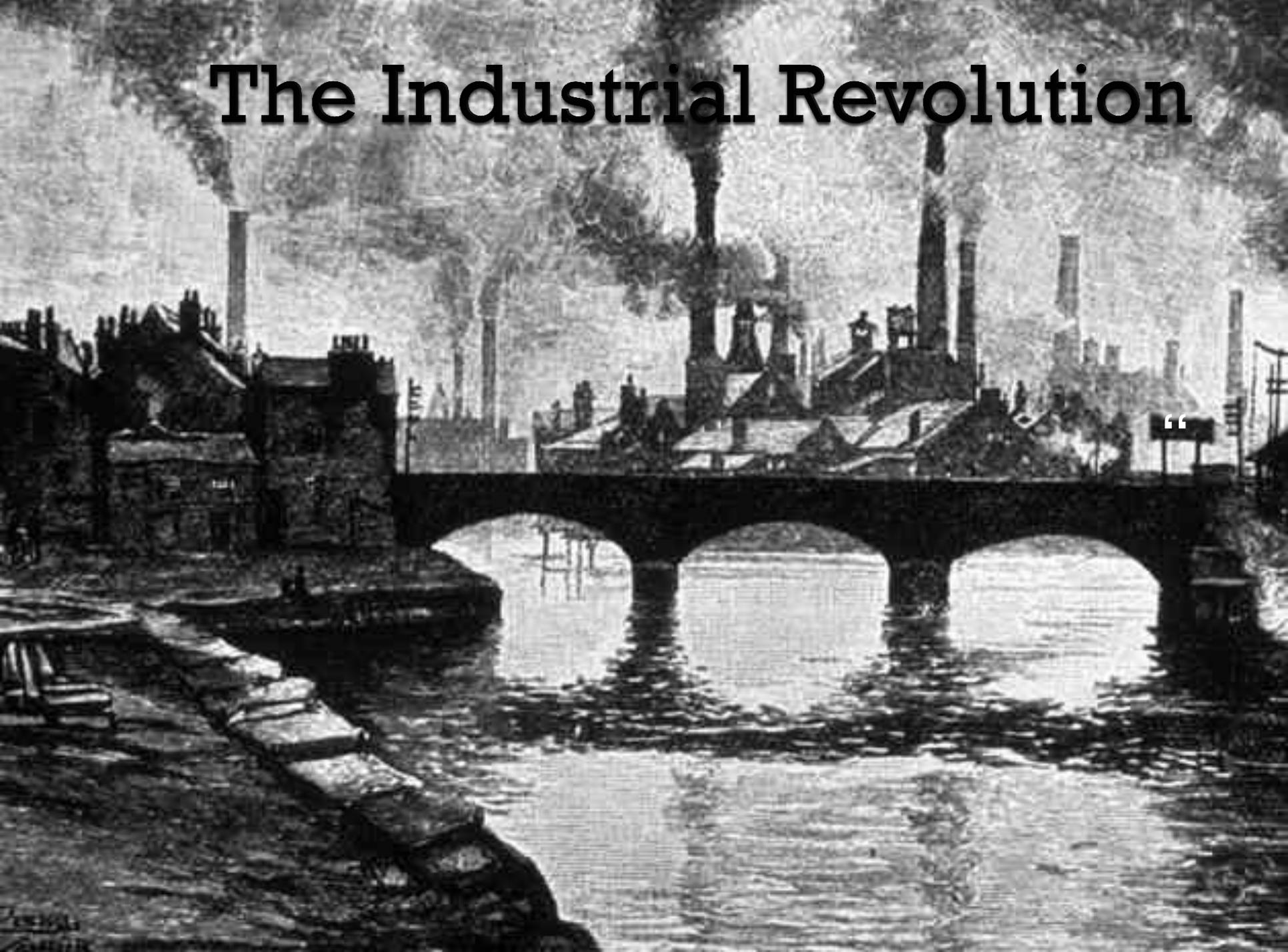


The Industrial Revolution



“The Business of America is Business”

- ◉ Calvin Coolidge
- ◉ The last 3 decades of the 1800s was more productive than all of America's history before it
- ◉ By 1900 – America was the unquestioned economic powerhouse of the world

