

# NATION: What Is Making Industry Grow

## Industry Sweeps Nation—Changes Life in America

Pittsburgh, Pennsylvania, 1890

Industry is changing America. Machines are doing the work people used to do by hand. America's change from a farming nation to a nation full of factories and business is being called **industrialization**.

U.S. industry is finding it easy to grow.

The U.S. has:

- **Rich natural resources** [oil, coal, iron, timber]. Factories use these resources to run machines and make goods.

- **Railroads** that run from one side of the U.S. to the other. Factories use railroads to get natural resources from far away and to ship goods all over the U.S.

- The U.S. also had many new **factories** built during the Civil War. These factories make goods faster and cheaper. Helping factories grow are:

- **New inventions** [a new product or machine]. New machines make products faster than people.

- **New cheap labor**. Many **immigrants** coming into the U.S. take jobs for low pay. So factories can sell more goods for less money.

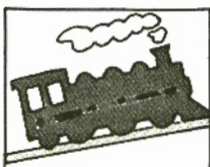
- **New capital** [money] to spend. Factories are making more money. The new money buys more machines, hires more people, and makes still more goods.

- **Government help**. **Tariffs** [taxes on imported goods] make imported goods cost more to buy. So Americans buy U.S. goods.

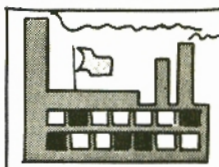
### A look at what is making industry grow in the U.S.:



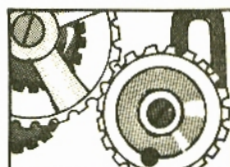
Natural Resources



Railroads



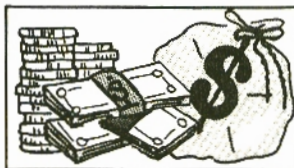
Civil War Factories



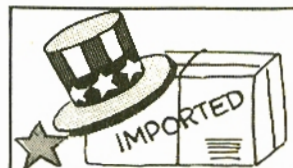
Inventions



Immigrants



Capital



Government Interest

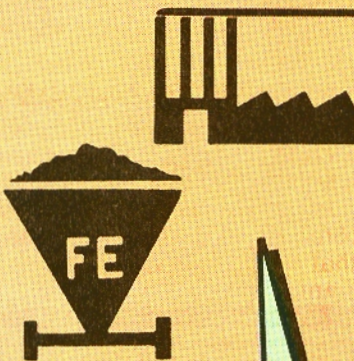
### Bessemer Process Speeds Steel-Making

Pittsburgh, 1864

American steel makers are making stronger steel faster with the new **Bessemer process**.

Englishman **Henry Bessemer** found that a blast of air shot through melted iron takes dirt out of the iron. Clean iron makes strong steel.

Before Bessemer, steel makers had to wait for dirt to come to the top of melted iron. It took weeks to make 25 to 50 pounds of steel. Now it takes only minutes to make a ton [2,000 pounds] of steel.



America is growing. People want to build bridges, railroads, and skyscrapers. The Bessemer Process lets factories make steel fast and cheaply. Now there is a lot of steel for America's building needs.

### Bell's Telephone Sends Voices Through Wire

Boston, Massachusetts, 1876

**Alexander Graham Bell** found a way to send a person's voice over wire from one place to another—the **telephone**.

Telephones help business grow. Business people in different cities can buy and sell goods over the telephone.

**October 1876:** Bell and his assistant Dr. Watson, talk on the first two-way, long-distance call. The telephone line runs two miles from Boston, to Cambridge, Massachusetts.

**1885:** American Telephone and Telegraph Company (AT&T) forms. It plans to string telephone wire all over America.

**1900:** Cities, small towns, and even some farms have telephones.



# NATION: Industrialization

1882—Edison built the first electric power station in New York City. It lit electric light bulbs in New York City homes.



Edison invented other important machines: the phonograph (1878) and a motion picture (movie) camera (1889).

## Edison Puts Light in a Bottle

1879

**Thomas Alva Edison** has bottled light—in a light bulb!

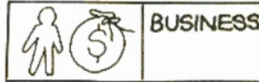
Edison put a burned cotton thread inside a glass bulb. Then he sent electricity through the thread. It burned for over 40 hours.

Edison thinks the light bulb will take the place of oil lamps for lighting people's homes and businesses.

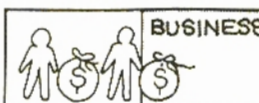
## Business: Five Ways To Set One Up

American business is booming. Every day, Americans find new ways to make businesses grow bigger and make more money. Below, ways to set up a business and make it grow.

