

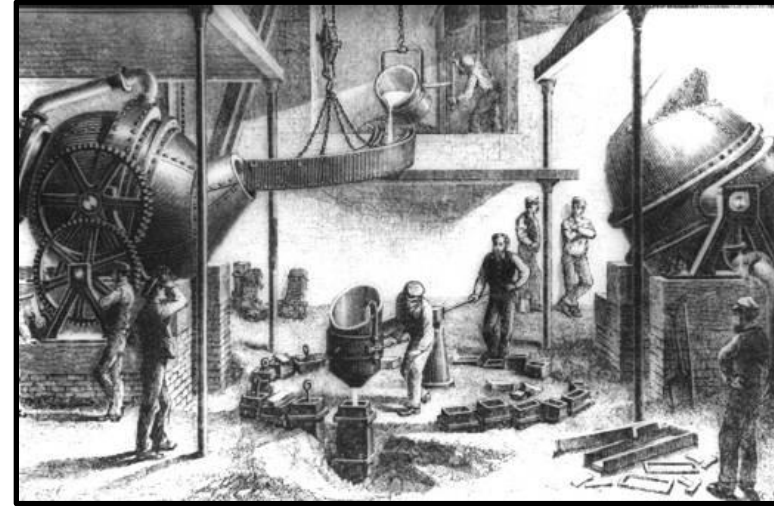
Industrialization and the "Gilded Age" STAAR Review 2



- **Industrialization** continued at a rapid pace in the years following the Civil War.
- The **Bessemer Process** for making steel, allowed for a boom in industry.
- **New inventions** – like the telegraph, telephone, typewriter, and the sewing machine made America more productive.
- **Natural Resources** – like oil and electricity became important sources of energy.
- **Entrepreneurs** – like John D. Rockefeller and Andrew Carnegie establish new business techniques.
- **Labor** – workers would organize to gain higher wages, better working conditions, and an 8 hour workday.

Technological Innovations

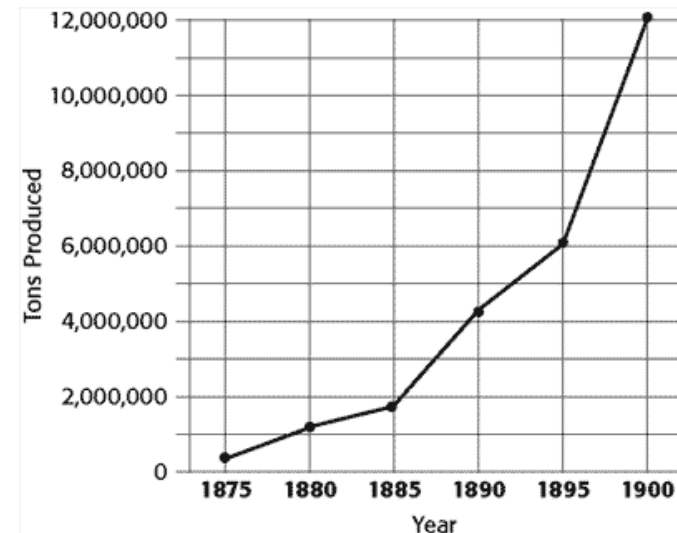
- **Bessemer Process** – increased the amount and the quality of steel being produced.
- This new steel was used to lay more miles of railroad track, to build the world's 1st skyscrapers, and to make better machinery.



World's 1st built
in 1885 it was
180 feet tall

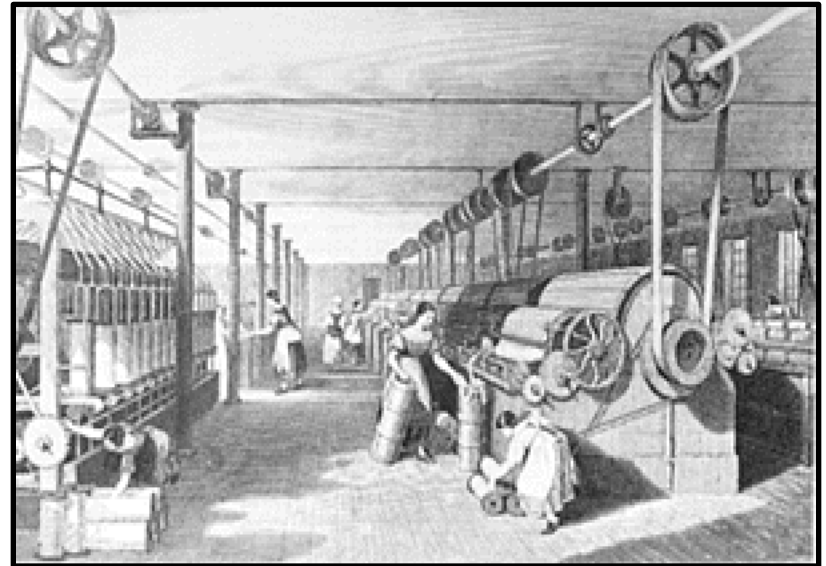
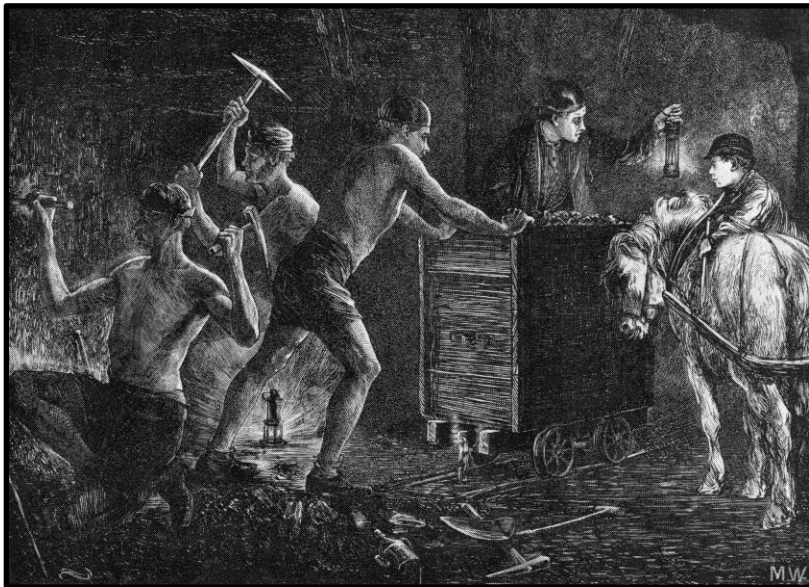


