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ECONOMIC HISTORY OF THE UNITED STATES

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PART I

INTRODUCTORY

INTRODUCTION

CHAPTER I

RESOURCES AND PEOPLE

Wealth of the United States. In 1912 the Bureau of the Census of the United States estimated the total wealth of the nation, in terms of money, to be $187,739,071,090. This wealth consisted of land and buildings, live stock, farm implements, manufacturing plants and their equipment, railways, street car lines, light and power stations and other public utilities such as telegraph and telephone systems, all kinds of agricultural and manufactured products, mining products, personal property of various kinds, and gold and silver. We like to think of the United States as the richest and most prosperous nation in the world; we have pride in the fact that with its huge production of cereals, meats, and cotton, this country performs a greater part in feeding and clothing the world than any other single country; with its output of coal, iron and copper, it has a foremost position among modern industrial nations.

Not only does the United States stand out as one of the richest and most prosperous nations in the world, but its people have a greater well-being as individuals than the people of other countries. The standard of living is higher than in other countries; the money wages received by laborers are higher than the money wages received by workers in other lands, and though the prices of goods are somewhat high, the real wages of the workers—food, clothing, shelter and many comforts and conveniences—are enjoyed in greater abundance by citizens of this country than by the people living under any foreign government. The

United States is a wonderful country to live in; its people have a high degree of contentment; the individual has great opportunities for advancement. Education is free, the varied industries and professions are open to all on equal terms, success in life is possible for anybody who possesses energy, mental capacity and a will to work with diligence and perseverance.

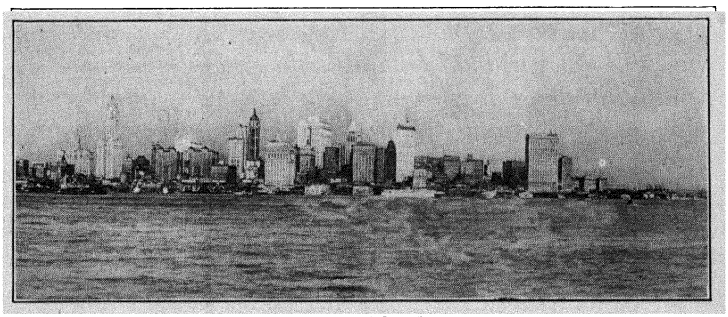
United States a Young Nation. The most remarkable feature of the history of the United States is the fact that



Manhattan Island in 1702

its great economic development has taken place within a comparatively brief space of time. When one thinks of the millions of prosperous people now living in this country, of the great numbers of fine farms with their comfortable homes, of the splendid cities with their busy factories, their bustling shops, their great buildings, of the huge railway system which spreads like a net over the entire country, of the fleets of merchant vessels which carry a multitude of

valuable products to and from our ports, of the public schools, colleges, universities, and churches, of the thousands of conveniences which we have to make living conditions more pleasant, it is hard for one to realize that a little more than three hundred years ago the land from coast to coast was a wilderness peopled only by a few hundred thousand savages; that only one hundred years ago the vast territory between the Mississippi River and the Rocky Mountains was just beginning to be settled; that only fifty years ago the first railroad line was constructed from the Missouri River to the Pacific coast.



Manhattan Island, 1921

The nation is still in its youth. We have grown in population since 1789 from three million to more than one hundred million, but there is ample room for more millions, and doubtless the people who will be living a hundred years hence will look back upon our times with much the same thoughts that come to us when we reflect upon the conditions of a century ago.

How Our Development Has Been Accomplished. It is our purpose to study the economic growth of the United States and to trace the process by which a huge wilderness was transformed into the home of a prosperous, happy and

powerful nation. We shall want to know what conditions made development possible and we shall observe the steps by which the nation achieved its success.

The material progress of a country depends chiefly upon two things: the resources of nature and the character of the people. Without natural resources no people, however energetic and thrifty they may be, can make great industrial progress. On the other hand, a country may have abundant natural wealth but remain in a low state of development because the people lack initiative and ability. In the United States there has been a fortunate combination of an intelligent and industrious population and a land whose natural resources are unequaled in variety, quality and quantity. It is this combination which has made it possible for our country to reach its high position among the nations of the world in such a brief period of time.

Extent of Our Natural Resources. Mr. Franklin K. Lane, while Secretary of Interior, said of the extent and variety of resources of the United States:

> "With the exception of one or two minor minerals, the United States produces every mineral that is needed in industry, and this can be said of no other country. We produce 66 per cent. of the world's output of petroleum, 60 per cent. of its copper, 40 per cent. of its coal and iron, and 32 per cent. of its lead and zinc. . . .
>
> "We can build a battleship or an automobile (excepting the tires), a railroad or a factory, entirely from the products of American mines and forests. . . .
>
> "Our soil and climate are so varied that we can produce all the grains, fruits, vegetables, and fibers known to the Temperate Zone and some found in the semi-tropics. And to crown all these, we have water power that can be made to generate as much as 60,000,000 horse power."

Climate. One of the most valuable gifts of nature is a suitable climate. The United States lies in the North Temperate Zone where recurring seasons of warmth and coolness furnish incentive for working and saving. The wealthy and progressive nations of the world are situated in latitudes where the variations of heat and cold are similar to the variations experienced in the United States. There is no part of the United States so cold that farming is impracticable, and there is no part so hot that the inhabitants find it impossible to engage in active labor. At the same time, the range of temperature in the United States is sufficiently great to permit the raising of the characteristic products of both the cooler latitudes and the subtropics.

Of equal importance with a favorable temperature is adequate moisture. Here again the United States is singularly fortunate. An annual rainfall of at least 20 inches is necessary for successful agriculture. The average annual rainfall of the United States as a whole is almost 30 inches. The eastern and southeastern sections of the country have the greatest average rainfall, and while the average decreases toward the west, it is not until we pass the one hundredth meridian of longitude and approach the Rocky Mountain highland that we find a region where the dryness of the climate prevents agriculture. Even in the arid regions there are great areas of grazing land, and large numbers of farms for which the necessary moisture is provided by irrigation. The Pacific Coast region, except the southern half of California, has abundant rainfall.

Soil. The fertile soil of the United States, more than any other single resource, has drawn settlers from the Old World. The central portion of the country—the great valley drained by the Mississippi River and the Great

Lakes—is the finest farming region in the world. The broad coastal plain extending along the Atlantic coast south of New England, though not so fertile as the Mississippi Valley, is quite as suitable for agriculture as much of the land of Europe. In the piedmont region, or eastern foot-hills of the Appalachian highland, may be found some of the most prosperous agricultural sections of the United States; and the beautiful valleys of the Appalachian highlands, such as the Susquehanna, the Cumberland and the Shenandoah, have long been renowned for their fertile soil. In hilly New England there is a large acreage of excellent farm land, though the fertility of New England soil as a whole is less than that of the land to the south and west.

Between the 100th meridian and the crest of the Rocky Mountain highland much fertile land remains untilled because of the lack of sufficient moisture. Large areas have been reclaimed by irrigation, and much more of this territory will be brought under cultivation in the future. West of the Rocky Mountains the river valleys of Washington, Oregon, and northern California contain some of the best grain producing land in the United States, and the land of southern California is equally fertile, though having less rainfall.

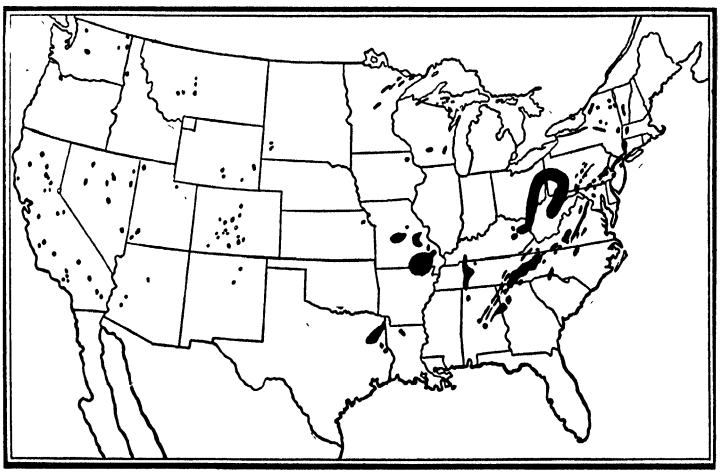
Minerals. In the possession of the three leading minerals of modern industry—coal, iron and copper—the United States surpasses all other countries.

The Appalachian coal field, extending from New York to Alabama, and the coal field of Illinois, Indiana and Kentucky are the most important producing regions. There are extensive fields in the States west of the Mississippi River which have been worked but slightly.

Iron, the most useful of all metals, is found in workable quantities in more than one-half the States. The greatest deposits are in the "ranges" south and west of Lake Supe-

rior in Minnesota, Wisconsin and the northern peninsula of Michigan. The Appalachian highland is also a great storehouse of iron ore, the chief center of production being the district around Birmingham, Alabama.

The United States produces more than one-half of the world's annual supply of copper. Copper is one of the best conductors of electricity and the demand for this metal in the manufacture of wire and machinery has greatly increased in recent years because of the extensive use of electrical power. The manufacturing nations of



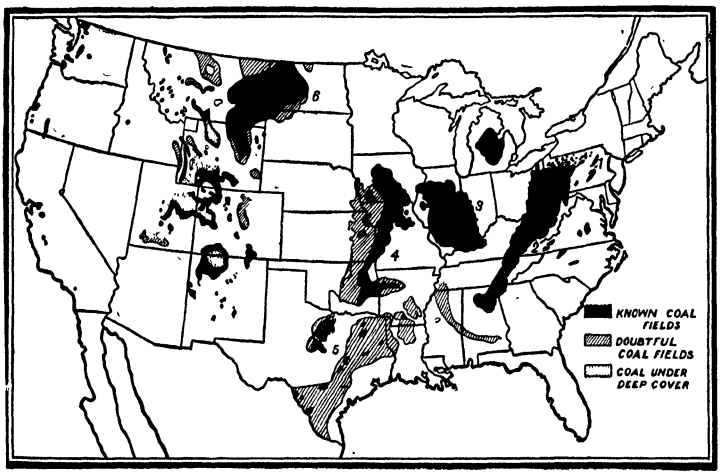
Iron Ore Deposits in the United States

western Europe use large quantities of copper; much of which is purchased in the United States.

Many other minerals are included among the natural resources of the United States. The precious metals, gold and silver, have been taken in abundance from the gravels and rocks of the Rocky Mountain region. Lead, zinc and aluminum are important mineral products of which nature has given this country a generous supply. Tin is the only

metal used extensively in the manufacturing industries of the United States which must be procured almost entirely from foreign lands. Among other mineral products which have served to create extensive industries and add to the well being of the people are petroleum, the clays used in making brick, tile and pottery, and many useful varieties of stone, such as limestone, sandstone, slate, granite and marble.

Coast Line and Navigable Waters. Among the useful



Coal Deposits in the United States

gifts which nature has bestowed in abundance upon the United States are splendid natural harbors, long rivers, and large lakes, by means of which the people may carry on domestic and foreign trade.

The Atlantic coast in particular is well provided with harbors. On this coast, at the mouths of rivers or by inlets of the sea, may be found great commercial cities through which passes much of our trade with foreign nations. Though not possessing a large number of good

harbors, the Pacific coast has a few of great excellence, such as San Francisco Bay, Puget Sound, and Columbia River.

