

# A.P. U.S. HISTORY NOTES

## Chapter 25: "Industry Comes of Age"

~ 1865 – 1900 ~

- I. The Iron Colt Becomes an Iron Horse
  1. After the Civil War, railroad production grew enormously, from 35,000 mi. of track laid in 1865 to a whopping 192,556 mi. of track laid in 1900.
    - i. Congress gave land to railroad companies totally 155,504,994 acres.
    - ii. For railroad routes, companies were allowed alternate mile-square sections in checkerboard fashion, but until companies determined which part of the land was the best to use for railroad building, all of the land was withheld from all other users.
      - a. Grover Cleveland stopped this in 1887.
  2. Railroads gave land their value; towns where railroads ran became sprawling cities while those skipped by RR's sank into ghost towns, so obviously, towns wanted railroads in them.
- II. Spanning the Continent with Rails
  1. Deadlock over where to build a transcontinental railroad was broken after the South seceded, and in 1862, Congress commissioned the **Union Pacific Railroad** to begin westward from Omaha, Nebraska, to gold-rich California.
    - i. The company received huge sums of money and land to build its tracks, but corruption also plagued it, as the insiders of the **Credit Mobilier** reaped \$23 million in profits.
    - ii. Many Irishmen, who might lay as much as 10 miles a day, laid the railroads.
    - iii. When Indians attacked, trying to save their land, the Irish dropped their picks and seized their rifles, and scores of workers and Indians died during construction.
  2. Over in California, the **Central Pacific Railroad** was in charge of extending the railroad westward, and it was backed by the **Big Four**: including **Leland Stanford**, the ex-governor of California who had useful political connections, and **Collis P. Huntington**, a adept lobbyist.
    - i. The Central Pacific used Chinese workers, and received the same incentives as the Union Pacific, but it had to drill through the hard rock of the Sierra Nevada.
  3. In 1869, the transcontinental rail line was completed near Ogden, Utah; in all, the Union Pacific built 1086 mi. of track, compared to 689 mi. by the Central Pacific.
- III. Binding the Country with Railroad Ties
  1. Before 1900, four other transcontinental railroads were built:
    - i. The **Northern Pacific Railroad** stretched from Lake Superior to the Puget Sound and was finished in 1883.
    - ii. The **Atchison, Topeka, and Santa Fe** stretched through the Southwest deserts and was completed the following year, in 1884.
    - iii. The **Southern Pacific** (completed in 1884) went from New Orleans to San Francisco.
    - iv. The **Great Northern** ran from Duluth to Seattle and was the creation of **James J. Hill**, probably the greatest railroad builder of all.
  2. However, many pioneers over-invested on land, and the banks that supported them often failed and went bankrupt when the land wasn't worth as much as initially thought.
- IV. Railroad Consolidation and Mechanization
  1. Older eastern railroads, like the **New York Central**, headed by **Cornelius Vanderbilt**, often financed the successful western railroads.
  2. Advancement in railroad building included the steel rail, which was stronger and more enduring than the iron rail, the **Westinghouse air brake**, which increased safety, the **Pullman Palace Cars**, which were luxurious, and **telegraphs, double-racking, and block signals**.
    - i. Nevertheless, train accidents were common, as well as death.

## V. Revolution by Railways

1. Railroads stitched the nation together, generated a huge market and lots of jobs, helped the rapid industrialization of America, and stimulated mining and agriculture in the West by bringing people and supplies to and from the areas where such work occurred.
2. Railroads helped people settle in the previously harsh Great Plains.
3. Due to railroads, the creation of four national **time zones** occurred on November 18, 1883, instead of each city having its own time zone (that was confusing to railroad operators).
4. Railroads were also the makers of millionaires and the millionaire class.