World's tallest
built in 2010 it
is 2,722 feet



Technological Innovations

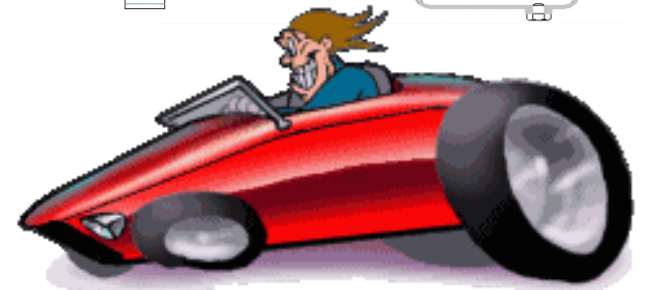
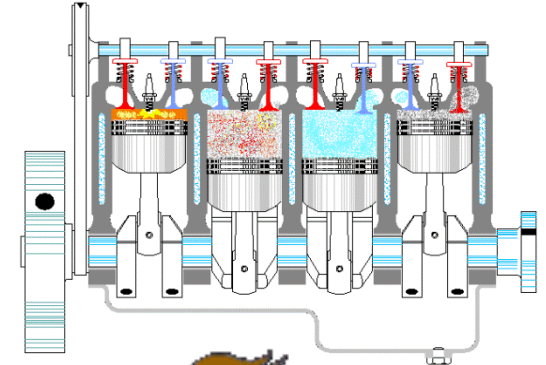
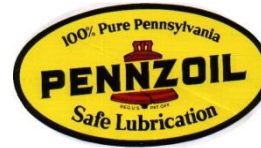
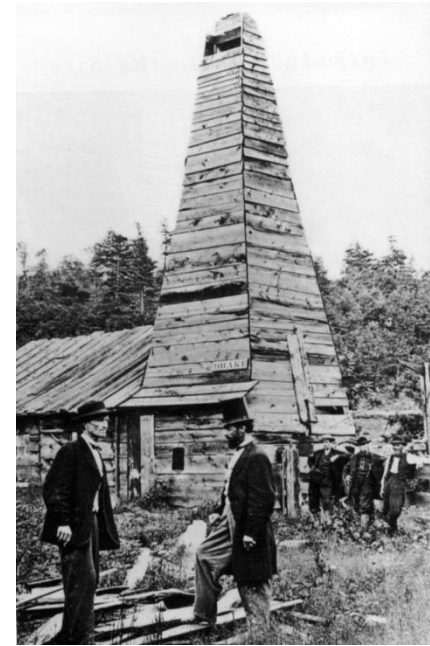
- After the Civil War, human and animal strength were replaced by steam and electricity.
- Steam engines, powered by burning coal to heat water, drove the textile mills, factories, and trains.
- During the late 1800s the center of coal mining was in the Appalachian Mountains of western Pennsylvania.



Technological Innovations



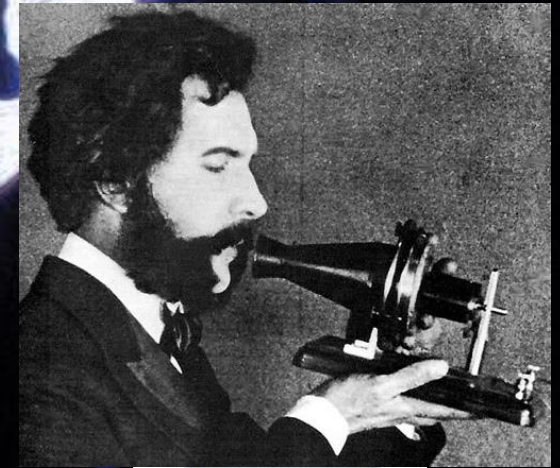
- America's first oil well was drilled in Titusville, Pennsylvania in 1859.
- At first, oil was just used as a lubricant, later it was refined into kerosene for lighting.
- It wasn't until the internal combustion engine and the development of the car, that the demand for oil skyrocketed.
- New sources of energy and transportation technologies have improved our mobility and our production capabilities.



Electricity



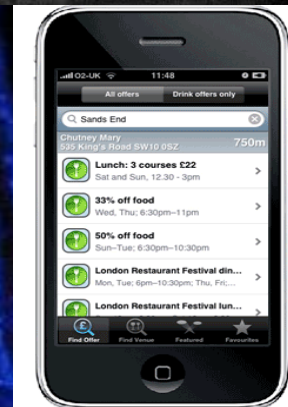
telegraph



- **Alexander Graham Bell** would later perfect the telephone in 1876, it hasn't stopped evolving since then.

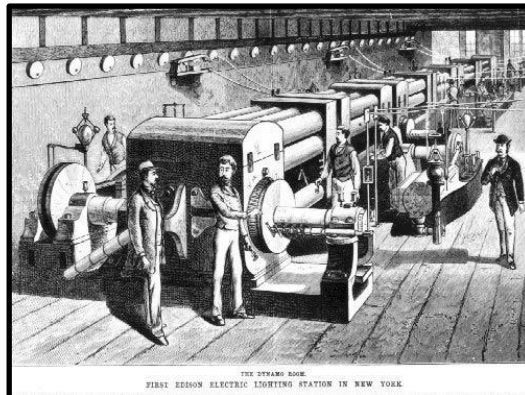
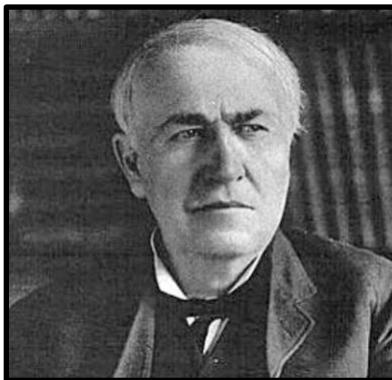
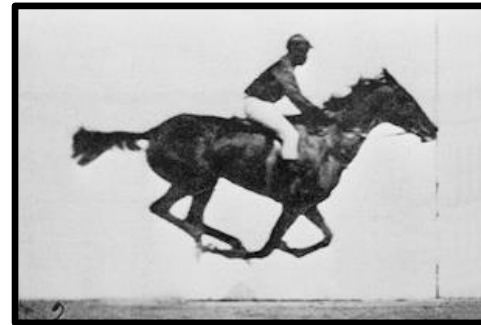
Later communication improvements, like the iPhone would also make land line telephones obsolete.

