

Ch 6 A New Industrial Age

Section 1 The Expansion of Industry

Industrial Boom – by 1920 the U.S. had become the world's leading industrial power:

1. Wealth of Natural Resources
2. Explosion of Inventions
3. Growing urban population that provided markets for new products

Black Gold – in 1859 Edwin L. Drake successfully used a steam engine to drill for oil, making the removal of oil from the surface practical and starting an oil boom

Bessemer Process – developed by British manufacturer Henry Bessemer around 1850, involved injecting air into molten iron to remove the carbon and transform it into steel

New Uses for Steel

1. Railroads
2. Barbed wire and farm equipment
3. Bridge construction
4. Birth of Skyscrapers

Inventions Promote Change

1. Thomas Edison – 1879, invented the light bulb along with an entire system for producing and distributing electrical power
2. Christopher Sholes – 1867, invented the typewriter
3. Alexander Graham Bell – 1876, invented the telephone

New Products and Lifestyles

1. Allowed cities to expand
2. Changed office work and provided job opportunities for women
3. Changed how factory work was done and also work at home

Section 2 The Age of the Railroads

Railroads Span Time and Space – government gifts of land grants and loans to Railroad companies helped settle the west

1. Transcontinental Railroad – completed by a golden spike in Promontory, UT on May 10, 1869, connected Omaha to Sacramento
2. RRs brought the dreams of unsettled land, adventure, and a fresh start within the grasp of many Americans
3. Railroad Workers – many Chinese and Irish immigrants had to lay track across treacherous

terrain, many dying from accidents or disease, for very little money

4. Railroad Time – each community still operated on its own time, with noon when the sun was overhead
 - a. Professor C.F. Dowd in 1870 proposed today's modern day 24 time zones, linking the U.S. and the world by time

Opportunities and Opportunists

1. New Towns and Markets – towns sprung up along railroad lines and cities specialized in certain products in which they supplied the entire country with
2. George M. Pullman – built a factory for manufacturing sleepers and other railroad cars on the prairie miles from the center of Chicago
 - a. Also organized a company town for his employees to live in
3. Credit Mobilier – a construction company formed in 1868 by owners of the Union Pacific Railroad, who used it to fraudulently skim off railroad profits for themselves
 - a. A congressional investigation eventually uncovered what was going on
 - b. Many important political figures in the Grant Administration and the Republican party were involved: Vice-President Schuyler Colfax,

House Speaker James Blaine, and Congressman James Garfield

Railroad Abuses

1. Misuse of land grants
2. Fixed prices to keep farmers in debt
3. Charged different customers different rates
4. Charged more for short hauls in which there was no alternate carrier than they did for long hauls

Granger Laws – state laws passed due to political pressure by the Grangers to protect farmers from the railroads

1. Munn vs. Illinois – 1877, Supreme Court upheld the Granger laws, giving the states the right to regulate the railroads for the benefit of farmers and consumers
 - a. Established the important principle that the federal government has the right to regulate private industry to serve the public interest

Interstate Commerce Act – 1887, reestablished the right of the federal government to supervise railroad activities and established a five-member Interstate Commerce Commission for that purpose

1. Couldn't do its job because of a long legal process
2. Supreme Court ruled in 1897 that it couldn't set maximum railroad rates

Panic of 1893

1. Corporate abuses, mismanagement, overbuilding, and competition pushed many RRs to bankruptcy, which set off an economic collapse
2. Worst depression up to this time
3. Banks and large firms took control of the RRs, leaving 7 powerful companies in control of 2/3 of the nation's RRs

Section 3 Big Business Emerges

Andrew Carnegie – a Scottish immigrant who became one of the first industrial tycoons (RRs and Steel) to make his own fortune, he became a model for the American success story

1. Management Techniques
 - a. Continually searched for ways to make better products more cheaply
 - b. Attracted talented people to his operations by offering them stock and encouraging competition
2. Business Strategies
 - a. Vertical Integration – company's taking over its suppliers and distributors to gain total control over the quality and cost of its product
 - b. Horizontal Consolidation – companies producing similar products merge
3. His company produced 80% of the nation's steel when he sold his business in 1901

Social Darwinism – evolved from Charles Darwin’s theory of biological evolution by natural selection, an economic and social philosophy stating that an unrestrained competition will ensure the survival of the fittest

Fewer Control More

1. Oligopoly – a market in which only a few sellers provided a particular product
2. Monopoly – when complete control over an industry’s production, quality, wages paid, and prices charged has been achieved
 - a. Holding Company – a corporation that did nothing but buy out the stock of other companies
 - i. J.P. Morgan’s United States Steel
 - b. Trust – a method of consolidating competing companies, in which participants turn their stock over to a board of trustees, who run the companies as one large corporation
 - i. John D. Rockefeller’s Standard Oil Company
3. Rockefeller and the Robber Barons
 - a. Robber Barons – term used by the critics of the ruthlessness tactics of Rockefeller, Carnegie, and Morgan
 - b. These men defended their wealth by pointing to the charities they sponsored