## VI. Wrongdoing in Railroad

1. Railroads were not without corruption, as shown by the Credit Mobilier.
2. **Jay Gould** made millions embezzling stocks from the **Erie, Kansas Pacific**, the Union Pacific, and the **Texas and Pacific** railroad companies.
3. One method of cheap moneymaking was called “**stock watering**,” in which railroad companies grossly over-inflated the worth of their stock and sold them at huge profits.
4. Railroad owners abused the public, bribed judges and legislatures, employed arm-twisting lobbyists, elected their own to political office, and used free passes to gain favor in the press.
5. As time passed, though, railroad giants entered into defensive alliances to show profits, and began the first of what would be called trusts, although at that time they were called “**pools**.”

## VII. Government Bridles the Iron Horse

1. People were aware of such injustice, but were slow to combat it.
2. The **Grange** was formed by farmers to combat such corruption, and many state efforts to stop the railroad monopoly occurred, but they were stopped when the Supreme Court issued its ruling in the **Wabash case**, in which it ruled that states could not regulate *interstate* commerce.
3. The **Interstate Commerce Act**, passed in 1887, banned rebates and pools and required the railroads to publish their rates openly (so as not to cheat customers), and also forbade unfair discrimination against shippers and banned charging more for a short haul than for a long one.
  - i. It also set up the **Interstate Commerce Commission** (ICC) to enforce this.
4. The act was not a victory against corporate wealth, as people like **Richard Olney**, a shrewd corporate lawyer, noted that they could use the act to their advantage, but it did represent the first attempt by Congress to regulate businesses for society's interest.

## VIII. Miracles of Mechanization

1. In 1860, the U.S. was the 4<sup>th</sup> largest manufacturer in the world, but by 1894, it was #1, why?
  - i. Now-abundant liquid capital.
  - ii. Fully exploited natural resources (like coal, oil, and iron, the iron from the Minnesota-Lake Superior region which yielded the rich iron deposits of the **Mesabi Range**).
  - iii. Massive immigration made labor cheap.
  - iv. American ingenuity played a vital role, as such inventions like mass production (from **Eli Whitney**) were being refined and perfected.
    - a. Popular inventions included the **cash register**, the **stock ticker**, the **typewriter**, the **refrigerator car**, the **electric dynamo**, and the **electric railway**, which displaced animal-drawn cars.
2. In 1876, **Alexander Graham Bell** invented the telephone and a new age was launched.
3. **Thomas Edison**, the “Wizard of Menlo Park,” was the most versatile inventor, who, while best known for his electric light bulb, also cranked out scores of other inventions.

## IX. The Trust Titan Emerges

1. Industry giants used various ways to eliminate competition and maximize profits.
  - i. **Andrew Carnegie** used a method called “**vertical integration**,” which meant that he controlled all aspects of an industry (in his case, he mined the iron, transported it, refined it, and turned it into steel, controlling all parts of the process).
  - ii. **John D. Rockefeller**, master of “**horizontal integration**,” and a giant among bankers, simply allied with competitors to monopolize a given market.

