial scene very indelibly.

Narrator: For decades to come the effects of low cost steel would ripple across America and spur the growth of a middle class. In Pittsburgh Carnegie contracted with dozens of outside suppliers -- and hired thousands of clerks, chemists, and other salaried workers who made three times as much as the average worker on wages. But it was not a good time to be a steel worker. In the 20 years after Carnegie broke the union, productivity tripled, but the income of skilled workers went up only by half. It never went up for unskilled workers. They barely eked out a living. Without a union neither the skilled nor the unskilled had the power to bargain for more.

Paul Krause, Historian: Periodically in 1898, 1899 and again after the turn of the century, workers tried to reorganize and at each juncture, Carnegie was able to foil their efforts, largely because he had an elaborate system of corporate spying. In every Carnegie mill in Duquesne, in Braddock, in Homestead all the mills up and down the Monongahela Valley, Carnegie had men working for him who kept his subordinates well informed on the initiatives of troublesome workers, would-be organizers.

Narrator: At Homestead the sense of community was gone. Observers noted "grimy men with sallow and lean faces." A remark often heard was "If you want to talk at Homestead, you must talk to yourself." Carnegie saw none of this when he returned to Homestead on a rainy day in 1898 to dedicate a library. He was bouyed that day by his gift of a grand building that housed, like the one at Braddock, a library, a concert hall, a swimming pool, bowling alleys and a gymnasium.

He recalled the unpleasant events of six years earlier. "By this meeting," Carnegie said, "all the regretful thoughts, all the unpleasant memories, are forever in the deep bosom of the ocean buried. Henceforth, we are to think of Homestead as we see it today." But years later, writing his autobiography, Carnegie revealed that the unpleasant memories still floated to the surface. "Nothing... in all my life, before or since, wounded me so deeply," he wrote. "No pangs remain of any wound received in my business career save that of Homestead."

Joseph Frazier Wall, Historian: I don't think Carnegie was ever able to acknowledge his responsibility for Homestead. He had a very convenient memory. He became convinced that he was unavailable, could not have been contacted, events were taken out of his hands, that he didn't know about Homestead until it was all over. He became convinced that he had known he would have insisted that no Pinkerton guards be brought in. He became convinced that it was a totally unnecessary tragedy and that he had been one of the victims just as much as the workers.
Narrator: He said at the dedication that had he been there to talk to the men, the tragedy would not have occurred. It was a swipe at Henry Clay Frick. The tension of 20 years came to a head two years later in 1900 when Frick tried to raise the price of coke. Carnegie was furious and ousted Frick from the board. Then Carnegie invoked an agreement allowing him to buy Frick's shares at far less than market value. Frick would lose millions.

Joseph Frazier Wall, Historian: Carnegie called on Frick and said that he was going to have to leave the company. Frick swung on him, said, "I always knew you were a God damned cheat," and for the first time since he had been a child, someone actually dared physical force against the little Scotsman.

Martha Frick Symington Sanger, Frick's Great Granddaughter: My great-grandfather said, "I have known for years you are nothing but a God damn thief. And we will see what the courts of Allegheny County have to say about this."

Narrator: Frick sued Carnegie for the market value of his shares. "The clash of Steel Kings" was the greatest private law suit in the history of the country. It forced open the books of a

closely held partnership, and the press had a field day. Frick was out, but he walked away with $31 million. He was the only person to challenge Carnegie and win.

There was another crisis in 1900. A bigger one. Customers stopped buying Carnegie steel. Forty thousand tons of steel used to fashion rods, tubes and nails were cancelled by the finishing plants. Financier J. P. Morgan was buying up the finishing plants and building his own furnaces. He was mounting a major challenge to Carnegie.

Harold Livesay, Historian: Carnegie had no doubt that he could compete with Morgan's steel firms and in fact that he could drive them out of business. And he had every reason to believe this. He knew that Morgan's firms couldn't match his costs, they were inefficient, they didn't have the kind of technology that Carnegie's plants had, they had a lot of stockholders to pay dividends to. They had a lot of borrowed money to pay interest on. They simply could not compete with Carnegie Steel.

Narrator: "It is a question of survival of the fittest," Carnegie wired his board. He was confident that within five years, 10 at most, he could eliminate Morgan, and the world of steel would be his. But he was almost 65. He wanted to spent more time with Louise and their daughter, Margaret. And he wanted time for a life of philanthropy. Carnegie stood where few men have -- on the edge of total triumph in his field. But he wondered whether to take the next step. The choice for Morgan was simpler -- buy Carnegie out or be crushed.