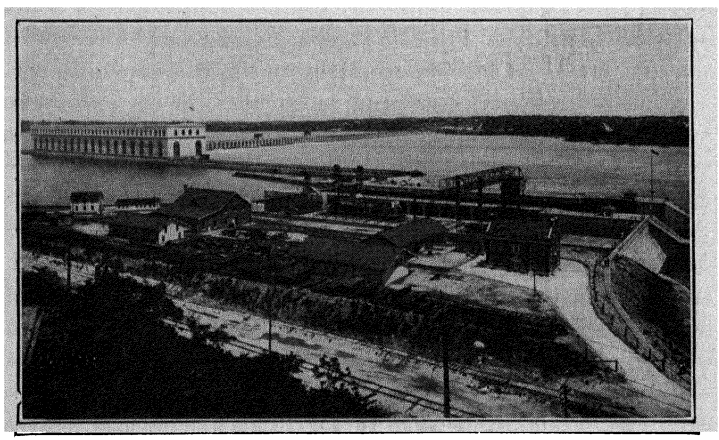
The Great Lakes provide a waterway of great importance in our domestic commerce. The Mississippi River and its tributaries afford thousands of miles of navigable water in the heart of the country. Though this river system is used but little for transportation at present, it had, as we shall see, a period of very great usefulness before railroads were common. There is little doubt that at some time in the future the Mississippi will again be of much commercial service. Other rivers flowing into the Gulf of Mexico and the Atlantic Ocean, as well as the rivers of the Pacific coast, are of small commercial importance except in cases where they provide harbors for ocean vessels. Like the Mississippi, however, many of these rivers once carried much traffic and they may be used extensively again for transportation purposes.

Water Power. Many streams of the United States are being used to develop power to turn the wheels of factories and to operate vehicles for the movements of passengers and freight. Though water power has long been used as a source of energy in industry, after the invention of the steam engine its relative importance rapidly declined. Now that we are extending the use of electricity as a motive force we are once more placing a high value upon water power.

There are many places in the United States where water power is now employed and there are great numbers of water power sites to be developed in the future. Niagara Falls has been harnessed and supplies the power which gives light to several cities and drives the machinery of many factories. At Keokuk, Iowa, a huge dam has been built across the Mississippi and hydro-electric machinery installed capable of developing 300,000 horsepower. The

trains on the mountain division of the Chicago, Milwaukee and St. Paul Railroad are drawn by electric locomotives which receive their power from hydro-electric plants, the largest of which is at Great Falls, Montana. These are but a few of the instances of the successful use of the power which nature has provided in our streams.

Plant and Animal Life. Chief among the plants of natural growth in the United States are grass and the great forests. Trees are useful principally because of their timber products, but there are many varieties which supply useful bark, saps, leaves and fruits. At one time



Power Dam Across the Mississippi at Keokuk
Courtesy of Keokuk Chamber of Commerce

the region east of the Mississippi River was virtually covered with trees, so densely covered in fact that the settlement of the country was seriously impeded. Much of the land has long been cleared, and in the process of clearing, a great deal of timber was necessarily cut down and destroyed. It was thought that the supply of timber was inexhaustible and little effort was made even to prevent useless destruction. We finally began to realize that there was danger of a complete disappearance of our forest

resources, and steps were taken to put an end to waste. Happily, forests, unlike mineral resources, are capable of replacement. We are not only endeavoring to be economical in the use of existing forests but we are encouraging the planting of trees to take the place of those cut down.

Notwithstanding the waste of past years, the United States still has a great supply of valuable standing timber. The fine forests of New England and the Great Lakes region are not entirely exhausted, and there are still large areas in the Mississippi Valley covered with hardwood forests of oak, hickory and walnut. The yellow pine forests of the South and the redwood, pine, and fir regions of the Pacific States are now the leading sources of timber.

One of the most important natural resources that have contributed to the wealth and prosperity of the people of the United States has been the wild grasses. The grazing lands along the Atlantic coast made it possible for the earliest settlers to have great herds of cattle and hogs. The eastern half of the United States still contains large areas of hitherto untilled pasture lands. It was on the wide prairies and plains of the West however that the grazing industry had its greatest development. Countless thousands of cattle, sheep, and horses have been raised on the land which was once the feeding grounds of bison, elk and deer.

Aside from grass and trees there is no uncultivated plant life in the United States which forms the basis of any considerable industry. However, there are large numbers of "wild" vines, shrubs, and weeds from which fruits, chemicals and drugs are derived. Moreover, a great many of our best cultivated fruits and vegetables were originally part of the natural growth of American fields and forests.

The leading source of wealth from natural animal life at

present is the fisheries. Both the Atlantic and the Pacific Ocean give us great quantities of food fish. From the numerous shallow bays and inlets of the Atlantic coast come oysters and other kinds of shellfish. The salmon fisheries of the rivers flowing into the Pacific Ocean rank high among the fisheries of the world. The Great Lakes and virtually all the larger rivers of the United States have valuable fisheries.

Wild animals, useful for food, fur and skins, are still abundant in some sections of the United States. However, in the process of clearing the land and making way for agriculture and other industries, the wild animals of direct economic value have been deprived of space in which to live, and their number has diminished. Hunting and trapping no longer occupy the rank among our industries which they held when the country was thinly settled. We endeavor when possible, to preserve all useful forms of wild animal life.

The United States a World in Itself. On account of the great natural resources which this country possesses Prof. J. Russell Smith says:

> "The United States is a world in itself. It has a great abundance and variety of natural resources, and a very favorable climate. These things have made it the richest nation in the world and have enabled it to have varied industries. Its lands range from the subtropic orange groves of Florida and California to the cold temperate shores of Lakes Superior and Champlain. Its rainfall varies from the deserts of the Great Basin to the heavy soakings of West Washington and Louisiana. Its fields and forests are vast and its rich mines yield all the important minerals except tin and potash, and we have recently found a new way to secure potash from the sea."

The People of the United States. The white people of the United States are derived chiefly from the best stocks

of Europe, because of which the United States is often called the "melting pot of nations." The mixture of blood has produced a sturdy and energetic people. The physical excellence of the Americans is shown by the producing power of the nation's labor, by the strength and endurance of its soldiers, and by the success of its youth in international athletic contests.

Not only have the Americans excelled in physical strength but they have possessed the spirit of earnestness and perseverance equally necessary for the task of developing the natural resources of the country. The difficulty and magnitude of the work have not daunted them. They have moved ahead swiftly and vigorously.

A marked characteristic of the American people has been the inventive genius displayed in devising tools and machines. All branches of modern industry are indebted to American inventors for mechanical improvements which have increased largely the productive power of labor. The occupation of the continent would have been a much slower and more difficult process had it not been for inventions which the Americans have contributed in agriculture, transportation, mining and manufacture.

Another field in which American genius has shown noteworthy results is the field of business organization. The country owes much to its "captains of industry"—merchants, manufacturers, railroad builders, bankers and others—for their skill in organization and supervision. Leadership is always essential to the success of any great enterprise, and Americans with capacity for leadership have not been lacking.

It must not be thought that the energy and intellect of the American people have been devoted entirely to business pursuits. The United States has furnished leaders and teachers in the world of science and of art. In all the natural sciences, in law and politics, in medicine and sur-

gery, in literature, painting and sculpture, Americans have attained eminence and distinction.

There are some 11,000,000 members of the Negro race in the United States, descended chiefly from former slaves whose ancestors lived in tropical Africa. Since Negro slaves were brought to our shores soon after the first settlement was established, the history of the Negro race in the United States covers virtually the same length of time as the history of the white race. Though out of slavery for only a little more than half a century, and but shortly removed from an uncivilized ancestry, the Negro race in the United States has made great progress. There is no better proof of the advantages of the natural environment of the United States and of the opportunity for the successful development of a people than the improvement of the Negro race during its brief period of freedom.

Freedom of the People. A factor of great importance in the history of the United States has been the comparative freedom of the individual from governmental or other interference in the ordinary affairs of life. In this respect the history of the United States affords a striking contrast to the history of all European countries, whose people have been subjected to religious persecution, to political tyranny and misrule, to devastating invasions by migrating races or by enemy nations. The government of the United States has been such as the majority of the people has desired, and there have been few restrictions on the normal activities of the individual. Men have been free to go and come at will, to choose their own occupations, and to think and speak freely. Religious freedom, political freedom, and economic freedom have been the watchwords of our national history. The democratic ideals of the United States have been one of the strong attractions of this country for the people of oppressed races throughout the world.

The freedom from external and internal interference has had an important influence on American history. It has made economic development—material progress—the chief concern of the people. Their daily activities have been directed largely toward the ordinary business of "making a living." The great problems which have confronted the nation have been primarily of an economic nature, and political development has been fashioned, to a greater degree than the political growth of any other nation, by economic conditions. The causes of the leading events in our history have been fundamentally of an economic nature.

Though the history of the United States has been primarily "the record of physical achievement," emphasis on mere material progress has not caused a lack of other and higher ideals. In the midst of wealth accumulating activities we have steadfastly endeavored to maintain and develop the aspirations and purposes of a free people. The United States has stood for democracy in thought and in action, and is a leader among the democratic nations of the world. Not only have we striven to preserve freedom at home, but, with no thought of selfish purpose, we have gladly given of our "blood and treasure" to bring the blessings of freedom to the whole world.

Questions and Topics

1. Make a list of comforts and conveniences now enjoyed by the people of the United States which the people of a century ago did not possess.
2. How has the character of natural resources affected the industrial development of your own community?
3. Do you think the United States is a better country to live in than any other country? Why?

CHAPTER II

THE DISCOVERY, EXPLORATION AND APPROPRIATION OF AMERICA

Discovery of America a Commercial Venture. It was said in the preceding chapter that the leading events of American history were due to economic causes. The discovery of America was an incident of a great commercial venture which was commanding the attention of the people of Europe during the fifteenth century. This venture was the search for a "new route to the Indies." Columbus and many of the explorers who followed him were interested solely in finding the new route. Columbus died thinking that he had reached the East Indies, and the name, "Indians," which he gave to the natives of America, still remains as evidence of his mistaken belief.

Why were the Europeans of Columbus's time so much interested in the Indies, and why were they seeking for a new route?

The Levant Trade. For several centuries before Columbus made his famous voyage, the chief commerce of the world was that between Europe and the Indies. The center of this trade was the Levant, a name given to the region lying about the eastern end of the Mediterranean Sea. To the important cities of the Levant, such as Constantinople, Antioch, Jaffa and Cairo, the merchants of the East sent spices, drugs, dyes, perfumes, rugs, carpets, and precious stones to be sold to buyers who came from Europe. Among Europeans, the merchants of the Italian cities, Venice and Genoa, took the lead in the Levant trade. For

the most part they gave gold and silver for the Eastern products, but they also gave in exchange such European products as tin, lead and wool. The Venetian and Genoese merchants carried the commodities of the East home, and distributed them by land and sea routes to all parts of Western Europe. With the profits of their large commerce the two Italian cities became rich and powerful, though unfortunately they wasted much wealth and many lives in numerous wars for commercial supremacy.

The Turkish Invasions. About 1300, a small group of Turks living in Asia Minor, started out on a career of conquest. They made one successful invasion after another and gradually spread their influence until by 1450 all of Asia Minor and a large part of the Balkan peninsula was under Turkish rule. In 1453, Constantinople, the last stronghold of civilization in southeastern Europe fell before the attack of the invaders; in 1517 they captured Cairo and the entire Levant passed under their control.

From the beginning of their conquests the Turks had interfered with the Levant trade. They murdered the merchants and pillaged caravans, fleets and cities. The capture of Constantinople, while it did not put an end to the commerce with the East, was a blow from which the trade could not possibly recover, and when the Turks marched into Cairo, the trade with the East by way of the Levant cities came to a close.