Communications have never been the same!



Technological Innovations

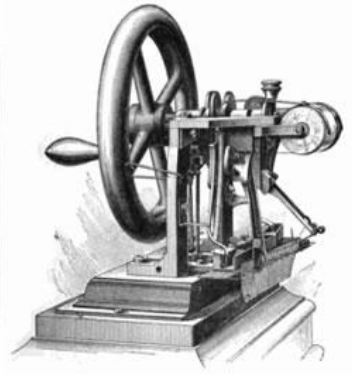
- **Thomas Edison** would also use electricity to produce amazing results.
- Edison designed a way to get electricity into homes and businesses, having electric appliances isn't much good if you don't have electricity.
- Edison was able to create:
 - Motion pictures, (entertainment)
 - The light bulb, (world went 24/7)
 - The phonograph, (which later gave way to other forms of recordings)



Other Inventors & Innovations

This was a time period of many inventions that improved the lifestyle and standard of living of many Americans.

- **Elias Howe** – sewing machine, clothing could be made cheaper, faster, and now at home. (1846)

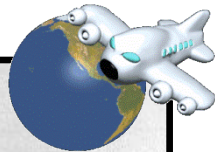
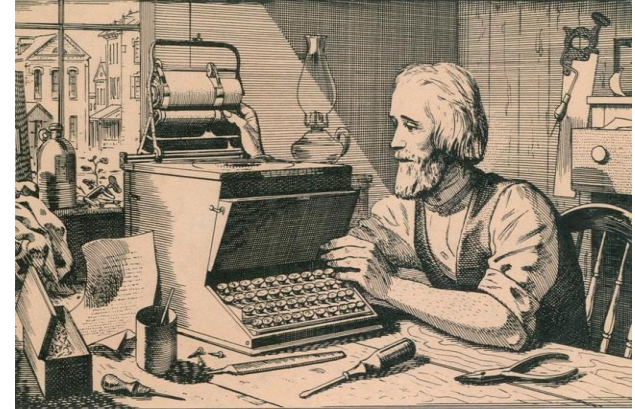


- **Elisha Otis** – passenger elevators, the new technique of making steel allowed for skyscrapers, this created a need for elevators to carry people between floors. (1852)

Other Inventors & Innovations

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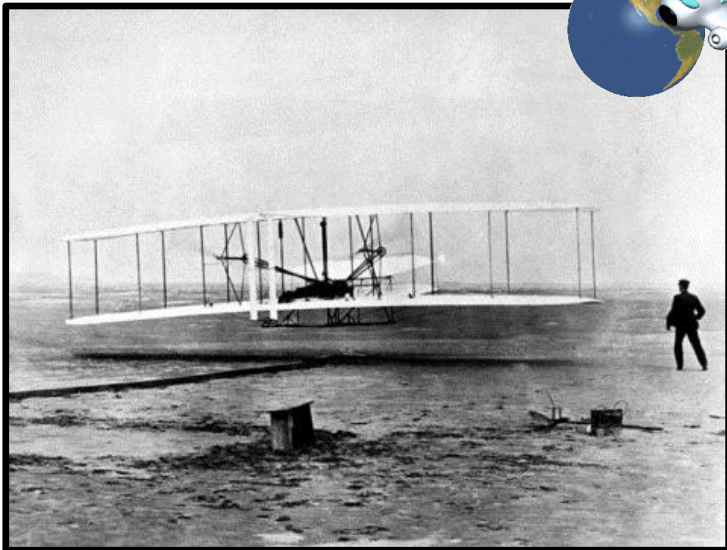
- **Christopher Sholes** – typewriter, made businesses more productive and helped improve communications. Eventually led to computer keyboards. (1867)



Wright Brothers – Orville & Wilbur

first successful manned flight.

Although their first flight lasted only seconds, it opened way for air travel at a dramatically increased speed and distance travelled. (1903)



The Growth of Railroads

- Before the Civil War, most of the railroad track in America had been built in the Eastern USA, especially in the Northeast.
- Gold was discovered in the West and people slowly began migrating westward.
- Travel was slow and difficult.
- There was a desire to build a transcontinental railway that connected the East coast with the riches of California and the West.
- But what route would it take?



The Transcontinental Railroad

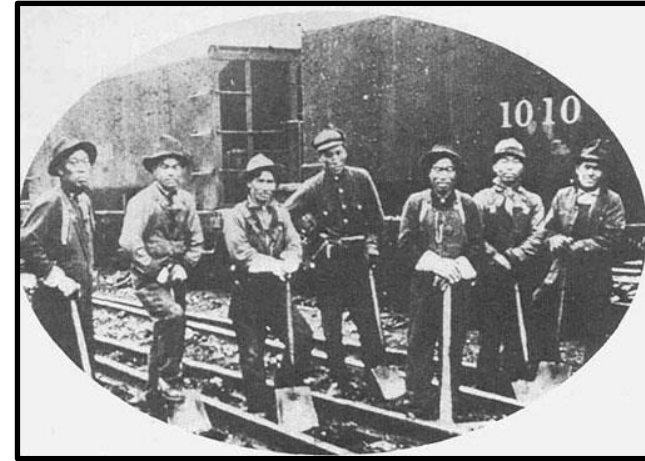
Railroads would have a significant impact on the economic, cultural, and social development of the Western United States

- Opinions differed as to which route to take.
- Should it go through the North or along a southern route?
- The resulting Civil War caused the Transcontinental Railroad to be built along a northern route from Omaha, Nebraska to Sacramento, California.
- Travel time would decrease from months to a few days.



Building the Transcontinental Railroad

- Civil War vets, Irish laborers, and free blacks started working westward from Omaha.
- Chinese workers started eastward from Sacramento.
- They met at Promontory Point, Utah.