He attended a dinner in New York that was a tribute to the chief executive who replaced Frick -- Charles Schwab. Schwab wanted Carnegie to sell, and unknown to Carnegie, approached Morgan after the dinner.

Morgan was interested if Carnegie would sell.

Joseph Frazier Wall, Historian: Schwab went to Mrs. Carnegie who was even more eager than Schwab to get Carnegie out of business. Homestead had been a very severe blow to her as

well as her husband. She wanted him to start practicing his gospel of wealth full scale. And so it was Mrs. Carnegie who suggested to Schwab that he discuss this whole issue with Carnegie on the golf course when Carnegie was the most relaxed and most happy about things and she also suggested that to make sure that Andrew won the golf match.

Harold Livesay, Historian: Schwab approaches Carnegie on the golf course and suggests that Carnegie consider a sale. Carnegie tells him to come back the next day. When he gets there Carnegie hands him a piece of paper on which Carnegie has listed the components of the total price for which he's willing to sell Carnegie Steel. Schwab carries this to Morgan. Morgan takes one look at it and says, "I accept this price."

Narrator: Morgan paid $480 million and joined Carnegie's mills with his own to create the United States Steel Corporation. "That was that," Carnegie's biographer wrote. "The biggest sale in American industrial history consummated with all the formality of an errand boy's taking a shopping list to the corner grocery store." Morgan suggested that Carnegie come down to his office on Wall Street and shake hands on the deal. Carnegie wrote back: "It is just about as far from Wall Street to Fifty-First Street as it is from Fifty-First to Wall." Morgan ventured uptown.

Joseph Frazier Wall, Historian: Morgan said "Congratulations, Mr. Carnegie, you are now the richest man in the world." And Carnegie said, "I wonder if I could have gotten $100 million more. I probably should have asked for that." And Morgan said, "If you had, you would have gotten it."

Narrator: Carnegie would soon become the new Laird of Pittencrieff. He bought the park -- and then gave it to Dunfermline for everyone to enjoy. Carnegie called this gift "the most soul-satisfying" one he ever made. In all he gave away $350 million. When he could not give it away fast enough, he created the Carnegie Corporation in New York to give it away for him. He then devoted his energies to world peace. He was one of the first to talk of a"league of nations" -- and built a "Palace of Peace" at The Hague, known since as the World Court. He foresaw the era of summitry and began to lobby world leaders especially Kaiser Wilhelm whose ambitions for

Germany were inflaming tensions in Europe.

He offered to pay for Theodore Roosevelt's African safari if Roosevelt would meet the Kaiser on his way home. "I have written the President that the 'big game' he should bag when relieved from office are the rulers of the world," Carnegie wrote a Scottish friend. Carnegie flooded Roosevelt with advice on how he should tell the Kaiser that the mission of insuring peace rested upon him.

When Teddy Roosevelt finally met the Kaiser, he delivered Carnegie's peace message -- and then, for five hours, reviewed the Kaiser's troops.

In 1913 Carnegie recounted his own meeting with the Kaiser -- and how he hailed him as "our strongest ally" in the cause of peace. A year later it was a beautiful August day at Skibo when word reached Carnegie that World War I had begun. He had just finished his Autobiography. The last chapter recalled his efforts to insure world peace.

"The world disaster was too much," Louise would recall. "His heart was broken". Civilized Europe was not moving "onward and upward" but plunging downward into Hell. With Britain mobilizing for war, Carnegie left his beloved Skibo for the last time that September, 1914. Although he lived another five years, the last entry in his autobiography was the day World War I began.

In his later years, the story goes, Carnegie sent a messenger down Fifth Avenue to the mansion of his old partner Henry Clay Frick. Carnegie had not seen Frick since the law suit and wanted to meet again and tidy up the past. Frick would not let him get away with it. The message came back from Frick, "Tell Mr. Carnegie I'll meet him in Hell where we are both going."

Carnegie's vision had no room for Hell. Well before he died, he approved the murals at the Carnegie Institute in Pittsburgh. They present the world as he saw it, an industrial utopia where "all is well since all grows better."

It is a world of idealized steel workers -- engaged in noble toil -- and enveloped in smoke. Of powerful blast furnaces emerging from smoke. Of engines running fast and running full. Everywhere smoke. Rising to form Heaven itself. Dominating the scene is a Knight in black steel armour, rising higher and higher. Onward and upward. It is Carnegie's fairy tale where everything turns out all right.

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