The Search for a New Route. As the Turkish conquests proceeded it became apparent that the Europeans must either give up their commerce with the Indies or find a new route over which the trade could be conducted. They were unwilling to see the trade vanish because they had become accustomed to the luxuries of the East. Moreover the profits to be derived from the trade were large enough to induce a general search for a practicable route

not beset by such dangers as those which were gradually bringing to a close the commerce of the Levant.

The search was eagerly pursued. Some adventurous explorers tried to reach the Indies by sailing around north of Europe; others proceeded southward along the coast of Africa hoping to reach the southern extremity of that continent and turn eastward to the land of their desires. The efforts of those who tried the latter route were finally crowned with success. In 1486–7 Bartholomew Diaz, in the employ of the Portuguese government, rounded the southern coast of the African continent, and in 1497–8 Vasco da Gama, another Portuguese navigator, made the voyage around Africa to Calicut. This route, until the Suez Canal was completed in 1869, was the chief path of trade and travel between Western Europe and the Orient, and it is yet one of the great trade routes of the world.

Christopher Columbus. Among the experienced navigators who became interested in the search for a new route to the Indies was Christopher Columbus. He was a native of Genoa, but after the decline of Genoese power following the interruption of the Levant trade by the Turkish conquests, he settled at Lisbon, where his knowledge of navigation procured for him ready employment. He made trips to England and Iceland, and had some share in the voyages of exploration along the western coast of Africa.

His imagination stirred by the eager search for the Indies, Columbus conceived the plan of sailing directly westward across the Atlantic to reach the much desired country. In common with other scientists of the time he believed the earth to be spherical. Ignorant of the fact that two wide oceans and a great body of land lay between western Europe and Asia, he was sure that simply by sailing across the Atlantic he would come to Japan, China and the spice islands of the East.

It was necessary for him to get financial aid for his

proposed expedition. He tried for several years without success, but fired with enthusiasm and filled with conviction that his plan was practicable he would not give up. Finally Ferdinand and Isabella of Spain provided him with a fleet of three small vessels, and in 1492 he made his memorable voyage across the unknown Atlantic.

A New World. Columbus made three more voyages but he looked in vain for the spice islands and splendid cities of the East. Others came to aid in the search, but were disappointed, as Columbus had been. One of the explorers, Americus Vespucius, who touched the coast of Brazil, reported that he had found a "new world" and to this new world the name, America, was given before it was even known that the region reached by Columbus was not the East Indies. In 1513 Balboa crossed the Isthmus of Panama and found that another ocean lay beyond the isthmus. In 1519–21 Magellan sailed southward along the coast of South America, entered the Pacific Ocean by way of the strait which bears his name, and after sailing northward for several hundred miles, turned west and made his way across the wide body of water which separates America from Asia. Magellan was killed by the natives in the Philippine Islands, but his men succeeded in taking one vessel around southern Africa home to Spain, completing the first voyage around the globe.

The exploit of Magellan proved definitely that Columbus had hit upon a new world. For a time this new world was regarded with disappointment; it was a poor substitute for what the people of Europe so keenly desired and thought they had found—a short route to the rich Indies. Considerable effort was expended in seeking a waterway across the new land; in fact for more than a century explorers made their way up American rivers flowing into the Atlantic, hoping to find a passage to the Pacific Ocean. It soon became apparent however that the new world

offered wonderful opportunities for acquiring wealth, and when the nations of Europe realized this fact they took up the task of exploring, conquering and colonizing the great continents of the West. The Levant trade was lost, but through the loss Europe came into possession of a commerce much greater in extent and value. The discovery of the route around Africa to the Indies made possible a recovery and even a greater development of the Oriental trade, and America in a short time yielded opportunities for a trade of more importance than the Levant commerce could ever have been. The center of trade now shifted from the Mediterranean coast of Europe to the Atlantic coast; the front door of Europe was on the west instead of on the south; and the small city-republics of Italy were replaced in commercial leadership by powerful western nations, Spain, France and England. The discovery of the new world suddenly changed the course of European history.

Appropriation of America. In taking possession of the new world the people of Europe paid little heed to the fact that the vast territory belonged, nominally at least, to the native Indians. Pope Alexander, in 1493–4 divided the newly discovered land between Spain and Portugal, assigning to Spain all territory west of a meridian three hundred and seventy leagues west of the Azores Islands, and giving to Portugal the lands to the east of the meridian. The Pope's assumption of authority to divide the heathen world received no more consideration however than the rights of the Indians. The monarchs of Europe merely assumed dominion over certain regions, which they claimed by right of discovery, exploration or conquest, and then proceeded to sell the land or give it away. Some of those who received land made treaties with the Indian tribes, but for the most part the settlers were content with titles to ownership based ultimately on royal grants. The In-

dians in America were not numerous, they had made comparatively little industrial progress, and they were unable to withstand the white man's advance.

Spanish Exploration and Conquest. Since Columbus made the voyage of discovery on behalf of the Spanish government, the Spaniards had the first opportunity to investigate the possibilities of the new world. Unfortunately for Spain the early explorers from that country found that the natives of the tropical regions of America possessed large quantities of gold and silver. Columbus found some gold in the island of Hayti and explorers who followed him heard tales of vast riches to be had on the mainland. In 1519–21 Cortes conquered Mexico, finding what appeared to be an inexhaustible supply of silver; Pizarro opened the way to even greater treasure by his treacherous conquest of Peru. Within a brief period Mexico, Central America, the northern part of South America, and the large islands of the West Indies passed under the control of Spain, and treasure vessels sailed across the Atlantic bearing home the ill-gotten gains of the plundering "conquistadores."

The exploits of Cortes and Pizarro served to stir the ambitions of other leaders, several of whom set out to explore the northern mainland in hope of finding other sources of gold and silver. Hernando de Soto, landing at Tampa Bay in 1539, led a large expedition northward across the Mississippi River, far into the interior of the continent. The search for gold was fruitless. De Soto sickened and died and the remnants of his disappointed band struggled back to a Spanish settlement in Mexico. Another Spaniard, Coronado, made his way from Mexico northward and eastward through what is now Arizona, New Mexico, Texas, Oklahoma and Kansas, but he never came to the rich and wonderful cities which he expected to find. Other Spanish explorers made similar journeys,

but their labors were barren of results. In 1565 the Spaniards established a military post at St. Augustine, Florida, driving away or killing a few French Huguenots who were endeavoring to plant a settlement. Spain retained possession of Florida until 1763 when the province was ceded to Great Britain. It was returned to Spain in 1783 and remained a Spanish possession until purchased by the United States in 1819. Florida was the only part of the Atlantic coast of what later became the United States, over which the Spaniards established control, though they claimed the entire coast of North America, and on several occasions threatened to serve the English in Virginia as they had served the French Hugenots at St. Augustine. Spanish settlements were founded in the Southwest, and from 1763 to 1800 Spain had possession of the great Louisiana territory, which was originally appropriated by the French.

French Claims in America. While the Spaniards were seizing control of the tropical regions of America the French were exploring the regions farther north. Like the Spaniards, the French were looking for directly available wealth, and they had but little interest in cultivating the soil and in establishing towns and cities. The product which first attracted their attention was the inexhaustible supply of fish on the Newfoundland banks and in the Gulf of St. Lawrence. Fish were in great demand in Europe, the eating of meat on Fridays, Saturdays and during Lent being strictly forbidden. The discovery of the great fishery resources of America was highly welcome, and fishermen from all countries of western Europe came to the new grounds. The fishermen of France were first, and for nearly a century the French fishing fleet in America was larger than the fleets of other countries combined.

In 1535 Jacques Cartier ascended the St. Lawrence River as far as Montreal, establishing the dominion of

France in Canada. Subsequent explorers followed the St. Lawrence to its source and discovered the Great Lakes. Others pushed on to the valley of the Mississippi River and in 1682 the adventurous La Salle reached the mouth of that stream. In their occupation of the land the French directed their efforts for the most part to the development of the fur trade. The waterways of the St. Lawrence and Mississippi systems made penetration of the interior relatively easy. Small trading posts were established at dozens of points in the Mississippi Valley, near the best hunting grounds. But while the French came into possession of a vast stretch of territory they did little real work of colonization. Except in Canada, where some effort was made to develop agricultural resources, the French population in America was widely scattered and made little industrial progress.

Early English Possessions in America. Five years after Columbus's discovery, John Cabot, an Italian navigator, made a voyage to America in the interest of Henry VII of England. Cabot is credited with the discovery of the mainland of North America, but there is much doubt as to the place where he landed. Though the discovery gave to England a right in America equal to that of either France or Spain, this right was not claimed for nearly a century. England was passing through a number of political and religious disturbances which for a time prevented any attempt to follow up the work done by Cabot.

In the latter part of the sixteenth century English interest in America was reawakened. The revival of interest was due primarily to the exploits of the great English mariners, Sir John Hawkins and Sir Francis Drake. Hawkins started out as a slave trader, carrying negroes from Africa to the West Indies and Mexico for sale to the Spanish settlers. In 1568 Hawkins' small fleet was treacherously attacked by the Spaniards in the harbor of

Vera Cruz, many of his men being killed or captured and a number of his vessels destroyed. Among those who escaped with Hawkins was young Francis Drake, and these two, for the rest of their lives, devoted themselves to "getting even" with the Spaniards. They organized expeditions to pillage the rich towns along the coast of the Spanish possessions; they captured Spanish treasure ships with their cargoes of gold, silver and precious jewels. This profitable "employment" attracted many other English mariners, who led expeditions to the Spanish Main in search of spoil and thrilling adventure. In 1578 Drake sailed up the western coast of South America plundering Spanish towns and treasure ships, and went home across the Pacific and Indian Oceans, the first Englishman to make a voyage around the world.

While Hawkins, Drake and others were robbing the Spaniards, other Englishmen became interested in America as a place for colonization. In 1578 Sir Humphrey Gilbert received from Queen Elizabeth a charter authorizing him to discover such remote lands as were not possessed by any Christian prince and to occupy and hold such territory "with all commodities, jurisdictions and royalties by sea and land." In 1583 Gilbert crossed the Atlantic with four vessels and took possession of Newfoundland and all surrounding lands within the distance of 200 leagues. On the return voyage to England the vessel on which Gilbert sailed was lost with all on board. His expedition gave England a claim to Newfoundland, though no effort was made to occupy the island until many years later.

Gilbert's charter passed by inheritance to his brother, Adrian Gilbert, and his half brother Walter Raleigh. In 1584 Queen Elizabeth gave a second charter to Raleigh granting to him all the powers which she had previously given to Gilbert. Raleigh immediately sent an expedition to America. His men entered Pamlico Sound, and after

exploring the country for a couple of months, returned with enthusiastic accounts of its beauty and fertility. The new land was named Virginia in honor of Elizabeth, and she conferred knighthood upon Raleigh as a reward for his enterprise. Raleigh tried to establish a colony in Virginia but did not succeed, and for a time English efforts to occupy any part of America came to an end.

