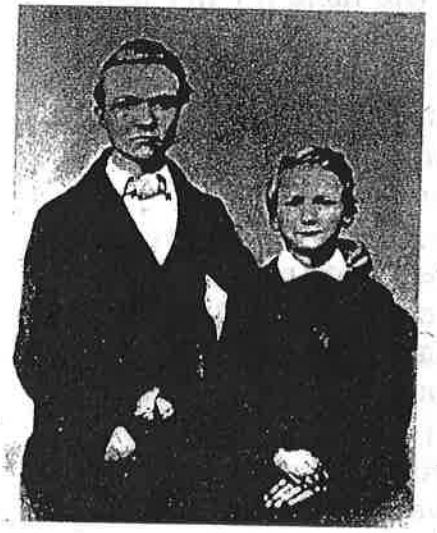
1 Carnegie



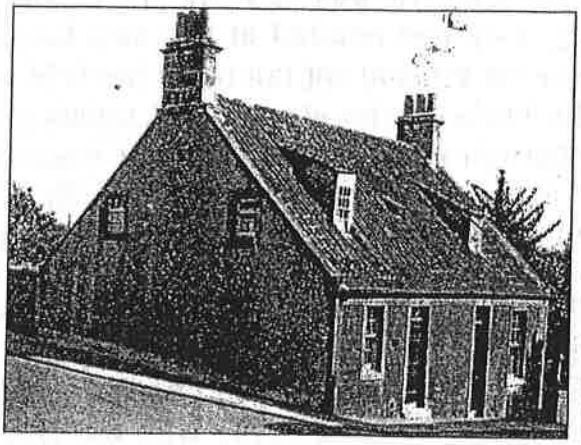
Andrew Carnegie *(left)*, in 1851, aged 16, and brother Thomas, dressed for the photographer. Andrew worked in the office of a Pittsburgh cotton factory.

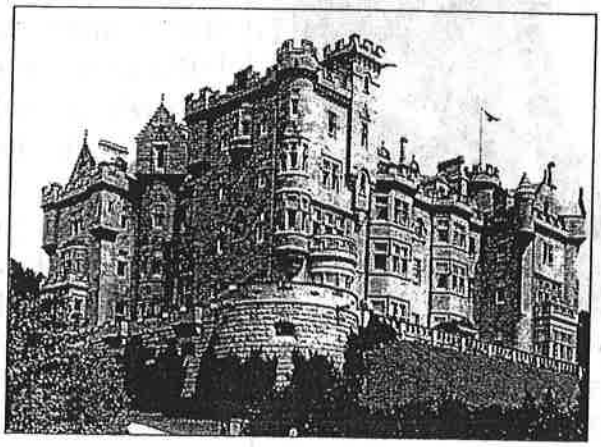
Andrew Carnegie was born in a stone cottage in Dunfermline, Scotland, in 1835. His father was a weaver who worked at a hand loom. But when the Industrial Revolution came to Scotland, Andrew's father could find no work. Power looms produced cloth faster and cheaper than artisans (handworkers) could. Many weavers lost their jobs. They were angry at the government and the business leaders. But there was nothing they could do about it. Poor workers weren't even allowed to vote.

In the little town of Dunfermline workers were determined to gain the right to vote and to strike. Andrew Carnegie's dad

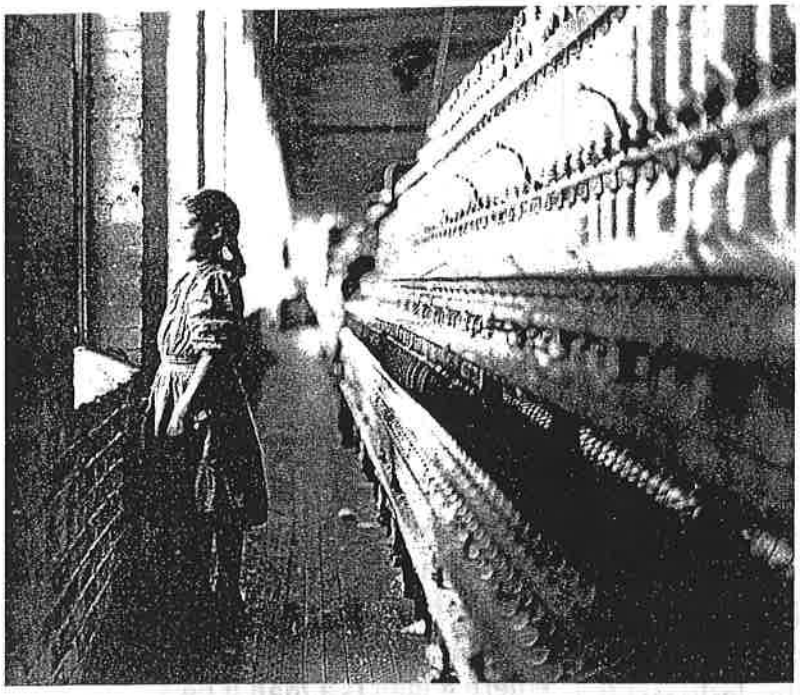
To the West, to the West, to the land of the free,
Where the mighty Missouri rolls down to the sea;
Where a man is a man if he's willing to toil,
And the humblest may gather the fruits of the soil;
Where children are blessings, and he who hath most
Has aid for his fortune and riches to boast,
Where the young may exult and the aged may rest,
Away, far away, to the land of the West.