The Impact of the Railroads



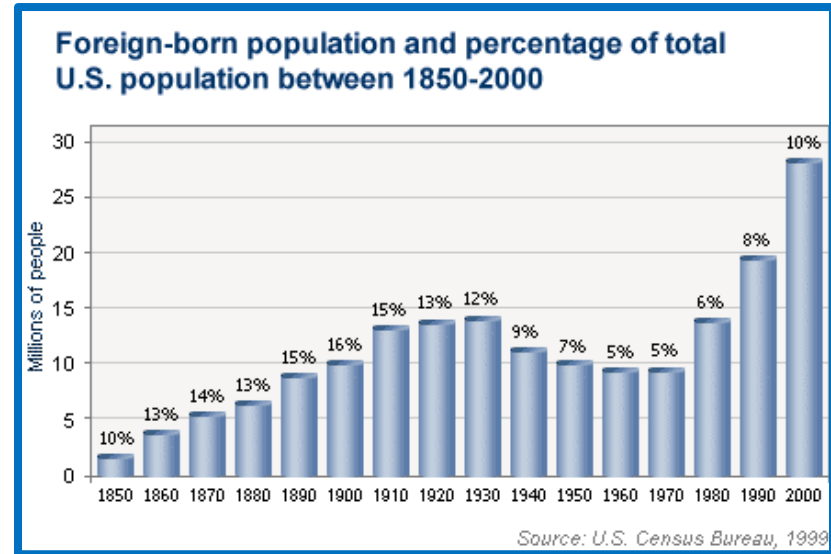
Development of a National Market

- A new truly national market began to emerge as railroads, canals, the telegraph and telephone linked the country together.
- National producers could ship their goods cheaper and would dominate sales in the West.
- New methods of marketing and advertising gave manufacturers ability to expand across the nation.
- Catalogs became “wish lists”



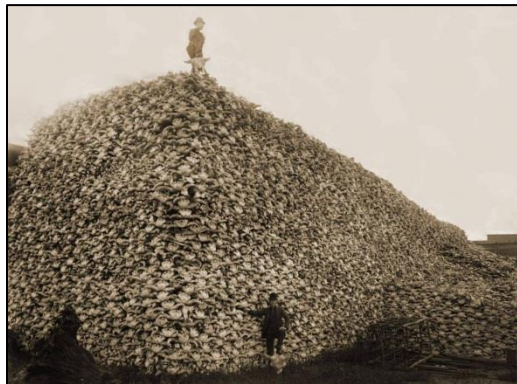
Impact of Population Growth

- The USA experienced a rapid population growth, as the population jumped from over 2 million to 76 million in just 50 years, cities were crowded .
- A high birth rate and a constant stream of immigrants created a rising demand for goods and the growing population was a steady supply of cheap labor.
- This population growth favored business expansion.



Impact of Population Growth

- Lumbering depleted the forests.
- Sodbusters would plow the Great Plains to plant crops.
- Mining for gold and other precious minerals destroyed the land.
- The Railroads and buffalo hunters would soon wipe out the buffalo.
- Rivers and lakes would be polluted.



Growth of Cities Brings Problems

Did you
hear Joe
coughing
all night?

Look out
below !

Boy this
water sure
smells
funny

The toilet
doesn't flush
again !

Wish we
could afford
to move

Billy Bob you
shouldn't
smoke in bed

If they don't
shut up I'm
going to
kick their
&#@!

Something
sure stinks

New Types of Business Organization

- Before the Civil War, most businesses were owned by individuals or by a groups of partners.
- After the war, corporations became more common.
- A **corporation** is a company chartered by the state and recognized as a separate 'person'.
- Bam! BIG Business was born.



Corporations

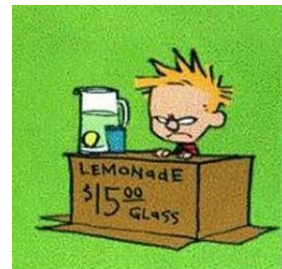
- **Corporations** issue and sell ‘**stock**’ or shares of a company.
- A **shareholder** is a partial owner, and they receive a share of a corporations profits based on the amount of stock they own.
- Shareholders were responsible only for the shares they own, not for losses and are protected from lawsuits.
- Corporations allowed for people to pool their money to raise the huge sums needed to build railroads, factories, steel mill, etc.



***Corporations
made modern
industrial
production
possible***

The Free Enterprise System

- The Success of America's industrialization was based on its free enterprise system.
- **Free Enterprise System** is when people have the freedom to make their own choices in what to buy, where to work, and what to make.
- People are free to use their money and time to start a business in hopes of making a profit. **(Producers)**
- People are free to choose the type of product they wish to buy and how much they'll pay. **(Consumers)**



The Free Enterprise System

- People have unlimited wants but we have limited resources to satisfy these wants.
- Businesses use their resources to compete with each other to satisfy these consumer desires.
- Every society must answer three basic economic questions to determine how to use its resources to satisfy these wants.