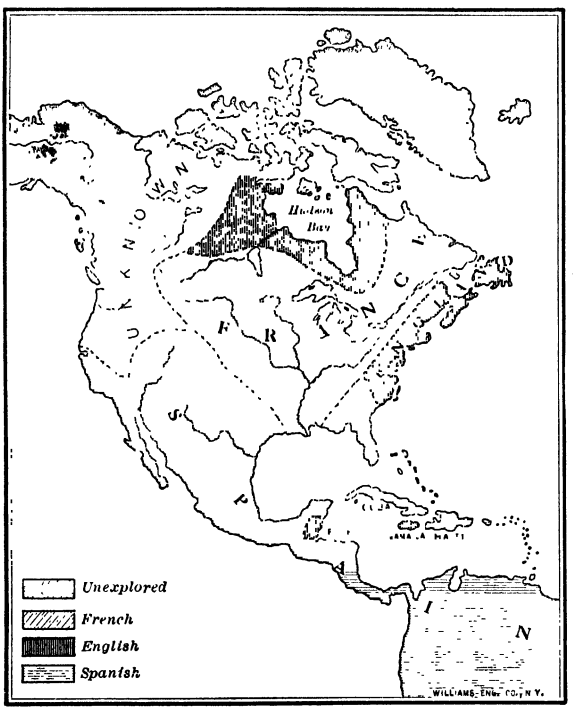
Early in the seventeenth century the project of English colonization of America was revived. King James I, instead of granting a charter authorizing the settlement of lands "not possessed by any Christian prince," merely laid claim to that part of America lying between the thirty-fourth and forty-fifth parallels of north latitude, and authorized certain of his subjects to make settlements in that region. The Spanish government opposed James's claims but to no avail. He proceeded to make grants of land in the region over which he assumed control, and it was in this region that the first English colonies in America were established.

Netherlands and Sweden. King James's mere assertion that he owned that part of America between the thirty-fourth and forty-fifth parallels did not make it any truer than the Pope's assertion that the new world belonged to Spain and Portugal. The Dutch nation, like the other commercial nations of Europe, desired to secure a share of America. In 1609 the Dutch East India Company employed Henry Hudson, an English navigator, to search for a short western route to the Indies. Hudson entered New York Bay and sailed up the river which bears his name, passing the present site of Albany. Fourteen years later a Dutch colony was established on Manhattan Island. The Netherlands claimed dominion over the territory extending from the Connecticut River to the Delaware.

Disregarding the Dutch claims to the Delaware River a company of Swedes founded a colony of New Sweden in

1638, building their fort on the site of the present city of Wilmington. Thus five nations of Europe appropriated and occupied portions of the territory now included in the United States.

The Struggle for Control. The methods employed by European nations in appropriating American lands inevi-



North America in 1713

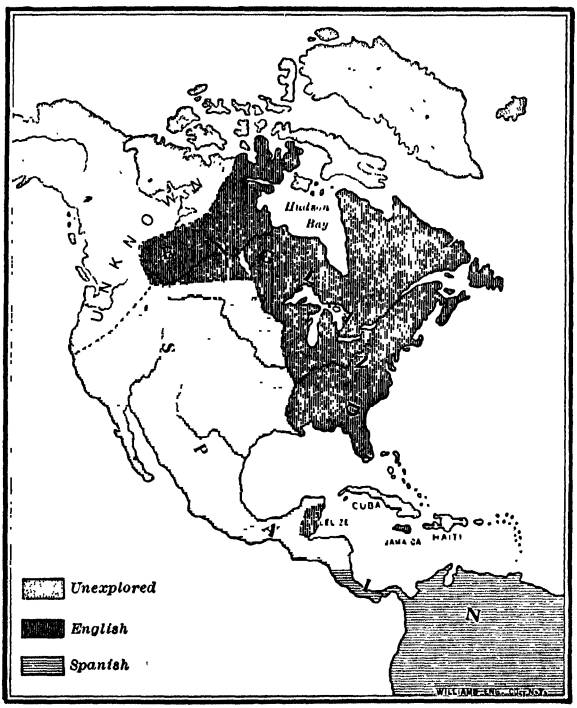
tably led to conflicting territorial claims, and violent quarrels among rival claimants soon arose. In 1655 the Dutch attacked the Swedish settlements on the Delaware, and Sweden's political power in America came to an end. New Netherlands did not long survive New Sweden. The

river valleys controlled by the Dutch were claimed by the English. In 1654 the Dutch were deprived of the fort which they had built on the Connecticut River where the city of Hartford now stands. Ten years later Charles II of England made a grant of American lands to his brother James, the Duke of York, the grant including the entire region occupied by the Dutch. James at once sent a fleet to take possession of New Netherlands. A Dutch naval squadron recovered the colony in 1673, but the following year it was restored to English rule.

The contest between England and France was of longer duration. On several occasions in the seventeenth century there were disputes concerning the boundary line between the English possessions and the French colonies to the north, and armed clashes were not infrequent. Though Newfoundland was nominally an English colony by virtue of Sir Humphrey Gilbert's declaration in 1583, and later by right of occupation, the southwestern shores of the island were settled by the French after 1660. In 1690 the English seized Nova Scotia (Acadia), but in the treaty of Ryswick, signed in 1697, England restored Nova Scotia to France and recognized the French claims to a part of Newfoundland. At the end of Queen Anne's War in 1713 the treaty of Utrecht gave both Nova Scotia and Newfoundland to England, leaving France in control of Cape Breton Island and the valleys of the St. Lawrence and Mississippi. During King George's War (1744–48) the English captured Louisbourg, the French fortress on Cape Breton Island, but the treaty left territorial claims as they had been before the war.

In their occupation of the Mississippi Valley the French eventually established a fort at the source of the Ohio River, thereby encroaching on land which the English claimed to be a part of Virginia. The French likewise began to occupy the valley of Lake Champlain. War

between the rival colonists broke out in 1754 and continued for nine years, the English winning a complete victory. By the treaty of 1763 France surrendered to England the eastern half of the Mississippi Valley and all her northern possessions except the two small islands of Miquelon and St. Pierre. Louisiana was ceded to Spain,



North America in 1763

and French dominion on the American continent was ended, except for the brief period during which Napoleon had control of Louisiana (1800–1803).

The boundary between the English possessions on the Atlantic coast and the Spanish province of Florida was

for many years a matter of dispute. The original claim of King James I to American land was gradually expanded, and when Georgia was settled in 1733 the English took up additional territory which was claimed by Spain. In 1763 Florida was ceded to England and the boundary disputes of the colonial period of American history were ended, leaving England in possession of all the populated regions of what was later to be the United States, except the thinly settled territory of the lower Mississippi Valley and the Spanish posts in the Southwest.

Advantages of English Control. That the English government was able to maintain and extend its sphere of influence on the Atlantic coast of North America was of great advantage to the colonists who settled there. Though the English colonial policy was not as liberal as it might have been, it was far more liberal and progressive than the colonial policies of the other European governments which appropriated parts of America. The Dutch colonists of New Netherlands welcomed the change from Dutch to English rule. England gave her colonists a much greater measure of political freedom than the other European countries permitted. England did not endeavor to force any particular religious belief on the settlers who occupied her colonial lands. Though religious persecution occurred in some English colonies it was due to the domestic policy of the colonies, and the English government had no part in it. There were always places in the English dominions in America where people could enjoy complete freedom of religion, and thousands of non-English people came to the English colonies in America for the purpose of securing religious liberty. Finally England permitted much freedom in the industrial and commercial development of her colonies. The liberal policy of England contributed largely to the welfare of her subjects in America and enabled them to prosper to a much

greater degree than would have been possible had some other nation acquired control.

Questions and Topics

1. Was the discovery of America more important to the world in the sixteenth and seventeenth centuries scientifically or commercially?
2. Compare the motives for seeking the North and South Poles with those of the explorers who sought the New World.
3. What other English commercial venture resulted in a great empire?
4. Was there any connection between the products sought for by France and Spain, and their downfall in the New World?
5. What nations of Europe did not attempt colonization? Why?
6. Write a short biography of Columbus.

CHAPTER III

COLONIZATION

Motives for Colonization. The chief motive which led to the settlement of America was the desire to acquire wealth by developing the natural resources of the continent and by building up commerce. Europeans thought that America would furnish many articles which could be readily used in Europe, and that American colonies would provide a market in which the products of European industry could be profitably sold. The motives of the individual settlers who came across the Atlantic differed widely. Some came in order to escape religious persecution, some came on account of political troubles in their native countries, many came merely in search of adventure. But the great majority of the emigrants came for the purpose of improving their economic conditions. America has been from the beginning a land of promise to the poor, and among the millions who have landed on her hospitable shores the poor have far outnumbered the oppressed.

Conditions in England Favored Colonization. Conditions in England during the seventeenth century were peculiarly favorable to schemes of American colonization. During the preceding century there had been a steady growth of English commerce and industry. Great progress had been made in manufactures, particularly in the manufacture of woolen cloth. English merchants had acquired a substantial share in the new commerce which grew up between Europe and the regions of the world discovered after the destruction of the Levant trade. A

number of trading companies were organized in England during the latter part of the sixteenth century, and to these companies the government gave special privileges to carry on trade with Russia, the Baltic regions, Africa and the Indies. The profits from this trade, and from industrial enterprises, afforded the capital funds necessary to carry out projects of American colonization.

Though industry and commerce were more active in England than ever before there was nevertheless a large number of people who were out of work. This was partly due to the fact that a large quantity of agricultural land was converted into pasture for sheep, and the displaced farm laborers could not readily find new employment. Another reason for the existence of a surplus population was the unusual infrequency of epidemics of the plague, which during previous times had, with much regularity, caused the death of a considerable portion of the English people. One Englishman wrote in 1583: "It hath pleased God in his great goodnesse, of long time to hold his merciful hand over this realme, in preserving the people of the same, both from slaughter by the sword, and great death by plague, pestilence, or otherwise, that there are at this day many which live in such penurie and want, as they could be contented to hazard their lives, and to serve one yeere for meat, drinke and apparell only, without wages, in hope thereby to amend their estates." He said that colonization would be "of generall benefit unto our countrey, that through this occasion, not onely a great number of men which do now live idlely at home, and are burthenous, chargeable and unprofitable to this realme, shall hereby be set on worke, but also children of twelve or fourteene yeeres of age, or under, may be kept from idlenesse." During the twenty years following 1583 the number of idle people increased rather than diminished. The conclusion of a treaty of peace with Spain in 1604 liberated a

large body of men from military service and added further to the number who were willing to go to the new world in hope of bettering their fortunes.

Another circumstance which favored emigration to America in the seventeenth century was the disturbed political conditions in England. During the quarrel between the Puritan party and King Charles I many Puritans left their native country to avoid the oppressive measures of the king. The revolution which resulted in the execution of King Charles in 1649 drove many supporters of the king to America. When Charles II returned to England in 1660 to occupy the throne many opponents of the monarchy found it necessary to emigrate. The revolution of 1688–89 caused another exodus.

Colonization a Difficult Undertaking. Notwithstanding the availability of capital and labor for colonial enterprises the actual founding of the first permanent English settlements was a work of great difficulty. However eager people might be to escape bad conditions in Europe, emigration to the American wilderness held promise of privation and danger which only the most hardy and courageous could hope to survive. In order to succeed a colony had to have strong, capable leaders, and settlers willing to endure great toil and hardship. Many attempts to plant colonies failed because the settlers lacked industry, endurance and perseverance.

Colonization was highly expensive. A large initial investment was required to purchase equipment and to pay for transporting the colonists and their goods across the ocean. After a settlement was founded it was necessary to maintain for a considerable period of time a continuous flow of food, clothing, tools and other supplies. Usually several years passed before the colony produced enough to pay for these current supplies, and the return on the original investment was long deferred. Many of the early

colonies were financed by investors who remained in Europe. Not only did these investors fail to obtain the immediate profit which they hoped for, but they were called upon to supply additional money to support the colony during the early years of its existence. When the investors refused to "send good money after bad," and when the colonists themselves did not have sufficient money or credit to last them through the pioneering period, the enterprise had to be abandoned. Once a colony was firmly established and productive work well started it usually grew rapidly in population and wealth. The people not only became self-sustaining but accumulated a surplus with which further development work could be carried on. The early days of a new colony were the hardest days.

