

Objective: To examine the economic and social changes created by the rise of Industrialization.

USHC 4.2, 4.3, 4.4



Growth of Railroads

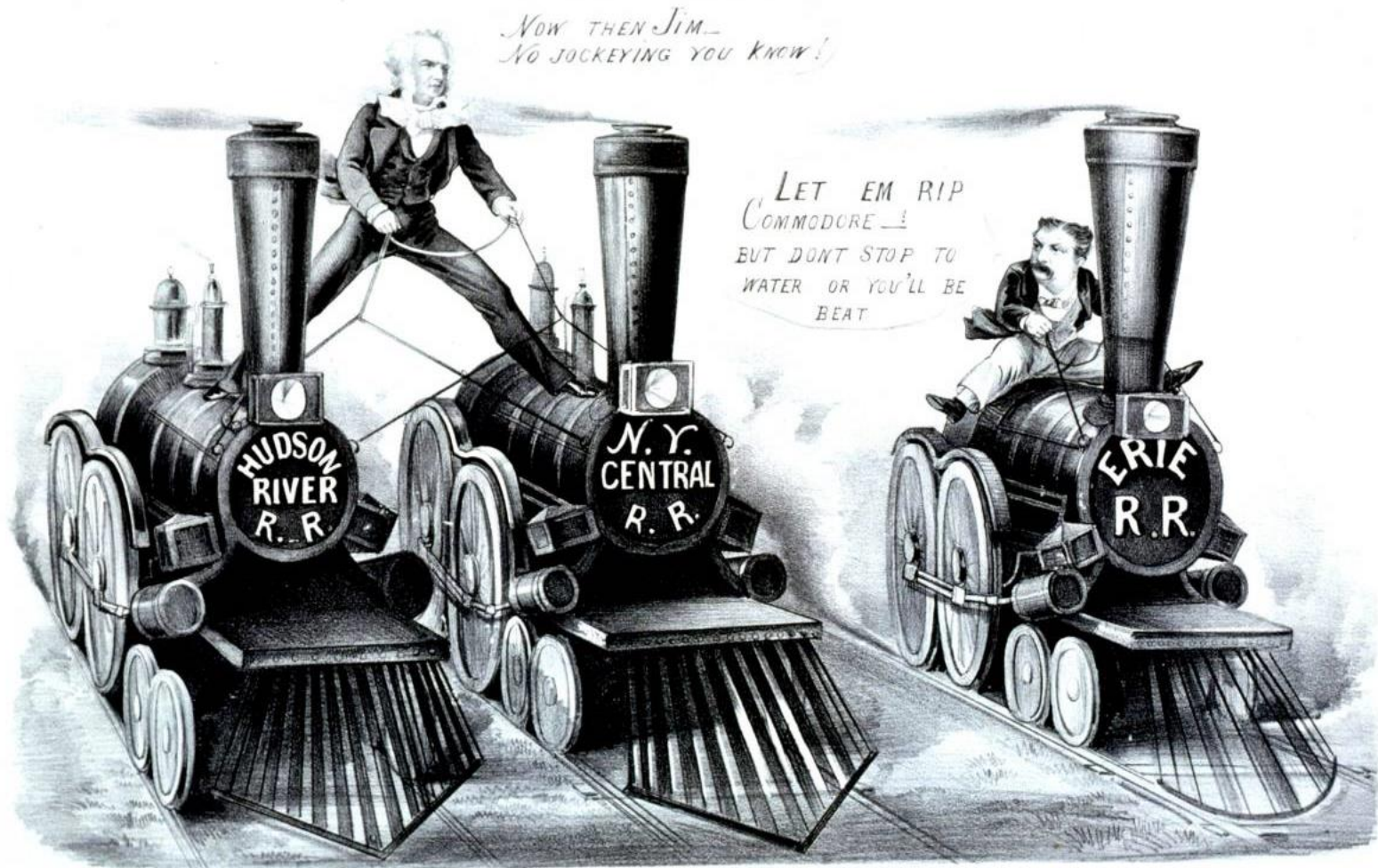
- Once the **gauge**, or width, of tracks were standardized, railroads formed a **network** of connected lines.



Top: Railroads in 1890

Right: Railroads in 1918

- Large companies bought smaller ones or forced them out of business.



THE GREAT RACE FOR THE WESTERN STAKES 1870

Cornelius Vanderbilt and James Fisk are shown in a race for control of New York's rails. Vanderbilt unsuccessfully tried to take over the Erie R.R. by buying out its stock.

Contemporary Application – Mergers / Consolidation



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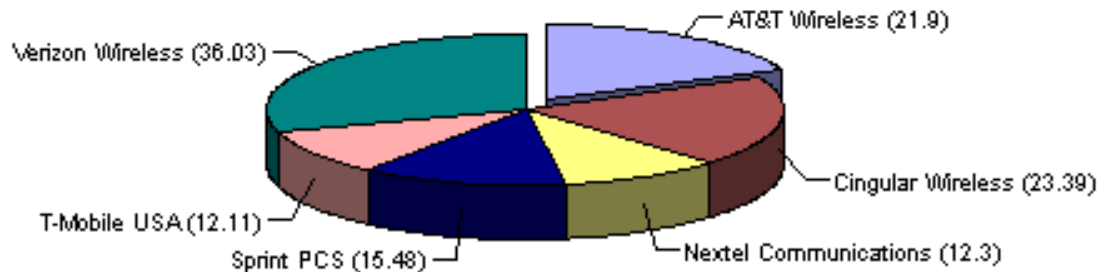


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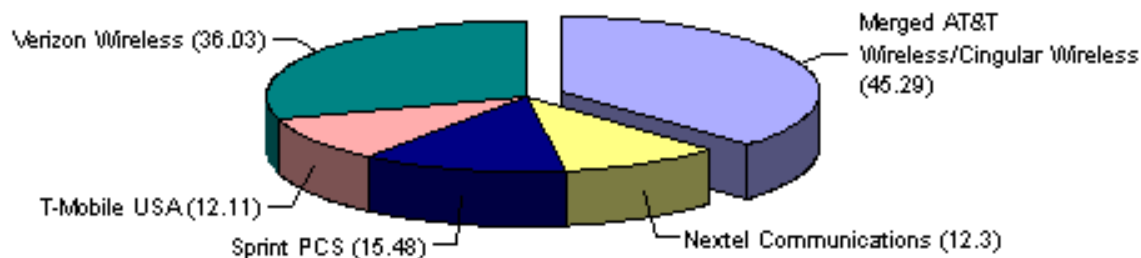
Immediate implication of merger plan