- a. He used this method to form **Standard Oil** and control the oil industry by forcing weaker competitors to go bankrupt.
  2. These men became known for their **trusts**, giant, monopolistic corporations.
  3. Rockefeller also placed his own men on the boards of directors of other rival competitors, a process called “**interlocking directorates.**”
- X. The Supremacy of Steel
1. In Lincoln’s day, steel was very scarce and expensive, but by 1900, Americans produced as much steel as England and Germany combined.
  2. This was due to an invention that made steel-making cheaper and much more effective: the **Bessemer process**, which was named after an English inventor even though an American, **William Kelly**, had discovered it first:
    - i. Cold air blown on red-hot iron burned carbon deposits and purified it.
    - ii. America was one of the few nations that had a lot of coal for fuel, iron for smelting, and other essential ingredients for steel making, and thus, quickly became #1.
- XI. Carnegie and Other Sultans of Steel
1. Andrew Carnegie started off as a poor boy in a bad job, but by working hard, assuming responsibility, and charming influential people, he worked his way up to wealth.
  2. He started in the Pittsburgh area, but he was not a man who like trusts; still, but 1900, he was producing ¼ of the nation’s Bessemer steel, and getting \$25 million a year.
  3. J. Pierpont Morgan, having already made a fortune in the banking industry and in Wall Street, was ready to step into the steel tubing industry, but Carnegie threatened to ruin him, so after some tense negotiation, Morgan bought Carnegie’s entire business of \$400 million (this was before income tax), but Carnegie, fearing ridicule for possessing so much money, spent the rest of his life donating \$350 million of it to charity, pensions, and libraries.
    - i. Meanwhile, Morgan took Carnegie’s holdings, added others, and launched the **United States Steel Corporation** in 1901, a company that became the first billion-dollar corporation (it was capitalized at \$1.4 billion) in the world.
- XII. Rockefeller Grows an American Beauty Rose
1. In 1859, a man named Drake first used oil to get money, and by the 1870s, **kerosene**, a type of oil, was used to light lamps all over the nation.
  2. However, by 1885, 250,000 of Edison’s electric light bulbs were in use, and the electric industry soon rendered kerosene obsolete, just as kerosene had made **whale oil** obsolete.
  3. Oil, however, had its profits from the **gasoline-burning internal combustion engine.**
  4. John D. Rockefeller, ruthless and merciless, organized the Standard Oil Company of Ohio in 1882 (five years earlier, he had already controlled 95% of all the oil refineries in the country).
  5. Rockefeller crushed weaker competitors—part of the natural process according to him—but his company did produce superior oil at a cheaper price.
  6. Other trusts, which also generally made better products at cheaper prices, emerged, such as the meat industry of **Gustavus F. Swift** and **Philip Armour.**
- XIII. The Gospel of Wealth
1. Many of the newly rich had worked from poverty to wealth, and thus felt that some people in the world were destined to become rich and then help society with their money.
  2. The Reverend **Russell Conwell** of Philadelphia became rich by delivering his lecture, “**Acres of Diamonds**” thousands of times, and in it he preached that poor people made themselves poor and rich people made themselves rich; everything was because of one’s actions only.
  3. Corporate lawyers used the 14<sup>th</sup> Amendment to defend trusts, the judges agreed, saying that corporations were “big people” entitled to their property, and **plutocracy** ruled.
- XIV. Government Tackles the Trust Evil
1. In 1890, the **Sherman Anti-Trust Act** was signed into law; it forbade combinations in restraint of trade, without any distinction between “good” and “bad” trusts.
    - i. It proved effective because it couldn’t be enforced.