Raleigh's Failure. Sir Walter Raleigh, the first Englishman to undertake the colonization of America, sent a number of men to Roanoke Island in 1585, but they soon became discouraged and returned to England without waiting for the supply ships which Raleigh sent out the following year. Two years later Raleigh made a second effort to plant a colony in his Virginia grant, despatching three vessels with men, women and children. This attempt would probably have succeeded had it not been for the outbreak of war between England and Spain. The governor of the colony, John White, returned to England with the three ships for the purpose of getting needed supplies. Because of the war he could not go back to America until 1591. When he finally reached Roanoke Island the little band of settlers had deserted the place where he had left them more than three years before. He sailed for England without learning what had become of them. Raleigh had lost about forty thousand pounds and had failed to accomplish his purpose. In order to secure money he organized a trading company to which he assigned his charter, but he found it impossible to send out another colonizing ex-

pedition. His charter was forfeited in 1604 when he was thrown into prison on charges of treason. Some of his associates helped organize another company which received a charter from King James in 1606. This company, the "Virginia Company," was the agency by which the first permanent English colony was planted in America. Though Raleigh failed, he showed the way for colonization, and his prophecy that he would live to see an "English nation established in America" was fulfilled.

The Virginia Company. The first Virginia Company really consisted of two companies, though there was but one charter. The chief stockholders lived in the English cities, London and Plymouth, and the organizers were called the London and the Plymouth Companies. The former was given the exclusive right to establish a colony or "plantation" at any point on the American coast between the thirty-fourth and thirty-eighth parallels of north latitude, while the latter had exclusive rights of settlement between the forty-first and forty-fifth parallels. Both companies were given permission to settle between the thirty-eighth and forty-first parallels, but it was stipulated that one company should not establish a settlement within one hundred miles of a settlement founded by the other. Each company was to have ten thousand square miles of land, a tract extending fifty miles north and south and one hundred miles



Sir Walter Raleigh

inland from its first settlement. The charter also gave the companies the authority necessary for governing their colonies.

The first settlement made under this charter was that of Jamestown, Virginia, founded by the London Company in May, 1607. The colony was simply a commercial venture. The settlers were to labor on the Company's land, putting all products into a common storehouse for the



John Smith

benefit alike of settlers and stockholders. Trade was to be carried on by the Company as a whole, and not by individual colonists.

The hopes of the stockholders for immediate profit were not realized. The colonists were for the most part penniless "gentlemen" who were not accustomed to work. Instead of trying to cultivate the fertile soil they spent much of the summer in a vain effort to find gold. Their sup-

ply of provisions soon ran low and many fell sick and died of malaria. The Company sent over fresh supplies and additional settlers early in the following year, and under the vigorous leadership of Captain John Smith, whose simple but effective rule was "he that will not work shall not eat," the colony managed to exist. Still no profits were forthcoming and it was necessary in 1609 for the London investors to reorganize in order to get additional capital. King James gave the London Company a new charter greatly extending its grant of land and conferring additional powers of government. In spite of the aid which the new organization gave the colony, conditions at Jamestown became so bad, especially after the departure of Captain John Smith in October, 1609, that the settlers gave up in despair and agreed to return to England. Just as they were departing a number of ships arrived bringing more provisions and settlers, and it was decided that they should try again. Though conditions remained unsatisfactory for some time, hard work and capable leadership eventually triumphed, and the "English nation in America" was established.

The London Company did not succeed however as a commercial enterprise. It was soon found necessary to abandon the original plan of common ownership. The Company likewise gave up its monopoly of trade, and though it continued to carry on some commerce with the colonists it was chiefly a land-holding and governing organization. Even in this capacity its existence was brief as its charter was taken away in 1624, and Virginia became a "royal province" controlled directly by the king. Some of the stockholders of the Company recovered part of their investment by taking tracts of land in Virginia, but for most of the investors the colony was a disastrous failure as a business enterprise.

Colonization by Other Commercial Companies. Sev-

eral more colonies were established in America by companies organized primarily for commercial purposes but, like the London Company, these corporations were soon transformed into landholding or political organizations with virtually no trading functions.

The Plymouth Company, which was chartered with the London Company in 1606, endeavored to plant a colony at the mouth of the Kennebec River about the same time that Jamestown was settled, but the death of the leading English promoters deprived the settlers of the needed financial support and they were compelled to return to England. In 1620 the chief shareholders of the Plymouth Company obtained a new charter, with a grant of land in America between the fortieth and forty-eighth degrees of latitude. The new company, which was known as the Council for New England, made little effort to establish settlements at its own expense, and limited its activities almost entirely to selling land to other companies and to individuals who desired to undertake the work of colonization.

In 1620 the Pilgrims came to America, landing at Plymouth harbor late in December. Though the chief motive of the Pilgrims in coming to the new world was the desire for religious freedom, the colony was nevertheless a commercial enterprise. In association with a group of English merchants the Pilgrims formed a joint stock partnership, the shares of which were valued at ten pounds each. Most of the money for the voyage to America was supplied by the merchants in return for shares. The settlers were able to buy a few shares, and each adult emigrant was entitled to one share without pay, while each child between ten and sixteen years of age counted for a half share. All the products of the colonists' labor were to be common property for seven years, at the end of which time there was to be a division of assets among the

shareholders, each receiving an amount proportioned to his number of shares. The Pilgrims started for America with the intention of making their new home on the land belonging to the London Company. After deciding to remain at Plymouth they secured a grant of land from the Council for New England. The hardships of the Plymouth colony during the early period of its existence were similar to the hardships of the Jamestown settlers. After a few years however the colony was firmly established and before the time arrived for a division of property they were able to borrow money and buy out the stockholders in England. As soon as the borrowed money was repaid the colony lost all appearance of a commercial organization.

In 1628 a small group of English Puritans obtained from the Council for New England a tract of land extending from a point three miles south of the Charles River to a point three miles north of the Merrimac. A few settlers were sent to Salem, where a small colony had already been established through the efforts of some merchants of Dorchester, England. In 1629 the promoters joined with other influential Puritans and organized a trading company. Under the name of the "Governor and Company of Massachusetts Bay in New England" they obtained from King Charles I a charter which confirmed their grant of land and gave them powers of government. The following year the Company transferred its seat of authority from England to Massachusetts, establishing its chief settlement at Boston. Giving up its commercial functions the Company became merely the governing organization of the colony. Thus was founded Massachusetts, the most important colony of New England. The wealth and influence of Governor John Winthrop and other leading members of the Company made the success of the colony certain from the beginning, and Massachusetts quickly became populous and wealthy. Emigrants from Massachu-

setts, some driven away because of religious differences with the authorities of the Bay colony, and others leaving to seek better opportunities, planted the first settlements of Rhode Island and Connecticut.

In addition to Virginia and Massachusetts, New Netherlands and New Sweden owed their origin directly to commercial companies, the former being planted by the Dutch West India Company and the latter by the South Company of Sweden. Many settlers were sent to America by various commercial companies to undertake development of the fishing, lumbering and other resources of the colonies. The trading companies were highly important colonizing agencies, and without their aid America would probably not have been settled so soon. The planting of the first colonies was too expensive to be accomplished by individuals acting alone; the corporation offered a means by which a large number of individuals could unite in using their capital for a common purpose. Once a few colonies were started and the processes of industry and commerce in the new world well organized the problem of settling additional territory became much less difficult. The settler could come to America with nothing and live temporarily upon the surplus wealth of those already here.

Proprietary Colonies. A number of colonies in America were established on land granted to individuals, though it was seldom that the owners of such grants bore the initial expense of colonization. Among the earliest of the proprietary colonies was New Hampshire, which was part of a grant obtained in 1622 from the Council for New England by Sir Ferdinando Gorges and John Mason, and later divided between them, Mason receiving New Hampshire and Gorges the province of Maine.

In 1632 George Calvert, Lord Baltimore, a Catholic nobleman of England, received from Charles I a grant of land north of the Potomac River. He died almost at

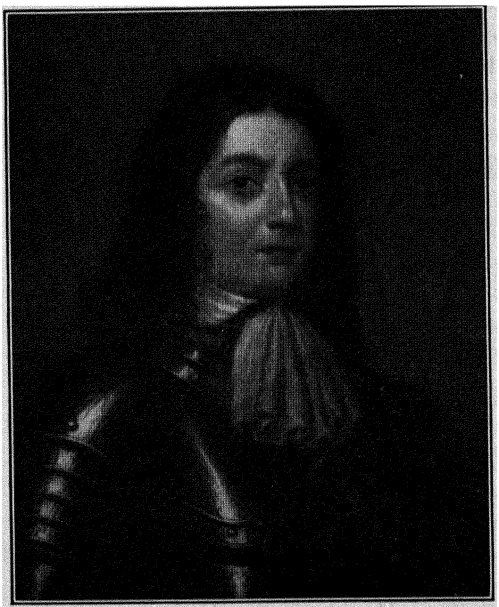
the time of obtaining his charter, and his son Cecil became the Lord Proprietor of Maryland, as the grant had been named. In 1633 Cecil sent his brother and two hundred colonists to Maryland, a large part of the expense for supplies being borne by the proprietor himself. Complete religious freedom was permitted, and under Calvert's liberal rule a prosperous colony was quickly developed.

The chief period of the establishment of proprietary colonies came after the restoration of Charles II to the English throne in 1660. Charles desired to reward the men who had aided him in recovering his kingdom, and since he had little money, he adopted the plan of presenting his supporters with large tracts of land in America. His first grant was Carolina, which he gave in 1663 to a group of friends, chief among whom were the Duke of Albemarle and the Earls of Clarendon and Shaftesbury. Though these men did not undertake to finance the work of colonization they made attractive offers of land and privileges to emigrants who would settle on their domain. By this time America was sufficiently settled that colonization was not the difficult problem it had been a half-century before when all supplies had to be drawn from England almost three thousand miles away. Many colonists came to Carolina from New England and Virginia as well as from England and countries on the continent of Europe.

The next instance of Charles's generosity was the grant of New Netherlands to his brother James, the Duke of York. James granted the land between the Hudson and Delaware to Lord Berkeley and Sir George Carteret, and under their control New Jersey was further settled and developed. In 1674 the colony was divided into two parts, East and West Jersey, East Jersey going to Carteret and West Jersey to William Penn and some Quaker associates, who had previously purchased Lord Berkeley's rights.

Later the Quakers bought East Jersey, but they gave up their political authority in 1702, after which New Jersey was a royal province.

In 1681 King Charles II gave to William Penn a tract of 40,000 square miles of land west of the Delaware River to satisfy a claim which Penn's father had held against the English government. Penn adopted a liberal policy in



William Penn

disposing of his land and in organizing the government of his territory, and thousands of English Quakers, Germans and Welsh crossed the Atlantic to settle in Pennsylvania. Though settled late, Pennsylvania quickly became a rich and populous colony, and Philadelphia, the City of Brotherly Love, which Penn himself founded, was at the end of the colonial period, larger than either Boston

or New York. By acquiring Delaware from the Duke of York in 1682, in order to control the outlet from Pennsylvania to the sea, Penn obtained proprietary rights over a second colony.

The last of the original thirteen colonies to be settled was Georgia, which was granted in 1732 to a group of philanthropists as a place where imprisoned English debtors could be sent to start life anew. A corporation, headed by General James Oglethorpe, was organized to finance the planting of this colony. It was wholly an enterprise of benevolence with no purpose of commercial gain. In addition to the English debtors the company sent to Georgia a number of Scotch Highlanders and some Germans from Salzburg.