The USA's Big Six @ 30 September 2003

Before

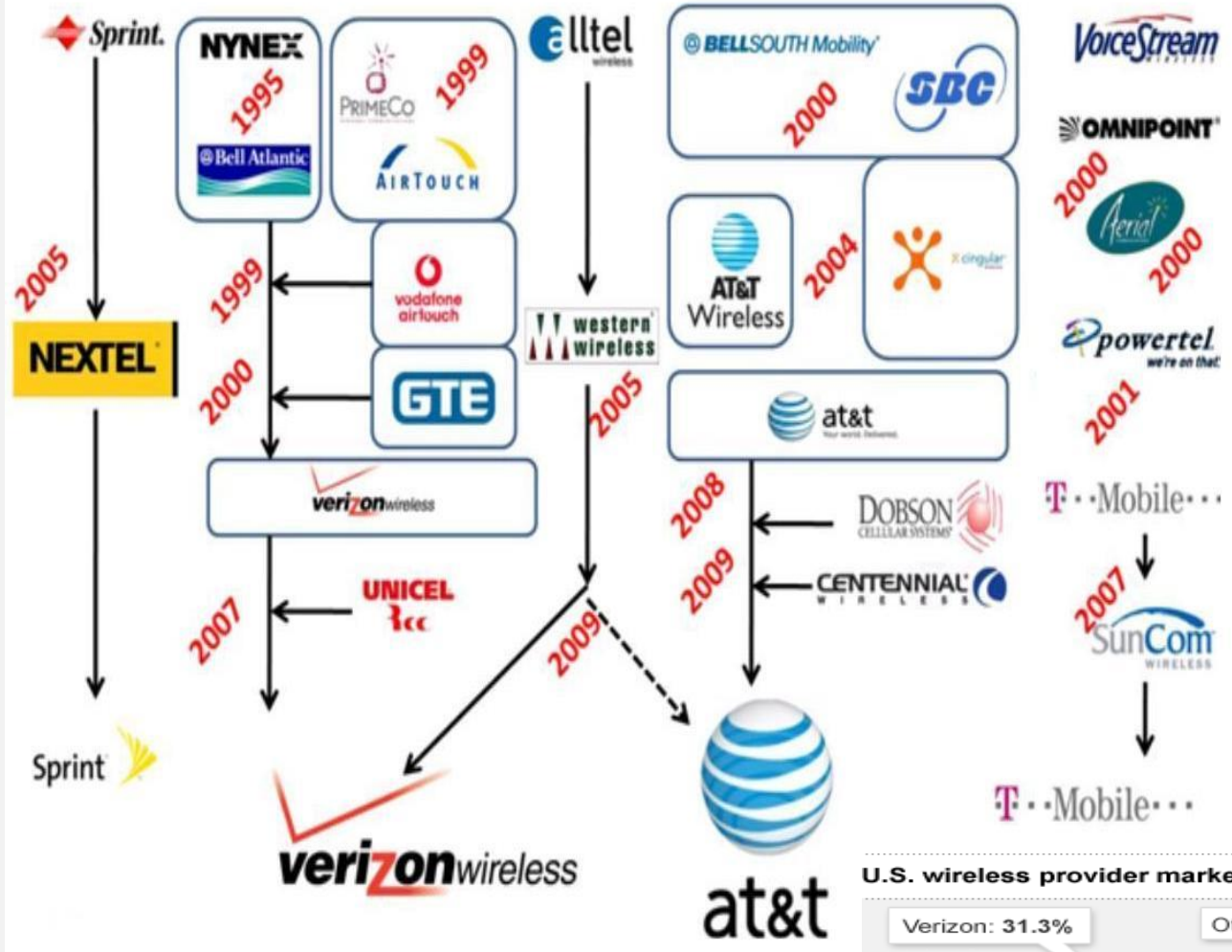


After



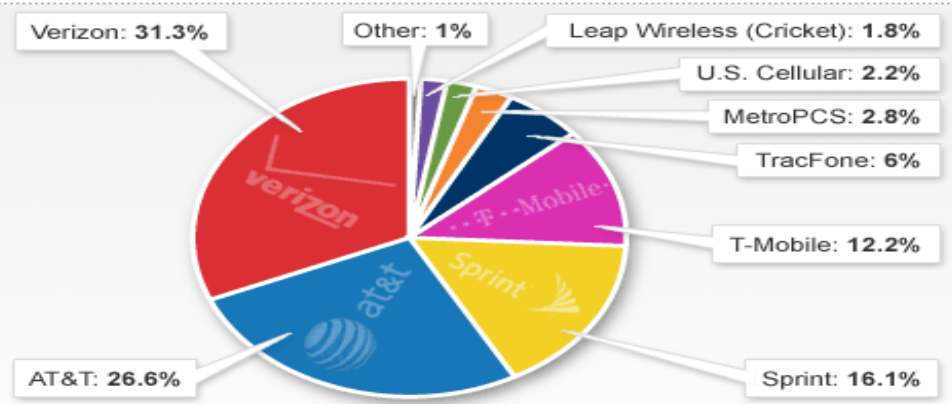
figures in millions

Mergers for the major phone companies



Cell Phone Shares

U.S. wireless provider market share



SOURCE: EMARKETER
FIGURES ARE PERCENTAGES OF TOTAL WIRELESS SUBSCRIBERS

- Railroad companies began to **consolidate** in order to **compete** with large companies, such as Cornelius Vanderbilt's.
- Cornelius Vanderbilt was one of the wealthiest men in America, and the most powerful railroad baron.



Cornelius Vanderbilt



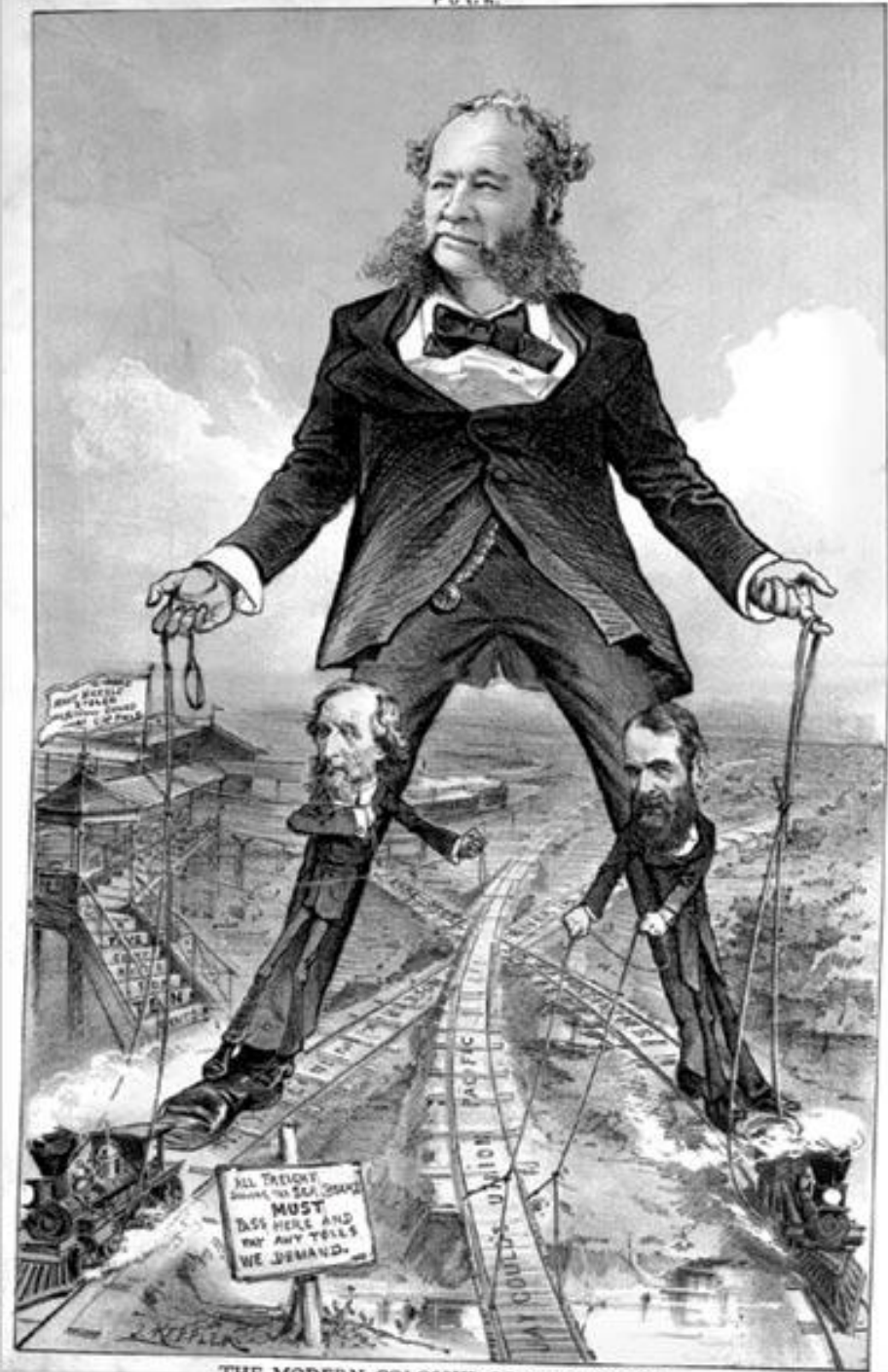
The Breakers, Newport, RI



Marble House, Newport, RI



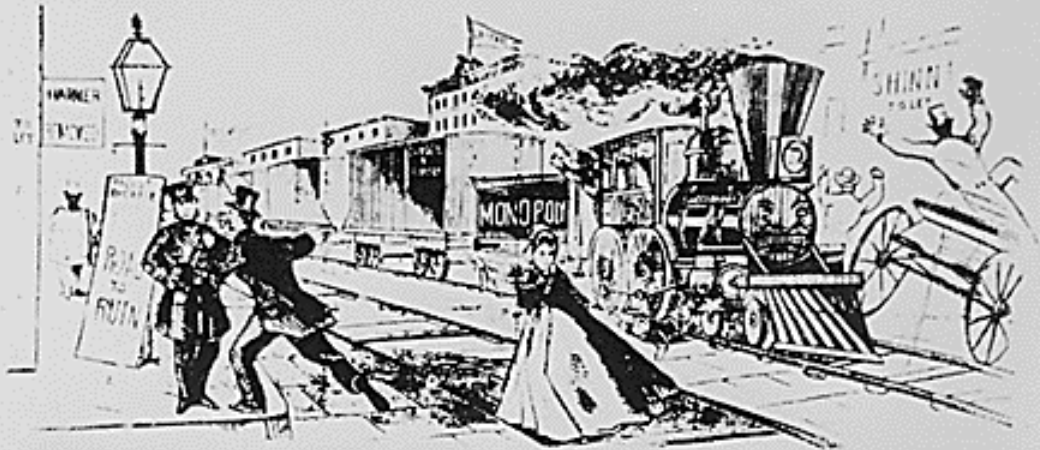
*The Biltmore Estate – Asheville, NC
America's Largest Home*



THE MODERN COLOSSUS OF RAILROADS

Abuses:

- Railroad companies offered rebates and discounts, in order to keep or win customers.
- This forced many small railroad companies out of business.
- In order to end competition and keep prices high, railroad companies agreed to divide up business in an area and set high prices. This was known as pooling.



**MOTHERS LOOK OUT FOR YOUR CHILDREN!
ARTISANS, MECHANICS, CITIZENS!**

When you leave your family in health, must you be hurried home to mourn a

DREADFUL CASUALTY!

PHILADELPHIANS, your RIGHTS are being invaded! regardless of your interests, or the LIVES OF YOUR LITTLE ONES. THE CAMDEN AND AMBOY, with the assistance of other companies without a Charter, and in VIOLATION OF LAW, as decreed by your Courts, are laying a

LOCOMOTIVE RAIL ROAD!

Through your most Beautiful Streets, to the RUIN of your TRADE, annihilation of your RIGHTS, and regard less of your PROSPERITY and COMFORT. Will you permit this! or do you consent to be a

SUBURB OF NEW YORK !!

Rails are now being laid on BROAD STREET to CONNECT the TRENTON RAIL ROAD with the WILMINGTON and BALTIMORE ROAD, under the pretence of constructing a City Passenger Railway from the Navy Yard to Fairmount!!! This is done under the auspices of the CAMDEN AND AMBOY MONOPOLY!

RALLY PEOPLE in the Majesty of your Strength and forbid THIS

OUTRAGE!