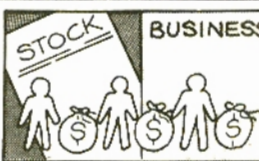
**Proprietorship:** One person running a business. This person puts up all the money to run the business.



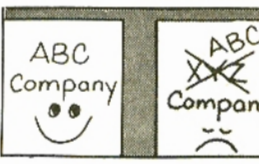
**Partnership:** Group of two or more people who work together to build a business. All the partners put the same amount of money into the business.



**Corporation:** Group of three or more people who put money into a business by buying stock. These people are called **stockholders**. Stockholders often do not work in the business but they hire others to do the work.



**Monopoly:** One company has control of a whole industry. To get a monopoly, a company may take over other companies or force them out of business. A company that has a monopoly can set any price it wants.



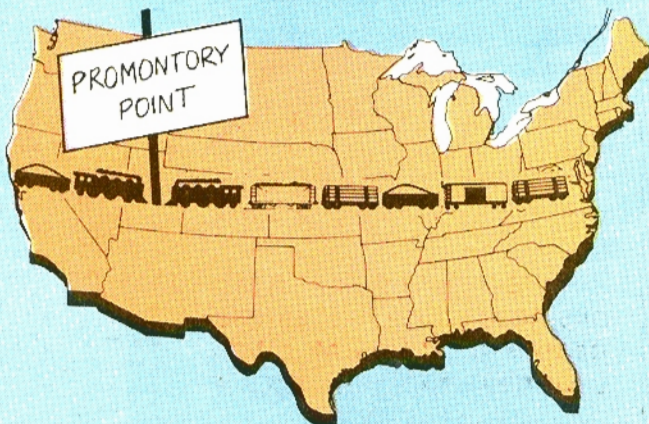
**Trust:** Two or more companies join together to control a whole industry. A trust is a monopoly run by two or more companies.



## Transcontinental Railroad Opens Nation to Business

### Presidents:

- #20  
**James A. Garfield**  
1881-1881
- #21  
**Chester A. Arthur**  
1881-1885
- #22  
**Grover Cleveland**  
1885-1889
- #23  
**Benjamin Harrison**  
1889-1893
- #24  
**Grover Cleveland**  
1893-1897



The West, 1869

The new railroad across America opens a big, new market for U.S. businesses.

■ Goods can now be sold in more places and for more money.

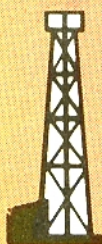
■ Eastern steel makers can send steel to California for bridges and buildings.

■ Western miners can send gold and silver east.

■ Farmers can send grain and cattle all over the U.S.

# PEOPLE: Big Business

## Where They Live—What They Do



### Standard Oil Has Monopoly—Rockefeller's Dream Comes True

Ohio, 1890

**John D. Rockefeller** has reached his goal. His **Standard Oil Company** now controls 90% of the oil business in the U.S.

Rockefeller saw he could get rich if Standard Oil was the only oil company in the U.S.—a monopoly.

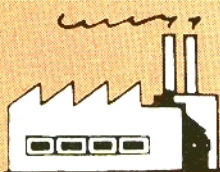
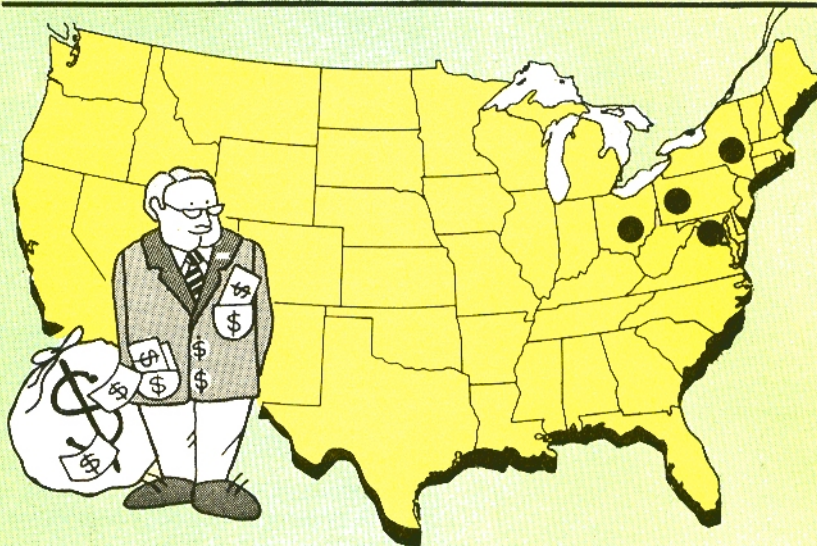
To get a monopoly, Rockefeller:

- Set his oil prices low. People bought from Standard Oil. Other oil companies went out of business.