Land Tenure in the Colonies. One of the greatest attractions which America held for colonists was the opportunity to obtain possession of land. At the beginning of English colonization it was not intended that individual settlers should own the land and have the right to dispose of it. It was planned that land tenure in America should follow the system prevailing in England, where nearly all the land was held in great estates by a comparatively small number of persons and ownership could be transferred from one family to another only with great difficulty. The soil in England was cultivated almost entirely by tenant farmers. It was expected that the commercial companies and individual proprietors receiving grants of American land from the crown would retain permanent possession of the grants and that settlers would be merely rent-paying tenants.

Though this system of land tenure was started in the colonies, it did not last long. The colonists wanted land which they could call their own; and with such an abundance of land available their desire could not be denied. Indeed it was found necessary to give the set-

tlers possession of the soil in order that they would have a greater incentive to work. When the Virginia settlers demanded the right of ownership the London Company gave to each resident shareholder one hundred acres for each share of stock held. After Virginia became a royal province the practice of granting land to individual settlers was continued, though it was provided that the king should receive a small annual "quitrent." In New England the settlers obtained full possession of the soil, and in the proprietary colonies the ownership of the land was widely distributed, though the proprietors usually exacted a small quitrent on the lands which they sold. In all the colonies land came to be regarded just as other property was regarded, and it could usually be bought and sold at will. The proprietors and the king found it very difficult to collect their quitrents, and payment was usually infrequent and irregular. With the coming of the Revolution these dues were abolished.

Methods of Obtaining Land. The earliest method by which settlers obtained land was by exercising their rights as shareholders in the trading companies which planted the first colonies. The resident shareholders in the London Company, the Plymouth colony, and the Massachusetts Bay Company received portions of land. Afterwards the common method of getting land was by purchase from the individual or company receiving the original royal grant. William Penn sold large quantities of land in Pennsylvania and the proprietors of Maryland, the Carolinas, and Jersey did the same. In those colonies which became royal provinces land could be purchased from the crown, by application to the royal governor or to other authorized representatives of the king.

Land was acquired however by other methods than direct purchase. The possessors of American land grants were always anxious to secure settlers, because the more populous

the colonies the more value the land would have. Many of the proprietors, in order to induce emigrants to settle on their grants, would give a certain amount of land outright to each settler. In the Carolinas an offer to settlers said that "every Free-man and Free-woman that transport themselves and Servants by the 25 of March next, being 1667, shall have for himself, wife, Children and Men-Servants, for each 100 Acres of Land for him and his Heirs forever," subject to a yearly quitrent of "at most ½ d. per acre." The proprietors of the Jerseys were equally liberal to early settlers. So anxious was the London Company to encourage settlement that it gave one hundred acres of land for each laborer which any resident of Virginia should bring to the colony. This custom of awarding lands for the importation of laborers, which was known as "head right," was continued in Virginia by the king, and it was also adopted in other colonies. It not only enabled colonists to acquire large holdings of land, but made it possible for America to get many settlers, who, though willing to leave Europe, were too poor themselves to pay the cost of transportation to the new world. In New Netherlands the Dutch authorities made huge grants of land in the Hudson Valley to "patroons," who were obliged, in return for the grant, to bring over fifty tenants with equipment and supplies. Under this plan a number of great estates were established in New Netherlands, and continued after the colony came under English rule. The owners of these estates did not adopt a policy of granting land to their tenants, and as a result the settlement of the Hudson Valley was retarded. People wanted to become their own landlords. The Earl of Bellomont, when governor of New York, wrote: "What man will be such a fool as to become a base tenant . . . when for crossing Hudson's River that man can for a song purchase a good freehold in the Jerseys?"

Size of Colonial Farms. In the southern colonies, where tobacco and rice came to be the chief crops and agriculture the only industry of importance, the colonists found it advantageous to conduct the farming industry on a large scale. As a result there were many large plantations. The planters used the privilege of "head right" extensively, and many of them acquired estates containing several thousand acres. Anybody who visits the Lee homestead on the south bank of the Potomac River opposite Washington will find in the old mansion a small tablet upon which it is told that a large part of the estate was acquired by "head right."

In the northern colonies, while agriculture was the most important industry, it did not absorb the energies of the people so completely as in the South. The northern crops were of a kind best suited to intensive rather than extensive tillage. The people lived in towns and villages, and the average size of farms was much smaller than in the southern colonies. William Penn sold several large tracts of land in his colony, but these tracts were later broken up and distributed. New York was the only northern colony in which large landed estates were to be found, and the large landed estates there were not for the best interests of the colony.

Colonial Labor. One of the greatest problems of the American colonists was that of obtaining unskilled labor. This problem was especially serious in the South, because it was impossible to operate large plantations without laborers. The abundance and cheapness of land caused men to be just as unwilling to do farm work for wages as to become tenants. With a little thrift any free laborer could soon become an independent landholder. As a result there were few ordinary wage laborers in the colonies. In all the colonies, but more particularly in the northern

group, there were many artisans—laborers skilled in special work—but they were independent tradesmen rather than common laborers. Besides the settlers who, with the aid of their families, worked on their own lands, the ordinary laborers of colonial days were for the most part indented servants and negro slaves.

Indented Servants. Indented servants were laborers who were "bound out," that is, placed under written contract, to work for their employers for a term of years, in return for their maintenance. There were two classes of indented servants, voluntary and involuntary.

The voluntary indented servants, sometimes called "free-willers" and "redemptioners," consisted chiefly of poor persons who agreed to serve for a certain period of time in return for the payment of their passage from Europe to America. The terms of service of such laborers varied, seldom being less than four or more than seven years. It was by bringing these servants to America that many colonial landholders added to their estates by the system of "head right." The employers thus obtained not only labor but also land for their investment. Colonial laws regulated the relations between masters and servants, and the contracts or "indentures" usually provided that at the end of their term of service the servants should receive sufficient equipment to enable them to start life for themselves. Many of the voluntary indented servants were young persons from English almshouses, sent to America to save the expense of their maintenance by the public. The planters were glad to get such labor. In fact so eager were the colonists for servants that for a time it was a common practice in England to kidnap children and send them to America.

The involuntary indented servants were English criminals, who, instead of being hanged or imprisoned for

their offenses, were sentenced to labor for long periods of time in the colonies. For the most part these criminals were guilty of only minor offenses; many of them were unfortunate debtors, and many were political offenders who had taken part in some uprising in England or Scotland. Some colonial employers preferred such "criminals" to the voluntary servants because their terms of service were longer and the conditions of the indentures less favorable to the servants.

Negro Slavery. In 1619 negro slavery was introduced into the English colonies. The captain of a Dutch vessel, stopping at Jamestown, sold twenty negroes to the Virginia planters. Negro slavery had existed in Spanish American colonies since early in the sixteenth century, and it was not strange that the slave trade was extended to the English colonies soon after the first successful settlement was planted. The traffic grew steadily, and it is estimated that in 1760 there were nearly 400,000 slaves in the thirteen colonies.

Though slavery existed in all the colonies it flourished only in the South. In the northern colonies, where small farm agriculture prevailed and industry was varied, negro slavery was unprofitable. The large scale farming of the South created an incessant demand for laborers. Had wage labor been available slavery probably would not have grown much; but with land abundant and free, few people would consent to work for wages. The owners of the large plantations welcomed white servitude and negro slavery. Once negro slavery was established however the South was committed to large scale agriculture as its chief industry. Without this "peculiar institution" the development of the southern colonies would have been of an entirely different character.

Questions and Topics

1. Compare the motives for the colonization of America with what you know of the motives for the colonization of Australia.
2. Tell when and how the first settlement in your own State was made.
3. Does the westward trend of migration bear any relationship to the reasons for the colonization of the coast in the 17th century?
4. Give present day examples of countries where surplus population has resulted in a demand for colonial expansion.
5. Did colonial rivalry have any bearing on the recent World War?
6. Has the United States ever tried to develop the resources of other countries, as her resources were developed by other countries?
7. What characteristics do you consider necessary to the successful pioneer? Name several pioneers who prove your points.
8. Compare the colonial labor problem with the labor problem of the twentieth century farmer.

PART II

THE COLONIAL PERIOD

CHAPTER IV

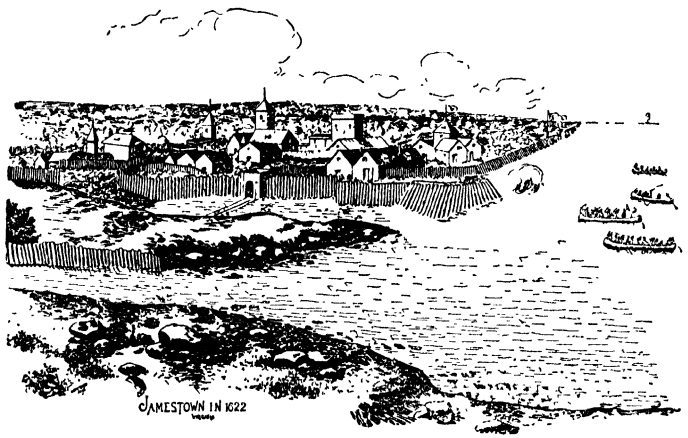
EARLY INDUSTRY AND COMMERCE, 1607–1660

The First Colonial Industries. The people of all countries endeavor to develop those industries which are most profitable—which give the largest return for the labor expended. Few nations have resources which enable them to be entirely self-sufficing, and even if a nation should possess such resources the people would find it advantageous to concentrate their energies on certain industries for which the country is exceptionally well adapted and to exchange the products of these industries for articles which they might produce but could not produce so cheaply. The first settlers who came to America were anxious to produce articles which would bring wealth both to themselves and to the investors who sent them across the ocean. They could not produce everything they needed, and in developing their industries they naturally favored those which would give the largest returns in commerce.

In all the colonies, however, the people found it necessary to give part of their time to raising food products from the soil. It was impracticable to depend upon the mother country or upon other colonies for food supplies. Some of the colonies eventually found that food products obtained from the soil, particularly cereals, were the most profitable articles for commercial purposes, but this was not generally true. Nearly every colony had two important types of industry: the production of food by agriculture, and the production of some commodity or commodities which could be profitably sold or exchanged in

Europe or elsewhere. What these commodities were depended to a large extent upon natural resources and climatic conditions.

Early Years in Virginia. The first work of the Jamestown settlers was to cut down trees and build a fort and a few log huts on the narrow peninsula which they selected for their home. On the space cleared by their axes the colonists planted wheat and a few vegetable seeds which they had brought from England. The wheat grew to the height of a man, but to the disappointment of the plant-



Jamestown in 1622

ers little grain was obtained, the strength of the plant being almost entirely absorbed in the long stalks. This was the only planting done in 1607, the settlers preferring to spend their time hunting for gold rather than at the hard work of chopping down trees and tilling the soil. They would have starved the following winter had they not been able to get food from the Indians. The following spring another attempt was made to raise wheat, but with no better success than before. The colonists lived through

another winter on supplies brought from England or purchased from the Indians.

In the spring of 1609 two Indian captives taught the Jamestown settlers how to plant maize or corn, the native American grain upon which the Indians depended for food. Under the energetic leadership of Captain John Smith forty acres of land were carefully prepared and sowed with corn according to instructions given by the Indians. Beans and pumpkins were also planted in the cornfield, and for the first time the colonists obtained a substantial portion of their needed supplies by their own labor. The product of forty acres was too small however to last more than a few weeks, and the Indians having become unfriendly and unwilling to share their provisions, the settlers had a winter of terrible suffering. The few who survived this "Starving Time" were reduced to a diet of acorns, roots and fish. All of the small supply of live stock was killed and eaten.

