

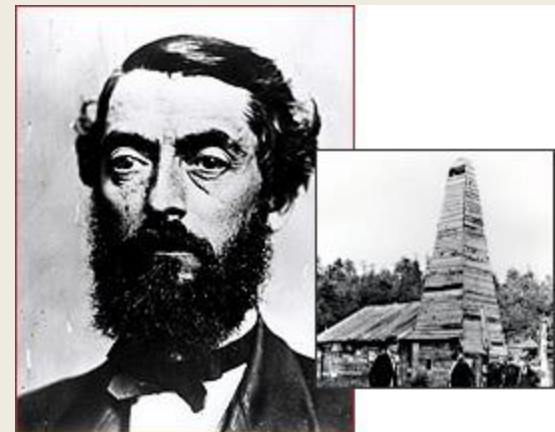
Unit # 1: Industrialization

Reasons for Industrial Growth

1. Natural Resources
2. Many new inventions
3. Growth of urban population

Oil-

- Kerosene used in light lamps
- Edwin Drake-1st to drill for oil
- Oil refining industry
- Cars demanded gasoline



Reasons for Industrial Growth

Coal

- o Production increased from 33 million tons in 1870 to 250 million tons in 1900

Iron

- o Strong, but heavy & tends to break and rust

Steel

- o to carbon out of iron which made it lighter, more flexible, and doesn't rust
- o Bessemer Steel Process- inject air into molten iron to remove carbon & other impurities
- o Railroads, farm tools, cans (food), bridges, skyscrapers

Inventions Promote Change

- Thomas Alva Edison-
 - 1st research laboratory, Menlo Park, NJ
 - Light bulb, later power plants
- George Westinghouse- Electricity safer & cheaper
- Christopher Sholes- Typewriter, change in workplace
- Alexander Graham Bell & Thomas Watson-Telephone, change in communication



Inventions Promote Change

Women's lives changed-

- o Work in offices, 40% of office workforce
- o More clothing made in factories

Factories-

- o Employees worked long hours in unhealthy conditions
- o Machines allowed employees to work faster
- o Led to shorter work week & more leisure time
- o New hobbies- phonographs, bicycles, cameras



Railroads initiate change

- May 1869, Transcontinental RR complete
- Building RRs was difficult & dangerous
 - Many were Chinese, Irish & Civil War veterans
- Long distance travel was a possibility
 - Each community had own time settings (based on sun)
 - RRs suggested time zones
 - 1870- officials split the world in to 24 time zones, US had 4 zones (Eastern, Central, Mountain, Pacific)
- Increased trade throughout US



New Opportunities

- George Pullman- opened factory to make sleeper cars for trains
 - Built town to house workers & created quality housing for workers
 - Workers rebelled
- Corruption:
 - Credit Mobilier Scandal- 1868- Union Pacific RR formed a construction company
 - Kept all profits, paid off gov't officials

Grange & Railroad

- Farmers claimed RR sold gov't lands to businesses rather than families.
- Also accused RR for setting high shipping prices
- Munn vs. Illinois
 - Grange convinced some states to pass laws to regulate RR.
 - RRs challenged states' rights to regulate RR
 - 1877- Supreme Court ruled that gov't can regulate private industries to protect public interest
- Interstate Commerce Act- gave Gov't more power over RR
- Panic of 1893- RRs failed and by 1900, seven companies owned most of the RRs.

Andrew Carnegie

- Controlled STEEL industry
 - Vertical integration- bought companies that supplied his raw materials (iron, coal, railroads)
 - Horizontal integration- buy out or merge with other steel companies
- Social Darwinism- “natural selection”, supported ideas of competition, hard work, & responsibility
- Monopoly- buying out competitors or driving them out of business



Entrepreneurs control competition

- Holding Company- corp. that only buys out stock of another company.
- J.P. Morgan- United States Steel bought our Carnegie Steel
- John D. Rockefeller- Standard Oil Trust
 - By 1880, owned 90% of refining business
 - Ruthless practices, earned high profits, & the nickname “robber baron”
- 1890- Sherman Antitrust Act- made it illegal to for a trust
- South’s economy still struggled after Reconstruction (Northern wages higher than South)



HISTORY REPEATS ITSELF.—THE ROBBER BARONS OF THE MIDDLE AGES, AND THE ROBBER BARONS OF TO-DAY.

Labor Unions:

- Workers worked long hours under poor conditions for low wages
- Women & Children made up large % of employed
- Sweatshops- extremely poor conditions
 - Child- 14 hour day, 27 cents
 - Women- Yearly average \$267
 - Men- Yearly average \$498
- National Labor Union (NLU)- persuaded Congress to legalize 8 hour work day in 1868
- Colored National Labor Union (CNLU)- African American workers formed own union
- Knights of Labor- used arbitration to compromise, strikes were a last resort

Labor Unions:

- American Federation of Labor (AFL)- formed by Samuel Gompers
 - Used strikes & collective bargaining to get higher wages & shorter work weeks
- Eugene V. Debs-
 - Industrial Unionism- a union of all workers, both skilled & unskilled
 - American Railway Union (ARU)
 - Socialism and changed to Industrial Workers of the World (IWW) or Wobblies

Labor Unions:

- Great Strike of 1877-
 - Railway workers strike ended when Pres. Rutherford B. Hayes brought troops
 - Mary Harris Jones supported and received death threats, later worked to expose cruelties of child labor
- 1886- Haymarket Affair- bomb exploded in the middle of striking workers
- 1892- Homestead Strike- Carnegie's Steel Company
 - Workers went on strike after Frick lowered wages
 - Frick hired armed guards from Pinkerton Detective Agency to protect scabs
 - Battle between strikers & guards left 3 detectives & 9 workers dead.
 - National Guard in for protection

Labor Unions:

- Triangle Shirtwaist Factory: March 25, 1911
 - Fire broke out in clothing factory on the 8th, 9th & 10th floor
 - all but one door was locked to prevent theft & the building had no sprinkler system
 - 146 women died
 - Public outraged when factory owner acquitted of manslaughter
- Factories pressured Gov't to change laws-workers were fired if they joined unions, forced new employees to sign "yellow-dog contracts"