—SONG ANDREW CARNEGIE'S PARENTS SANG TO HIM WHEN HE WAS A BOY





Like the heroes of popular boys' books of the time, Andrew Carnegie went from rags to riches. Born in a weaver's cottage *(left)*, when he came back to Scotland from America he bought Skibo Castle *(right)*.



Some children—like Andrew Carnegie—found a life outside the cotton mill windows. For others the factory was the only world they knew.

"The millionaires...are the bees that make the most honey, and contribute most to the hive even after they have gorged themselves," said Carnegie.

was one of those who spoke out for workers' rights. You might call him an *idealist*. He wanted to make the world better.

Andrew's mother was a *realist*. She was the practical one. She worried about putting food on the table for her family. When there was no money she stitched shoes and sold groceries. She was the one who sold the family's few belongings and decided that they should "flit" out of Scotland and head for America.

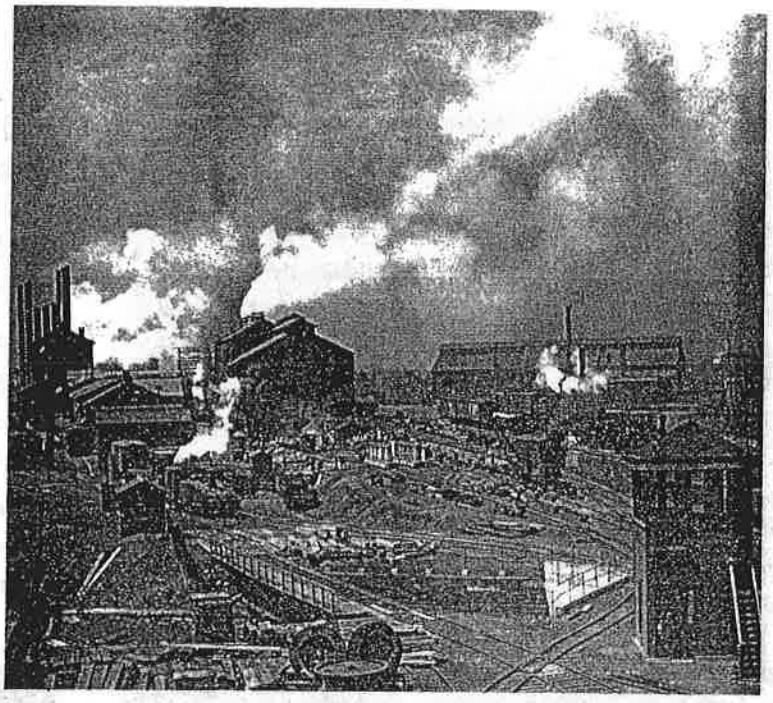
Andrew Carnegie had those two sides to him: his mother's side made him sensible and willing to work hard; his father's side made him want to improve the world. There was another important influence on Carnegie. It was his uncle George. George Lauder loved poetry, and he read the words of Robert Burns and William Shakespeare to his nephew. When Carnegie got to be rich—very, very rich—he could still recite Shakespeare. He had great writers and thinkers as friends, and Carnegie could talk with them in ways his fellow millionaires would never have understood.

But while he was getting rich he didn't seem to worry much about the working people who were laboring for him. He forgot his father's troubles. What he did do was work hard himself, use his imagination and intelligence, and take every chance that came his way.

