

The Americans

Chapter 14: A New Industrial Age, 1877–1900

A New Industrial Age, 1877–1900

Chapter Opener: A New Industrial Age, 1877–1900

Natural resources and new ideas create a boom for industry and railroads. Government addresses corruption in business, and laborers organize for better working conditions.

Section 0: The Expansion of Industry

Section Opener: The Expansion of Industry

At the end of the 19th century, natural resources, creative ideas, and growing markets fuel an industrial boom.

Slide 3: Natural Resources Fuel Industrialization [continued]

The Growth of Industry

- * By 1920s, U.S. is world's leading industrial power, due to:
 - wealth of natural resources
 - government support for business
 - growing urban population
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Black Gold

- * Pre-European arrival, Native Americans make fuel, medicine from oil
 - * 1859, Edwin L. Drake successfully uses steam engine to drill for oil
 - * Petroleum-refining industry first makes kerosene, then gasoline
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Slide 4: Natural Resources Fuel Industrialization

Bessemer Steel Process

- * Abundant deposits of coal, iron spur industry
- * Bessemer process puts air into iron to remove carbon to make steel
- * Later open-hearth process makes steel from scrap or raw materials

New Uses for Steel

- * Steel used in railroads, barbed wire, farm machines
 - * Changes construction: Brooklyn Bridge; steel-framed skyscrapers
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Slide 5: Inventions Promote Change [continued]

An Age of Inventions

- * Numerous new inventions change the landscape, life, work
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Slide 6: Inventions Promote Change [continued]

The Power of Electricity

- * 1876, Thomas Alva Edison establishes first research laboratory
 - 1880, patents incandescent light bulb
 - creates system for electrical production, distribution
 - * Electricity changes business; by 1890, runs numerous machines
 - * Becomes available in homes; encourages invention of appliances
 - * Allows manufacturers to locate plants anywhere; industry grows
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Slide 7: Inventions Promote Change [continued]

Inventions Change Lifestyles

- * Christopher Sholes invents typewriter in 1867
 - * 1876, Alexander Graham Bell, Thomas Watson introduce telephone
 - * Office work changes; by 1910, women are 40% of clerical workers
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Slide 8: Inventions Promote Change

Inventions Change Lifestyles

- * Inventions impact factory work, lead to industrialization
 - clothing factories hire many women
- * Industrialization makes jobs easier; improves standard of living
 - by 1890, average workweek 10 hours shorter
 - as consumers, workers regain power in market
- * Some laborers think mechanization reduces value of human worker

Section 1: The Age of the Railroads

Section Opener: The Age of the Railroads

The growth and consolidation of railroads benefits the nation but also leads to corruption and required government regulation.

Slide 10: Railroads Span Time and Space [continued]

Railroads Encourage Growth

- * Rails make local transit reliable, westward expansion possible
- * Government makes land grants, loans to railroads
 - to help settle West
 - to develop country

A National Network

- * 1859, railroads extend west of Missouri River
- * 1869, first transcontinental railroad completed, spans the nation

Slide 11: Railroads Span Time and Space [continued]

Romance and Reality

- * Railroads offer land, adventure, fresh start to many
 - * People of diverse backgrounds build railroad under harsh conditions:
 - Central Pacific hires Chinese immigrants
 - Union Pacific, Irish immigrants, Civil War vets
 - * Accidents, disease disable and kill thousands every year
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Slide 12: Railroads Span Time and Space

Railroad Time

- * 1869, C. F. Dowd proposes dividing earth's surface into 24 time zones
 - * 1883, U.S. railroads, towns adopt time zones
 - * 1884, international conference sets world zones, uses railroad time
 - Congress adopts in 1918
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Slide 13: Opportunities and Opportunists [continued]

New Towns and Markets

- * Railroads require great supply of materials, parts
 - * Iron, coal, steel, lumber, glass industries grow to meet demand
 - * Railroads link isolated towns, promote trade, interdependence
 - * Nationwide network of suppliers, markets develops
 - * Towns specialize, sell large quantities of their product nationally
 - * New towns grow along railroad lines
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Slide 14: Opportunities and Opportunists [continued]

Pullman

- * 1880, George M. Pullman builds railcar factory on Illinois prairie
 - * Pullman provides for workers: housing, doctors, shops, sports field
 - * Company tightly controls residents to ensure stable work force
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Slide 15: Opportunities and Opportunists

Crédit Mobilier

- * Wish for control, profit leads some railroad magnates to corruption
- * Union Pacific stockholders form construction company, Crédit Mobilier
- overpay for laying track, pocket profits
- * Republican politicians implicated; reputation of party tarnished

Slide 16: The Grange and the Railroads [continued]

Railroad Abuses

- * Farmers angry over perceived railroad corruption
- railroads sell government lands to businesses, not settlers
- fix prices, keep farmers in debt
- charge different customers different rates

Granger Laws

- * Grangers sponsor state, local political candidates
- * Press for laws to protect farmers' interests
- * *Munn v. Illinois*—Supreme Court upholds states' right to regulate RR
- * Sets principle that federal government can regulate private industry

Slide 17: The Grange and the Railroads

Interstate Commerce Act

- * 1886, Supreme Court: states cannot set rates on interstate commerce
- * Public outrage leads to Interstate Commerce Act of 1887
- federal government can supervise railroads
- establishes Interstate Commerce Commission (ICC)
- * Legal battle with railroads; difficult for ICC to take action

Panic and Consolidation

- * Abuses, mismanagement, competition almost bankrupt many railroads
- * Railroad problems contribute to panic of 1893, depression
- * By mid-1894, 25% of railroads taken over by financial companies

Section 2: Big Business and Labor

Section Opener: Big Business and Labor

The expansion of industry results in the growth of big business and prompts laborers to form unions to better their lives.