Effects on Industry:

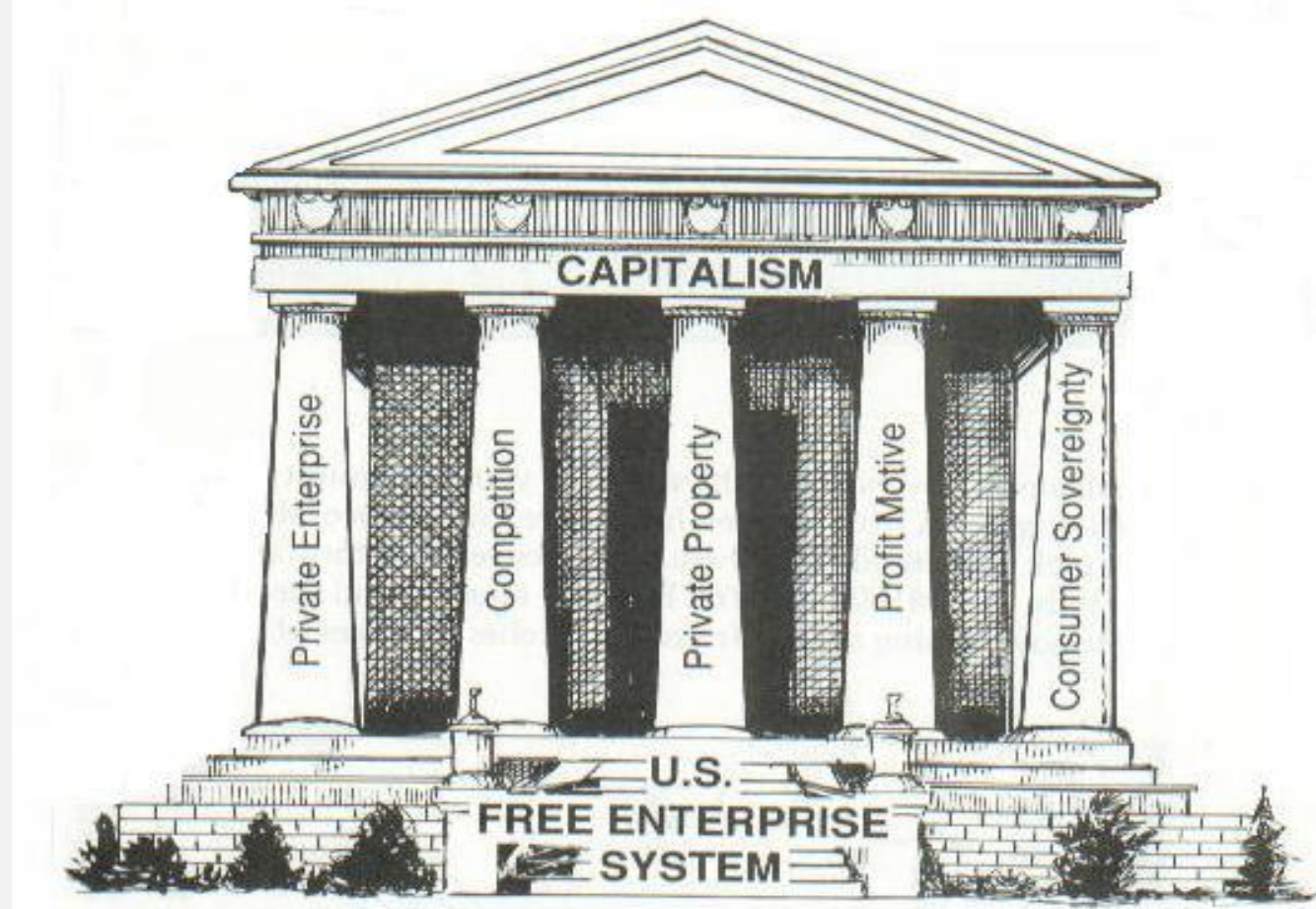
- The railroad industry created thousands of new jobs.

Ex: steelworkers, lumberjacks, miners, railroad workers

- The railroads opened up the country to settlement and growth.

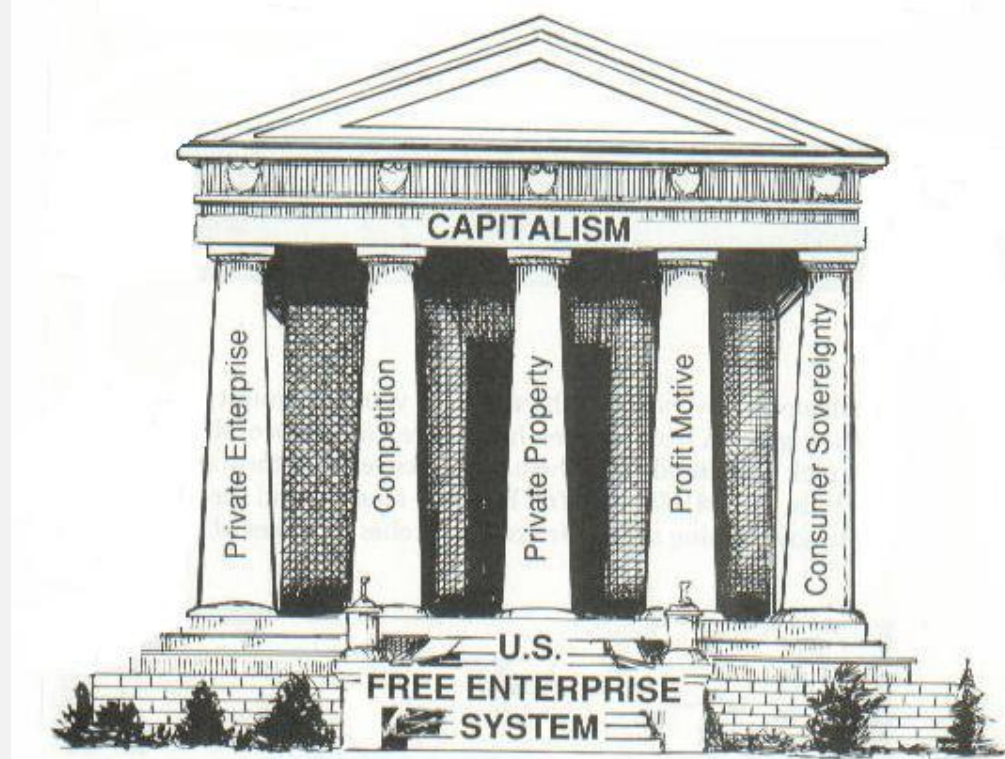
Anti-railroad propaganda

Capitalism and the Free Market System



Capitalism - an economic system in which resources and means of production are **privately** owned and prices, production, and the distribution of goods are determined mainly by **competition** in a free market

Private Enterprise - an economy in which the production of goods and services is carried out by businesses owned and operated by people **risking** their **investment** in the hope of making a **profit**.



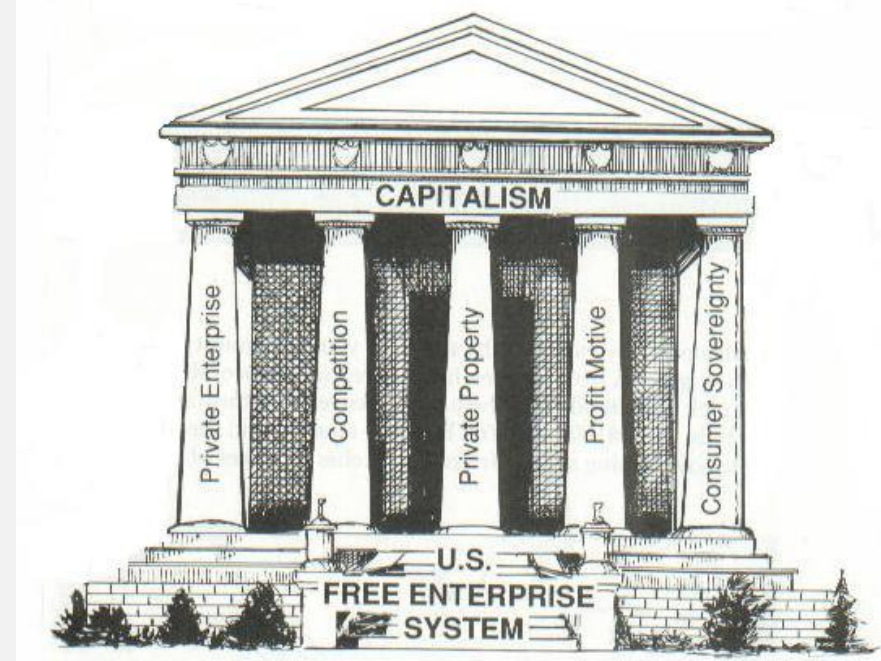
Competition - the effort of persons or firms to **attract** business by offering the most **favorable** terms

Private Property - **ownership of property** (or other assets) by individuals or corporations

Profit Motive - the **gain** after all the expenses are subtracted from the amount received

Consumer Sovereignty - the principle that assumes that **consumers** dictate the types, quality, and quantity of the goods and **services provided**

Free Enterprise System - freedom of private business to organize and **operate** for **profit** in a **competitive** system without interference by **government** beyond regulation necessary to **protect** public interest



Free Enterprise (Capitalism)

- Most large businesses are **corporations** owned by **stockholders**.

Shares of stock - a unit of ownership in a company



- Some corporations issue **dividends** to their stockholders.



Dividend – payment to stockholders from a corporation’s profits

Advantages of Corporations

1 – The sale of stock raises **capital**. (money needed to start and operate large businesses.)

2- **Corporations** can operate without a single owner.

3 – There is less **risk** involved being a **stockholder** than being the sole owner of a company.