His first job, in Allegheny, Pennsylvania, was as a bobbin boy in a textile factory. He worked from six in the morning until six at night and was paid $1.20 a day. He was 12 years old. A year later he heard that a messenger boy was needed at the new telegraph office in Pittsburgh. He got the job and set out to be the best messenger boy in town. Soon he knew all the streets and buildings by heart. He watched the telegraph operators and taught himself Morse code. (Messages were sent on wires with that code.) Then he learned to decipher the code from the clicking sound of the telegraph, without needing the tape printer. No one else in Pittsburgh could do that!

One day Andy found a check for $500 on the street. He turned it over to those who could find the owner. A newspaper, the *Pittsburgh Gazette,* wrote a story about him; it called him "an honest little fellow."

And that impressed Thomas A. Scott, who was soon to become a leading railroad man. He hired Carnegie as an assistant—at $35 a month. Andy was now 17 and in a place where opportunity would

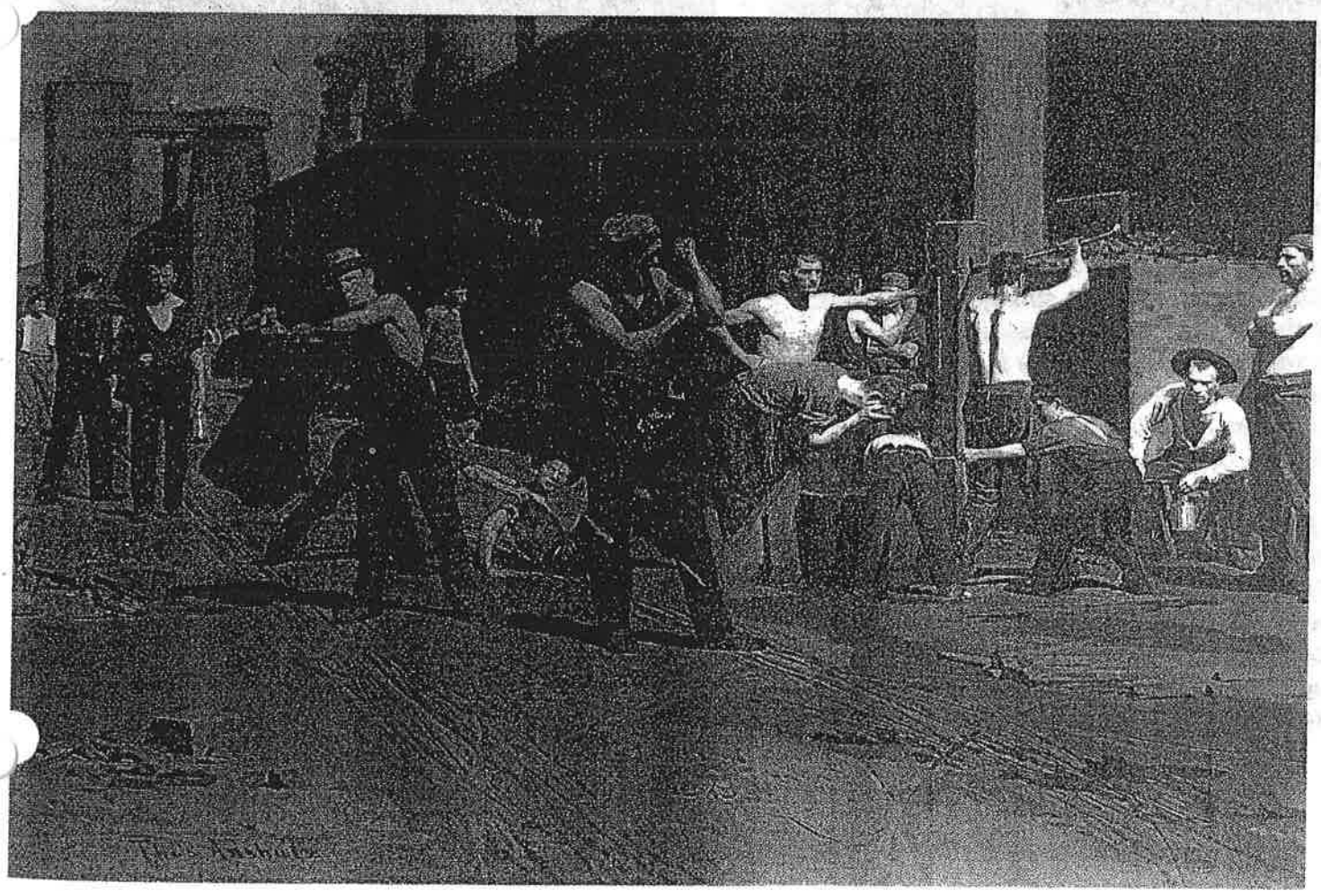


find him. When it did, he was ready to grab it. He learned about *capital*—which is money—and how to use it to get businesses started. He learned to put money to work. He invested in railroads, railroad sleeping cars, bridges, and oil derricks; by the time he was 33, he was rich.