**What
Should Be
Produced ?**

**How
Should It
Be
Produced ?**

**Who
Should
Get It ?**

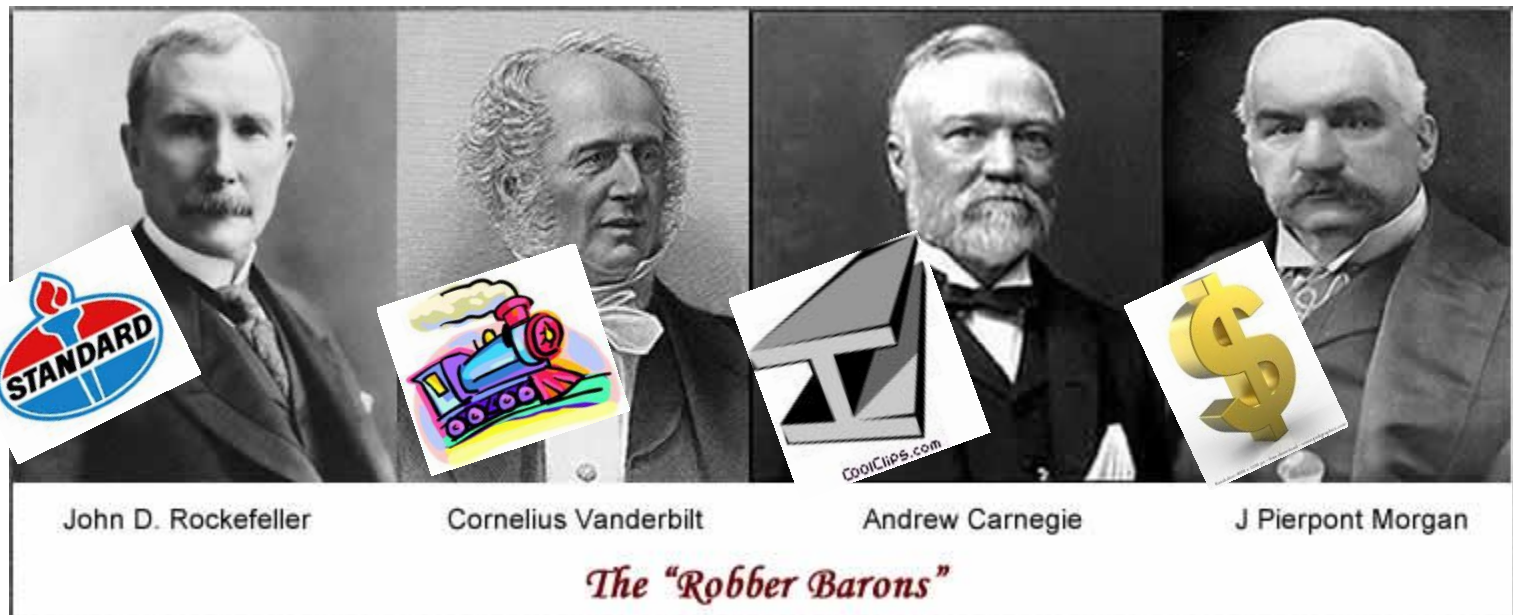
Entrepreneurs

- An **Entrepreneur** is a person that invests their time, money, and skills on the chance of making a profit.
- In the 1870s these entrepreneurs dominated America's economic life.
- Efficient large-scale production allowed them to sell goods at lower prices and Competition forced them to continually improve the quality.
- Many of these entrepreneurs made huge fortunes.



Captains of Industry

- Many of the more successful entrepreneurs became known as '**Captains of Industry**'.
- Some called them '**robber barons**' because of the ruthless tactics they used to destroy their competition and methods used to keep workers wages low.
- Some of the best known were:



The Gilded Age

- The time when these Captains of Industry ruled America became known as the **Gilded Age**.
- They amassed fabulous wealth and lavishly spent it while the majority of Americans were poor.
- These 'robber barons' were glorified and vilified.
- Some became the richest men in the world.

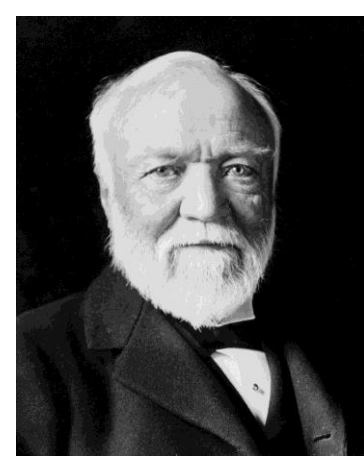
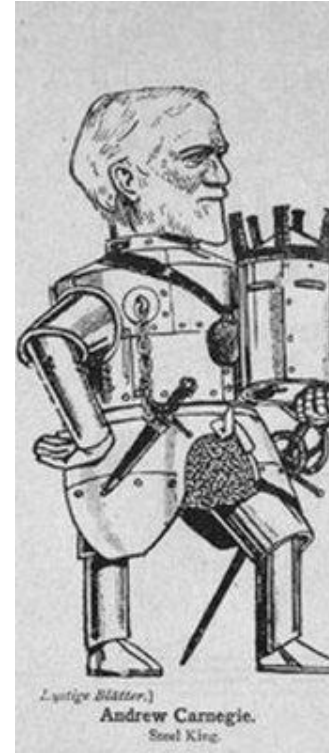


Political Cartoons on Robber Barons



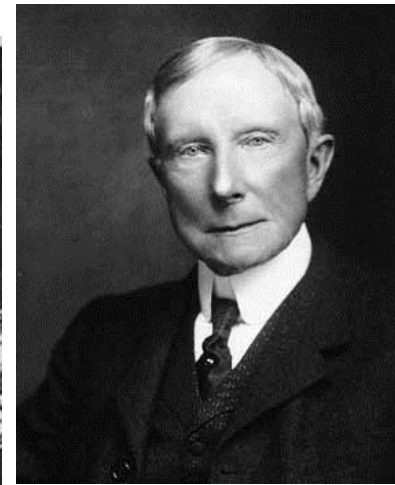
Andrew Carnegie

- **Carnegie** started penniless, but he made his fortune in **steel** mills in the Pittsburgh, PA area.
- He undercut the competition, bought his own iron ore fields, coal mines and ships so he could control all phases of steel production.
- He crushed attempts to form labor unions, paid low wages, and forced laborers to work 12 hour days.
- The labor strike on Carnegie's **Homestead Steel Mill** would be one of the eras most violent.



John D. Rockefeller

- **Rockefeller** started out poor, but made his fortune in **oil** in Ohio.
- Kerosene, for lighting, made him millions, later the gasoline industry, would make him even richer.
- He used ruthless tactics to drive his competition out of business, then he would buy them out.
- His **Standard Oil Co.** became a **trust**, with him owning most of the shares.
- Later it would be a **monopoly** as he controlled 90% of all oil refined.



Philanthropy

- Carnegie and Rockefeller both made millions at the expense of American public.
- They paid low wages and demanded long hours of work.
- As businessmen they didn't believe in charity, their belief was;
 - ‘help those who help themselves’
- Later, both would lead the rich in **philanthropy**, they gave away millions of their dollars to the public.
- They built libraries', museums, scholarships, and universities.



Here's
a dime



Pros and Cons of Big Business

- Large business is more efficient which leads to lower prices.
- Hire large numbers of workers.
- Produce goods in large quantities.
- Have the resources for expensive research and to invent new items.