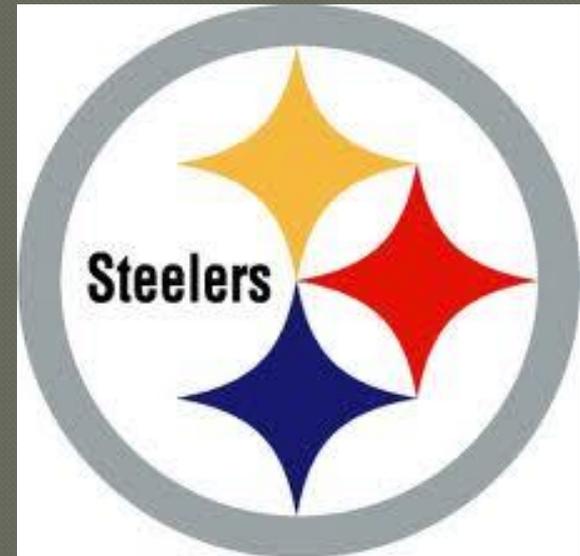
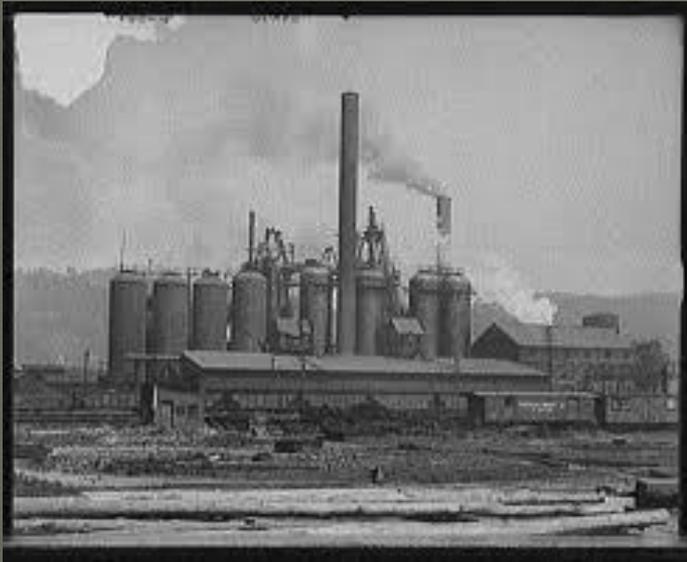


Reasons for America's Industrial Growth

1. Abundant raw materials
2. Large and growing labor supply
3. Technological Innovation
4. Talented and ambitious entrepreneurs
5. Federal government assisted business growth
6. Great and expanding market for manufactured goods

New Innovations

- Bessemer-Kelly Process and the Open-Hearth Process revolutionized the production of steel and iron in western Pennsylvania and eastern Ohio



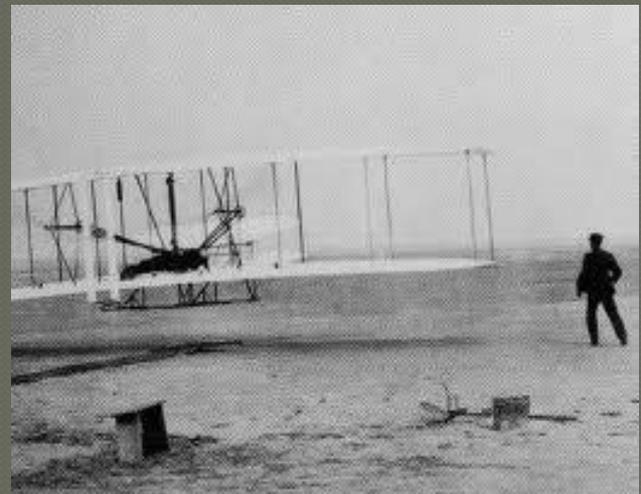
New Innovations

- Oil was needed for lubrication of the railroads and steel factories
- By the 1870s, American was exporting oil all over the world



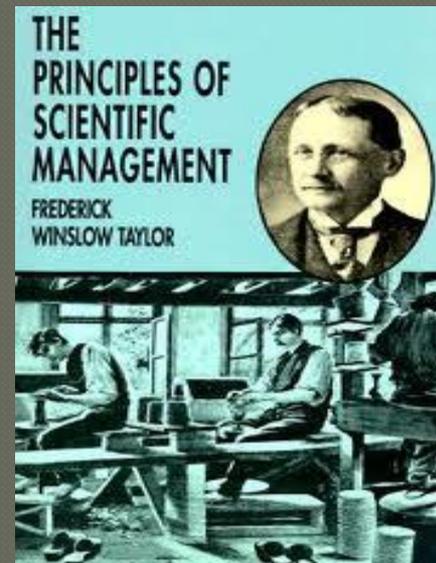
New Innovations

- Oil was later used in the internal combustion engine, which powered automobiles, then trains and airplanes
- Henry Ford popularized the automobile and Wilbur and Orville Wright and later Charles Lindberg popularized the airplane



