

# Andrew Carnegie

by Andrew Carnegie (1914)

He was born 25Nov1835 in Dunfermline, Scotland and died 11Aug1919 in Lenox, MA. He was the son of a weaver and had a brother 8 years younger. **His success was to choose others who know better than he.** His first penny earned was for reciting a poem. 1848 they left for America and he didn't go back to school. They settled in Allegheny City, near Pittsburgh. There wasn't any work for a weaver so his dad worked in the cotton factory & Andrew started as a bobbin boy paying \$1.20/week & later in the steam room for \$2/week. In the winter they went to work in the dark and came home in the dark. 1850 he got a job as a telegraph messenger at \$2.50/week. He started learning his way around town and the business men in it. Colonel James Anderson opened his private library to boys on Saturdays. Every penny he earned was needed at home. His parents were very open with him with the family finances and soon they were free from the debt they borrowed to come to America. He took on more responsibilities at work and learned the telegraph machines therefore he got paid more. He soon learned to use caution in lighting storms when a flash of lightening knocked him off his stool. 1852 he filled in for a missing telegraph operator and started earning \$25/month. They started a debate club and learned to talk to the audience, not at them. He became Thomas Scott's [superintendent of the Pennsylvania RR] clerk & operator at \$35/wk. He doesn't believe in being too hard on a young man, even if he does commit a dreadful mistake. One day the tracks needed to be cleared and his boss wasn't there so he gave orders to clear the tracks. His boss said he did a fine job and started doing it from then on. He filled in for his boss & was hard on some men for causing an accident. He learned severe punishments are not needed and a judicious pardon, for the first offense at least, is often best of all. They bought a house for \$700 and \$100 down, but soon paid off the debt. 1855 his dad died and his mom & brother in 1886. By chance, he met T. Woodruff [inventor of the railroad sleeping car]. He introduced him to his boss who ordered two and the inventor gave him 12.5% interest in the venture. By 24 he was earning \$65/month before he was promoted to manager the Pittsburg division and earns \$1500/year. Whenever he heard something, he didn't know he wanted to learn more about it. When he was 26, he took his mom & brother to visit Scotland. Its' amazing how little everything looks compared to what he remembers as a kid. 1863 he organized the Keystone Bridge Company & 1866 he the Pittsburg Locomotive Works. After signing their first contract their profit was eaten up from war inflation. They never borrowed money. Build a safe bridge or none at all [they were built of cast & wrought-iron]. If you want a contract, be on the spot when it is let and stay until you can take a written contract home. 1865 he resigned from the Pennsylvania RR. They had no lawsuits [give the other party the benefit of the doubt & settle]. He setup a system that every job & everyman was accountable for profits. 1867 he visited Europe & 1878 toured the world. 1867 moved to New York. **Borrowing money is the most dangerous thing a business man can do.** 1870 built a blast furnace to make pig-iron. He found few people knew good coal from bad (iron-ore the same). He hired a chemist and bought great quality iron-ore. 1873 he organized the steel-rail company. Later that year there was a panic & he was compelled to take over investors interests who could not meet their obligations giving him control of the company. Business partners should not have any secrets from each other (& personal problems can become business problems). How foolish we are not to reorganize what we are best fitted for and can perform. His steel beams went into the Washington Monument stairs. He married Louise Whitfield (24 yrs younger) in 1887 and had a daughter in 1897. He bought a coal & manganese ore (used to make RR rails more durable) company.

Steel (alloy of iron & carbon) was replacing iron (element). It takes 1.5 tons of iron ore, 1.5 tons of coal (made into coke [impure carbon]) & one ton of limestone (to remove impurities) to make a ton of steel. He bought an expensive Bessemer (blast) furnace and it paid for itself in production and quality. 1886 he was ready to expand but bought out 6 local steel mills instead. 1892 there was a fatal labor dispute. He helped them get their coal for home at the company discount, to setup a cooperative store and 8-hour work days. The best prevention of quarrels would be recognition of, and sincere interest in, the men (& rejoice in their success). 1900 Carnegie Steel profits \$40 million. **1909 he sells Carnegie Steel to JP Morgan for \$480 million to become US Steel and begins his distribution of wealth.** He built Carnegie Mellon University, Tuskegee Institute, Carnegie Hall, New York Public Library (68 branches), 2000 public libraries, and public buildings around the world. He built a wood & bronze (doesn't interfere with magnetic compass) yacht to travel the world correcting errors on earlier surveys. He built Mt. Wilson observatory in CA. He setup a relief fund for injured workers, a hero fund, various pension funds, scholarships, peace fund & organs to churches (paid 50%). By 1880, America was the greatest manufacturing nation in the world. Charity's main consideration should be to help those who help themselves. Almsgiving only rewards the vice. Libraries don't give money to the poor; libraries give the poor a chance to improve themselves.

Quotes [most from Carnegie]:

"Put all your eggs in one basket, and then watch that basket."

"I cannot name a more important means of benefitting young people than encouraging them to commit favorite pieces to memory and recite them often."

"It is a great mistake not to seize the opportunity."

"Wise men are always looking out for clever [hard working] boys."

"Whenever one learns to do anything, he has never to wait long for an opportunity of putting his knowledge to use."

"Knowledge is sure to prove useful in one way or another."

"The great aim of every boy should be to do something beyond the sphere of his duties – something which attracts the attention of those over him."

"Only experience teaches the supreme force of gentleness."

"No kind action is ever lost."

"It counts many times more to do a kindness to a poor working-man than to a millionaire."

"There are no substitutions for true friends of youth."

**"Whatever is worth doing is worth doing well."**

"When I lay down at night, I was going to get a verdict of approval from the highest of all tribunals, the judge within."

"A wise man is the confirmed optimist."

"Many men can be trusted, but a few needs watching."

"When one party to a bargain becomes excited, the other should keep cool & patient."

"A great business is seldom ever built up, except on lines of the strictest integrity."

"Obtain the reputation for being governed by what is fair rather than what is legal."

"The highest worship of God is service to man." (Martin Luther)

"Not what I owe to my creditors, but what I owe to myself is the issue." (Mark Twain)

"One is known by the company he keeps and by the stories he tells."

"No man can dishonor me except myself."

"Great sums bequeathed often work more for the injury than for the good of the recipients."

"Those worthy of assistance, except in rare cases, seldom require assistance."

Books: The Light of Asia (Edwin Arnold); Gospel of Wealth (Andrew Carnegie, 1889)

Additional info from the web: The three ingredients are dumped into a blast furnace at 1800 degrees Celsius. The molten iron falls to the bottom and tapped off (as cast-iron). The limestone creates a molten slag that grabs the impurities and is tapped off (used for road construction). See... [www.chemguide.co.uk/](http://www.chemguide.co.uk/)

Cast iron has 4% carbon & is brittle; it is used for manhole covers.

High carbon steel has 1.5% carbon & hard; used for cutting tools.

Mild steel has 0.25% carbon & strong; used for beams.

Wrought iron has no carbon & is soft (little structural strength); used for gates.

[www.pbs.org](http://www.pbs.org) when he sold to Morgan, he became the richest man in the world. In all, he gave away 90% of his fortunes.