- i. Rockefeller – gave away \$500 million establishing the Rockefeller Foundation, founded the University of Chicago, and created a medical institute
 - ii. Carnegie – gave away \$325 million (90% of his accumulated wealth) establishing Carnegie Hall, the Carnegie Foundation, and 3,000 libraries across the nation
4. Sherman Antitrust Act – any attempt to interfere with free trade between states or internationally by forming a trust was illegal
 - a. Supreme Court refused to support government cases and enforcement was difficult because terms such as trust weren't clearly defined

Business Boom Bypasses the South – still trying to recover from the Civil War

1. Economic Causes
 - a. Southerners were unwilling to invest
 - b. Northern business controlled 90% of Southern RRs
 - c. Economy remained agricultural
2. Social Causes
 - a. Southern businesses had to compete with well entrenched businesses in the North, not only for capital and markets, but for skilled labors too

Section 4 Workers of the Nation Unite

Workers Are Exploited

1. 12 hour days, 6 days a week was the typical work week
2. No vacation, sick leave, unemployment compensation, or reimbursement for on the job injuries
3. Factories were dirty, poorly ventilated, and poorly lit
4. Workers had to perform repetitive, mind dulling tasks hour after hour, often with dangerous or faulty equipment

Women and Children – wages were so low that most families couldn't survive unless everyone worked

1. Children worked from dawn till dusk
2. Children suffering from hunger and exhaustion were prone to accidents
3. Women and Children's work paid the lowest wages

Labor Unions Emerge

1. National Labor Union – the first large-scale national organization of laborers was formed in 1866 by William H. Sylvis
 - a. Concentrated on linking existing local unions
 - b. In 1868, the NLU persuaded Congress to legalize an eight-hour workday for government workers

- c. Gained enough popularity to form its own political party, the Labor Reform Party, and run its own candidate in the 1872 presidential election
- 2. Knights of Labor – organized in 1868 by Uriah Stephens, focused on the individual worker
 - a. Supported an 8 hour work day and “equal pay for equal work” by men and women
 - b. Advocated arbitration instead of strikes

Craft Unionism – included all skilled workers from many different industries

- 1. American Federation of Labor (AFL) – formed by Samuel Gompers in 1886
 - a. Collective Bargaining – group negotiations designed to reach written agreements between workers and employers
 - b. Strikes were a major tactic and were effective in increasing wages and gaining shorter workweeks

Industrial Unionism – based on the notion that unions should include all workers, skilled or unskilled

- 1. American Railway Union – established by Eugene V. Debs, included all types of workers
 - a. Won higher wages

Socialism – an economic and political system based on government control of business and property and equal distribution of wealth

1. Appealed to the downtrodden worker
2. Threatened the wealthy
3. Would result in the overthrow of the capitalist system
4. Industrial Workers of the World (IWW) – a labor organization for unskilled workers, formed by a group of radical unionists and socialists in 1905

Strikes Turn Violent

1. The Great Strike of 1877 – workers for the Baltimore and Ohio Railroad (B&O) went on strike to protest their second wage cut in several months
 - a. Strike spread quickly to other railroads, stopping passenger and freight traffic for more than a week
 - b. Riots erupted in major cities
 - c. President Hayes at the urging of B&O president John Garret, sent troops to clear the way
2. Haymarket Affair – on May 4, 1886 1,200 people gathered at Chicago's Haymarket Square to protest the killing of a striker by police at the McCormick Harvester plant the day before
 - a. As police arrived, a bomb was thrown into the police line

- b. 7 police officers were killed along with several workers
 - c. As a result of the violence, the public began to turn against the labor movement
3. Homestead Strike – workers at the Carnegie Steel Company’s Homestead plant in Penn. called a strike on July 6, 1892 after the company announced a plan to cut wages
- a. Scabs – a person who works while others are on strike
 - b. Workers fought through security guards and kept the plant closed until the National Guard arrived
 - c. Strike continued until November but the union had lost much of its support
4. Pullman Strike – during the Panic of 1893, the Pullman laid off 3,000 workers and cut wages by 40% but didn’t cut the cost of employee housing
- a. After the depression, Pullman rehired most of its workers but didn’t increase wages or lower housing costs
 - b. In the Spring of 1894 workers went on strike and ARU president Eugene Debs began boycotting Pullman trains
 - c. Strike remained peaceful until Pullman hired strikebreakers
 - d. President Cleveland had to send in federal troops to end the strike

- e. Debs was jailed, most workers were fired and then blacklisted

Women in the Labor Movement

1. Mary Harris “Mother” Jones – most prominent organizer in the women’s labor movement
 - a. Supported the Great Strike of 1877
 - b. Joined the United Mine Workers of America (UMW)
 - c. Helped influence the passage of child labor laws
2. Pauline Newman – in 1909, at the age of 16 organized the International Ladies’ Garment Workers’ Union (ILGWU)

Action Taken Against Strikers

1. Managements refused to negotiate with unions
2. Employers forbade union meetings and fired union members
3. Yellow Dog Contracts – new employees were forced to sign these, swearing that they would not join a union or take part in a strike
4. State or Federal governments would issue court orders prohibiting labor action if it hurt interstate trade
5. By 1910 only 8.3% of industrial workers and 5% of the general working population belonged to unions