Slide 19: Carnegie's Innovations [continued]

Carnegie Makes a Fortune

- * Andrew Carnegie one of first moguls to make own fortune
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Slide 20: Carnegie's Innovations

New Business Strategies

- * Carnegie searches for ways to make better products more cheaply
 - * Hires talented staff; offers company stock; promotes competition
 - * Uses vertical integration—buys out suppliers to control materials
 - * Through horizontal integration merges with competing companies
 - * Carnegie controls almost entire steel industry
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Slide 21: Social Darwinism and Business

Principles of Social Darwinism

- * Darwin's theory of biological evolution: the best-adapted survive
- * Social Darwinism, or social evolution, based on Darwin's theory
- * Economists use Social Darwinism to justify doctrine of laissez faire

A New Definition of Success

- * Idea of survival, success of the most capable appeals to wealthy
 - * Notion of individual responsibility in line with Protestant ethic
 - * See riches as sign of God's favor; poor must be lazy, inferior
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Slide 22: Fewer Control More [continued]

Growth and Consolidation

- * Businesses try to control industry with mergers—buy out competitors
 - * Buy all others to form monopolies—control production, wages, prices
 - * Holding companies buy all the stock of other companies
 - * John D. Rockefeller founds Standard Oil Company, forms trust
 - trustees run separate companies as if one
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Slide 23: Fewer Control More [continued]

Rockefeller and the "Robber Barons"

- * Rockefeller profits by paying low wages, underselling others
- when controls market, raises prices
- * Critics call industrialists robber barons
- industrialists also become philanthropists

Sherman Antitrust Act

- * Government thinks expanding corporations stifle free competition
 - * Sherman Antitrust Act: trust illegal if interferes with free trade
 - * Prosecuting companies difficult; government stops enforcing act
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Slide 24: Fewer Control More

Business Boom Bypasses the South

- * South recovering from Civil War, hindered by lack of capital
 - * North owns 90% of stock in RR, most profitable Southern businesses
 - * Business problems: high transport cost, tariffs, few skilled workers
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Slide 25: Labor Unions Emerge [continued]

Long Hours and Danger

- * Northern wages generally higher than Southern
 - * Exploitation, unsafe conditions unite workers across regions
 - * Most workers have 12 hour days, 6 day workweeks
 - perform repetitive, mind-dulling tasks
 - no vacation, sick leave, injury compensation
 - * To survive, families need all member to work, including children
 - * Sweatshops, tenement workshops often only jobs for women, children
 - require few skills; pay lowest wages
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Slide 26: Labor Unions Emerge

Early Labor Organizing

- * National Labor Union—first large-scale national organization
 - * 1868, NLU gets Congress to give 8-hour day to civil servants
 - * Local chapters reject blacks; Colored National Labor Union forms
 - * NLU focus on linking existing local unions
 - * Noble Order of the Knights of Labor open to women, blacks, unskilled
 - * Knights support 8-hour day, equal pay, arbitration
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Slide 27: Union Movements Diverge [continued]

Craft Unionism

- * Craft unions include skilled workers from one or more trades
 - * Samuel Gompers helps found American Federation of Labor (AFL)
 - * AFL uses collective bargaining for better wages, hours, conditions
 - * AFL strikes successfully, wins higher pay, shorter workweek
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Slide 28: Union Movements Diverge [continued]

Industrial Unionism

- * Industrial unions include skilled, unskilled workers in an industry
 - * Eugene V. Debs forms American Railway Union; uses strikes
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Slide 29: Union Movements Diverge

Socialism and the IWW

- * Some labor activists turn to socialism:
 - government control of business, property
 - equal distribution of wealth
- * Industrial Workers of the World (IWW), or Wobblies, forms 1905
- * Organized by radical unionists, socialists; include African Americans
- * Industrial unions give unskilled workers dignity, solidarity

Other Labor Activism in the West

- * Japanese, Mexicans form Sugar Beet and Farm Laborers' Union in California
 - * Wyoming Federation of Labor supports Chinese, Japanese miners
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Slide 30: Strikes Turn Violent [continued]

The Great Strike of 1877

- * Baltimore & Ohio Railroad strike spreads to other lines
- * Governors say impeding interstate commerce; federal troops intervene

The Haymarket Affair

- * 3,000 gather at Chicago's Haymarket Square, protest police brutality
 - * Violence ensues; 8 charged with inciting riot, convicted
 - * Public opinion turns against labor movement
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Slide 31: Strikes Turn Violent [continued]

The Homestead Strike

- * 1892, Carnegie Steel workers strike over pay cuts
- * Win battle against Pinkertons; National Guard reopens plant
- * Steelworkers do not remobilize for 45 years

The Pullman Company Strike

- * Pullman lays off 3,000, cuts wages but not rents; workers strike
- * Pullman refuses arbitration; violence ensues; federal troops sent
- * Debs jailed, most workers fired, many blacklisted

Slide 32: Strikes Turn Violent [continued]

Women Organize

- * Women barred from many unions; unite behind powerful leaders
- * Mary Harris Jones—most prominent organizer in women's labor
 - works for United Mine Workers
 - leads children's march
- * Pauline Newman—organizer for International Ladies' Garment Workers
- * 1911 Triangle Shirtwaist factory fire results in public outrage

Slide 33: Strikes Turn Violent

Management and Government Pressure Unions

- * Employers forbid unions; turn Sherman Antitrust Act against labor
- * Legal limitations cripple unions, but membership rises

Slide 34: Let the Games Begin!

Play the Review Game

Compete with your classmates in this show-what-you-know game. Rack up points, reveal an image, and earn more points in a bonus round.