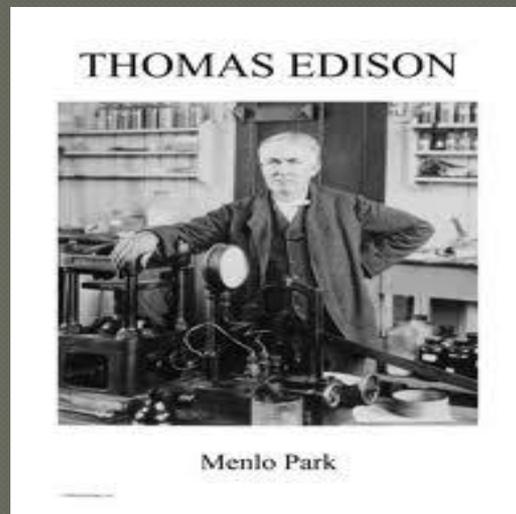
New Innovations

- The Moving Assembly Line by Henry Ford helped to make cars more affordable, even to his workers
- Frederick Winslow Taylor developed the idea of “scientific management” for more efficient production



New Innovations

- Thomas Edison helps to create large corporate research labs such as the one in Menlo Park, New Jersey
- Corporations team up with universities to further research and development



New Innovations

- Railroads were the key to economic expansion and the largest business in America in the 1800s
- Cornelius Vanderbilt, James J. Hill, and Collis P. Huntington were some of the tycoon railroad barons of their time



Call me the
Commodore,
Damn it!

New Innovations

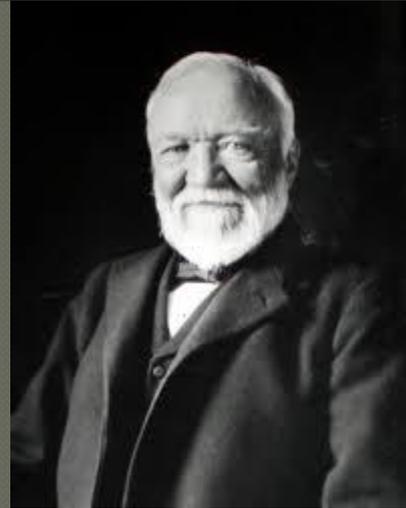
- I.M. Singer patented the sewing machine and made clothes more affordable (mass production of clothing)
- Gustavus Swift developed new ways to pack and preserve meat (mass production of food)



