Industry Comes of Age

Chapter 24
Chapter 24 theme:
America’s “Second Industrial Revolution” in the Gilded Age (1865-1900) was spurred initially by the transcontinental rail network, and saw large businesses consolidate into giant corporate trusts, as epitomized by the oil and steel industries.
* Key to Remembering the 1st Industrial Revolution:

T extiles

R ailroads

I ron

C oal
* Key to Remembering the 2nd Industrial Revolution (after the Civil War):

**R**ailroads (transcontinental)

**O**il

**S**teel

**E**lectricity
Development of Railroads

- 1860 – Lincoln promise transcontinental railroad
  - Needed government subsidies of money and land to encourage the building of railroads
- 1862 – Pacific Railroad Act
  - Passed to bind California to the Union
  - give right to build railroad to two companies
    - Union Pacific (Omaha to west)
    - Central Pacific (Sacramento to east) led by Big Four (Leland Stanford, Collis Huntington, Mark Hopkins, Charles Crocker)
  - railroad companies given loans and land from Congress
    - Much money was illegally stolen from government through billing for work never done and overcharging; Credit Mobilier was part of this scandal
  - Union and Central race to see who could lay most track
- Railroads increased amount of gold through business loans and sale of land
- Frontier towns lived or died based on access to railroads
Building the Railroads

- **Laborers**
  - African Americans, Native Americans, Immigrants
  - Union Pacific use Irish, Central Pacific use Chinese

- **Chinese**
  - Were not welcomed at first
  - Worked hard; Got sick less because drank tea instead of unboiled water
  - 10,000 Chinese brought to do work

- Construction especially difficult through Sierra Nevada’s

- Joining of the Rails
  - May 10, 1869, Promontory Utah – two rail lines connected with golden spike
  - Facilitated east-west trade and trade with Asia
Railroad Standardizations

- Northern Pacific; Atchison, Topeka and Santa Fe; and Southern Pacific railroads were completed by 1893 – 5 transcontinental railroads
- Eastern railroads were combined with transcontinental railroads to improve transportation
  - Led by Cornelius Vanderbilt of New York Central Railroad

- Time zones were created to enable consistent railroad schedules
- Gauges (distance between tracks)
  - Standard gauge created to allow trains to move from one company’s track to another’s
- Steel tracks were more durable and cheap
- Westinghouse air brake and Pullman sleeping cars improved quality of rail travel
Impact of the Railroads

- **End Indian control of West**
  - White settlers, hunters, miners overrun Indian lands

- **Economies of East and West were tied together**
  - Raw materials and processed goods were sent East
  - Manufactured goods were sent West
  - Help grow American Industry

- **Help people settle and farm the West**
  - Farmers grew more products
  - Railroads control farmers with pricing of shipping
  - Eastern buyers control farmers by what they bought

- **Change thoughts of environment**
  - Trains could move in any weather

- **Towns used to depend on access to water**
  - Denver, Colorado – Cheyenne, Wyoming grew around Railroad stations

- **Immigration encouraged because of availability of land**
Robber Barons and Captains of Industry

- Wealthy entrepreneurs who gained control over entire industries
  - J.P. Morgan
  - Andrew Carnegie
  - John Rockefeller
  - Cornelius Vanderbilt
- Used ruthless tactics to expand wealth and take control
- Used their wealth to build hospitals, schools and other philanthropic assets
Wrongdoing in Railroading

- Jay Gould manipulated stock prices to gain wealth
  - Forced railroads to charge enormous rates to create the profits
- Railroad tycoons took advantage of public so money could be made
- Limits on competition
  - Pools
    - Groups of companies agree not to compete
    - Set the same prices
  - Trust
    - Groups of companies put under the leadership of one set of trustees
    - Sherman Anti-Trust Act (1890)
      - Passed to try to limit power of trusts
  - Holding Companies
    - Took control of stocks of companies
Limits on Railroad industry

- Government slow to respond to correct economic injustices
- Grange founded by Oliver Kelley in 1867
  - Originally was a social organization
  - Changes to a political organization
  - Farmers gathered and talked about their problems
  - led to calls for change

- *Munn v. Illinois* (1877)
  - Supreme Court says government can control private business if public interest in involved
  - Allows for future government regulation of business

- *Wabash v. Illinois* (1886)
  - Individual states could not regulate INTERstate commerce

- Interstate Commerce Act (1887)
  - Created Interstate Commerce Commission (ICC) federal agency to regulate interstate trade
  - was more effective at settling disputes between corporations instead of protecting consumers
  - First attempt of federal government to regulate trade
Trust Titan Emerges

• **Entrepreneur**
  – Someone who sets up a new business to make a profit

• **Until 1880 individuals owned businesses**
  – What happen if go broke or die?
  – Make banks afraid to loan money

• **Vertical Integration**
  – Combine all phases of manufacturing into one company

• **Horizontal Integration**
  – Alllying with competitors to establish monopoly over industry

• **Trust**
  – Smaller companies were brought under control of a giant company so that an industry could be dominated
  – Standard Oil (Rockefeller); US Steel (Carnegie)
Steel: Backbone of Industry

- Steel is combination of Iron and other metals
- Coal needed to make steel
  - spur on coal mining industry
- US one of few places that had all resources needed for steel
- Bessemer Process
  - Allowed production of steel at low cost
  - Result in steel output increase by 10 times 1877-1892
- Railroads use steel – spurred demand for its production
- Andrew Carnegie took control of steel industry
  - Made ¼ of all nation’s steel
- JP Morgan was most important banker and financier
  - Purchased Carnegies steel companies and created US Steel
John D. Rockefeller