- Took over the oil business of those companies.

- Raised prices on oil. Almost everyone had to buy from him, so he could make people pay high prices.

### A Look at Big Business in the U.S.



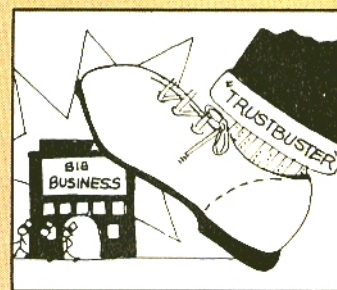
### Carnegie Makes Millions on Steel—Plans to Give Money Away

Pittsburgh, Pennsylvania, 1901

**Andrew Carnegie** has sold Carnegie Steel to J.P. Morgan for millions of dollars. Carnegie says he will spend the last half of his life giving away the money he made during the first half.

Carnegie is a true **entrepreneur** [one who starts and runs a business]. He built his business by buying everything he needed to make steel.

- Carnegie owns:
- Iron mines for iron ore.
  - Steel mills to make the iron into steel.
  - Railroads and ships to carry iron and steel.
  - Oil fields for oil to run the mills, ships, and railroads.



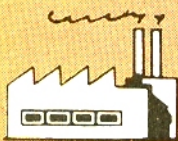
### Sherman Anti-Trust Act Makes Trusts Illegal

Washington, D.C., 1890

Congress felt trusts were getting too big and powerful. So Congress has passed the **Sherman Anti-Trust Act** making trusts against the law.

Trusts often use unfair ways to drive other companies out of business. Then the trusts control an industry. The Sherman Anti-Trust Act says these trusts must break up.

This is the first time government has made laws to control big business.



### Banking Buys Into Business—Morgan Starts U.S. Steel

New York, 1901

**John Pierpont (J.P.) Morgan**, a powerful banker, has bought Carnegie Steel. He also bought some smaller steel companies. He is putting all of them together into one giant company: **U.S. Steel**.

## NATION: Unions

### Grange Grows Weak—Farmers Find Strength in Union

Illinois, 1880

Farm problems are bigger than the Grange can solve—but this union of farmers has helped them in two ways.

The Grange has:

- Taught farmers to work together to solve problems.

- Proved to state and federal government that laws are needed to keep the farmer from getting poorer while big business gets richer.

In 1867, **Oliver Kelley** started the Grange as a social club for farmers. It grew into a union when farmers needed help to keep from losing their farms.

### Problems Facing Farmers

Many farmers are in debt. Farmers have trouble getting enough money because of:



#### High interest rates

Farmers cannot get loans to save their farms because they cannot pay the interest. Banks

charge farmers higher interest rates [money charged to get a loan] than they charge businesses.

#### Overproduction

Farmers are growing more food than people can buy because ways of farming are better.

#### Falling farm prices

Farmers are paid lower prices for their crops because there is too much food.

#### High farm costs

Farmers cannot buy the supplies they need because costs for running a farm—machinery and seed—are going up.

#### Too little currency [money]

Farmers cannot get money because the U.S. government has not printed enough currency to keep up with growing U.S.



Strike



Boycott



Scabs Cross Picket line

### Gompers Heads New Labor Union

New York, 1886

**Samuel Gompers** has put together a new labor union: the **American Federation of Labor [AF of L]**.

In 1869, **Uriah Stephens** started another union: the **Knights of Labor [K of L]**.

The AF of L and K of L do not have much in common:

The AF of L:

- Takes only skilled workers as members.

- Is made up of many smaller unions.

The K of L:

- Takes both skilled and unskilled workers.

- Is one big union.

### Labor Unions Fight for Workers —Ask for Piece of the Pie

Across America, 1890 s

American workers are angry at big business. Workers see business owners getting rich while the worker works long days in unsafe factories for low pay.

Labor unions are fighting to make the workers' life better. A **labor union** is a group of workers who join together to fight for better pay and working conditions.

Here are the ways labor unions get what they want from business owners.

Labor unions can:

- **Strike**—workers do not work until business owners give them what they want.

- **Walk a picket line**—workers on strike walk around the company's building. They try to keep people from going into the building. A person who crosses the picket line to go in to work is called a **scab**.

- **Boycott**—workers do not buy a company's goods and they ask others not to buy.

The boycott:

- Lets everyone know the workers think the company is unfair.

- Makes the company lose money so the company will make a deal with the union.