Then he wrote himself a note. So far it was his mother's side he had followed. At 33 he remembered his father's idealism. He wrote that he would work for money for two more years; then he would work to help others. "No idol is more debasing than the worship of money," wrote Carnegie.

Two years later he must have forgotten that note—or maybe the lure of money was too strong. He kept working hard and getting richer and richer. He entered the iron business, but soon realized that steel was the metal of the future. Carnegie became king of America's steel industry and soon American steel dominated the world. The Carnegie steel company was very profitable: it used the best, most efficient machinery

Pittsburgh *(above)* became a byword for industrial pollution in Carnegie's lifetime. *Below:* Thomas Anshutz's painting, *The Ironworkers' Noontime.*



from Ireland. When William was a boy he worked as an apprentice in an iron forge. Then he opened his own small business making iron kettles near Louisville, Kentucky. Like everyone else in the iron business, he thought about steel. If only he could find a way to make it inexpensively.

One day Kelly was in a hurry. He was trying to cool off a bucket of hot, liquid iron. He blew cool air from a bellows onto the iron. Fumes from the iron came back into his face. He passed out. Kelly knew that iron workers sometimes died from similar fumes. He found out that the fumes were *carbon monoxide*. That poisonous gas is produced when carbon is heated with oxygen.

Kelly began thinking about those fumes. He knew the air from the bellows contained oxygen, but where was the carbon coming from? Could it be that blowing oxygen on hot iron removed carbon? He decided to find out. This time he built a bellows and a chimney to vent the fumes. For a half hour he blew cool air on iron. He had steel.

No one believed him when he told them what he had done. He was called "Crazy Kelly." For the next few years he worked to perfect his process. He had discovered that blowing air on molten iron turned it white hot; that cold air was actually heating the iron and removing the carbon. Cool air heating something? Everyone thought Kelly had lost his mind, especially when he wanted to build a steel mill. His father-in-law sent him to a doctor. But the doctor understood science and became one of Kelly's strongest supporters.

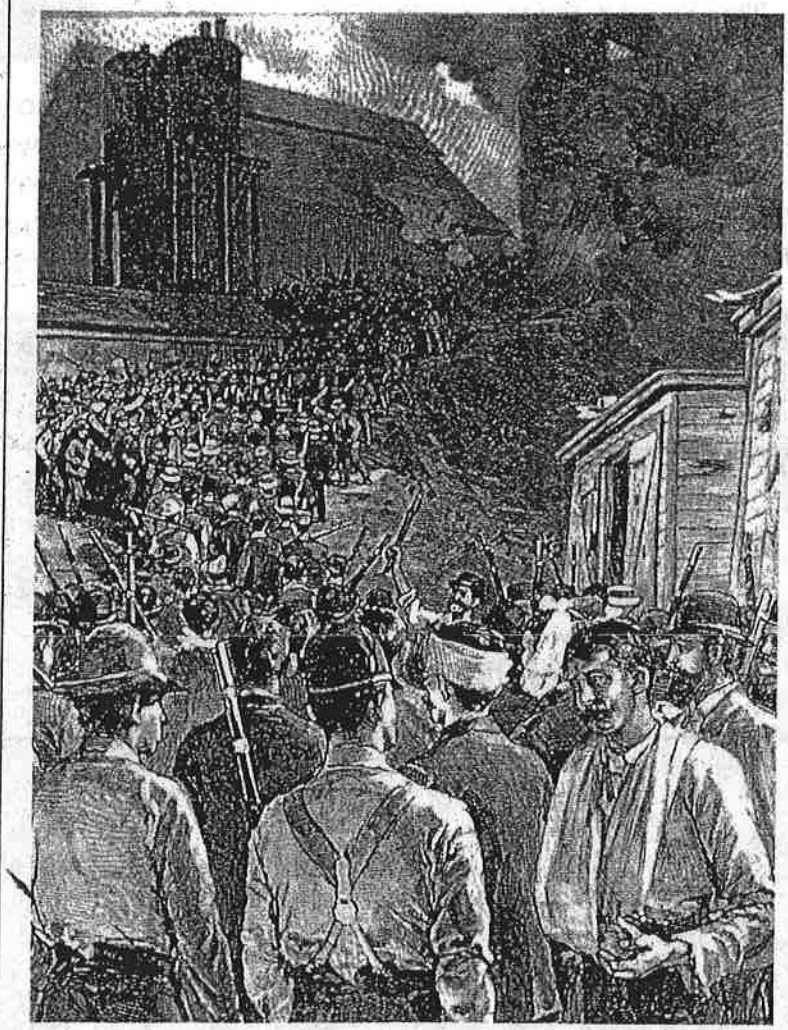
In the meantime, Henry Bessemer, in England, was working on a similar idea. He took out an American patent. When Kelly heard of Bessemer's patent he claimed he had been first, and, finally, the U.S. Patent Office agreed with him. Today the method is usually called the "Bessemer process," although William Kelly probably developed it five years before Bessemer.