New Ways to Organize Business

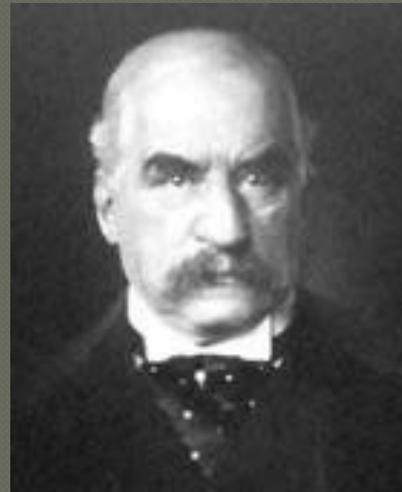
◎ The Big Three

1. Corporations
2. Trusts
3. Holding Companies



◎ Another Big Three

1. Andrew Carnegie
2. John D. Rockefeller
3. J.P. Morgan



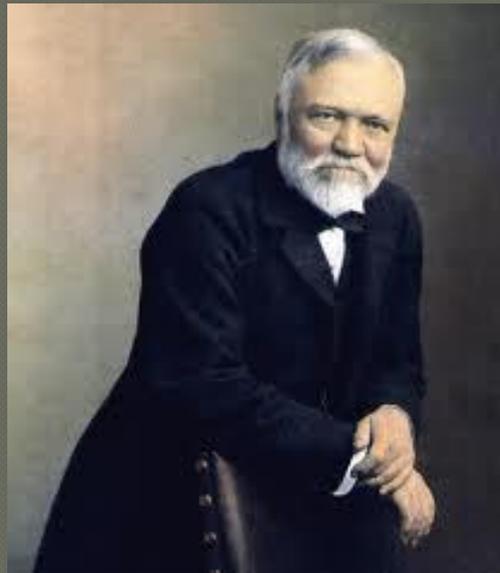
New Ways to Organize Business

- The corporation was a way to raise vast sums of money with limited liability

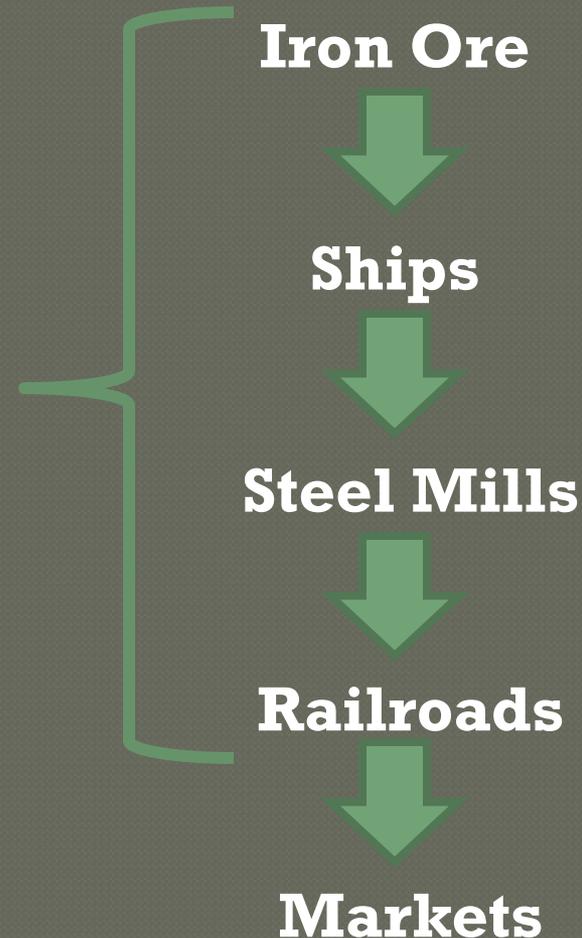


New Ways to Organize Business

◉ Vertical Integration

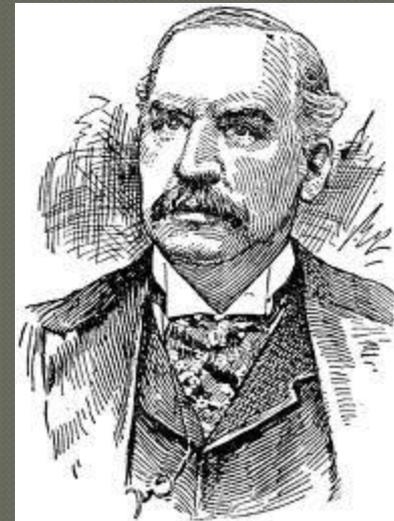


ALL OWNED BY
CARNEGIE



New Ways to Organize Business

- Banker JP Morgan bought out Andrew Carnegie to form United States Steel Corporation which produced 2/3 of the nation's steel and was worth 1.4 *billion* dollars in 1900.



New Ways to Organize Business

- Horizontal Integration: Combining a number of firms in the same enterprise into a single corporation (Monopoly)



New Ways to Organize Business

- John D. Rockefeller's Standard Oil Company came to control 90% of the nation's oil by the 1880s



New Ways to Organize Business

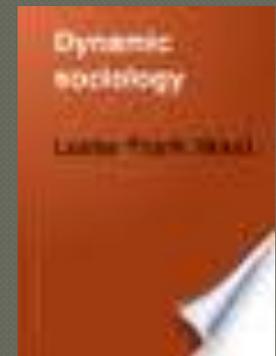
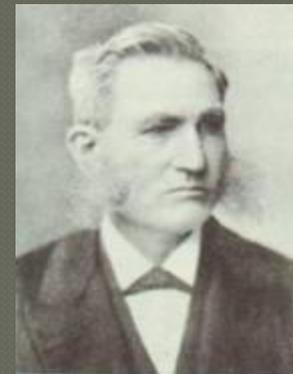
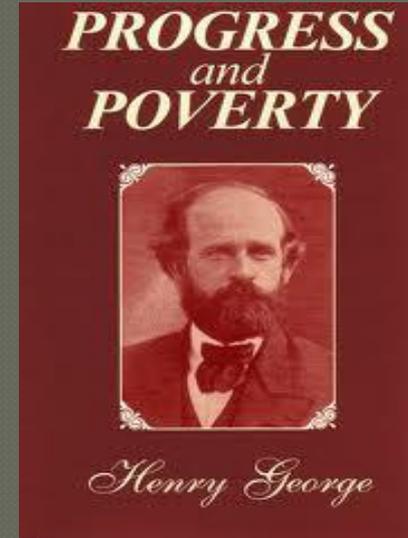
- Trusts and Holding Companies were a way to further consolidate numerous businesses into the hands of a few “trustees”
- By 1900, 1% of the corporations controlled 33% of the manufacturing

Philosophical Criticisms and Justifications of Capitalism

- ◉ Workers and farmers were concerned about the threat to republican society as wealth and authority were not widely distributed
- ◉ Middle Class was unhappy with the widespread political corruption on the local, state, and national levels

