

1 **A New Industrial Revolution**

- Chapter 18 Section 1

2 **I. Why Industry Boomed**

- As the nation expanded westward, there were many raw materials available for industry.
- Gov't policies also favored industrialization.

3 **A. Steel and Oil**

- Steel replaced iron as the basic building material of cities and industry.
- Bessemer process: a new method to make stronger steel at a lower cost.
- 1859: First oil well in the U.S. (Titusville, Pennsylvania: Edwin Drake)
- Oil was refined into gasoline to power engines and autos.

4 **B. A Railroad Boom**

- Railroads fueled industrial growth by carrying people, goods, and raw materials.
- Consolidation (combination) of smaller RR lines into larger ones limited competition and kept RR prices high.

5 **II. Inventors and Inventions**

A. Edison's Invention Factory

- 1876: Edison sets up a research lab in Menlo Park, NJ; perfected the lightbulb there.
- 1882: Edison opens the first electrical power plant in NYC; provided a reliable source of energy.

6 **B. A Communications Revolution**

- 1844: telegraph: used dots and dashes
- 1866: Cyrus Field had an underwater telegraph cable laid across the Atlantic Ocean which sped communications with Europe.
- 1876: Alexander Graham Bell: telephone

7 **C. Devices for Home Office**

- 1868: Christopher Sholes: typewriter
- 1888: George Eastman: lightweight camera

8 **III. A Transportation Revolution**

- Late 1800's: the automobile was developed

9 **A. Henry Ford**

- Ford perfected a system to mass produce cars and make them available at a lower price.
- 1913: Assembly line: a manufacturing method in which a product is put together as it moves along a belt
- Made cars available to the common man

10 **B. Wright Brothers**

- 1903: gas powered aircraft tested at Kitty Hawk, NC
- Airplanes were used for military purposes in WWI; air travel became more widespread in the 1920's.

11 **Wright Brothers**

12 **G.C. Assignment on Assembly Line**

(See other PPT)

13 **Job Switching**

14

- How did the manager treat Lucy and Ethel?
- How do Lucy and Ethel's reaction to the work change throughout the clip?
- In what ways do they handle the increase in the volume of work? How might this relate to the quality of work being done or the quality of the item being produced?
- What would it be like to do that task for the entire day- both mentally and physically?
- Factory workers at that time got minimal pay, worked long hours and had horrible working conditions.

15 **Skates - Assembly Line Simulation**