Chapter 24 - Industry Comes Of Age (1865-1900)

1. The Iron Colt Becomes The Iron Horse

. When Lincoln was shot in 1865 there was only 35,000 miles of stream
railways in the United States. By 1900 there were 192,556 miles.
·Transcontinental railroad building was very costly and risky; the
government gave railroad companies loans
2. Frontier settlements touched with railroads became flourishing cities,
cities that were bypassed withered to ghost towns
· Towns fought for host privileges

1. Spanning The Continent With Rails
1. When the South seceded the union wanted to bind the pacific coast
· The Union Pacific Railroad was commissioned by congress.
2. The construction companies made fabulous profits; they used construction
gangs containing many Irish "paddies"
3. When Indians would attack to defend their lands; the paddies would grab
their rifles
4. On the California end the Central Pacific Railroad was in charge of
working Eastward
· They used Chinese laborers and had a hard time chipping through Sierra
Nevada
5. A wedding of the rails was consummated near Ogden, Utah. The Union
Pacific built 1,086 miles; the Central Pacific 689 miles
6. Completion of the transcontinental line was one of America's most
impressive peacetime undertakings. It facilitated trade, penetrated through
deserts and linked the nation.
2. Binding The Country With Railroad Ties
1. Four other railroads were completed by the century's end:
· North Pacific (1883) - from lake Superior to Puget Sound
· The Atchison, Topeka, and Santa Fe (1884) - Through deserts to
California
· The Southern Pacific (1884) - New Orleans to San Francisco
· The Great Northern - from Duluth to Seattle
2. Some railroad companies bankrupt in post-Civil War decades
3. Railroad Consolidation And Mechanization
1. "Commodore" Cornelius Vanderbilt offered superior, cheaper railway
services and became rich.
2. The steel rail was a new improvement, tougher than the iron rails, safer
and more economical because it could carry heavier load
· Standard track gauge came into use, eliminated inconveniences;
Westinghouse air brake contributed to efficiency and safety.
4. Revolution By Railways
1. For the first time the nation became untied with ribs of iron and steel,
railroads emerged as the nation's biggest business. The railroad had an amazing
economic growth, trains hauled raw materials to factories and then back as
finished goods
2. Railroads simulated immigration by offering land
3. Railroads helped regulate time, until the 1880's every town had its own
local time, dictated by the sun. It was a nightmare for figuring out schedules
thus on November 18, 1883 railroad lines decided that the continent would be
divided into 4 "time zones".
5. Wrongdoing In Railroading
1. Corruption lurked nearby the fortune made by the railroads; one of the
favorite devices of corruption was "stock watering" - where stock promoters
inflated claims about a line's assets and sold more stocks than the railroad's
actual value.
2. The railroaders abused the public and bribed judges and legislatures
when breaking the law. The railroad kings were virtual industry monarchs.
Eventually the companies allied together in dependence of their profits.
6. Government Bridles The Iron Horse
1. Farmers wondered if America has escaped slavery only to fall into
economic injustice. The depression of 1870 led people to protest the railroad
monopoly.
2. The Supreme Court decreed that individual states had no power to
regulate interstate commerce. If the mechanical monsters were to be stopped, it
was up to the federal government
3. Congress passed the Commerce Commission - forbade unfair behaviors and
promoted orderly forums
· 1st large scale attempt by Washington to regulate hustlers in the
interest of society at large.
7. Miracles Of Mechanization
1. Post-war industrial expansion grew and America ranked 1st in
mechanization by 1894.
2. The term millionaire coined for the first time in 1840's. The civil war,
though profiteering created fortunes. Investors loaned more money than the U.S.
3. Innovations in transportation fueled growth too, by bringing the
nation's natural resources to the factory door.
4. Anyone who could make an appealing new product available for good price
in large quantities and could market it, thrived. Machines made it possible to
replace skilled workers with masses of immigrants working 12 hour shifts, 7 days
a week.
5. Thomas Edison, a great inventor, best known for the light bulb.
8. The Trust Titan Emerges
1. Competition was the driving force of most business leaders. Carnegie -
The Steel King - pioneered the tactic of vertical integration: combining into
one organization, all phases of manufacturing. Helped control quality.
Horizontal integration: allying with competitors to monopolize a given market.
2. Interlocking directorates - placing his own officers on other's boards
of directors.
9. The Supremacy Of Steel
1. Steel was a scarce commodity in the America of Lincoln and was
expensive; was used for cutlery. Within 20 years America started pouring out
more steel.
2. What caused the transformation? A new method of making cheaper steel -
the Bessemer Process.
10. Carnegie And The Sultans Of Steel
1. Andrew Carnegie worked hard from a young age, he surrounded himself with
influential people and then became rich and involved with steel.
2. J. Pierpont Morgan, another financial giant, also was involved in steel
business.