Philosophical Criticisms and Justifications of Capitalism

- Henry George wrote Progress and Poverty (1879), in which he was critical of the great disparity of wealth (have's and have not's)
- Lester Frank Ward's Dynamic Sociology (1883) advocated government intervention and planning to serve the people's needs



Philosophical Criticisms and Justifications of Capitalism



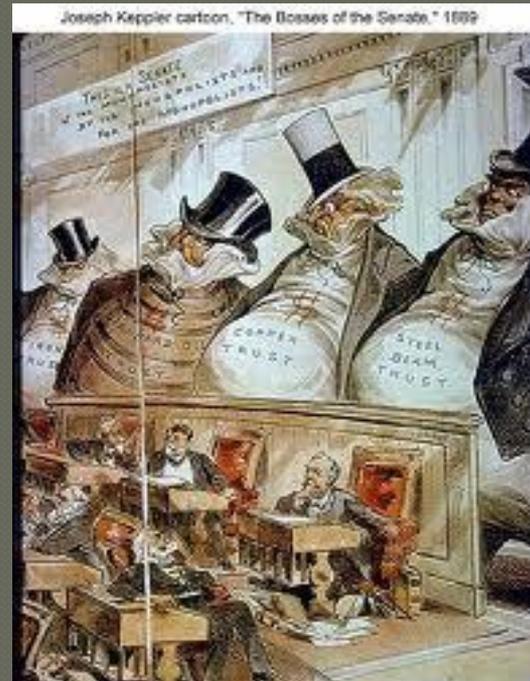
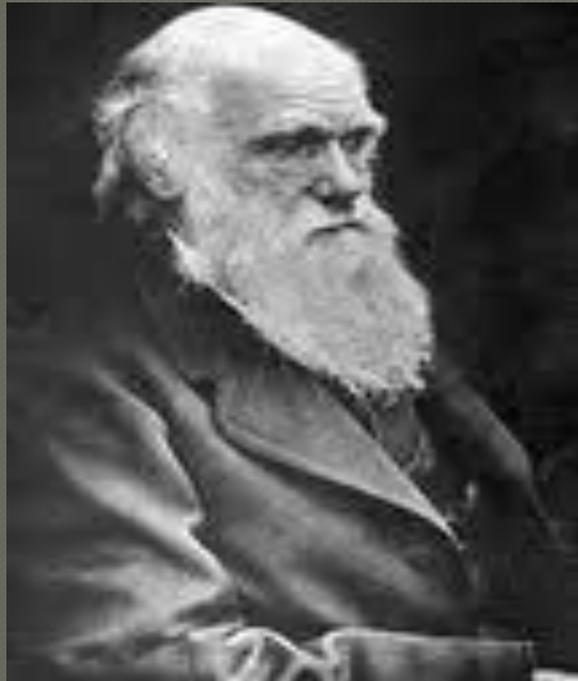
- The general public started to become very critical of monopoly and resented the new class of enormously and conspicuously wealthy people
- At the turn of the century, one estimate was that 1% of the families in America controlled 88% of the wealth. WOW!!!

Philosophical Criticisms and Justifications of Capitalism

- Under pressure from the public, the wealthy felt the need to justify their status in society
- Myth of the Self-Made Man
 1. Some millionaires were = Carnegie, Rockefeller, and Edison
 2. Most started from wealth and privilege
 3. Many were arrogant and ruthless – “The public be damned” – C. Vanderbilt
 4. Industrialists made large contributions to politicians, political parties, and government officials

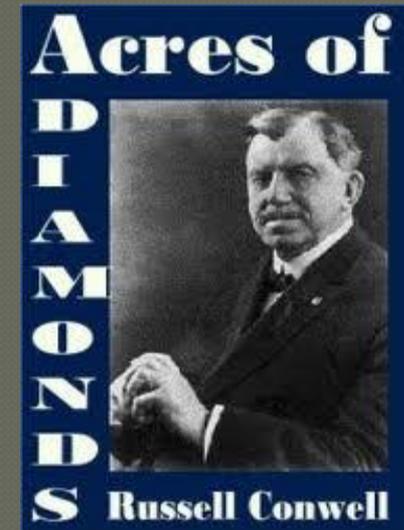
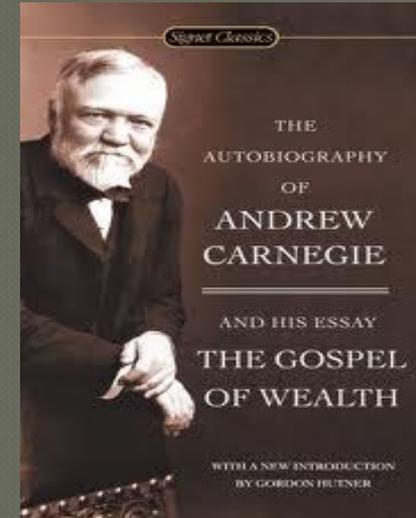
Philosophical Criticisms and Justifications of Capitalism

