Chapter 6, Section 2 (The Age of the Railroads) Expert Group Notes

Main Idea: The growth and consolidation of railroads benefited the nation but also led to corruption and required government regulation.

Why it Matters: Railroads made possible the expansion of Industry across the United States.

1. Railroads Span Time and Space
   - Cheap steel provided by Bessemer process allowed for such significant railroad expansion (a ton of steel=$100 in 1873, $12 by late 1890s).
   b. Dangers
      i. Speed
         - Turns, valleys, hills, etc. made it difficult for trains to keep high rate of speed (had to slow down for these things).
         - Too many conductors went to fast and caused trains to come off the track.
            i. To slow down, brake operator had to turn hand wheel (on passenger train it was easy, however, on other trains you had to climb over the load in any conditions).
   - George Westinghouse’s compressed-air brake increased safety and speed by allowing all cars to stop at same time—and do so from the engine car.
   - Casey Jones (John Luther Jones from Cayce, Kentucky)—conductor (thanks to a song) that got in fatal accident going to fast trying to make up time.
      i. Jones became famous after his friend, Jimmie Jones, wrote a song about him.
      ii. Illinois Central Engineer William Leighton heard the song and told his brothers, Frank and Bert, who were vaudeville performers—they sang it in theaters around the country. a popular song of the time.

   "Come all you rounders that want to hear
   The story of a brave engineer,
   Casey Jones was the rounder's name,
   On a six eight wheeler, boys, he won his fame.

   Casey Jones mounted to his cabin,
   Casey Jones with his orders in his hand
   Casey Jones mounted to his cabin,
   And he took his farewell trip to that promised land.

   The caller call Casey at half past four,
   He kissed his wife at the station door,
   He mounted to the cabin with the orders in his hand,
   And he took his farewell trip to that promised land.

   When he pulled up that Reno hill,
   He whistled for the crossing with an awful shrill;
   The switchman knew by the engine’s moan
   That the man at the throttle was Casey Jones.
   He looked at his water and his water was low;
   He looked at his watch and his watch was slow;
   He turned to his fireman and this is what he said,
   “Boy, we’re going to reach Frisco, but we’ll all be dead.”

   "So turn on your water and shovel in your coal,
   Stick you head out the window, watch those drivers roll;
   I'll drive her till she leaves the rail,
   For I'm eight hours late by that Western Mail.
   When he was within six miles of the place,
   There number four stared him straight in the face.
   He turned to his fireman, said "Jim you'd better jump,
   For there're two locomotives that are going to bump.

   Casey said just before he died,
"There're two more roads I would like to ride."
The fireman said, "Which ones can they be?"
"Oh the Northern Pacific and the Santa Fe."
Mrs. Jones sat at her bed a-sighing
Just to hear the news that her Casey was dying.
"Hush up children, and quit your crying.
For you've got another poppa on the Salt Lake Line."

