

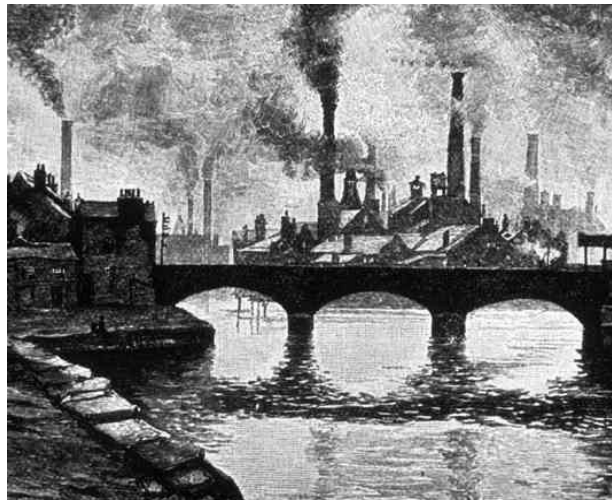
American History Chapter 5 Industrialization

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The Rise of Industry *Section 1*

Section 1 discusses the factors that contributed to the industrialization of the United States in the late 1800s. With an abundance of natural resources and able workers, the United States turned its focus to technology and industry after the Civil War. Entrepreneurs and European investors financed industries and a flood of new inventions that transformed American communications and manufacturing and improved transportation. In the late 1800s, the federal government's laissez-faire approach—low taxes, low spending, and little interference—fostered the growth of free enterprise. At the same time, the govern-



ment's high tariffs encouraged American industrial growth by reducing demand for foreign goods. As industry expanded, millions of Americans left their farms to work in mines and factories.

By the early 1900s, American entrepreneurial skill and technology had transformed the United States into the world's leading industrial nation.



Some boys and girls were so small they had to climb up on to the spinning frame to mend broken threads and to put back the empty bobbins

STEAM ENGINE

Steam Engine

Although the very first steam engine was developed over fifty years before the industrial revolution, improvements and revisions of this invention had a massive impact on the Industrial Revolution.

The first steam engine was developed by Thomas Slavery, of Great Britain, in 1698. This steam engine only pumped water, and was not very practical. This idea was improved upon in 1712 by Thomas Newcomen. His created utilized a cylinder and a piston to, like Thomas Slavery's invention, pump

water. This was used in coal mines. James Watt, from Scotland, improved on these designs to lay the groundwork for modern steam engines. His design incorporated gears and even a crankshaft.

Reading Checks

- How did oil production affect the American economy?
- How did the use of electric power affect economic development?
- Do you think government policies at this time helped or hindered industrialization? Why?

The Railroads Section 2

Section 2 describes how the rapid construction of railroads after the Civil War spurred the nation's industrial growth. With the Pacific Railway Act in 1862, the nation set off on a mission to connect its distant regions in a transportation network. The transcontinental railroad was the first of many lines to crisscross the nation. Eventually, railroad consolidation connected hundreds of small railway lines across the country, making the transportation of goods more efficient and economical. Railroads revolutionized transportation, broadened markets, and stimulated the economy. The federal government helped finance railroad construction by giving many railroad companies land grants. Corruption plagued the land grant system, and robber barons reaped huge profits from manipulating the system.



• 1893—Great Northern Railroad completed to Seattle.

Reading Checks

- Why was the Country divided into four time zones
- How was the Great Northern Different from other railroads of its time?

HISTORY OF THE RAILROADS

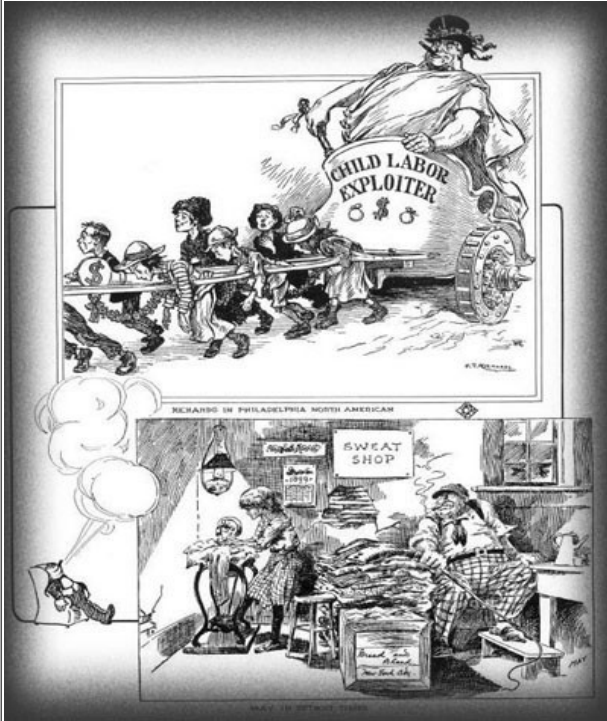
In September, 1825, the Stockton & Darlington Railroad Company began as the first railroad to carry both goods and passengers on regular schedules using locomotives designed by English inventor, George Stephenson. Stephenson's locomotive pulled six loaded coal cars and 21 passenger cars with 450 passengers over 9 miles in about one hour. George Stephenson is considered to be the inventor of the first steam locomotive engine for rail-