• 1859 – first oil well was drilled in Pennsylvania
  – Oil was purified into kerosene
  – Shifted focus west away from New England whaling industry
  – Kerosene lamps were replaced by electric light bulbs
  – Development of gasoline powered automobile saved the oil industry

• Bought oil refinery in 1863 (place to purify oil)

• Created Standard Oil Trust
  – Trust
    • many businesses in one industry controlled by one company
    • Created population of “new rich” elite that dominated American economy and society

• Purchased oil lines, barrel manufacturers, railroads
• Eliminated competition and middle men
• Could charge any price he wanted
  – Got control of 95% of all oil in country
  – Demanded rebates from railroads, used corporate spies
Social Darwinism

- **Gospel of Wealth**
  - Carnegie believed that wealth created an obligation to society
  - Led to philanthropy; support of hospitals, museums, schools etc.

- **Social Darwinism**
  - Developed by Herbert Spencer and William Graham Sumner
  - Applied Darwin’s theory to businesses and poor. Heavily influenced by David Ricardo and Thomas Malthus
  - Justified harsh tactics in business and not helping poor; also encouraged contempt for poor
  - Laissez – faire – government took no role in business

- Corporations only concerned about making money, not conditions
Government tackles the Trust Evil

- Sherman Anti-Trust Act (1890)
  - Forbade combinations of businesses that would restrain trade
  - Did not distinguish between “good” and “bad” trusts
  - Was ineffective against business but was used against labor unions
  - Did establish precedent that private business could be limited in favor of public good
South in Age of Industry

- Most southerners worked as sharecroppers and had absentee landlords
- Very limited industries develop in steel, cloth, tobacco
  - Development of cigarette industry by James Buchanan Duke and American Tobacco Company
- Railroads repaired but railroad companies charged higher rates for goods shipped north than those going south
- Steel trusts forced railroads to charge higher prices for steel in Birmingham instead of Pittsburg
- Although more money in south, still earned ½ of northerners
  - Attractiveness of south was cheap labor, so industrialists intentionally kept wages low
- New South based on industrialization and modernization was supported by Henry Grady and others
Impact of Industrial Revolution

• 1900 2/3 of population were wage earner
  – Ended Jeffersonian ideal of small agriculturalists
  – Ended Hamiltonian ideal of manufacturing without government interference

• Machines reduce need for skilled labor

• People treated as interchangeable parts
  – Workers had little contact with management
    • Make it difficult for both sides to understand each other
  – Children as young as 6 would work in mines and factories
    • Owners could pay them less than adults
    • Hands were small, so they could fit into machines
    • Were faster than adults
    • Frequently used orphans
  – Changed traditional relationships between family, communities and time

• Sweatshops - places where people work long hours, unsafe conditions for little pay
Wage Slavery and Women

1. 1860 50% of all workers were self-employed, by 1900 67% depended on a wage
   - When wages are high, prosperity benefits workers
   - Wages make workers vulnerable to employers and the market
   - Family could be destroyed if wage earner couldn’t work

2. Women had opportunity to earn wealth outside of home
   - Different expectations for marriage, fitness and interaction in society

3. Increased division between social classes – wealthiest 10% controlled 90% of wealth

4. Factory system and corporations encouraged employers to treat workers as interchangeable parts
   - Workers had no power or influence over business owners
Need for Labor Unions

- Management would hire scabs to replace workers who went on strike
- Lock outs used to force workers to give up demands
- “Yellow dog contracts” and “Iron clad Oaths” were demanded which workers were not able to join a union
- Union organizers were “black listed” and ran out of town and denied future employment
- Company towns kept workers in perpetual debt
- Strikes were seen as foreign and socialistic – middle class did not support working class attempts to improve rights

- National Labor Union (1866)
  - Skilled and unskilled and farmers; excluded Chinese
  - had 600,000 members
  - Fought for 8 hour work day
  - Weakened in depression of 1870s
  - 1877 railroad strikes required federal troops to stop them

- Colored National Labor Union
  - Created for black workers
  - Racism prevented coordinated efforts
Knights of Labor

- 1879 – founded by Terence Powderly
- Represented needs of all skilled (artisans) and unskilled (factory workers, laborers) workers
  - By 1886 they had 1 million members

Demands of Knights of Labor
- Reform all of society
- 8 hour work day
- Restrict child labor
- Equal pay for women and African Americans
- Safety inspections
- Method to settle labor disputes

Were anti immigrant
- Immigrants would take jobs away from unskilled workforce.
- Immigrants work for less money
- Supported Chinese Exclusion Act

Haymarket Square Riots
- May 4 1886 – following series of strikes riot breaks out where a bomb is thrown and several people died
- Discredited Knights of Labor
  - Were associated with anarchy and violence
American Federation of Labor

- American Federation of Labor (1886)
  - Created by Samuel Gompers
  - Only open to skilled workers
  - Was federation of unions, individuals couldn’t join
  - Opposed socialism and avoided politics
  - Would have stronger bargaining position because harder to replace
    - Fought for “closed shop” – must be union to work
  - This separated AFL from rest of workforce
  - ban non whites from joining
  - ignored women’s issues
  - unions grow slowly but surely