ii. Cow Catchers—Animals and other things would derail trains so they invented the Cow Catcher (pilot)—device attached to front of the train to deflect obstacles from the track
iii. Telescoping—getting hit from behind or hitting someone ahead caused the trains to crush (only wood cars) into each other like a telescope being put away
iv. Fire—Coal Heaters in cars: bumps could cause coals to come out; flame debris going out and up could catch other part of train on fire, derailment or other accidents ended in fire from heaters
v. Time—Time was a large cause of many accidents (need to have accurate time to avoid trains behind and in front going same direction as well as trains going opposite direction)—passing lines and main lines
c. A National Network
   i. First transcontinental railroad was formed when the Central Pacific and Union Pacific Railroads met at Promontory, Utah, on May 10, 1869.
   ii. Other transcontinental lines developed including regional lines (trunk lines—major railroad lines)
      • Change in track design:
        1. Double Sets: track laid side-by-side to allow for a company to run in two different directions
        2. Standard Gauge: set standard width between rails to allow trains to transfer to different tracks
d. Romance and Reality
   i. Railroads were only available due to hard work of employees
   ii. Chinese and Irish immigrants, along with out-of-work Civil War veterans, were hired to build the track across the dangerous terrain
      • Chinese Immigrants treated unfairly (white workers for ten hour day received $40 to $60 dollars plus free meals; Chinese Immigrant worked dust-till-dawn for $35 and no meals)
   iii. Thousands were killed and even more injured during the building of the railroad system
e. Railroad Time
   i. During this period, time in the US was based on high noon (set their clock to it when sun was directly overhead)—a problem when uniformed timing was needed across entire country for train schedules
      • Time was a large cause of many accidents (need to have accurate time to avoid trains behind and in front going same direction as well as trains going opposite direction)—passing lines and main lines
   ii. Professor C.F. Dowd’s system divided world into 24 times zones
   iii. US was divided into four zones: Eastern, Central, Mountain, and Pacific
   iv. World accepted in 1884 and US officially accepted in 1918
2. Opportunities and Opportunists
   a. New Towns and Markets
      i. Previously isolated cities, towns, and settlements—were now linked by the railroad thus promoting trade and interdependence
      ii. Cities also started to specialize—examples: Chicago-stockyards, Minneapolis-grain industry
      iii. New towns also popped up along the railroad lines
         • Flagstaff, Arizona
         • Denver, Colorado
         • Seattle, Washington
   b. Pullman
      i. Successful railroad giant whose company built sleeping cars, dining cars, and luxurious cars for wealthy train passengers
      ii. Pullman built a town for his employees that offered everything—well-built homes (with a window in each room), shops, a church, a library, a theater, medical and legal offices, and an athletic field
      iii. However, the residents remained clearly under company control—no loitering on front steps or drinking alcohol, etc.
         • Pullman cut wages for his factory but refused to lower rents or prices at the stores in town—in 1894 the workers went on Strike and the American Railway Union (ARU) supported it.
   c. Credit Mobilier
i. Credit Mobilier was a construction company formed by Union Pacific Railroad executives
ii. This company was given many of the contracts to lay track for Union Pacific but the contract cost three times what the actual cost was—the executives pocketed the profits
iii. They also donated about shares of stock in the construction company to about 20 members of Congress—to gain influence and favorable legislation
iv. Among those implicated was Vice-President Schuyler Colfax, Congressman James Garfield, and the reputation of the Republican Party was tarnished.

3. The Grange and the Railroads
   a. Railroad Abuses
      i. Railroads sold land (given by government land grants) to businesses rather than settlers
      ii. Railroads had formal agreement to fix prices (all charge the same rather than compete)
      iii. Charged different customers different rates—too often charging more for short distances (overall benefiting bonanza farming)
   b. Granger Laws
      i. Granger laws were laws that protected the rights of farmers—especially against railroads
      ii. Illinois authorized a commission “to establish maximum freight and passenger rates and prohibit discrimination”
      iii. Railroads challenged it in Supreme Court case of Munn v. Illinois; however, the Granger laws won
      iv. Set the president for federal government’s right to get involved in private sector if it was in the best interest of the public
   c. Interstate Commerce Act
      i. Interstate Commerce—refers to traveling, trading, or transporting goods that either came from or was going to another state
      ii. Supreme Court said that state laws could not govern interstate commerce, so Congress passed the Interstate Commerce Act in 1887
      iii. This act established a five-member Interstate Commerce Commission (ICC) to regulate railroads traveling through states
      iv. ICC was handcuff, however, because they were not allowed to set a maximum rate
   d. Panic and Consolidation
      i. Panic of 1893 put pressure on smaller railroads which resulted in a consolidation
      ii. Large financial companies, such as J.P. Morgan & Company, had begun buying up small troubled railroads
      iii. By the 1900s, seven powerful companies held over two-thirds of the nation’s railroad tracks

What were the effects of railroad expansion?
Answer: The growth of industries that could ship to new markets; hazardous jobs for railroad workers; increase of immigration and migration to the west

How did the railroads affect cities?
Answer: Railroads led to a growth of cities in the Northeast and the Midwest and led to the development of new cities in the West.

How did railroad owners use Credit Mobilier to make huge, undeserved profits?
Answer: By charging too much for railroad construction and paying off government officials.

How did the Grangers, who were largely poor farmers, do battle with the giant railroad companies?
Answer: The farmers took political action in one united front. They pressed legislators to pass laws to protect them.