- Social Darwinism – also known as “survival of the fittest” – provided a philosophical justification for the industrialists



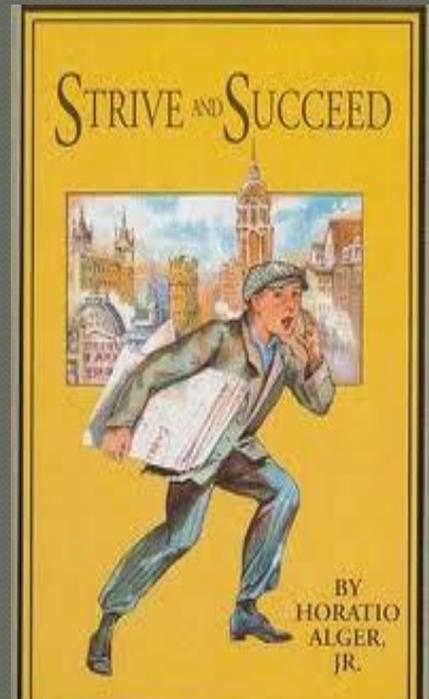
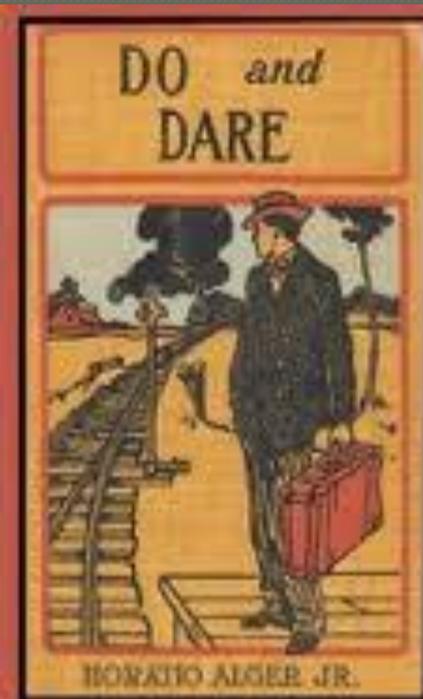
Philosophical Criticisms and Justifications of Capitalism

- The Gospel of Wealth was a book by Andrew Carnegie that advocated giving back to society through philanthropy
- Russell Conwell was a Baptist minister whose sermon “Acres of Diamonds” stated that it is your duty to get rich



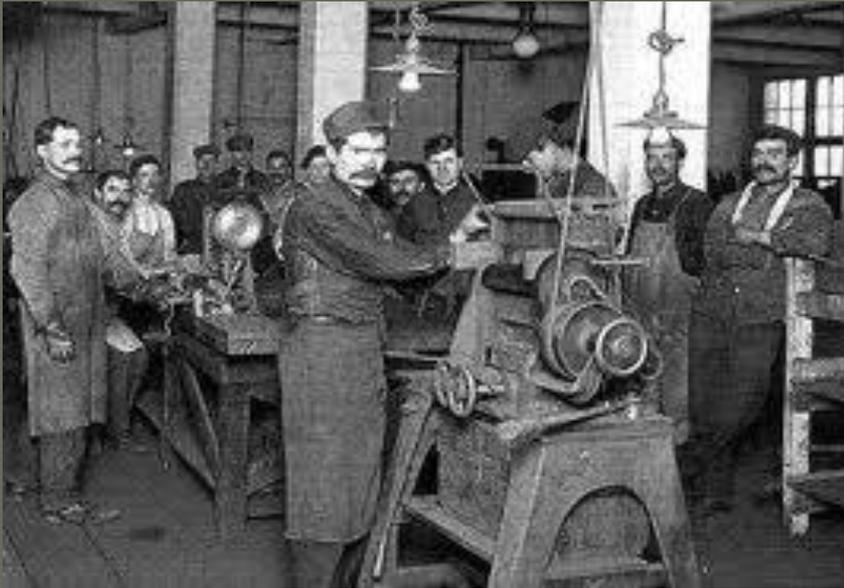
Philosophical Criticisms and Justifications of Capitalism

- Horatio Alger wrote famous “rags to riches” tales



Industrial Workers in the New Economy

- Many workers did experience a rise in their standard of living, but at the cost of arduous and dangerous working conditions as well as diminished control over their work, and therefore experienced a sense of powerlessness



Industrial Workers in the New Economy

● The industrial workforce expanded from two sources:

1. Migration from rural to urban
2. Immigration, especially from Europe
 - 25 Million from 1865-1915 – 4x the immigration of the previous 50 years
 - New immigration was primarily from southern and eastern Europe (Italians, Poles, Russians, Greeks, Slavs, and others)
 - In the West, immigration was primarily from Mexico



Industrial Workers in the New Economy



Working Conditions

1. Low wages (workers always near poverty level)
2. Long hours (6 days a week, 10-12 hour days)
3. Unsafe working conditions
4. Loss of Control (over conditions of work)
5. No job security

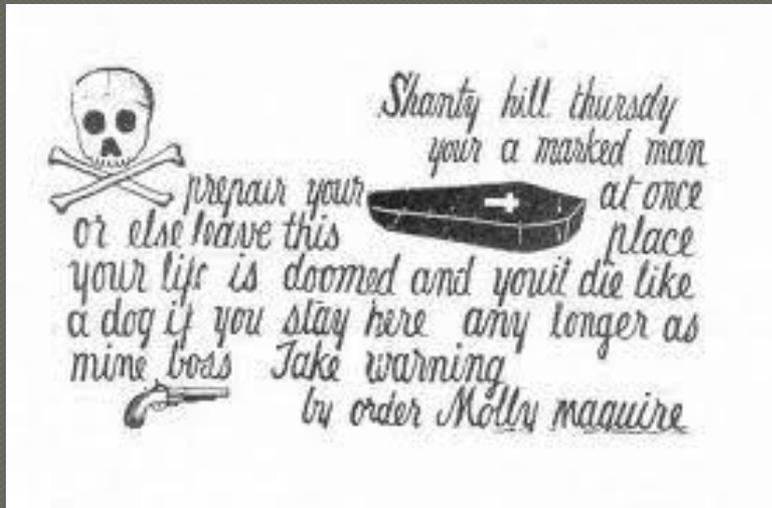
Industrial Workers in the New Economy

○ Women and Children at Work

1. 1/5 of America's women were working by 1900
2. Most women workers were young, white women
3. 10% of girls under 15 and 15% of boys under 15 worked
4. Women and children were notoriously underpaid
5. 38 States passed child labor laws, but they were rarely enforced



Attempts to Unionize and Labor Unrest



- National Labor Union was a first attempt in 1866 to organize a variety of unions into one
 - It excluded women
 - Disintegrated after the panic of 1873
- Molly Maguire's were a militant group of mainly Irish coal miners in western Pennsylvania

Attempts to Unionize and Labor Unrest

- The Great Railroad Strike of 1877
 1. 1st major National labor conflict
 2. Brought about by a 10% wage cut
 3. Wide scale violence and rioting
 4. Public opinion and the government were against the striking laborers
 5. The event showed that business is national as much as it is local



Attempts to Unionize and Labor Unrest



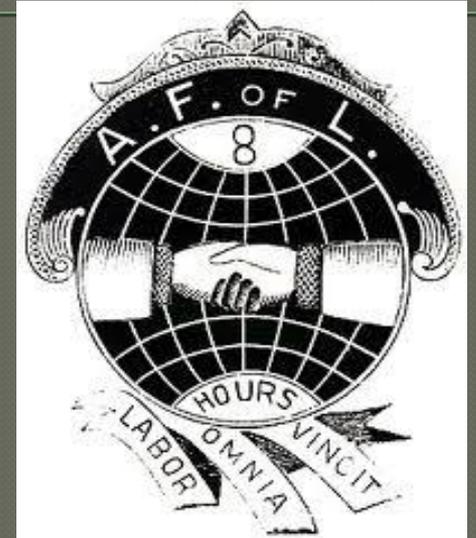
○ The Knights of Labor

- Founded by Uriah Stephens in 1869
- Included women
- 8-Hour work day
- Against child labor
- In favor of a “cooperative” system to control parts of the economy
- Reached peak membership in 1886 (700,000)
- Unsuccessful railroad strikes against Jay Gould led to demise of the union in the 1890s



