Chapter 17
The Rise of Industrial America
1865-1900
By 1900, the U.S. was the leading industrial power in the world. Several contributing factors helped its rapid growth.

- Treasure house of raw materials
- Abundant labor supply
- Plentiful capital investments
- Labor saving technology (patents)
- Friendly government policies
- Talented entrepreneurs
The Business of Railroads

• The nation’s first big business was railroads
• Encouraged mass production, mass consumption, and economic specialization
• Growth of other industries, especially coal and steel
• The most important innovation of the railroad was the creation of the modern stockholder corporation and the development of complex structures of finance

Western Railroads

• The great age of railroad building coincide with the settlement of the last frontier. Railroads not only promoted settlement on the Great Plains, but they linked the West with the East to create on great national market.

Federal Land Grants

• Federal government provided railroad companies with huge loans and land grants
• In return these companies would sell land to new settlers that would increase the value of government land. And offer discounted rates for carrying the mail and transporting troops
• These grants led to corruption on all levels of government

Transcontinental Railroads

• Connected west and Midwest
Competition and Consolidation

- Railroad companies increased profits by forming pools, in which competing companies agreed secretly and informally to fix rates and share traffic.
- A financial panic in 1893 forced a quarter of all railroads into bankruptcy.
- J.P. Morgan and other bankers quickly moved in to take control of the bankrupt railroads and consolidate them.
- Monopolies and trusts were formed but the system left consumers victims of financial schemes and ruthless practices.
- The Granger laws passed by Midwestern states in the 1870s were overturned by the courts.
- Not until the Progressive era in the early 20th century did Congress expand the powers of Interstate Commerce Commission (ICC) (see chapter 17) to protect public interest.
Industrial Empires

• After the Civil War, a “second Industrial Revolution” resulted in the growth of large scale industry and the production of steel, petroleum, electric power, and industrial machinery to produce other goods

The Steel Industry

• Technological breakthrough that launched the rise of heavy industry was the discovery of a new process for making large quantities of steel
• The Great Lakes region, from PA to IL was the center of steel production

Andrew Carnegie

• Lead the fast growing steel industry.
• Used vertical integration, by which a company would control every stage of the industrial process (from mining to transporting the finished product)

U.S. Steel Corporation

• Carnegie sold the $400 million company to J.P. Morgan. The new corporation, United States Steel, the first billion dollar company and also the largest enterprise in the world, employing more than 168,000 people
Rockefeller and the Oil Industry

- In 1863 John D. Rockefeller founded a company that would become the nation’s leading oil refinery - Standard Oil
  - worth over $900 million by his retirement

Antitrust Movement

- Sherman Antitrust Act in 1890 - prohibited any contract in the form of trust or conspiracy as it relates to trade or commerce
- However, the wording of this law was too vague to enforce
  - United States v. E.C. Knight Co. (1895)
Laissez-Faire Capitalism

**Social Darwinism**
- Capitalists believed this concept should be applied to the marketplace
- Also used to promote white supremacy

**Gospel of Wealth**
- Millionaires like Andrew Carnegie argued that God gave them wealth in order to carry out *philanthropic* goals
  - He contributed $350 million of his fortune to support the building of libraries, universities, and various public institutions
Technology and Innovations

Inventions

- Samuel B. Morse - telegraph (1844)
- Transatlantic cable (1866)
- Typewriter (1867)
- Alexander Graham Bell - telephone (1876)
- Cash register (1879)
- Calculator (1887)
- Adding machine (1888)
- Kodak camera (1888)
- Fountain pen (1884)
- Safety razor and blade (1895)
Edison and Westinghouse

- **Thomas Edison** established the world’s first modern research laboratory in 1876
  - Working on teams rather than alone
  - Phonograph, incandescent lamp, mimeograph machine, motion picture camera
- **George Westinghouse** developed the air brake for railroads in 1869 and a transformer for producing high voltage alternating current in 1885
  - Lighting of cities and the operation of electric streetcars, subways, and electrically powered machinery and appliances

Marketing Consumer Goods

- Macy’s in NY- department store
- Woolworth’s Five and Ten Cent Store- nationwide chain stores
- Sears, Roebuck, and Montgomery Ward- catalog stores
- Kellogg and Post- packaged foods
- Gustavus Swift- canned foods
The Impact of Industrialization