The World's 10 Largest Corporations by Market Value, 2006 & 2016

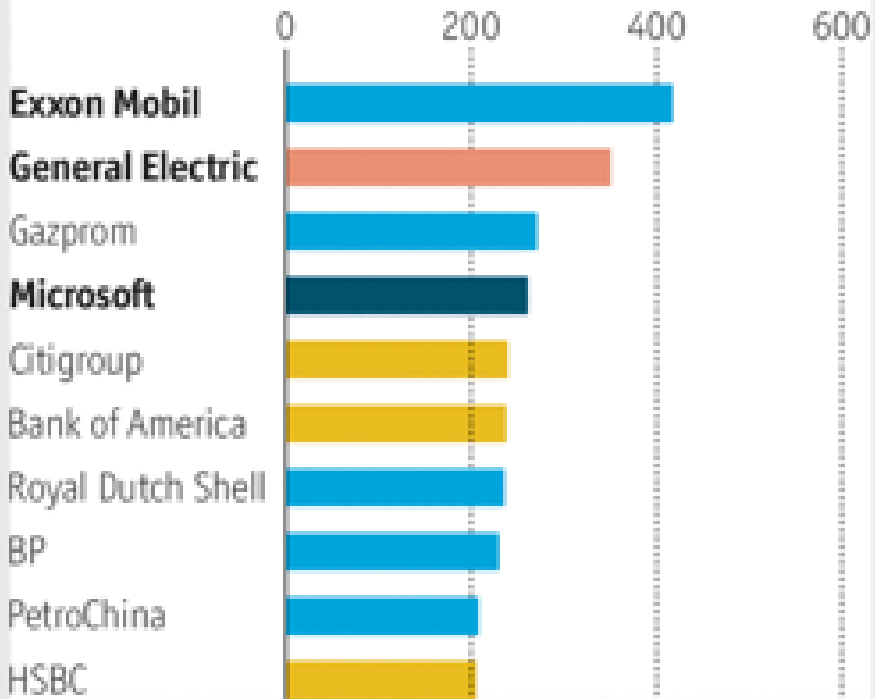
Market Value - The number of shares in issue multiplied by their current market price

A virtually new world

World, largest listed companies by market capitalisation, \$bn

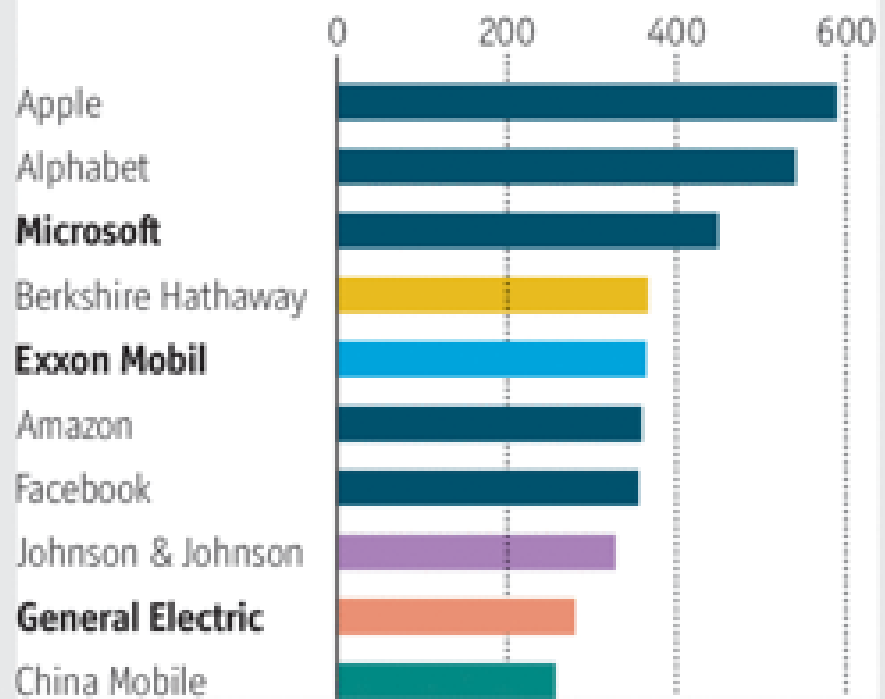
Sector: ■ Energy ■ Financials ■ Health care ■ Industrials ■ IT ■ Telecoms

End 2006



Source: Bloomberg

2016*



*At August 24th 2016

Source: The Economist

The Steel Industry

1850's – The **Bessemer** Process allowed steel to be produced cheaply.

• Therefore, the **steel** industry grew rapidly.

Ex: **railroads, skyscrapers, nails, pins**



Henry Bessemer



*Bessemer
converter,
Kelham Island
Museum,
Sheffield,
England
(2002)*

Steel: Vertical Integration

Raw Materials
Example: Iron Ore



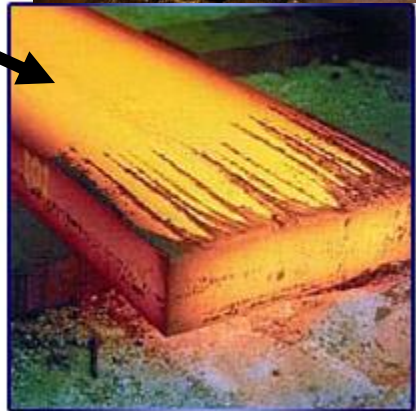
Rolling
The billets and slabs are heated and rolled into finished products.



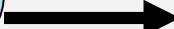
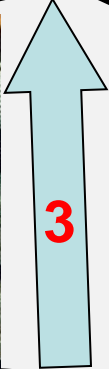
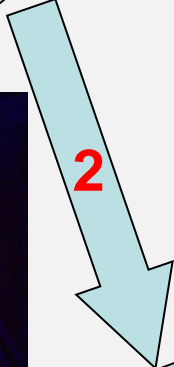
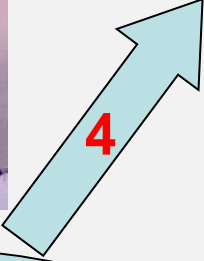
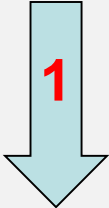
Melting
Hot air is pumped into a furnace, melting iron at 1600 degrees Celsius. (2,912 degrees F)



Casting
The liquid steel is cast into billets and slabs.



Refining
Impurities are removed and alloys are added from the molten metal through the use of a ladle.





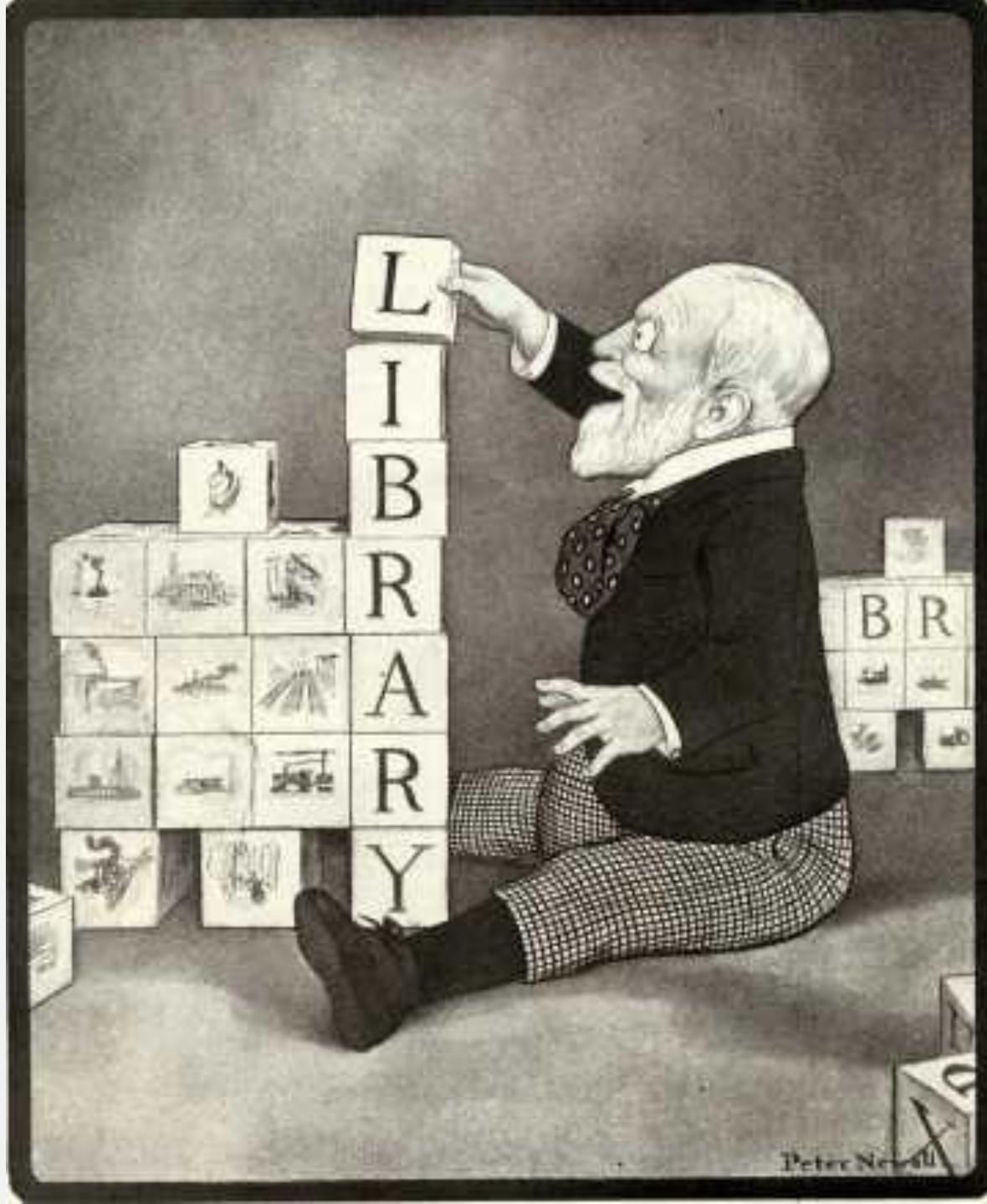
- Scottish **immigrant** Andrew **Carnegie** became the “King of **Steel**”, producing the majority of **America’s** steel.

- Carnegie reportedly gave **\$350** million of his **\$400** million fortune to **charities**, including \$60 million to build **libraries**.

Andrew Carnegie

- Andrew Carnegie's best known philanthropy was founding **libraries**.

- By 1919, **2,811** libraries had been founded at a total cost of **\$56,704,188**.



Andrew Carnegie in his "Great Double Role"



FORTY-MILLIONAIRE CARNEGIE IN HIS GREAT DOUBLE ROLE.