- Unfair competitive advantage.
- Often exploited workers.
- Often unconcerned about pollution they may cause.
- Have an unfair influence on government rules that affect them.

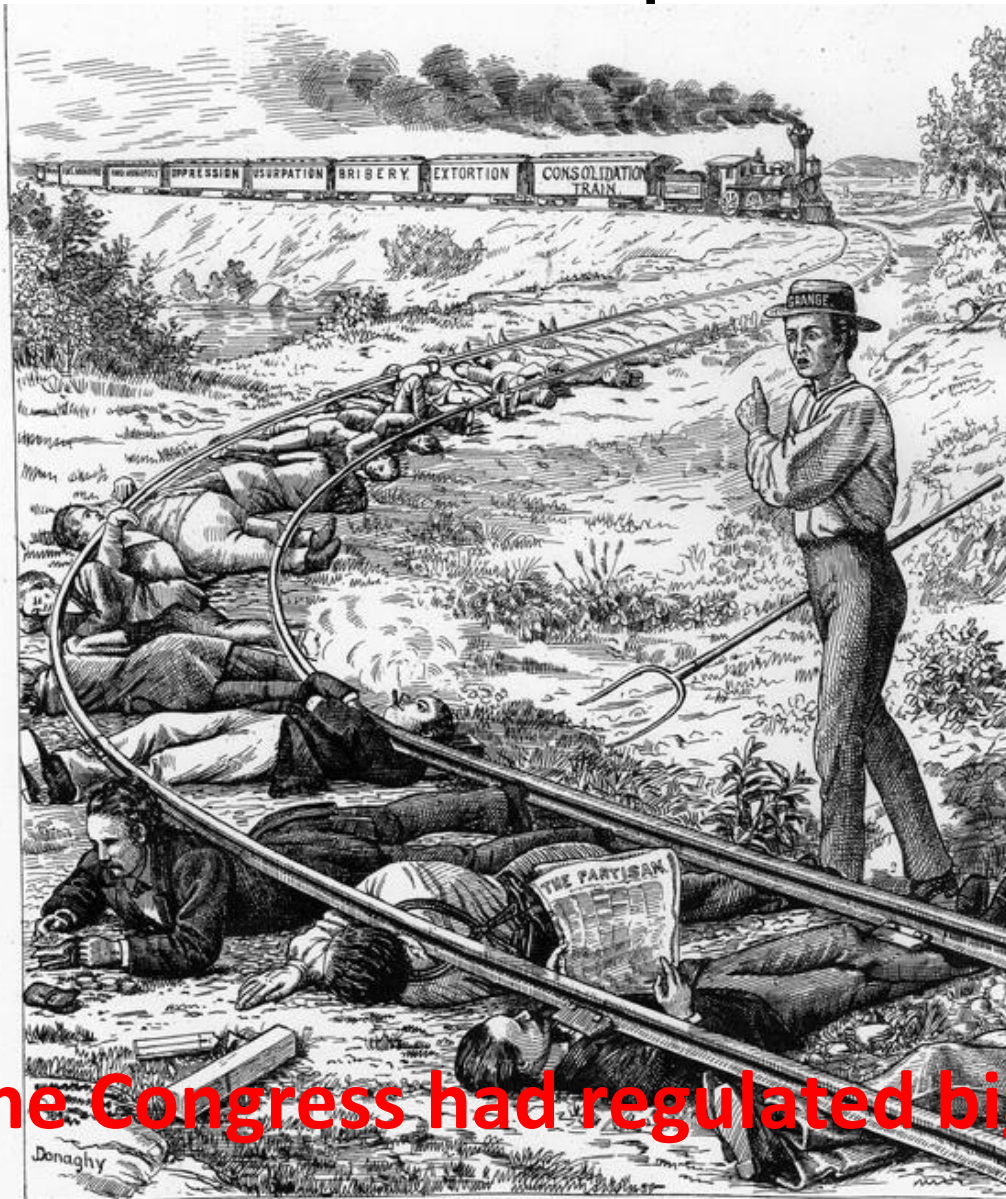
Laws Against Big Business

- At first, the government did little to regulate big business.
- Government and business leaders believed in *laissez-faire* – the theory that government should not interfere in the operations of the free market.
- Government did have some involvement in business, such as patent laws, enforcing contracts, laws protecting property, and tariffs to help American manufacturers.
- Some of the anti-competitive practices of big business soon became so oblivious that reformers started calling for government intervention to remedy the problems.

Laws Against Anti-Competitive Practices

Interstat

- Railroads of more to ship
- States passe Supreme Co unconstituti
- Congress fin Commerce / practices by
- The Intersta was created



First time Congress had regulated big business.

Laws Against Anti-Competitive Practices

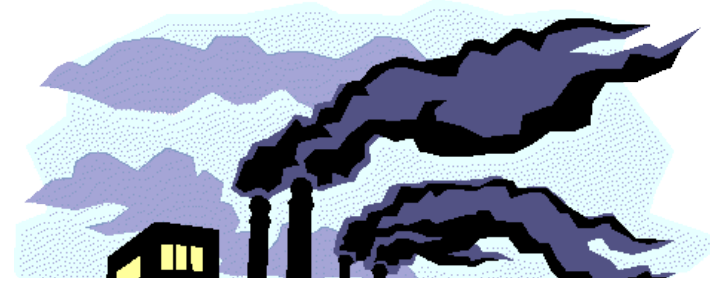
Sherman Ant-Trust Act (1890)

- Federal law aimed at stopping monopolies and trusts from engaging in unfair practices.
- Attempted to prevent unfair competitive advantages.
- Act marked a significant change in the attitude of government about the abuses of big business.
- **Standard Oil** was the 1st monopoly the government attempted to stop.