• Industrialization raised the standard of living but also created sharper economic and class divisions

The Concentration of Wealth

• In the 1890s the richest 10% controlled 90% of the nation's wealth

Horatio Alger Myth

• Horatio Alger novels portrayed a young man of modest means who became wealthy through honesty, hard work, and a little luck

• Statistical studies demonstrate that the typical wealthy businessperson of the day was a white, Anglo-Saxon, Protestant male who came from an upper or middle class background and whose father was in business or banking.
The Expanding Middle Class

• More middle management positions became available such as: accountants, clerical workers, and salespersons
• The increase in the number of good-paying occupations after the Civil War significantly increased the size of the middle class

Wage Earners

• By 1900 two-thirds of all working Americans worked for wages
• Ten hours a day, six days a week
• Working class families depended on the income of women and children

Working Women

• One adult woman out of every five in 1900 was in the labor force working
• Most were young and single
• Only 5% of married women worked outside of the home

Labor Discontent

• Many workers were exposed to chemicals and pollutants that only later were discovered to cause chronic illness and early death
• About 20% of those who worked in factories eventually dropped out of the industrial workplace. This was a much higher percentage than people who joined the labor unions.
The Struggle of Organized Labor

• The late 19th century witnessed the most deadly and frequent warfare between capital and labor

Industrial Warfare

• Strikers could easily be replaced. Employers used the following tactics to defeat unions
  • The lockout
  • Blacklist
  • Yellow dog contracts
  • Private guards and state militia
  • Court injunctions

• Before 1900, management won most of its battles with organized labor because if violence developed, employers could always count on support from federal and state government

• Labor was divided on what tactics to take, political action or direct confrontation (strikes, boycotts, picketing, and collective bargaining)
Great Railroad Strike of 1877

• During an economic recession, railroad companies cut wages to reduce costs
• A strike in Baltimore and Ohio Railroad spread across 11 states shutting down two thirds of the country’s rail trackage
• The strike reached 500,000 workers nationwide. Strikers burned down facilities and destroyed railroad equipment across the country
• Labor violence ensued and the federal troops were needed to stop the violence, leaving 100 people killed
• After the strike ended, some employers improved wages and others took more action against workers’ organizations

Attempts to Organize National Unions

• Before the 1860s unions were localized and craft specific

National Labor Union

• Founded in 1866, it organized 640,000 nation wide from diverse skills and jobs
• Their chief victory was getting the 8 hour work day for federal employees
Knights of Labor
• Began in 1869 as a secret society to avoid detection by employers
• Included open membership to all, including African American and women
• Goals were 1. worker cooperatives to make each man his own employer 2. abolition of child labor 3. abolition of trusts and monopolies
• Preferred arbitration instead of strikes

Haymarket Bombing
• 1886 in Chicago workers of Knights of Labor held a public meeting. As police attempted to break it up, someone threw a bomb at the police, killing seven officers
• Seven were sentenced to death and the union movement and the Knights lost popularity and membership

American Federation of Labor
• The AFL lead by Samuel Gompers, focused on higher wages and improved working conditions
• By 1901 it was the nation’s largest union, with 1 million members
Strikebreaking in the 1890s

Homestead Strike

- In 1892 Henry Clay Frick, manager of Andrew Carnegie’s Homestead Steel plant in Pittsburgh cut wages by 20%
- When workers went on strike he used lockouts, private guards, and strikebreakers to end it after five months
- Failure of the strike would set back the steel union movement until the New Deal in the 1930s

Pullman Strike

- George Pullman’s company of famous railroad cars cut wages in 1894
- Eugene V. Debs, union leader directed railroad workers not to handle any trains with Pullman cars
- The union boycott tied up railroad transportation across the country including the delivery of federal mail
- Debs and union leaders were arrested and jailed for their participation
- The Supreme Court approved the use of court injunctions against strikes, which gave employers a very powerful tool to break unions
- Debs turned to socialism and the American Socialist Party, which he helped to found in 1900
- By 1900 only 3% of American workers belonged to unions