

CHAPTER 11 SECTION 1

A GROWING ECONOMY

PAGES 296-301

INDUSTRIAL REVOLUTION (1750)—MACHINES TAKING THE PLACE OF MANY HAND TOOLS. MUCH OF THE POWER ONCE PROVIDED BY PEOPLE AND HORSES BEGAN TO BE REPLACED, FIRST BY FLOWING WATER AND THEN BY STEAM ENGINES. MACHINES PRODUCE LARGE AMOUNTS OF GOODS.

GREAT BRITAIN—WHERE THE INDUSTRIAL REVOLUTION BEGAN IN THE MID 1700'S IN THE TEXTILE INDUSTRY.

FACTORY SYSTEM—BRINGS WORKERS AND MACHINERY TOGETHER IN ONE PLACE.

TECHNOLOGY—TAKING SCIENTIFIC KNOWLEDGE AND DISCOVERIES AND PUTTING IT INTO A PRACTICAL USE.

ELI WHITNEY—AMERICAN INVENTOR OF THE COTTON GIN WHO DEVISES THE SYSTEM OF INTERCHANGEABLE PARTS.

INTERCHANGEABLE PARTS—IDENTICAL PIECES THAT COULD BE ASSEMBLED QUICKLY BY UNSKILLED WORKERS. ALSO USED TO REPLACE IDENTICAL PIECES.

PATENT—GIVES AN INVENTOR THE SOLE LEGAL RIGHT TO MAKE MONEY FROM AN INVENTION FOR A CERTAIN PERIOD OF TIME. PATENT LAW PASSED IN 1790.

STEAM POWER—IN 1790, THE STEAM ENGINE WAS USED AS A SOURCE OF POWER FOR FACTORIES. FACTORIES COULD NOW BE BUILT ANYWHERE. GREAT BRITAIN TRIED TO GUARD THE SECRETS OF THE FACTORY SYSTEM.

SAMUEL SLATER—IN 1789, SLATER MEMORIZED THE PLANS OF ARKWRIGHT'S MACHINES, AND BROUGHT THESE IDEAS TO AMERICA.

U.S. INDUSTRIAL REVOLUTION—BEGAN IN THE NORTHEAST UNITED STATES AROUND 1800.

1. WATER POWER
2. NATURAL RESOURCES
3. NATURAL HARBORS
4. LABOR SUPPLY
5. CAPITAL—MONEY FOR INVESTMENT

LOWELL MILLS—STARTED BY FRANCIS LOWELL, THEY WERE BUILT IN MASSACHUSETTS. SPINNING AND WEAVING WERE BROUGHT INTO ONE BUILDING.

LOWELL GIRLS—YOUNG GIRLS WHO WORKED IN THE FACTORIES AT LOWELL, MASS. THEY STAYED IN DORMITORIES AND RECEIVED EDUCATION.

FREE ENTERPRISE—PEOPLE ARE FREE TO WORK WHEREVER THEY WISH AND TO BUY, SELL, AND PRODUCE WHATEVER THEY WANT.

CAPITALISM—INDIVIDUALS AND BUSINESSES OWN PROPERTY AND DECIDE HOW TO USE IT.

MASS PRODUCTION—RAPID MANUFACTURE OF LARGE NUMBERS OF IDENTICAL OBJECTS.

CHAPTER 14 SECTION 1
THE INDUSTRIAL NORTH
PAGES 376-381

URBANIZATION AND INDUSTRIALIZATION—NORTHERN CITIES BEGAN TO GROW MUCH FASTER THAN SOUTHERN CITIES DUE TO THE MOVEMENT OF PEOPLE FROM RURAL AREAS TO THE CITIES DUE TO THE INDUSTRIAL REVOLUTION. IMMIGRATION ALSO CONTRIBUTED TO THEIR GROWTH.

TECHNOLOGY AND INDUSTRY—BECAME THE MOST IMPORTANT PART OF THE ECONOMY IN THE NORTH IN THE EARLY 1800'S.

MANUFACTURING

ELIAS HOWE—INVENTED A SEWING MACHINE IN 1843. TEXTILE INDUSTRY.

TRANSPORTATION

STEAM BOAT—IN 1807, ROBERT FULTON INVENTED THE FIRST STEAMBOAT NAMED THE CLERMONT.

