

Chapter Twenty Industrial Growth

Please remember to study your Powerpoint slides!

Railroads Spur Industry – *From farmers to machine operators*

- ▶ The railroad helped fuel the growth of industry by linking the eastern and the western parts of the U.S. Factories in the east now had additional markets in which to sell their goods. In addition, railroads brought raw materials found in the west to eastern cities to be utilized by the factories.
- ▶ The East and West country was connected with the completion of the Transcontinental Railroad.
- ▶ Railroads enabled more people to settle in the West.
- ▶ Railroad companies offered **rebates** to their largest customers, which hurt many small businesses and farmers.
- ▶ The growing number of immigrants to the United States provided factories with a cheap source of labor.

INDUSTRIALIZATION – *From farmers to machine operators*

- ▶ The railroad helped fuel the growth of industry by linking the eastern and the western parts of the U.S. Factories in the east now had additional markets in which to sell their goods. In addition, railroads brought raw materials found in the west to eastern cities to be utilized by the factories.
- ▶ The growing number of immigrants to the United States provided factories with a cheap source of labor.
- ▶ During industrialization, products were no longer made by individual artisans or craftsmen; instead, factories used machines and the **assembly line** to mass-produce goods.
- ▶ The assembly line was used by Henry Ford to mass produce automobiles.
- ▶ Workers on an assembly line have one specialized task they complete all day. The product moves along a conveyor belt and each worker completes his/her task.
- ▶ Mass production caused factory owners to make larger profits and gave consumers cheaper prices.
- ▶ Industrialization changed the way businesses were organized. **Corporations** began to grow and there were fewer single owned businesses.
- ▶ Corporations are able to raise more **capital** (money) through the sale of **stocks** (shares in a company). They used this capital to expand the size of their companies.
- ▶ **Rockefeller** controlled the oil industry (Standard Oil), **Carnegie** controlled the steel industry (US Steel) **Vanderbilt** controlled railroads, and **J.P. Morgan** was a wealthy financier (banker).
- ▶ Rockefeller, Carnegie, and other leading industrialists were often criticized for their ruthless business actions. Critics considered them **robber barons**. They were also considered by some as **captain of industries** and **philanthropists** for the charitable donations they made.

- ▶ **Competition** is good for consumers. When **monopolies** (one company controls and entire industry) emerged, consumers suffered from high prices. Without competition, the price of goods increase and the quality may decrease.
- ▶ Monopolies were also criticized for using their wealth to influence politics and the government through large financial contributions.
- ▶ The rapid industrialization of the United States led to poor working conditions for laborers. Workers suffered a lack of job security, long hours, low pay, and dangerous working conditions.
- ▶ Industrialization in factories led to pollution.
- ▶ **The Triangle Shirtwaist Factory Fire** was an example of the deplorable, overcrowded and unsafe working conditions laborers (workers) were forced to endure.
- ▶ Children played a large, yet unfortunate role in the industrialization of the United States.
- ▶ The economy of the United States is based on the **Free Enterprise System** or **capitalism**, the belief that private citizens should own businesses and profit from the business.
- ▶ A stock holder is a person that holds shares in a business. They invest money in hopes to gain a dividend.
- ▶ Racial prejudice kept African Americans from getting patents for their inventions.
- ▶ Workers united to try to cure the problems caused by industrialization by forming **labor unions**.
- ▶ Labor unions hoped to receive better pay, eight-hour work day, and better working conditions.
- ▶ The tools used by labor unions include **collective bargaining**, **strikes**, slow downs, and picketing.
- ▶ Tools used by factory owners included injunctions, lock outs, scabs, blacklist (list of union members sent to other industries so the people on the list are not hired).
- ▶ Early labor unions faced resistance from the government and the public.
- ▶ **The Knights of Labor** allowed both skilled and unskilled workers to join, while the **American Federation of Labor** set up by Samuel Gompers, only allowed skilled workers to join. The AFL was a union of unions. Individuals joined a trade union and then the union joined the AFL.
- ▶ The government's **laissez faire** attitude of not getting involved in business contributed to the growth of industry in the late 1800s – early 1900s and the problems that resulted from industrialization.

Cause and Effect

Causes

- Railroad boom spurs business
- Businesses become corporations
- Nation has rich supply of natural resources
- New inventions make business more efficient

THE RISE OF INDUSTRY

Effects

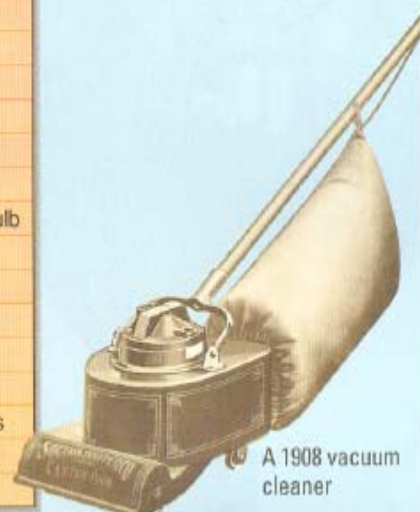
- Steel and oil become giant industries
- Monopolies and trusts dominate important industries
- Factory workers face harsh conditions
- Membership in labor unions grows

Effects Today

- United States is world's leading economic power
- American corporations do business around the world
- Government laws regulate monopolies

A Time of Invention

INVENTOR	DATE	INVENTION
Elisha Otis	1852	Passenger elevator brake
George Pullman	1864	Sleeping car
George Westinghouse	1869	Air brake
Elijah McCoy	1872	Automatic engine-oiling machine
Andrew S. Hallidie	1873	Cable streetcar
Stephen Dudley Field	1874	Electric streetcar
Alexander Graham Bell	1876	Telephone
Thomas Alva Edison	1877	Phonograph
Anna Baldwin	1878	Milking machine
Thomas Alva Edison	1879	First practical incandescent light bulb
James Ritty	1879	Cash register
Jan E. Matzeliger	1883	Shoemaking machine
Lewis E. Waterman	1884	Fountain pen
Granville T. Woods	1887	Automatic air brake
Charles and J. Frank Duryea	1893	Gasoline-powered car
King C. Gillette	1895	Safety razor with throwaway blades
John Thurman	1899	Motor-driven vacuum cleaner
Leo H. Baekeland	1909	Improved plastic



A 1908 vacuum cleaner