That new method meant that steel could be made at reasonable cost. Steel rails soon replaced rigid iron ones. Builders had a new tool: a strong, versatile metal. Steel became the foundation for America's astounding industrial growth.

and kept wages very low. Carnegie's workers—men who were like his dad and uncle—earned very little. Life for their families was awful. The writer Hamlin Garland visited a steel town and wrote this:

> *The streets were horrible; the buildings poor; the sidewalks sunken and full of holes....Everywhere the yellow mud of the streets lay kneaded into sticky masses through which groups of pale, lean men slouched in faded garments.*

When salaries were cut at Carnegie's Homestead steel mill, in Pennsylvania, the workers went on strike. Carnegie's manager, Henry Clay Frick, refused



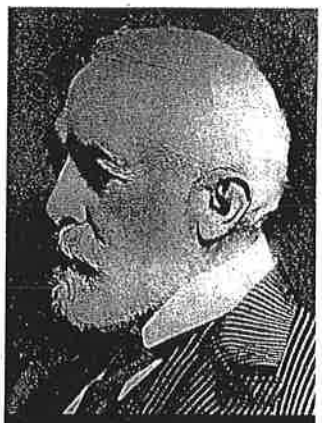
At Carnegie's Homestead steel mill, striking men try to attack the Pinkerton detectives, who have been captured and are being escorted by union men carrying rifles.

Andrew Carnegie provided the money for one of the world's finest concert halls: Carnegie Hall in New York. Here is an old joke about it:

A young woman stops an older man on a New York street and says, "Excuse me, sir, how do I get to Carnegie Hall?"

He replies, "Practice, practice, practice!"

Henry Clay Frick's house, on New York's Fifth Avenue, is now a ...um, and a splendid ...e. It is filled with art treasures that Frick bought all over the world.



Henry Clay Frick

to talk to the strikers; instead he sent in Pinkerton detectives. (Pinkerton was the name of a company that supplied armed guards. They were called detectives, but they were just men with guns.) Twenty strikers were killed. So were four detectives. Andrew Carnegie was vacationing in Scotland. Had he forgotten his origins?

If you saw the way he lived you would say so. He owned a castle in Scotland (see page 13) and houses in America that seemed like palaces. He lived like a prince, while many who worked for him lived like paupers.

Then the most successful banker in America, J. Pierpont Morgan, offered to buy Carnegie out. It was 1901, nine years after the Homestead strike, and Carnegie was 66. It was an opportunity that might never come again. The sale would make him one of the richest men in the world.

At first he hesitated. Perhaps he didn't know what he would do with himself if he was no longer running a business empire. Then he may have remembered the note he wrote when he was 33. Or maybe he remembered his father's ideals. He sold his business interests and began a new career. It was the business of giving away his money. When you're as rich as Andrew Carnegie, that is a big job. Especially if you want to do it well, which he did.

He wrote that "the man who dies thus rich, dies disgraced." He said that millionaires had a duty to distribute their wealth while they were still alive. He didn't want to die disgraced, and he didn't.

He began by building libraries in towns all across the country—3,000 of them, costing nearly $60 million. He gave money to colleges and schools and artists and writers and to an institute to promote peace and to another to improve teaching and to another that was to attempt to make the world better. He gave away almost all of his riches.

Not long before he died he turned to his private secretary and asked, "How much did you say I have given away, Poynton?" "Three hundred and twenty-four million, six hundred and fifty-seven thousand, three hundred and ninety-nine dollars," came the answer. "Good heavens!" said Carnegie, "Where did I ever get all that money?"

This rather worshipful British cartoon portrayed Carnegie as the kilted benefactor of his country of birth, celebrating his gift of money to provide free university education for deserving Scottish scholars.