In 1610 more ground was planted and a large quantity of supplies came from England. The following year under the direction of the stern governor, Sir Thomas Dale, the cultivation of the soil was greatly extended. Some of the farm lands of the Indians were seized, and the colonists began also to employ the Indian method of clearing land by "girdling" the trees with fire or with axes. Dale was determined that the settlers should produce enough food for themselves and not be dependent upon the Indians or the supply ships from England. To encourage industry he assigned to each man a small garden plot, the products of which were not to be placed in the common store but were to belong to the individuals who tilled the soil. Another supply of hogs, cattle, goats and horses was imported, and fences were built both to protect the fields and gardens from the live stock and to keep

the live stock from straying away. Before Dale left Virginia in 1616 the colony was producing an ample quantity of food. Each new settler received upon his arrival a four room house, twelve acres of garden land inclosed by fences, a supply of garden tools, a cow, poultry, hogs and goats. He received also provisions sufficient to maintain him and his dependents for twelve months, after which he was expected to earn his own support and to perform a certain amount of labor for the London Company.

The Beginning of Tobacco Culture. While the inhabitants of Virginia were starving the London investors were worrying because the colony was yielding no profits. Once their hopes for gold mines were gone they ordered the colonists to send home other products which would reward their expectations of wealth, and they angrily threatened to withdraw their support if such products were not forthcoming. They sent some Poles and Germans to Jamestown in 1608 to undertake the manufacture of glass, tar and pitch. In the fall a vessel was despatched to England with "trials of Pitch, Tar, Glass, Frankincense, and Soap-Ashes, with what wainscot and clapboard could be provided." However, the dire need for food prevented the settlers from devoting much labor to anything but their gardens and cornfields, and for a few years the shipments to England were of little value.

In 1612 the cultivation of tobacco was begun in Virginia by John Rolfe. Tobacco was a native American plant and was in common use among the Indians long before the voyage of Columbus. It was soon introduced into Europe, where its use spread very rapidly, and the colonists of the Spanish West Indies quickly found the plant to be a valuable article of commerce. The Indians of Virginia raised tobacco for their own consumption, and the early settlers who had formed the habit of using tobacco before

coming to America purchased their supply from their red neighbors. Since trade between the white men and the Indians soon became uncertain because of almost constant warfare, Rolfe planted some tobacco in order to be sure of a supply for his own use. Other settlers followed Rolfe's example. Within a short time a small shipment of tobacco was sent to England where it was readily sold for a good price.

Cultivation of the new product was at once extended. Here at last was a commodity which answered the demands of settlers and shareholders for something of commercial value. It could be easily raised in large quantities on the fertile Virginia land, the cost of transportating it to England was less than one-half penny a pound. No other Virginia commodity could be shipped across the ocean for an amount so small in proportion to its price. It was estimated that a man's labor, when devoted to tobacco culture, had a value of sixty pounds a year; when devoted to producing grain a value of only ten pounds a year.

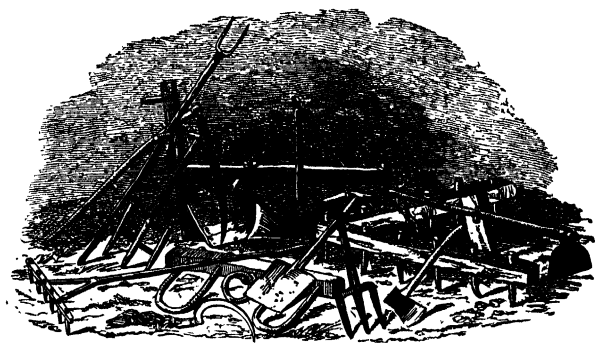
So enthusiastic did the Virginia colonists become about tobacco that they were soon giving virtually all their time to its production. When Captain Argall came to the colony as governor in 1617 he found the streets and market place of Jamestown planted with tobacco. In 1619 the colony exported 20,000 pounds of tobacco, in 1620 more than 40,000 pounds. The settlers neglected to raise corn and other foodstuffs and in 1621 many of them gave their firearms and ammunition to the Indians in exchange for corn. Deprived of their chief means of defense they were easy victims of an Indian massacre in the spring of 1622. Several hundred colonists perished in the uprising, many homes were burned, and a large portion of the colony's live stock was driven off and killed. Another brief period of famine caused the authorities to issue orders for each settler to raise a supply of food adequate for his needs.

Tobacco the Leading Colonial Product. When King James heard of the growing importance of tobacco culture in Virginia he was greatly vexed. He objected strongly to tobacco smoking and had written a long essay, "The Counterblast to Tobacco," in which he described the use of the "filthy weed" as "a custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the black stinking fume thereof nearest resembling the horrible Stygian smoke of the pit which is bottomless." The king thought too that the colonists in Virginia should produce articles which England was accustomed to buy from continental Europe. In obedience to the king's suggestions officers of the London Company endeavored to persuade the colonists to engage in other occupations than the raising of tobacco. Another attempt was made to begin the manufacture of glass; each colonist was ordered to plant vines for the purpose of starting a wine industry (King James could drink, though he could not smoke); the production of silk was started on a small scale; hemp and flax were raised on many plantations; and an effort was made to introduce the cultivation of indigo and other plants. In spite of all these efforts the colonists persisted in raising tobacco. The people of Europe demanded it in increasing quantities, and the Virginians found it more profitable than any other article they tried to produce. In a short time they were permitted to have their own way. The king contented himself with taxing the shipments sent to England, the large revenue causing him to forgive his obstinate subjects.

In 1660 the exports of tobacco from Virginia were nearly 8,000,000 pounds. Not only did tobacco continue to be the most important product of Virginia, but from a commercial standpoint, it was by far the most important product of the colonies during the entire period of colonial history. We now have so many agricultural products of

much greater value than tobacco that it is hard to realize that this plant was for nearly two hundred years the most valuable article raised on American soil.

Other Products of Virginia. After the disastrous experience of 1622 the Virginia planters usually, though not always, raised sufficient quantities of grain and other food plants for their own use. Corn was planted in increasing quantities, and beans, peas, potatoes, cabbage, turnips and all other ordinary garden vegetables were raised in abundance. Virtually all the plantations had orchards of apple, peach, plum and pear trees. It was



Farm Implements of the Eighteenth Century

found that land exhausted by successive crops of tobacco would still produce both wheat and corn. This fact tended to encourage the planting of grain. Moreover tobacco was raised in such large quantities that the price often fell to a low point. The Virginia government for a time permitted only a limited amount to be planted and allowed only the best grade to be exported. This action stimulated the raising of grain and many of the plantations soon had such large crops that they could sell both corn and wheat to other colonies. In 1634 ten thousand bushels of Virginia corn were sold in New England. Corn meal and

wheat flour were first made with hand mills. Mills operated by horses and oxen were soon introduced; in 1640 Virginia had four windmills and five watermills for grinding grain.

Tools and Implements. The farming implements used by the Virginia planters, and by the settlers of other colonies, were chiefly hand tools, of which the hoe, the spade and the mattock were the most important. The plows of the colonial period were unwieldy affairs made of wood with the exception of the tips and shares, which were iron. They were so heavy and so difficult to hold in the ground that four oxen and two or three men were usually required to operate a single plow; they were easily broken and in newly cleared land the roots and stumps made the use of plows impossible. Virginia had no plows for several years because of the lack of animals to draw them, but by 1648 there were 150 plows in the colony. Wooden harrows were used to prepare plowed soil for planting, seeds were sown by hand, and the cultivation of growing crops and the removal of weeds were likewise accomplished by manual labor. Wheat, rye, and similar grains were cut with sickles or "hooks" and threshed with flails or by horses and oxen treading on a threshing floor. Hay and straw were handled with hand rakes and forks made entirely of wood. In addition to farming implements each farmer had axes, hatchets, saws, hammers, pick-axes, augers and chisels for use in clearing land and in building.

Live Stock. The Virginia settlers soon secured large numbers of hogs and cattle. There was sufficient grazing for the cattle in forests and thickets, and the hogs lived mainly upon roots and the large quantities of mast which fell from oak and hickory trees. Each planter had an abundance of milk, butter and cheese. Milk cows and oxen used for farming and hauling were sheltered and

fed, but most of the cattle and all the hogs ran wild in the forests, the planters giving them neither feed nor shelter even in the winter time. Pork and beef were cheap and plentiful; Virginia sold hogs and cattle to the early settlers of other colonies. Horses and sheep were brought to Virginia soon after the settlement of Jamestown, but the number of these animals was not yet large in 1660.

Imports of Virginia. The early Virginia settlers produced little besides food and tobacco. Clothing, shoes, hats, firearms, household furnishings for all parts of the home, tools and equipment were purchased from England and paid for with tobacco. At first all trading was done by the London Company. After the Company was dissolved it became customary for the planters to employ agents or factors in England who sold the tobacco and purchased the goods which the planters ordered. A few merchants came to Virginia and established stores where the planters could exchange their tobacco for imported supplies, but during the early period of Virginia's history such merchants were few in number and their business small. The early plantations were situated along navigable streams and trade was carried on directly between plantation wharf and English seaport. Some of the planters had their own ships, but for the most part the vessels which carried traffic to and from Virginia belonged to English ship owners. A few attempts were made to start shipbuilding in Virginia, but like other undertakings it made no progress after tobacco planting became general. Moreover there was no need for the Virginia colonists to construct ships. The demand for tobacco in England and the demand for English goods in Virginia made possible a large direct trade with full cargoes in both directions. English shipowners gladly took advantage of the opportunity to engage in the profitable carrying trade between the colony and the mother country. Dutch vessels too,

before 1660, came occasionally to Virginia to secure tobacco and dispose of European wares.

Early Industry of New England. Landing late in December, 1620, the Pilgrims built a few log shelters but these did not give sufficient protection against the cold of a New England winter. The store of provisions brought in the *Mayflower* was much too small, and before the winter ended nearly half the settlers died of sickness caused by hunger and exposure.

In April the colonists planted wheat, peas and Indian corn. The Indian population of New England had been greatly reduced by disease and famine during the years just preceding the coming of the Pilgrims, and the settlers used the fields which had once been cultivated by the natives. It was fortunate that these fields were available because the men of Plymouth were too weak to clear new land. The soil in which they sowed their grain had lost much of its fertility, but Squanto, a friendly Indian, taught them how to fertilize the hills of corn with fish, and he also showed them how to care for the growing crops. The wheat and peas did not do well this first season, but there was a large harvest of corn.

During the summer the colonists built better homes and a small fort, and made a considerable quantity of clapboard to send to England. In September some of the men went on a short trading expedition among the Indians, exchanging beads and cloth for beaver and other skins. When a ship came in November bringing additional settlers it was sent back with a cargo of clapboard and skins of a value of nearly five hundred pounds.

The second winter was passed more comfortably than the first though it was necessary to limit closely the allotments of food. The following spring, though more grain was planted, the colony began to experience trouble because of a refusal of many members to work. The com-

munal system was a source of much discontent and trouble. Governor Bradford wrote, "The young men that are most able and fitte for labor and service did repine that they should spend their time and strength to worke for other mens wives and children without any recompense. The strong, or man of parts, had no more in the divission of victals and cloaths, than he that was weake and not able to doe a quarter the other could; this was thought injustice." After another winter of hunger the communal system was partly abandoned, and each man received a small piece of land to tend, the produce of which he was permitted to keep for himself. A few years later the individual allotments were increased to twenty acres. Under this plan of individual ownership industry revived and the period of famine came to an end.