CLIPPER SHIPS—IN 1850, LONG SLENDER FAST SHIPS BUILT BY AMERICANS.

STEAMSHIPS—REPLACED THE CLIPPER SHIPS.

STEAM LOCOMOTIVE—PETER COOPER BUILTS THE FIRST STEAM LOCOMOTIVE IN 1830 CALLED THE TOM THUMB. BEGINNING OF RAIL TRAFFIC.

COMMUNICATION

TELEGRAPH (1844)—DEVICE THAT USED ELECTRICAL SIGNALS TO SEND MESSAGES

SAMUEL F. B. MORSE—INVENTOR OF THE TELEGRAPH

MORSE CODE—SYSTEM OF DOTS AND DASHES REPRESENTING LETTERS OF THE ALPHABET USED TO SEND MESSAGES ON THE TELEGRAPH.

"WHAT HATH GOD WROUGHT"—FIRST MESSAGE SENT ON TELEGRAPH

AGRICULTURE

STEEL TIPPED PLOW—INVENTED BY JOHN DEERE IN 1837.

MECHANICAL REAPER—INVENTED BY CYRUS MCCORMICK (1834). IT CUT GRAIN.

THRESHING MACHINE—SEPARATED GRAIN FROM THE STALKS.

CHAPTER 14 SECTIONS 3 AND 4

SOUTHERN COTTON KINGDOM

PEOPLE OF THE SOUTH

PAGES 387-397

COTTON—HAD NOT ALWAYS BEEN THE SOUTH'S LEADING CROP. TOBACCO, RICE, SUGAR CANE, AND INDIGO HAD BEEN OF GREATER VALUE.

COTTON GIN (1793)—INVENTED BY ELI WHITNEY; THE COTTON GIN REMOVED THE SEEDS FROM THE COTTON FIBER. THE COTTON GIN COULD REMOVE 50 TIMES THE AMOUNTS OF SEEDS AS BEFORE.

SLAVERY INCREASES—IN 1790 THERE WERE 698,000 SLAVES. BY 1860, THERE WERE 4 MILLION SLAVES. THE PRICE A SLAVE INCREASED FROM 10-20 TIMES IN VALUE.

"KING COTTON"—NAME GIVEN TO COTTON DUE TO ITS IMPORTANCE IN THE LIVES AND ECONOMY OF THE SOUTH.

PLANTATIONS—LARGE FARMS DOMINATED THE COTTON KINGDOM OF THE SOUTH. MORE THAN HALF OF ALL SOUTHERN FARMERS DID NOT OWN ANY SLAVES AT ALL.

OVERSEER—A PLANTATION MANAGER WHO SUPERVISED THE SLAVES.

FREE AFRICAN AMERICANS—SOME AFRICAN AMERICANS WERE FREE. THEY WERE EXCLUDED FROM MOST JOBS. THEIR CHILDREN COULD NOT ATTEND SCHOOL. THEY COULD NOT VOTE, SERVE ON JURIES, OR TESTIFY IN COURT. THEY WERE DISCOURAGED FROM TRAVELING. SOME FREE BLACKS WERE KIDNAPPED AND SOLD INTO SLAVERY.

SLAVE CODES—LAWS THAT CONTROLLED EVERY ASPECT OF A SLAVES LIFE. THE ONLY PROTECTION AGAINST SEVERE MISTREATMENT WAS THAT OWNERS LOOKED UPON SLAVES AS VALUABLE PROPERTY. MANY FAMILIES WERE SPLIT UP OR BROKEN APART BY MEMBERS OF THE FAMILY BEING SOLD OFF TO OTHER PLANTATIONS.

1808—BECAME ILLEGAL TO IMPORT SLAVES INTO AMERICA.

AFRICAN AMERICAN CULTURE—CUSTOMS, MUSIC, AND DANCE DID SURVIVE MANY GENERATIONS OF SLAVERY.

SPIRITUALS—RELIGIOUS FOLK SONGS THAT BLENDED BIBLICAL THEMES WITH THE REALITIES OF SLAVERY.