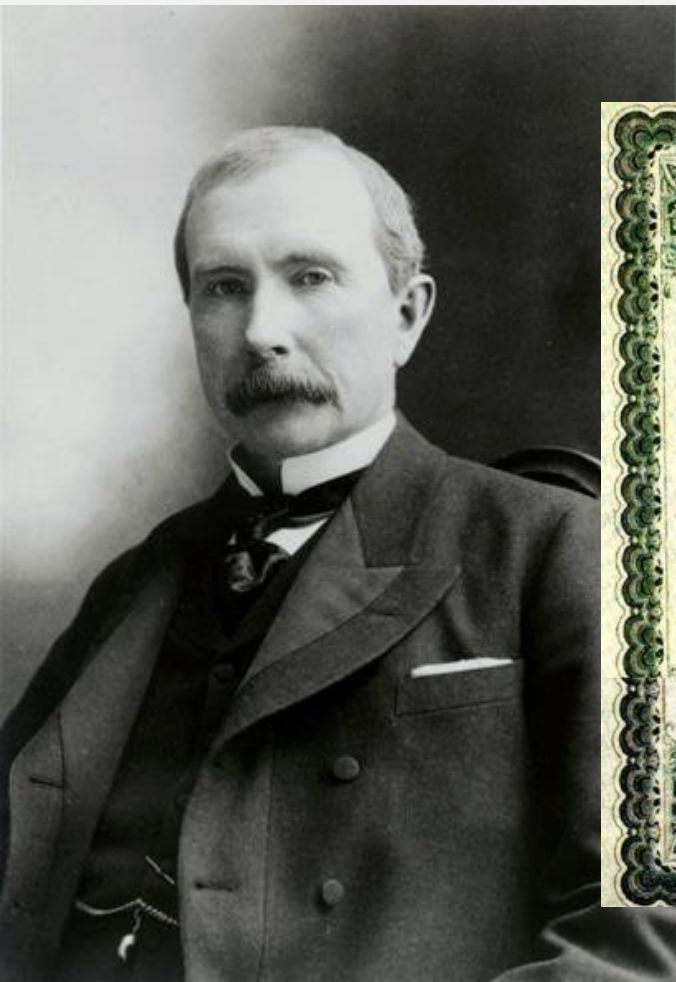
AS THE TIGHT-FISTED EMPLOYER HE REDUCES WAGES THAT HE MAY PLAY PHILANTHROPIST AND GIVE AWAY LIBRARIES, ETC.

This cartoon originally appeared in the July 9, 1892 edition of The Saturday Globe, a pro-union weekly out of Utica, New York.

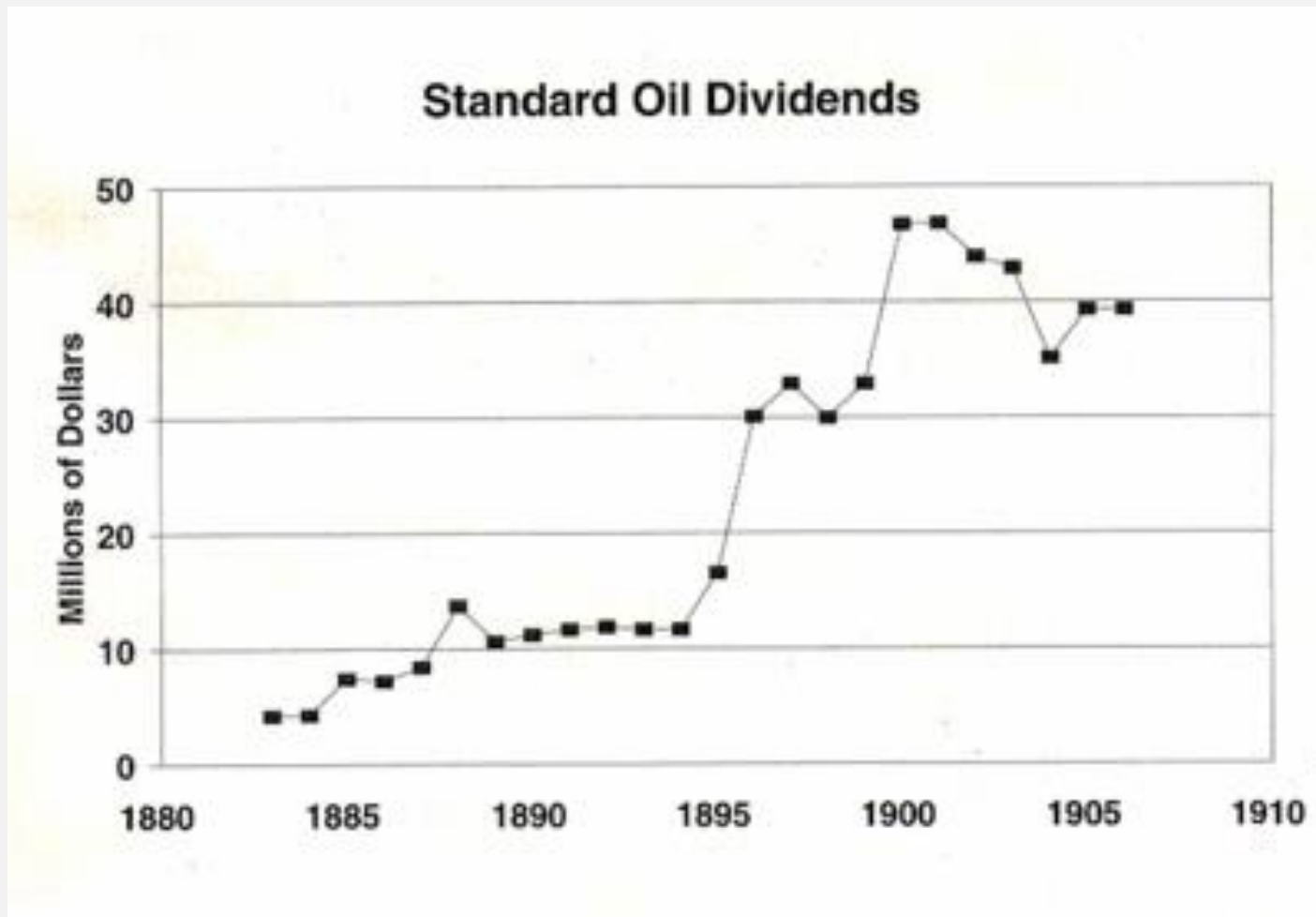
Caption reads: "Forty-Millionaire Carnegie in his Great Double Role. As the tight-fisted employer he reduces wages that he may play philanthropist and give away libraries, etc."

Standard Oil Trust

- **Trust** – an industry controlled by a single board of directors
- John D. Rockefeller formed the Standard Oil trust in 1890.



- The Standard Oil trust ended competition, forming a monopoly.



- The Sherman Antitrust Act was passed in 1890, banning the formation of trusts and monopolies.

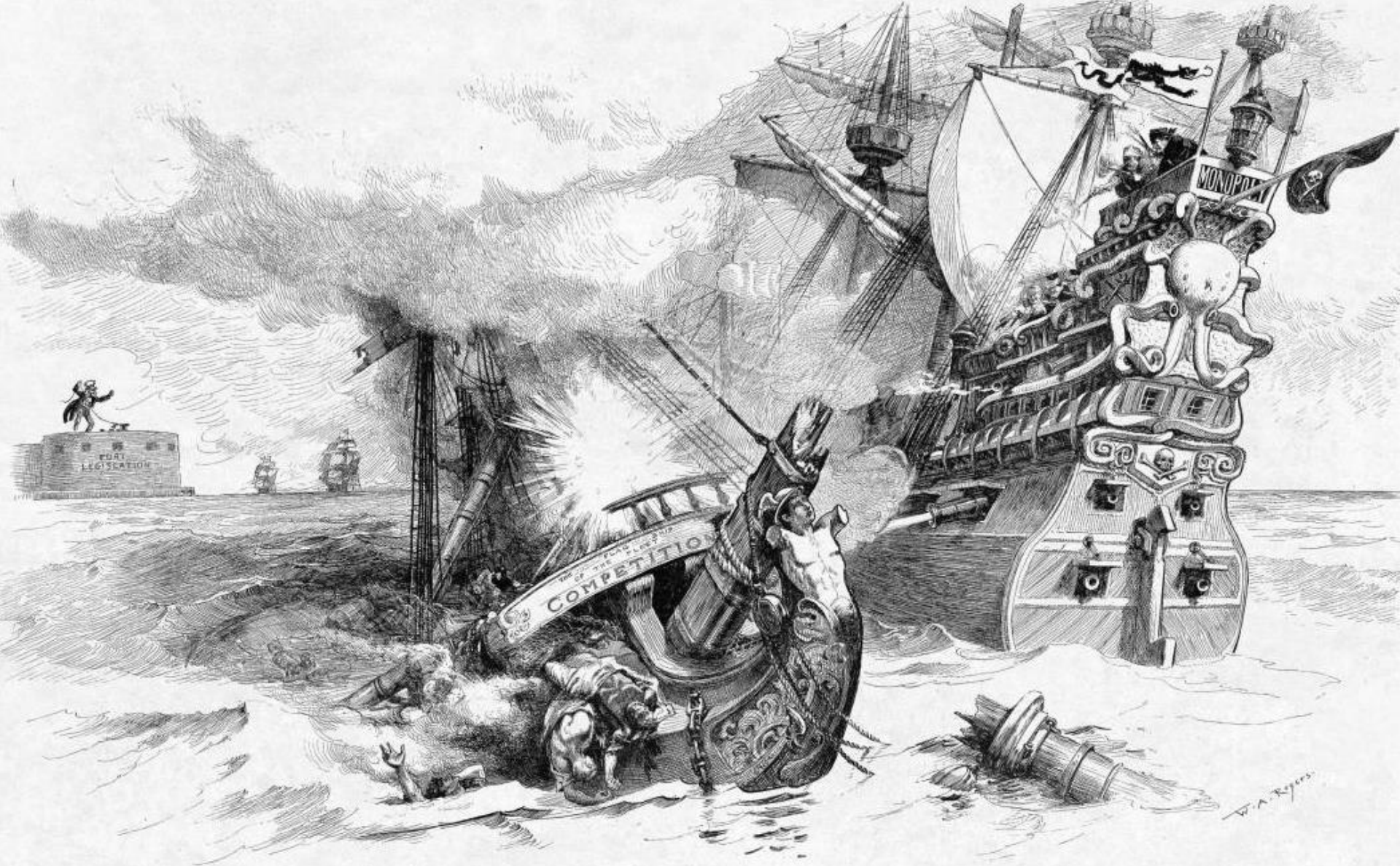
Joseph Keppler cartoon, "The Bosses of the Senate," 1889





A TRUSTWORTHY BEAST.