ways. Richard Trevithick's invention is considered the first tramway locomotive, however, it was a road locomotive, designed for a road and not for a railroad. Stephenson was extremely poor growing up and received little formal education. He worked in local collieries and was self-taught in reading and writing. In 1812, he became a colliery engine builder, and in 1814 he built his first locomotive for the Stockton and Darlington Railway Line. Stephenson was hired as the company engineer and soon convinced the owners to use steam motive power and built the line's first locomotive, the *Locomotion*. In 1825, Stephenson moved to the Liverpool and Manchester Railway, where together with his son Robert built (1826-29) the *Rocket*. Colonel John Stevens is considered to be the father of American railroads. In 1826 Stevens demon-

strated the feasibility of steam locomotion on a circular experimental track constructed on his estate in Hoboken, New Jersey, three years before George Stephenson perfected a practical steam locomotive in England. The first railroad charter in North America was granted to John Stevens in 1815. Grants to others followed, and work soon began on the first operational railroads. Designed and built by Peter Cooper in 1830, the *Tom Thumb* was the first American-built steam locomotive to be operated on a common-carrier railroad. The Pullman Sleeping Car was invented by George Pullman in 1857. Pullman's railroad coach or sleeper was designed for overnight passenger travel. Sleeping cars were being used on American railroads since the 1830s, however, early sleepers were not that comfortable and the Pullman Sleeper was very comfortable.



What we allow we Promote!!!



Chapter 5 Daily Plan

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Monday Oct 10th, Tuesday Oct 11th

Read 5-1 page 182-187 Notes and WKS Groups will make foldable for the bulletin board

Wednesday Oct 12th , Thursday Oct 13th

Read 5-2 page 188-193 Notes and WKS Quiz over section 1.

Monday Oct 17th, Tuesday Oct 18th

Read 5-3 page 194-199 Notes and WKS Tuesday review for the test

Tuesday after school Review for test in my room.

Wednesday Oct 19th, Thursday Oct 20th. Test

The Disgrace of Child Labor

"The worst conditions," according to Harold Faulkner," prevailed in manufacturing in which about 16% of the child workers were engaged. The picture of children kept awake during the long night in a Southern mill by having cold water dashed on their faces, of little girls in canning factories 'snipping' sixteen or more hours a day or capping forty cans a minute in an effort to keep pace with a never exhausted machine, of little ten-year-old breaker boys crouched for ten hours a day over a dusty coal chute to pick sharp slate out of the fast moving coal, of boys imported from orphan asylums and reformatories to wreck their bodies in the slavery of a glass factory, or a four-year old baby toiling until midnight over artificial flowers in a New York tenement-these were conditions which might well shame a civilized people into action."

For years labor leaders had inveighed against the use of child workers, emphasizing that such exploitation was

largely due to the unwillingness of employers to pay adults adequate wages. Humanitarian arguments were stressed, but trade unionists could not help but be alarmed by the growing displacement of adults by youngsters and the lowering of wage scales in the industries employing them.

So far as employers were concerned, child labor was a blessing in disguise. Instilling the work ethic in youngsters was good for their character and kept them out of mischief. Besides, as Charles Harding, president of the Merchants Woolen Company, told a Congressional committee: "There is a certain class of labor in the mills where there is not as much muscular exercise required as a child would put forth in play, and a child can do it about as well as a grown person....There is such a thing as too much education for working people sometimes. I have seen cases where young people are spoiled for labor by.....too much refinement."

One textile employer wrote lyrically about the pleasures of child labor: "They seem to be always cheerful and alert, taking pleasure in the light play of their muscles; enjoying the mobility natural to their age. It was delightful to observe the nimbleness with which they pieced the broken ends as the mule-carriage (textile mill machine) began to recede from the fixed roller beam, and to see them at leisure after a few seconds' exercise of their tiny fingers, to amuse themselves in any attitude they chose till the stretching and winding-on were once more completed. The work of these lively elves seemed to resemble a sport in which habit gave them a pleasing dexterity."

To the right are a couple political cartoons of the time, noting employer attitudes toward child labor in the early 1900's