The Conditions of Labor

- As America continued on its astonishing economic growth there was increasing exploitation



Occupation (Industry)	Average Daily Wages	Average Daily Wages (2006 Dollars)
Foreladies (Clothing, Hosiery and Gloves)	\$2.06	\$49.98
Foreladies (Wood and Paper Boxes)	\$1.36	\$32.99
Canvases (Products of Hogs and Cattle)	\$1.09	\$26.44
Hatmakers (Hats and Millinery Trimmings)	\$0.85	\$20.62
Gilders (Wood Specialists)	\$0.77	\$18.68
Candymakers (Candies and Confectioneries)	\$0.57	\$13.83
Boxmakers (Wood Specialists)	\$0.50	\$12.13
Machine hands (Metal and Metallic Goods)	\$0.40	\$9.70

Source: State of Indiana—Seventh Biennial Report of the Department of Statistics for 1897 and 1898



Factory Working Conditions

- As factory owners grew richer, the conditions for the new working class worsened dramatically.
- Early factories were appalling, unsafe places to work with no safeguards for workers.
- Jobs were repetitive, boring, and monotonous.

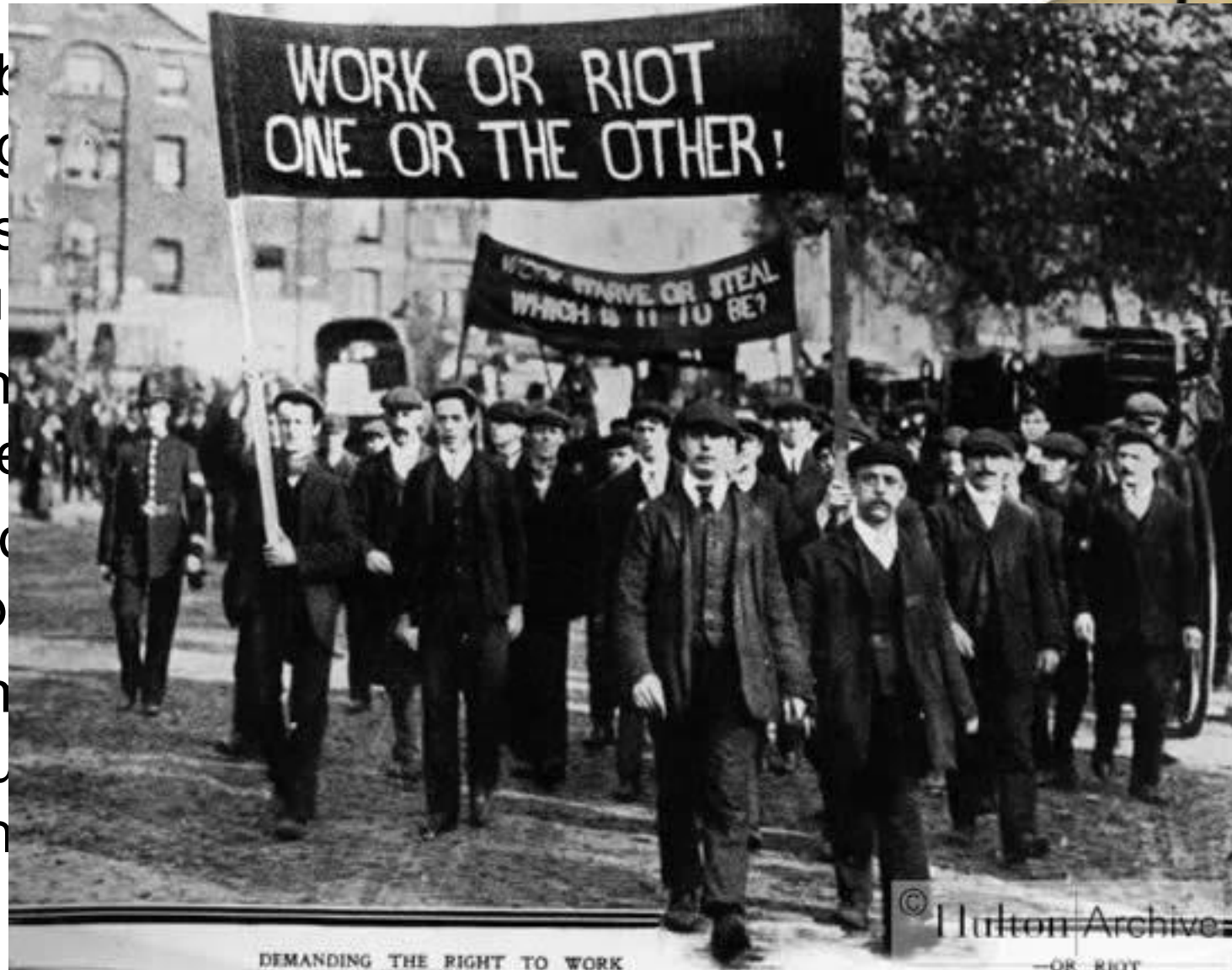




Factory Working Conditions

The Rise of Unions

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DEMANDING THE RIGHT TO WORK

© Hulton Archive

—OR RIOT

HOURS
RECREATION

88

Major Unions

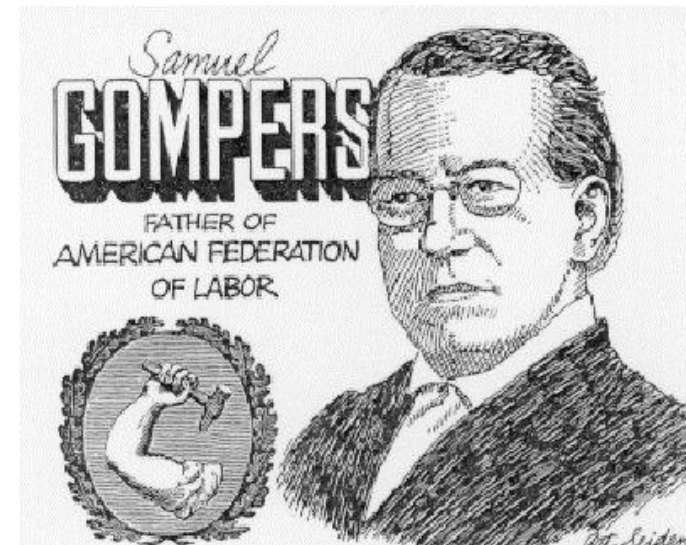
- **Knights of Labor** created a single national union by joining together skilled and unskilled workers.
- They supported equal pay for women and opposed child labor.
- They also opposed immigration, as they saw immigrants as competition for their jobs.
- But, skilled workers resented being in the same union as unskilled labor and the Union soon fell apart.