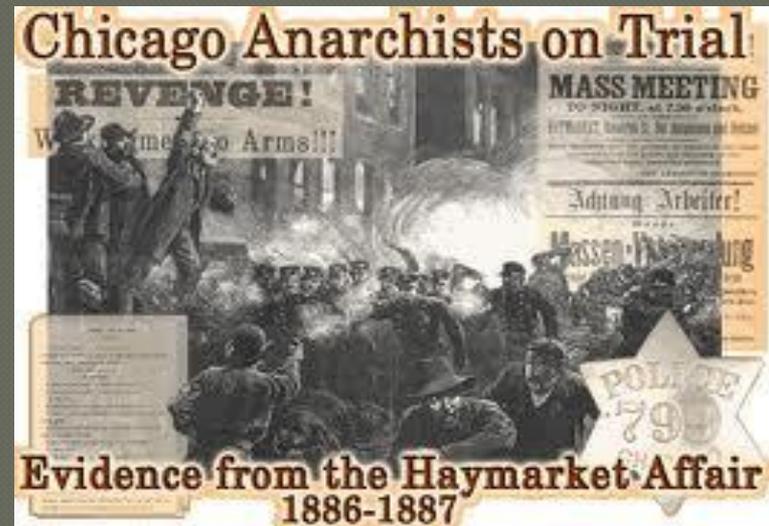
Attempts to Unionize and Labor Unrest

- The AFL = American Federation of Labor
 - Most important and enduring labor union in the country
 - Association of autonomous craft unions; skilled workers
 - Samuel Gompers was their powerful leader
 - Excluded women
 - Focused on better wages, hours, and working conditions



Attempts to Unionize and Labor Unrest

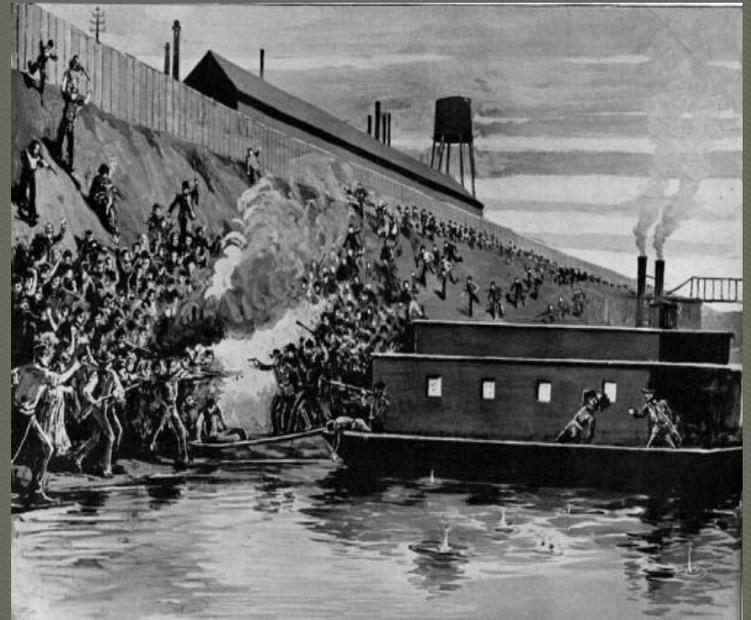
- Haymarket Square Riot (1886) convinced many Americans that labor unions were synonymous with radicalism, social chaos, and anarchism



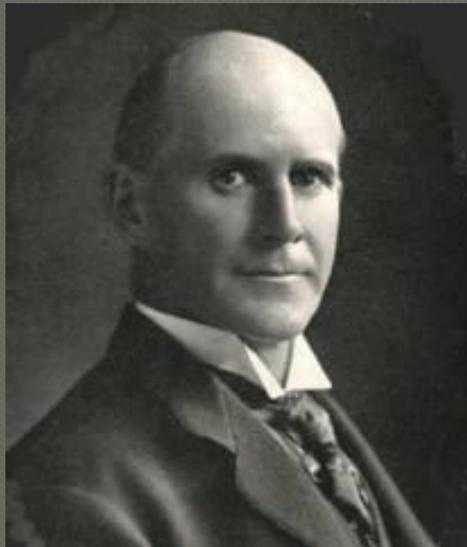
Attempts to Unionize and Labor Unrest

○ The Homestead Strike (1892)

- The Amalgamated Association of Iron and Steel Workers was the most powerful union in America at the time (part of the AFL)
- At the Homestead Plant outside of Pittsburgh, Henry Clay Frick (Carnegie's Lieutenant) was determined to break the union
- Brought in Pinkerton Detectives
- The National Guard was called out to protect the "scabs" and the strike was broken
- Again, government sides with business



Attempts to Unionize and Labor Unrest



● The Pullman Strike (1894)

- American Railway Union led by Eugene Victor Debs led a strike to protest wage cuts by the Pullman Railway Company
- President Grover Cleveland sent federal troops in to break the strike as “the mail was not being transported”
- Debs and other union leaders went to jail and the strike was broken

Attempts to Unionize and Labor Unrest

○ Source of Labor's Weakness

1. By 1900, 4% of workers were in a union
2. Ever changing and moving work force
3. Corporate strength against unions
4. Government supported big business (management)
5. Public fear of radicalism associated with labor unions