3. Carnegie sold his industry to Morgan for 400 million. He gave away about
350 million to giants or libraries. Morgan's new company was America's 1st
billion dollar corporation.
11. Rockefeller Grows An American Beauty Rose
1. The oil industry grew almost overnight.
· Kerosene - 1st major product, made fire burn brighter than whale oil.
· Whaling became a sick industry while oil rose
2. Eventually the light bulb diminished the market for kerosene but with
the invention of the automobile, oil for gas shot up
3. John D. Rockefeller came to dominate the oil industry. He became a
successful businessman at 19. He was aggressive and extinguished other
companies.
4. New trusts for every industry were sprouting up and the "new rich" were
elbowing aside the aristocracy.
12. The Gospel Of Wealth
1. "Godliness is in league with riches" preached a bishop of Massachusetts.
They thought that millionaires are a product of natural selection. Poor people
were only poor because they didn't try hard enough.
2. Trusts sought refuge behind the 14th amendment. Courts interpreted
corporations to be a legal "person" and couldn't be deprived of rights.
13. Government Tackles The Trust Evil
1. Sherman Anti-Trust Act of 1890 forbade combination in restraint of trade
without distinguishing "good" trusts from "bad." Not very effective and had lots
of loop holes until 1914.
14. The South In The Age Of Industry
1. The North's increase in industry after the civil war was not shared by
the south.
2. The South received a welcome boost when machine made cigarettes shot up
tobacco consumption. James Buchanan Duke absorbed his main competitors into the
American Tobacco Company.
3. Industrialists tried coaxing the South into the factories but they had
obstacles that kept them from it. The South did have cotton and textile mills
which was a mixed blessing. The southern workers were paid half what the
northerners were but it provided the first steady jobs and wages.
15. The Impact Of The Industrial Revolution On America
1. The standard of living rose sharply and Americans enjoyed more physical
comforts than their counterparts in another industrial nation.
2. Older way of life changed. Rural immigrants used to living by nature had
to adapt to factory whistles.
3. Women were profoundly affected by the new industrial age. They were
introduced to the age with the typewriters and telephone switchboard, a new
image of an independent and athletic girl came out.
4. The machine age also accentuated class driven. By 1900 1 of 10 people
owned 90% of the nation's wealth.
5. By the 1900's 2/3 workers depended on wages and the economy's swing or
worker's illness could mean disaster for the whole family. International trade
was becoming faster, cheaper, and easier.
16. In Unions There Is Strength
1. Individual originality and creativity were stiffed when it came to the
workers.
2. New machines displayed employees in the short run.
3. Railroads let bosses bring in laborers that would work cheaper from all
over the country.
4. The workers didn't have much power to battle against giant industry.
Middle class annoyed by constant strikes grew deaf to the outcries.
17. Labor Limps Along
1. Labor unions were given a strong boost by civil war because human lives
and labor was valued after the drain on human resources.
2. The National Labor Union, 1866, represented a great change. It claimed
to unify workers across locals and trades to challenge their bosses. It lasted 6
years with 600,000 members but it was the 1870's depression knocked the union
out.
3. Knights of Labor began inauspiciously in 1869 as a secret society with a
private ritual, passwords and special handshakes. It was sought to include all
workers in "one big union." They wanted reform and membership was 3/4 million
workers.
18. Unhorsing the Knights of Labor
1. The knights eventually fell because of a run-in with anarchists where a
bomb went off in Chicago – a.k.a. The Haymarket Square episode.
2. They lost their skilled members and they ended dwindling to 100,000
members.
19. The AF of L to the Fore
1. The elitist American Federation of Labor, 1886, only for skilled
laborers, mainly ran by Samuel Gompers. He didn't like socialism and demanded
fairer share of labor. He sought better wages and working conditions.
2. Public eventually gave in to workers rights and made a legal holiday.