- ii. Not until 1914 was it properly enforced and those prosecuted for violating the law were actually punished.
- XV. The South in the Age of Industry
  1. The South remained agrarian despite all the industrial advances, though **James Buchanan Duke** developed a huge cigarette industry in the form of the **American Tobacco Company** and made many donations to what is now Duke University.
  2. Men like **Henry W. Grady**, editor of the Atlanta *Constitution* urged the South to industrialize.
  3. However, many northern companies set rates to keep the South from gaining any competitive edge whatsoever, with examples including the rich deposits and iron and coal near Birmingham, Alabama, and the textile mills of the South.
  4. However, cheap labor led to the creation of many jobs, and despite poor wages, many white Southerners saw employment as a blessing.
- XVI. The Impact of the New Industrial Revolution on America
  1. As the Industrial Revolution spread in American, the standard of living rose, immigrant swarmed to the U.S., and early Jeffersonian ideals about the dominance of agriculture fell.
  2. Women, who had swarmed to factories and had been encouraged by recent inventions, found new opportunities, and the “**Gibson Girl**,” created by **Charles Dana Gibson**, became the romantic ideal of the age.
    - i. However, many women never achieved this, and instead toiled in hard work because they had to do so in order to earn money.
  3. A nation of farmers was becoming a nation of wage earners, but the fear of unemployment was never far, and the illness of a breadwinner (main wage owner) in a family was disastrous.
  4. Strong pressures in foreign trade developed as the tireless industrial machine threatened to flood the domestic market.
- XVII. In Unions There Is Strength
  1. With the inflow of immigrants providing a labor force that could work for low wages and in poor environments, the workers who wanted to improve their conditions found that they could not, since their bosses could easily hire the unemployed to take their places.
  2. Corporations had many weapons against strikers, such as hiring strikebreakers or asking the courts to order strikers to stop striking, and if they continued, to bring in troops; other methods included “lockouts” to starve strikers into submission, and often, workers had to sign “ironclad oaths” or “yellow dog contracts” which banned them from joining unions.
    - i. Workers could be “blacklisted,” or put on a list and denied privileges elsewhere.
  3. The middle-class, annoyed by the recurrent strikes, grow deaf to the worker’s outcry.
  4. The view was that people like Carnegie and Rockefeller had battled and worked hard to get to the top, and workers could do the same if they “really” wanted to improve their situations.
- XVIII. Labor Limps Along
  1. The Civil War had put a premium on labor, which helped labor unions grow.
  2. The **National Labor Union**, formed in 1866, represented a giant boot stride by workers and attracted an impressive total of 600,000 members but it only lasted six years.
    - i. However, it excluded Chinese and didn’t really try to get Blacks and women to join.
    - ii. It worked for the arbitration of industrial disputes and the eight-hour workday, and won the latter for government workers, but the depression of 1873 knocked it out.
  3. A new organization, the **Knights of Labor**, was begun in 1869 and continued secretly until 1881, and this organization was similar to the National Labor Union.
    - i. It only barred liquor dealers, professional gamblers, lawyers, bankers, and stockbrokers, and they only campaigned for economic and social reform.
    - ii. Led by **Terence V. Powderly**, the Knights won a number of strikes for the eight-hour day, and when they staged a successful strike against Jay Gould’s Wabash Railroad in 1885, membership mushroomed to ¾ of a million workers.
- XIX. Unhorsing the Knights of Labor

1. However, the Knights became involved in a number of May Day strikes of which half failed.
2. In Chicago, home to about 80,000 Knights and a few hundred anarchists that advocated a violent overthrow of the American government, tensions had been building, and on May 4, 1886, Chicago police were advancing on a meeting that had been called to protest brutalities by authorities when a dynamite bomb was thrown, killing or injuring several dozen people.
  - i. Eight anarchists were rounded up, but no one could prove that they had any association with the bombing, but since they had preached incendiary doctrines, the jury sentenced five of them to death on account of conspiracy and gave the other three stiff prison terms.
3. In 1892, **John P. Altgeld**, a German-born Democrat was elected governor of Illinois and pardoned the three survivors after studying the case extensively.
  - i. He received violent verbal abuse for that and was defeated during re-election.
4. The **Haymarket Square Bomb** forever associated the Knights of Labor with anarchists and lowered their popularity and effectiveness; membership declined, and those that remained fused with other labor unions.

XX. The AF of L to the Fore

1. In 1886, **Samuel Gompers** founded the American Federation of Labor.
  - i. It consisted of an association of self-governing national unions, each of which kept its independence, with the AF of L unifying overall strategy.
2. Gompers demanded a fairer share for labor.
  - i. All he wanted was “more,” and he sought better wages, hours, and working conditions, but he was not concerned with sweet by-and-by.
3. The AF of L established itself on solid but narrow foundations, since it tried to speak for all workers but fell far short of that.
  - i. Composed of skilled laborers, it was willing to let unskilled laborers fend for themselves, but critic called it “the labor trust.”
4. From 1881 to 1900, there were over 23,000 strikes involving 6,610,000 workers with a total loss to both employers and employees of about \$450 million.
  - i. Perhaps the greatest weakness of labor unions was that they only embraced a small minority—3%—of all workers.
5. However, by 1900, the public was starting to concede the rights of workers and beginning to give them some or most of what they wanted.
  - i. In 1894, **Labor Day** was made a legal holiday.
6. A few owners were beginning to realize that losing money to fight labor strikes was useless, though most owners still dogmatically fought labor unions.
7. If the age of big business had dawned, the age of big labor was still some distance over the horizon.