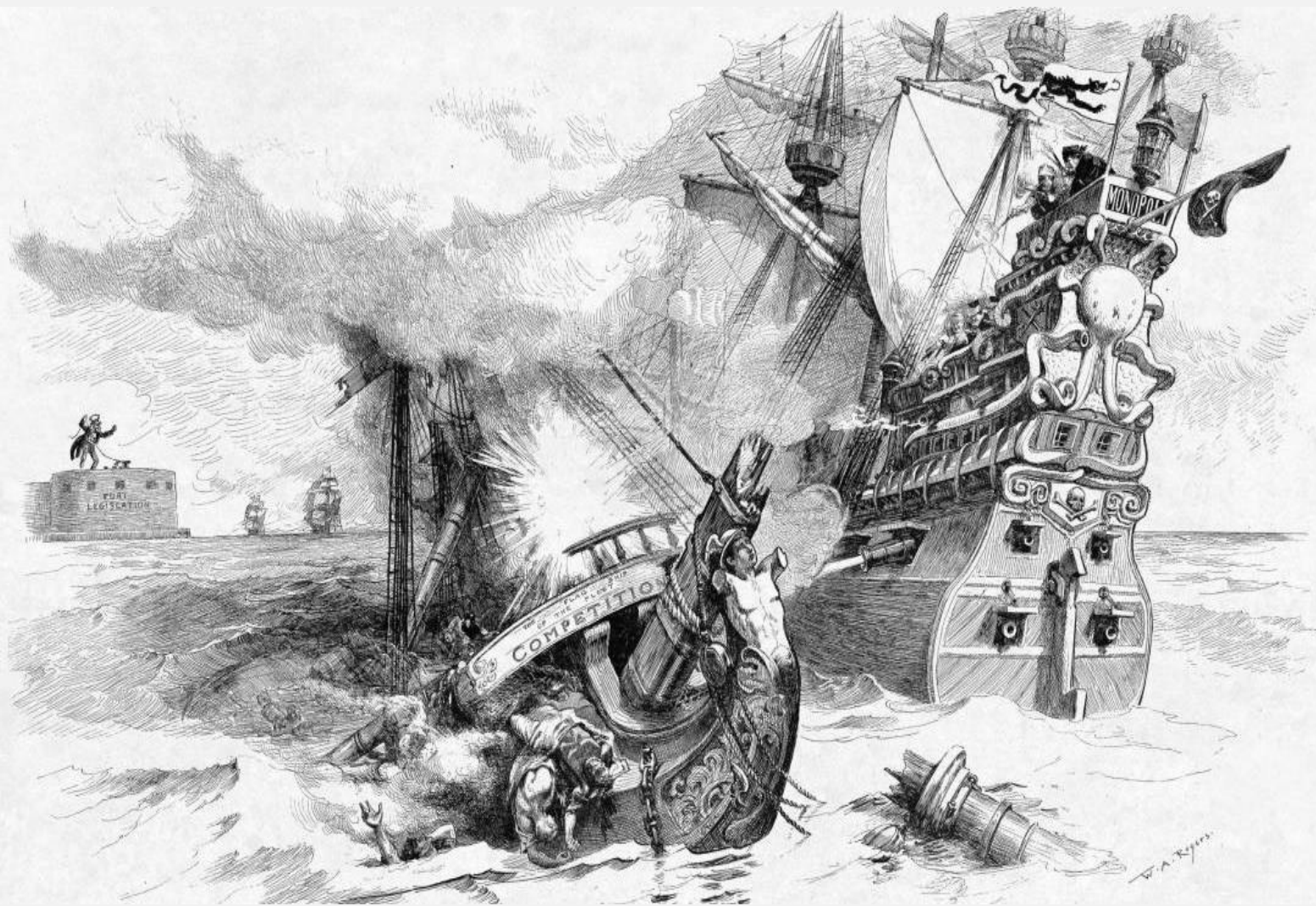
The public may regard trusts or combinations with serene confidence."—ANDREW CARNEGIE, in an interview in *N. Y. Times*, Oct. 9.



THE MODERN BUCCANEERS.

© 2000 HARPWEEK®

“The Modern Buccaneers”



This Harper's Weekly cartoon by W. A. Rogers portrays the rise of the large business corporation ("monopoly") as an illicit enterprise (a pirate ship) which menaces economic competition, and depicts the response of the federal government as woefully inadequate (Uncle Sam shooting a toy cannon).



“Congress—Who’s In It and Who Owns It”; cartoon by Jacob Burck reflecting the opinion that big money interests were able to maneuver the politicians.

The Role of Banks

- JP Morgan used profits earned as a **banker** to purchase other major corporations.
- By 1898, Morgan controlled most of the major **rail lines** in America.
- By 1901, Morgan became head of the **U.S. Steel Company**, which became the first U.S. company to be worth over **\$1 billion**.



MR. MORGAN AS THE NEW ATLAS.



Interlocking director – An individual who serves as a director of two or more corporations. If the corporations are competitors, interlocking directorates generally violate antitrust laws.



Background: Rapid industrialization and an increase in the demand for production labor, changed working conditions considerably.

Prompt: After viewing the following child labor photos, write a reaction that answers the following questions.

1. How do the photos make you feel? Why? Be specific.
2. How has America changed since the time these photos were taken?



Title: 2 boys
and a horse in
a coal mine,
West VA.

Photo by
Lewis Hine

October, 1908

“Newsies”



Out after midnight selling extras. There were many young boys selling very late. Youngest boy in the group is 9 years old. Harry, age 11, Eugene and the rest were a little older. Washington, D.C.



Francis Lance, 5 years old, 41 inches high. He jumps on and off moving trolley cars at the risk of his life. St. Louis, Mo.



*Shorpy Higginbotham,
“greaser” at the Bessie Mine of
the Sloss-Sheffield Steel and Iron
Co. He said that he was 14 years
old, but that was doubtful. The
greasers carried heavy pails of
grease and were often in danger
of run over by the coal cars.*

***Photo:** by Lewis W. Hine,
Dec., 1910*



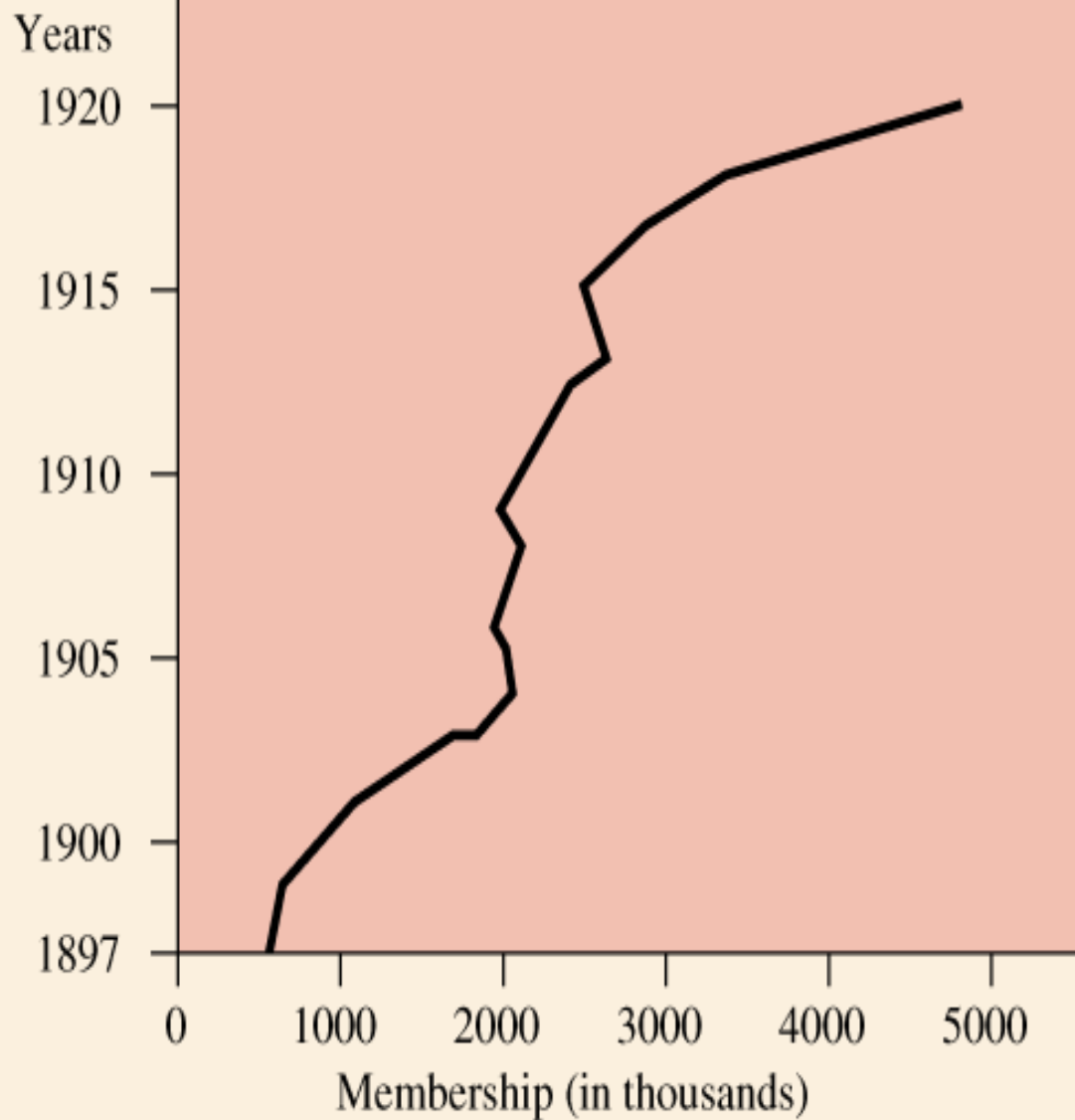
This little girl (like many others in the state) is so small she has to stand on a box to reach her knitting machine. Loudon Hosiery Mills, Loudon, Tennessee, December 1910.