SLAVE RESISTANCE

1. **NAT TURNER (1831)—LED A SLAVE REVOLT KILLING 60 WHITES. EXECUTED ALONG WITH MANY OTHER AFRICAN AMERICANS IN REPRISAL.**
2. **HARRIET TUBMAN—MOST FAMOUS CONDUCTOR OF UNDERGROUND RAILROAD KNOWN AS THE BLACK MOSES.**
3. **FREDERICK DOUGLASS—BLACK ABOLITIONIST WHO WORKED FOR THE ENDING OF SLAVERY.**
4. **UNDERGROUND RAILROAD—NETWORK OF "SAFE HOUSES" OWNED BY PEOPLE OPPOSED TO SLAVERY.**

CHAPTER 20 SECTIONS 1 AND 2
RAILROADS LEAD THE WAY/INVENTIONS CHANGE SOCIETY
PAGES 550-559

RAILROAD CONSOLIDATION—MANY RAILROAD COMPANIES COMBINED TOGETHER.

STANDARD GAUGE—RAILROAD TRACKS WERE UNIFORM IN WIDTH (4 FT. 8 ½ IN.) THROUGHOUT THE COUNTRY. DROVE DOWN SHIPPING TIMES AND COSTS.

GEORGE PULLMAN—DEVELOPED THE PULLMAN SLEEPING CAR FOR RAILROADS.

RAILROAD BOOM—RAILROADS FUELED INDUSTRIAL GROWTH.

TELEGRAPH (1844)—INVENTED BY SAMUEL F. B. MORSE. VERY IMPORTANT TO RAILROADS.

UNDERWATER TELEGRAPH CABLE (1866)—CYRUS FIELD LAID A TELEGRAPH CABLE BETWEEN THE U.S. AND EUROPE.

TELEPHONE (1876)—ALEXANDER GRAHAM BELL INVENTED THIS DEVICE. “MR. WATSON, COME HERE. I WANT TO SEE YOU.”

TYPEWRITER (1868)—INVENTED BY CHRISTOPHER SHOLLS.

LIGHT WEIGHT CAMERA (1888)—INVENTED BY GEORGE EASTMAN

THOMAS EDISON (1876)—INVENTED THE FIRST LIGHT BULB. OTHER INVENTIONS INCLUDED PHONOGRAPH, MOTION PICTURE CAMERA, AND HUNDREDS OF OTHERS.

MENLO PARK; NEW JERSEY—INVENTION FACTORY OF THOMAS EDISON

ELECTRICAL POWER PLANT (1882)—EDISON OPENED IN NEW YORK CITY THE FIRST OF THESE.

HENRY FORD—BUILT THE MODEL T “TIN LIZZIE”. THE FIRST AFFORDABLE CAR.

ASSEMBLY LINE—MANUFACTURING METHOD IN WHICH A PRODUCT IS PUT TOGETHER AS IT MOVES ALONG A BELT.

MASS PRODUCTION—MAKING ITEMS IN LARGE QUANTITIES MORE QUICKLY.

ORVILLE AND WILBUR WRIGHT (1903)—WILL MAKE THE FIRST AIR FLIGHT AT KITTY HAWK IN NORTH CAROLINA. THE FLIGHT LASTED 12 SECONDS AND WENT 120 FEET.

CHAPTER 20 SECTIONS 3 AND 4

AGE OF BIG BUSINESS/WORKERS IN INDUSTRIAL AGE

PAGES 560-569

OIL—OIL IS DISCOVERED IN TITUSVILLE, PA. IN 1859. STARTS A NEW BOOM.

FACTORS OF PRODUCTION—LAND, LABOR, CAPITAL

ENTREPRENEUR—SOMEONE WHO SETS UP NEW BUSINESS TO MAKE A PROFIT.

CORPORATION—BUSINESSES OWNED BY MANY INVESTORS BY BUYING SHARES OF STOCK.

STOCK, SHAREHOLDERS, DIVIDENDS—PEOPLE BUY SHARES BECOMING SHAREHOLDERS AND HOPE TO MAKE A PROFIT THROUGH DIVIDENDS.

JOHN D. ROCKEFELLER—MADE A FORTUNE IN THE OIL INDUSTRY. CREATED STANDARD OIL TRUST.

TRUST—A GROUP OF CORPORATIONS RUN BY SAME PEOPLE.

MONOPOLY—COMPANY THAT CONTROLS MOST OR ALL BUSINESS IN A PARTICULAR INDUSTRY. NO COMPETITION.