Solidarity, June 30, 1917. The Hand That Will Rule the World—One Big Union.

Major Unions

- **American Federation of Labor** founded by Samuel Gompers hoped to create a union that united workers with similar economic interests.
- The **AFL** consisted of separate unions made up of skilled labor.
- Gompers wanted a **closed shop**, where workers had to join the union in order to work.
- But the AFL failed because it excluded non-skilled workers.

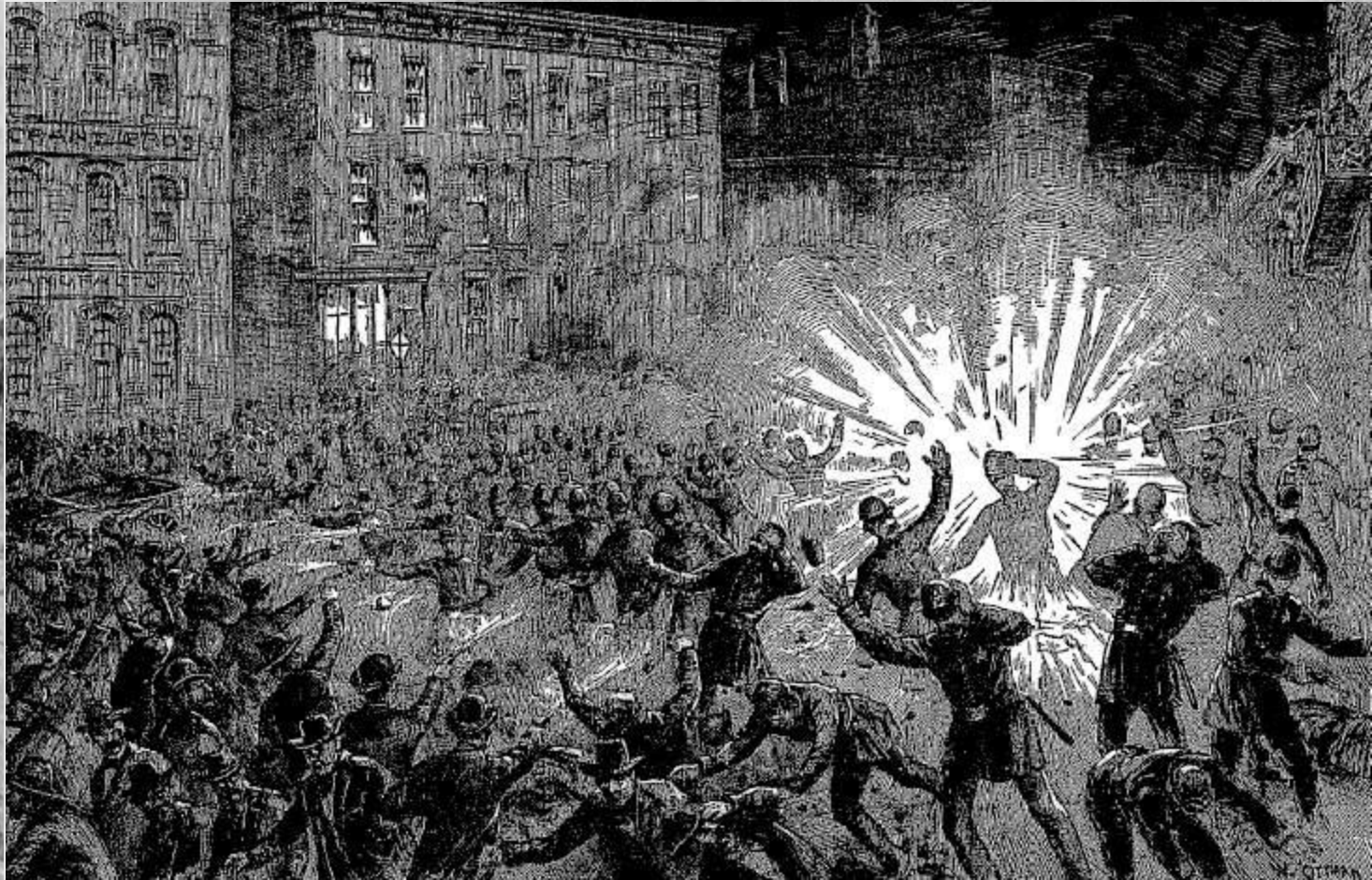


Government Attitude Towards Unions

- Government leaders were critical towards unions, they favored business over labor.
- More than 20,000 strikes occurred between 1880 and 1900, some were violent.
- Government officials feared union strikes would have a negative impact on the USA's economy.



Union Strikes and the Public



Chicago - 1894

THE CHICAGO STRIKES—UNITED STATES INFANTRY IN THE STOCK-YARDS.
"To Hell with the United States Government!"

Free Enterprise System

- Individuals are free to produce and sell whatever they chose to.
- People go into business to make a profit.
- Prices are set by supply and demand.
- Inefficient companies that are unable to compete are driven out of business.
- Government has a limited involvement in :
 - protection of property and contracts,
 - passing protective tariffs,
 - establishing a system of patents.

Growth of America's Industry

- The Transcontinental Railroad and other railways improved travel and trade.
- The USA's population exploded.
- Development of a national market.
- Technological Progress:
 - Bessemer Process in steel production
 - Electricity opened new industries
 - Oil industry boomed
 - Development of corporations to raise money and limit liability

Entrepreneurs

“Robber Barons” or “Captains of Industry”?

- Robber barons used ruthless tactics to destroy competition and keep workers wages low.
- Andrew Carnegie –
 - Dominated steel industry by owning iron ore fields, coal mines, and steel mills.
 - Became a philanthropist, gave away millions.
- John D. Rockefeller –
 - Monopolized oil industry until Sherman Act.

Organized Labor

- Problems of Workers:
 - Long hours, low pay, dangerous conditions.
 - Child labor and unequal pay for women.
 - Lack of job security.
- Rise of Labor Unions:
 - **Knights of Labor** - Terrence Powderly
 - **American Federation of Labor** - Samuel Gompers.
- Government attitude towards unions:
 - Anti-union bias, unions drove up cost of goods.
 - Violence associated with strikes, like Haymarket Riot brought negative attention to unions.