Giles Edmund Newsom (Photo October 23rd, 1912) while working in Sanders Spinning Mill, Bessemer City, N.C., A piece of the machine fell on to his foot mashing his toe. This caused him to fall on to a spinning machine and his hand went into unprotected gearing, crushing and tearing out two fingers. He told the Attorney he was 11 years old when it happened. His parents said he was 13 years old. The school census taken at the time of the accident made him 12 years old.

Working Conditions

- Factory workers, miners and steel workers faced serious injury or death on a daily basis.
- Children worked in many industries, doing dangerous work for low pay.



Source: U.S. Bureau of the Census, Statistical Abstract of the United States: 1982-83 (103rd edition) Washington, D.C., 1982.

Figure 22.1 Labor Union Membership, 1897-1920

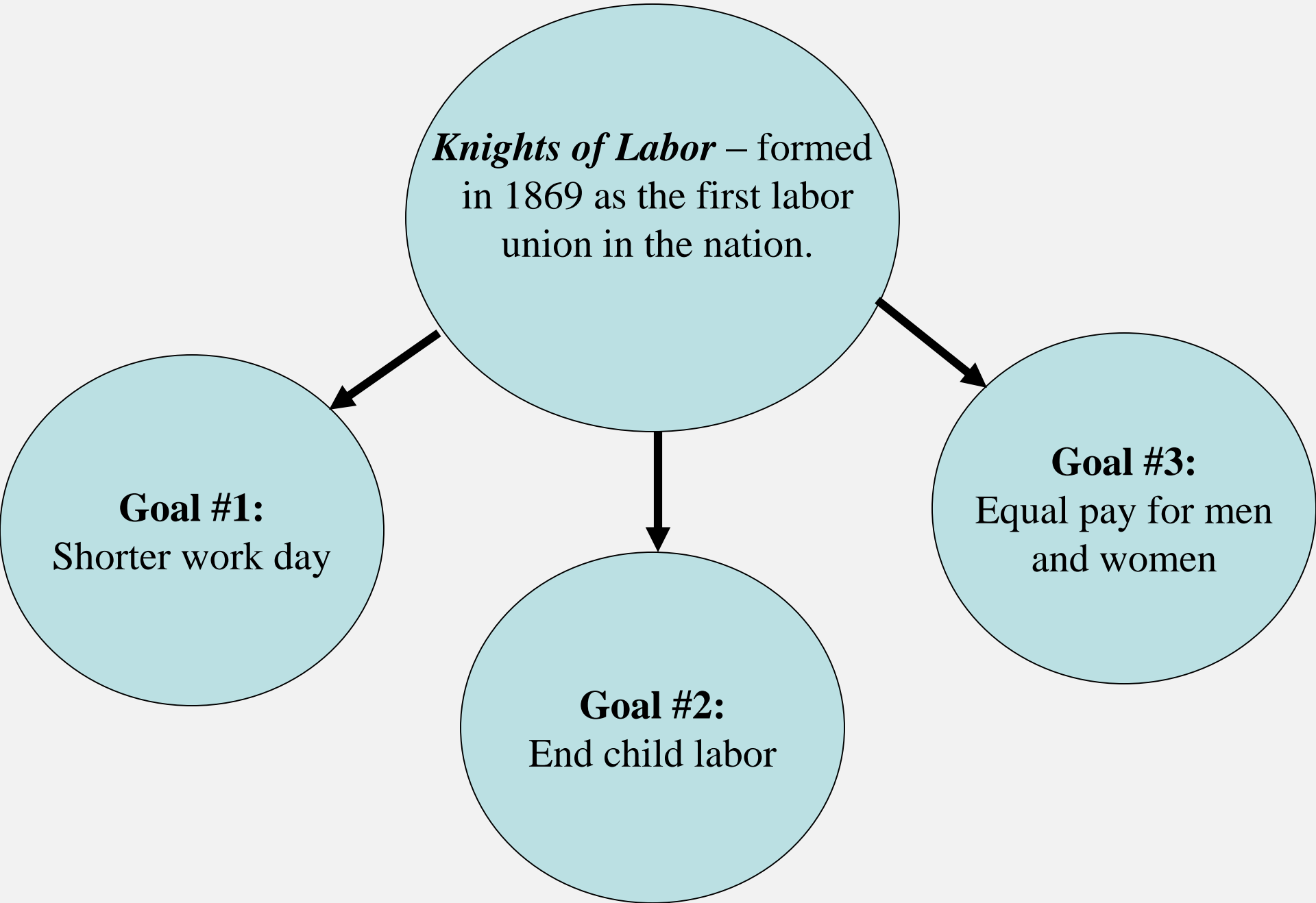
Workers Organize

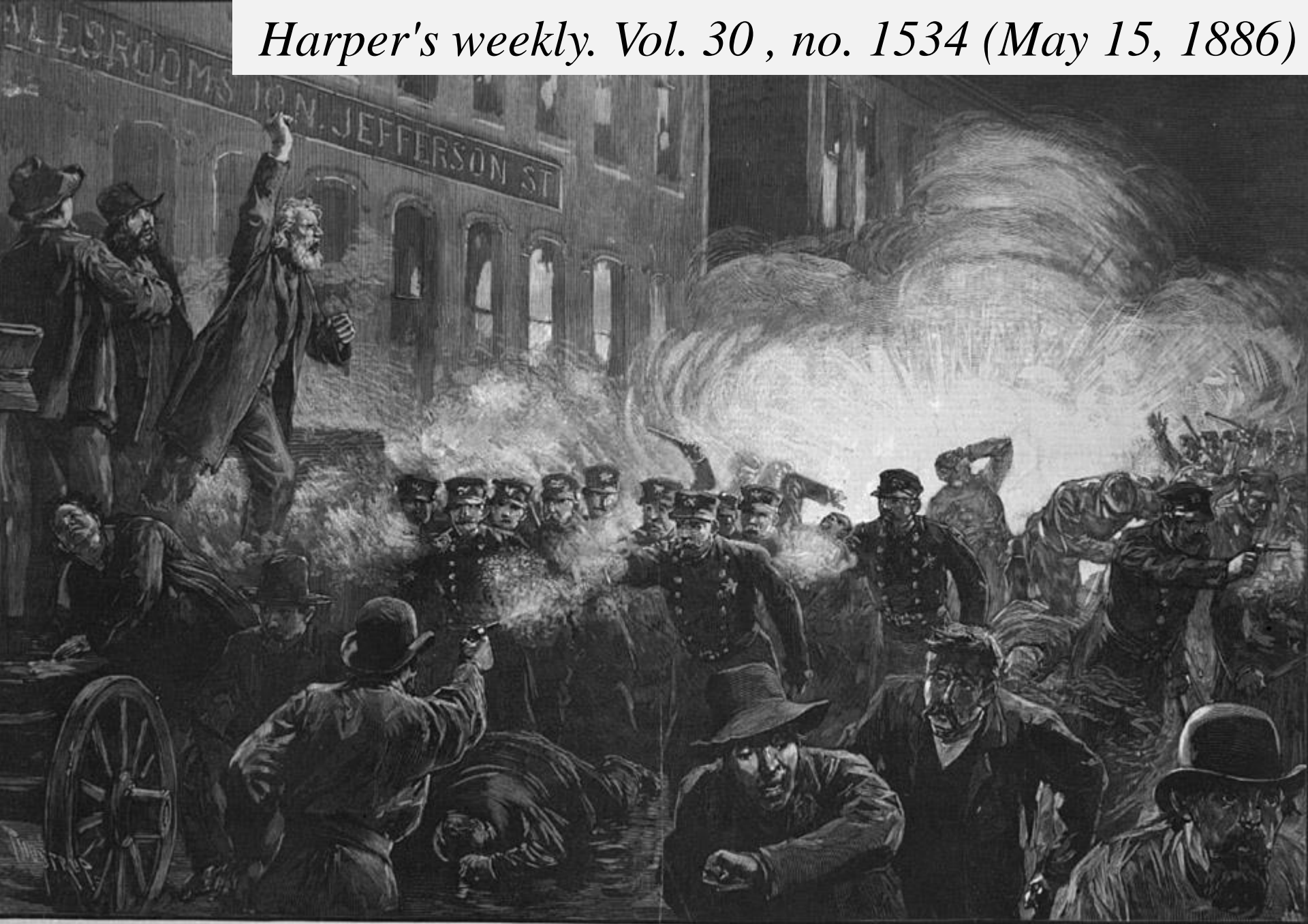
Knights of Labor – formed
in 1869 as the first labor
union in the nation.