BESSEMER PROCESS—METHOD OF MAKING STRONGER STEEL AT A LOWER COST.

ANDREW CARNAGIE—CREATED CARNAGIE STEEL COMPANY. DONATED MILLIONS OF DOLLARS TO BUILD LIBRARIES AND SUPPORT OTHER CHARITIES. (PHILANTHROPIST)

SWEATSHOPS—CROWDED AND DANGEROUS URBAN FACTORIES.

LABOR UNIONS—ORGANIZATIONS OF SKILLED WORKERS THAT SOUGHT SAFER WORKING CONDITIONS, HIGHER WAGES, AND SHORTER HOURS

KNIGHTS OF LABOR—LABOR UNION FOR CLOTHING WORKERS

AFL (AMERICAN FEDERATION OF LABOR)—ORGANIZED BY SAMUEL GOMPERS. CONSISTED OF SEVERAL TRADE UNIONS AND BECAME THE LEADING UNION IN THE U.S.

COLLECTIVE BARGAINING—UNIONS NEGOTIATE WITH MANAGEMENT FOR WORKERS AS A GROUP.

MARY HARRIS JONES—CAMPAIGNED FOR UNIONS AND GIVING SUPPORT TO STRIKING MINERS. SHE BECAME KNOWN AS "MOTHER JONES".

TRIANGLE FIRE 1911—FIRE BROKE OUT IN TRIANGLE SHIRTWAIST COMPANY. 150 YOUNG WOMEN DIED BECAUSE DOORS WERE CHAINED SHUT.

STRIKEBREAKERS—WORKERS HIRED TO REPLACE STRIKING WORKERS (SCABS).

HAYMARKET RIOT 1886—RIOT BROKE OUT. BOMB EXPLODED AND KILLED 7 POLICEMAN. ASSOCIATED UNIONS WITH TERRORISM AND DISORDER.

PULLMAN STRIKE (HOMESTEAD STRIKE) 1894—GEORGE PULLMAN, MANUFACTURER OF PULLMAN RAILROAD CARS CUT WORKERS PAY BY 25%. ANGRY WORKERS STRUCK. FEDERAL TROOPS BROUGHT IN TO BREAK THE STRIKE.

INJUNCTION—A COURT ORDER FORCING LABOR UNION TO END THE STRIKE.

RESEARCH TERMS

INVENTIONS AND TECHNOLOGY

IPAD RESEARCH

COMPUTER—INVENTION THAT HAS REVOLUTIONIZED DAILY LIFE IN RECENT YEARS. VAST AMOUNTS OF INFORMATION CAN BE STORED, ANALYZED, AND SHARED IN A FLASH.

APPLE 1977—INTRODUCED THE FIRST COMPUTER FOR HOME USE.

IBM 1981—MARKETED ITS OWN PERSONAL COMPUTER.

BILL GATES—COFOUNDED MICROSOFT, ONE OF WORLD'S MOST SUCCESSFUL BUSINESSES.

INTERNET—HELPED TO CREATE THE INFORMATION REVOLUTION.

WWW—WORLD WIDE WEB PROPOSED BY BRITISH SCIENTIST TIM BERNERS-LEE.

SATELLITE TECHNOLOGY—TELECOMMUNICATIONS SATELLITES THAT HELP THE INFORMATION REVOLUTION.

CELLULAR PHONES 1973—COMMUNICATION IMPROVEMENT.

MEDICAL ADVANCES

LASERS—POWERFUL BEAMS OF FOCUSED LIGHT THAT IS A CRITICAL TOOL FOR SURGEONS.

BIONICS—REPLACEMENT BODY PARTS.

MRI—MAGNETIC RESONANCE IMAGING PROVIDES AN ACCURATE VIEW OF INTERNAL ORGANS AND SYSTEMS.

AIDS EPIDEMIC—ACQUIRED IMMUNE DEFICIENCY SYNDROME SINCE 1980 HAS KILLED MILLIONS OF PEOPLE.

CLONING—THE PROCESS OF MAKING A GENETIC DOUBLE OF A PLANT OR AN ANIMAL. IN 1997 A SCOTTISH RESEARCHER CLONED A SHEEP NAMED "DOLLY".