Goal #1:
Shorter work day

Goal #2:
End child labor

Goal #3:
Equal pay for men
and women

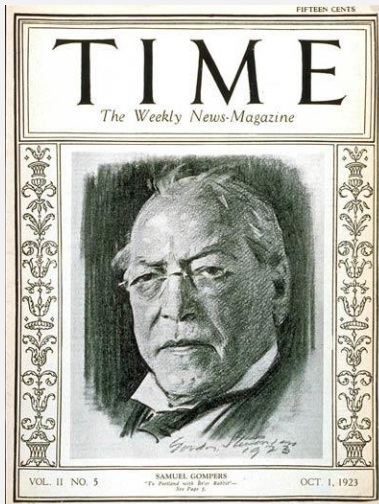




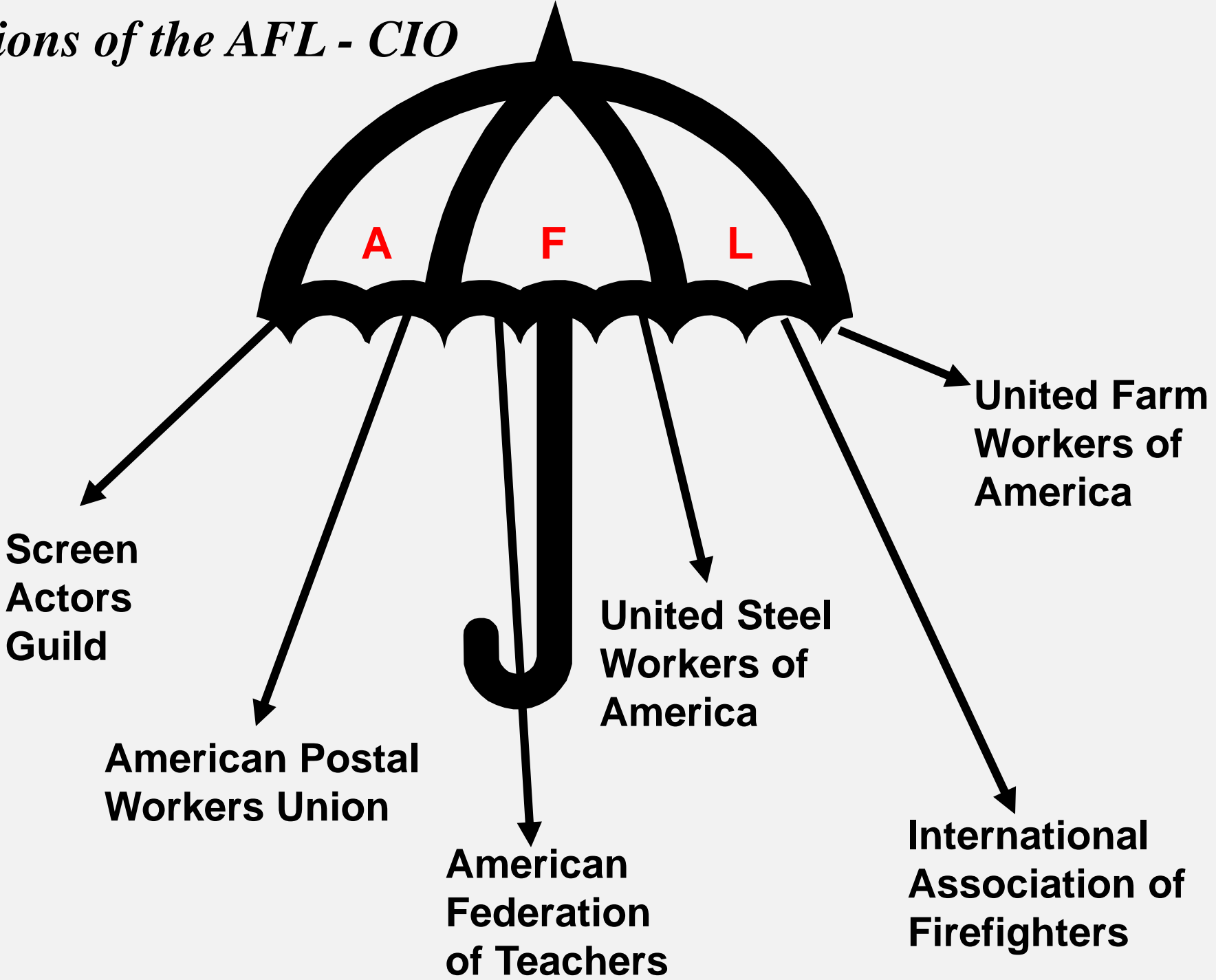
THE ANARCHIST RIOT IN CHICAGO—A DYNAMITE BOMB EXPLODING AMONG THE POLICE.—DRAWN BY T. DE TROUW FROM SKETCHES AND PHOTOGRAPHS FURNISHED BY H. JEANNEY.—[SEE PAGE 215.]

American Federation of Labor (AFL)

- In 1886, Samuel Gompers formed the AFL.
- The AFL is an umbrella organization made up of many different trade unions.



Unions of the AFL - CIO



Pullman Strike (1893) - George Pullman cut the salaries of his workers at his railroad car factory.

- However, the rent in company owned houses remained the same.

- Therefore, the workers went on strike.



Pullman workers walk the short distance to their nearby Pullman-owned homes and apartments after a day of work.

Jennie Curtiss, a Pullman worker for five years wrote:

My father worked for the Pullman Company for ten years. Last summer he was sick for three months, and in September he died. At the time of his death we owed the Pullman Company about sixty dollars for rent. I was working at the time and they told me I would have to pay that rent, give what I could every pay-day, until it was paid. I did not say I would not pay, but thought rather than be thrown out of work I would pay it. Many a time I have drawn nine and ten dollars for two weeks' work, paid seven dollars for my board and given the Company my remaining two or three dollars on the rents, and I still owe them fifteen dollars. Sometimes when I could not possibly give them anything [because her wage was cut from \$.90 to \$.20 per section of carpet], I would received slurs and insults from the clerks in the bank, because Mr. Pullman would not give me enough in return for my hard labor to pay the rent for one of his houses and live.

FIGURES SHOWING THE EXACT REDUCTIONS

| | |
|------------------------|------------|
| Lot 1515..... | Oct., 1888 |
| Car-builder..... | \$13.00 |
| Truck builder..... | .90 |
| Truck labor..... | .31 |
| Hanging brakes..... | 1.20 |
| Delivery forgings..... | 1.05 |
| Delivery lumber..... | .88 |
| Framing..... | .40 |
| <hr/> | |
| Total..... | \$17.74 |

"The same car with latest improvements, in November, 1893.

| | |
|------------------------|--------|
| Car-builder..... | \$7.00 |
| Truck "..... | .60 |
| Truck labor..... | .09 |
| Hanging brakes..... | .65 |
| Delivery forgings..... | .35 |
| Delivery lumber..... | .21 |
| Framing..... | .12 |
| <hr/> | |
| Total..... | \$9.02 |

| | |
|----------------------------|--------|
| Average wages in 1888..... | \$2.26 |
| Average " " 1893..... | \$1.03 |

"I shall show figures of the car that we struck on, the Wickes Refrigerator, in 1889.

| | |
|------------------------|---------|
| Car-builders..... | \$36.00 |
| Truck "..... | .90 |
| Truck labor..... | .32 |
| Hanging brakes..... | 1.20 |
| Delivery forgings..... | 1.31 |
| Delivery lumber..... | 1.46 |
| Framing..... | .85 |
| <hr/> | |
| Total..... | \$42.04 |

"The same car, 1894, with the latest improvements.

| | |
|------------------------|---------|
| Car builder..... | \$19.50 |
| Truck "..... | .60 |
| Truck labor..... | .10 |
| Hanging brakes..... | .60 |
| Delivery forgings..... | .56 |
| Delivery lumber..... | .64 |
| Framing..... | .26 |
| <hr/> | |
| Total..... | \$22.26 |

| | |
|----------------------------|----------------|
| Reduction of..... | \$19.78 |
| Average of wages 1889..... | \$2.00 per day |
| Average " " 1894..... | .91 per day |

The entire financial burden was carried by the workers. There were no wage cuts for managers or personnel and there were no reductions in stockholder dividends. There was a rent reduction--for shopkeepers only. Yet, the Pullman Palace Car Company at the time of the strike had a \$27,000,000 surplus, capitalization of \$30,000,000 and a quarterly dividend of \$600,000 in three months.

1894 – A federal judge issued an injunction against the workers, forcing them back to work.



- Union leaders were jailed for violating the Sherman Anti-trust Act.

THE GREAT RAILWAY STRIKES—THE FIRST MEAT TRAIN LEAVING THE CHICAGO STOCK-YARDS UNDER ESCORT OF UNITED STATES CAVALRY, JULY 18, 1894
Drawn by G. W. Peters from a Sketch by G. A. Coffin.



Women in the Labor Movement

- By 1890, millions of women worked in factories.
- Mother Jones became a labor leader, helping to organize unions nationwide.

“Pray for the dead and fight like hell for the living.” – Mother Jones

“There are no limits to which powers of privilege will not go to keep the workers in slavery.” – Mother Jones

“I asked a man in prison once how he happened to be there and he said he had stolen a pair of shoes. I told him if he had stolen a railroad he would be a United States Senator.” – Mother Jones

Triangle Fire (1911) - One hundred and forty-six people, mostly young women, died in a fire at the Triangle Shirtwaist Factory in New York City.



- After the fire, new laws were passed to protect factory workers.

Fire fighters arrived soon after the alarm was sounded but ladders only reached the 6th floor and pumps could not raise water to the highest floors of the 10-story building. Still the fire was quickly controlled and was essentially extinguished in half an hour. In this fire-proof building, 146 men, women, and children lost their lives and many others were seriously injured.



The 240 employees sewing shirtwaists on the ninth floor had their escape blocked by back-to-back chairs and workbaskets in the aisles. The 75-foot long paired sewing machine tables obstructed essential access to the windows, stairs, and elevators.



For endless hours, police officers held lanterns to light the bodies while crowds filed past victims laid out in numbered rough brown coffins. As the dead were identified the coffin was closed and moved aside. Forty-three were identified by sunrise on Sunday. Six days later 7 were still unrecognized.



Labor unions, religious communities, political groups and social reform organizations assembled to mourn the lost lives and demand real progress in worker protection. At times their differences in methods and priorities threatened to take back gains made in public awareness and the commitment to act.



Few of the terrified workers on the 9th floor knew that a fire escape was hidden behind iron window shutters. The ladder descended next to the building forcing those fleeing to climb down through flames as they struggled past other shutters stuck open across their path. The design had been deemed inadequate and the material from which it was made was insubstantial. After a few made their way down, the heat of the fire and weight of the people caused the ladder to twist and collapse dropping many who had chosen it as their lifeline.



THE LOCKED DOOR!