The supply of food assured, the leaders of the Plymouth colony gave increased attention to the production of articles from which a commercial profit could be derived for the shareholders. A few attempts were made to establish a fishing industry but they were unsuccessful. The most profitable of the early ventures of the Pilgrims was the fur trade. It was from this trade that the colonists obtained nearly all the money with which to pay the debt incurred when in 1627 they bought out the interest of the English shareholders. In 1624 a ship carpenter sent from England built two strong shallops for the colony, and with these small vessels the fur trade was steadily extended. Cloth, beads, and tools from England, and corn raised by the colonists themselves, were exchanged for skins at small trading posts established along the coast, and valuable cargoes of fur were regularly shipped to England. Trade was opened with the Dutch of New Netherlands, giving a further opportunity for gain. New settlers came each year and the little colony steadily prospered.

The Plymouth colony grew slowly in population. The

real industrial development of New England did not begin until after the Massachusetts Bay Company began to establish its settlements. Like the Plymouth colonists the early settlers of the Bay colony directed their first efforts toward agriculture. Grain was raised in large quantities; windmills and watermills were erected to make meal and flour. Gardens and orchards gave vegetables and fruits in plenty, and cattle, hogs and poultry supplied an abundance of meat and dairy products. But while agriculture was the earliest, and throughout the entire colonial period, the most important industry of New England, it did not become the basis of New England's commerce. Articles which were not products of the farm were found to give greater rewards in trade. Of these articles by far the most important was fish.

The New England Fisheries. The waters along the New England shore contained large quantities of fish—cod, mackerel, alewives, bass—as well as such shellfish as oysters, clams and lobsters. All these fish were used as food by the people of New England but the cod was the leading fish of commerce. Codfish, salted and dried, could be kept for a long time and could easily be transported to any market.

Though the Plymouth colony failed to make a success of fisheries the Massachusetts Bay colony soon developed the industry to such an extent that it became the "cornerstone of New England prosperity." To start the fisheries on an extensive scale required a substantial investment of capital in ships and equipment. Many of the settlers were reluctant to consent to such an investment. However a few of the leading men of the colony saw the possibilities of gain in the fisheries, and their persistent urging overcame all objections. Hugh Peter, the pastor of the church at Salem, did more than any other person to induce the colony to engage in the fishing business on a

large scale. With tireless energy he went from place to place telling of the industrial and commercial opportunity which the fisheries afforded, and he succeeded also in obtaining some capital from England. To encourage fishing the General Court of Massachusetts exempted fishing vessels and equipment from taxation for a period of seven years, while ship carpenters and fishermen were excused from military duty.

The early fishing ventures proved successful and the industry grew rapidly. In 1641 Massachusetts exported 300,000 dried fish. In all the New England colonies fish became the leading export.

The fisheries were important not only because of the valuable product which they supplied but also because they had much to do with the rise of other industries in New England and with the character of New England's commerce. One of the leading industries with which fishing was closely connected was shipbuilding.

Shipbuilding in New England. Shipbuilding began in New England when, in 1631, John Winthrop, the governor of Massachusetts Bay, built a small sloop, *The Blessing of the Bay,* at Mystic. This vessel, of about sixty tons burden, was used in trading along the coast. Another vessel of the same size was built at Mystic two years later, and in 1636 a vessel of one hundred and twenty tons was built at Marblehead. Though shipbuilding was begun before the fishing industry became important, it developed rapidly once the fisheries were well started. Shipyards were established in virtually all the coast towns of Massachusetts, Connecticut, Rhode Island and New Hampshire. Boston, Cambridge, Dorchester, Marblehead, Salem, New Bedford, Newport, New London had yards making small vessels for the fisheries and ships of two hundred to three hundred tons for overseas trade. The first ship built in Boston was *The Trial,* a vessel of two hundred tons, launched in 1642. By

1660 Massachusetts had more than one hundred sailing vessels, of which a dozen were above two hundred tons each. By this time the New England shipyards were turning out vessels, large and small, to be sold in England and in the other colonies. The forests of fir and pine at the water's edge afforded an abundance of the finest shipbuilding materials, while the fisheries and commerce created the demand which caused the shipbuilding business to flourish.

Early Commerce of New England. Like the other colonies in America the New England colonies were compelled to secure many necessities, such as tools, clothing, household furnishings, sugar and wine, from outside sources. Nearly all the salt for the fisheries and much of the equipment for fishing vessels and other ships were also imported. To secure these articles New England sold fish, furs, ships, lumber, staves, grain and meat. However the commerce of New England could not be carried on by a system of direct exchange. Virginia secured most of her needed imports from England, and England was virtually the only market for Virginia's great export. While the people of New England bought a large part of their imported supplies from England, they could sell only a relatively small part of their exports to the mother country.

Fish, the leading export of New England, could, before 1660, be sold in England, but only in small quantities, because English fishermen were able to supply their home market. After 1660 New England fish were entirely excluded from the English markets by prohibitory tariff duties. The New England fishermen, from the beginning of the fishing industry, found their markets in many places. The "merchantable" cod, the fish of large size and first class quality, were sold in Spain and Portugal.

the "middling," or second grade fish, were shipped to the Azores and Canary Islands, and the fish of poorest quality were sent to the West Indies where they were used to feed the negro slaves of the sugar planters. Staves, heading, sawed lumber, horses, salt pork, flour and grain were also shipped to the West Indies. In fact these islands offered the best market for New England products throughout the colonial period. Lumber, ships and furs were sold in England, but the exports of these articles paid for only a small part of the goods which the New Englanders bought from the mother country. Their debts to English merchants were settled by the proceeds of sales in the West Indies and Southern Europe.

The commerce of New England differed in another important particular from the commerce of the Virginians, in that while the Virginians let English shipowners and merchants carry and market their tobacco, the New Englanders did most of their carrying and trading themselves. This was due to several circumstances. Vessels from England did not come to New England as frequently and regularly as to Virginia because of the scarcity of return cargoes to England. This fact made it necessary for the people of New England to carry their own goods to market. Once having ships of their own the people found it profitable to extend their trade and to use their vessels in carrying goods for others. During seasons of the year when little or no fishing was done the fishing vessels were employed in commercial voyages to the West Indies and to other colonies along the Atlantic coast. New England soon had a large number of skilful and daring mariners and many shrewd and enterprising merchants, traders and shipowners, who, working together, took New England products in New England ships to many parts of the world. Home merchants and shipowners took care of virtually all

of New England's extensive trade with the West Indies and with Southern Europe, and took care of part of the trade with England.

Early Manufactures of New England. The lack of regular intercourse with England induced the colonists of New England to try making for themselves many products which the Virginians imported from the mother country. Moreover the long cold winters, which prevented outdoor labor, tended to encourage the development of those industries which could be carried on by the home fireside. The manufactured articles which the New Englanders first endeavored to make for themselves were clothing and shoes. Spinning wheels and looms appeared in Massachusetts at an early date. Sheep were imported and flax was raised to supply material for woolens and linens, and cotton was brought from the West Indies. In 1640 the General Court of Massachusetts provided that for three years a small bounty should be given for linen, woolen and cotton cloth spun and woven in the colony. In 1639 a fulling mill was started at Rowley by a small group of colonists, who with their pastor, Ezekiel Rogers, had been exiled from Yorkshire because of their religious belief. As early as 1634, a tannery was erected at Ipswich and several more tanneries were soon established in other New England towns. Many shoemakers came to New England to pursue their trade. Large quantities of leather were used in making clothing for servants and laborers.

Among the earliest of New England's manufacturing industries was that of sawing lumber. A sawmill, operated by water power, was built at Portsmouth, New Hampshire, in 1635 and it was quickly followed by many others throughout all the New England colonies. Very often a sawmill was built alongside a gristmill, the same water power serving both. Lumber was exported to foreign

markets, and it was also used extensively for building purposes in the growing New England communities. The early log huts soon gave way to handsome frame dwellings, and before 1660 mansions of brick and stone were not unfamiliar. For these mansions the brick, lime and tile were frequently made by the colonists themselves. A few efforts were made to manufacture glass, but they did not meet with much success.

Another necessity which the colonists tried to provide for themselves was iron. Iron ore was not abundant in the coastal region of New England, but enough was found in various peat-bogs to justify the construction of furnaces. The first of these, erected near Lynn in 1643, was operated for more than a century. Another iron furnace was built at Braintree in 1645, and one at Raynham in 1652. From the metal manufactured in these furnaces were made iron pots and fittings for agricultural implements and for ships.

The manufacture of liquor was another early industry of New England. Breweries were common, though after apples became plentiful home-made cider was drunk more than beer. Another liquor widely used in New England was rum, distilled from West India molasses. The fishermen and lumbermen wanted a stronger drink than beer or cider, and West India rum was cheap and easily obtained. At first the entire supply was imported, but in 1648 a small distillery was opened at Salem. Distilling did not become a highly important industry however until nearly a century later.

New England Industry Diversified. The industries of New England were much more diversified than the industries of any other group of colonies. The people in the region south of New England centered their activities about agriculture. While agriculture flourished in New England it did not afford the opportunity for gain which could be found in other lines of endeavor. The fisheries

became the basis of an industry of almost equal importance. Closely related to fishing was the shipbuilding industry and out of these two enterprises grew an active commerce which was conducted largely by home traders and shipowners. Household manufactures kept hand and mind from idleness during the long evenings of winter. The thrifty and industrious New Englanders turned many ways to find their fortunes.

Other Colonies Before 1660. The early economic development of Maryland was similar to that of Virginia. Agriculture was the only industry of importance and tobacco the chief product for export.

The first settlements of New Netherlands were planted as trading posts. At the beginning of the seventeenth century the Dutch nation was the leading commercial nation of Europe. Dutch traders went over the world gathering up the products of all lands to sell among Europeans. What drew them to America was the valuable furs and skins, which they obtained from the Indians for cloth, ornaments, firearms and liquor. Though the fur trade remained the leading economic activity of New Netherlands during the entire period of Dutch occupancy, agriculture was soon developed by settlers who came to the Hudson Valley from the Netherlands, France, England and other parts of Western Europe. The colony did not prosper because of the burdensome regulations imposed upon the people by the governing authorities and because of frequent trouble with the Indians.

In New Sweden the fur trade was likewise the chief commercial activity. The land of the Delaware Valley was excellent for agriculture and the river banks about the small villages which the Swedes established were soon dotted with farms whose abundant crops of cereals, vegetables and fruits assured plenty and contentment to the thrifty and industrious settlers.

The Colonies in 1660. By 1660 two centers of English colonization on the American continent, Virginia and Maryland in the South and New England in the North, were firmly established. A narrow fringe of the great wilderness had been cut away to make room for homes. The subjection of the continent had started. The land and the sea were yielding their products to the incessant toil of the sturdy settlers, and already the economic development of the two groups of English colonies had assumed the course it was to follow with but little change for more than a century. The English colonies had a population of approximately eighty thousand, two-thirds of whom lived in the settlements about Chesapeake Bay. With the exception of a few hundred negro slaves and small groups of Scotch, French Huguenots and Irish the colonists were emigrants from England or their children. New Netherlands and New Sweden, the latter becoming a Dutch possession in 1655, had probably seven thousand people, half of whom were English, the remainder Dutch and Swedish. The region controlled by the Dutch had not made such rapid progress as the English colonies, but it was because of mismanagement and misrule, and not because the land did not offer suitable opportunity.

The commerce of the English colonies in America had grown steadily since the first settlements had been planted. The market for English goods in America was even greater in extent than had been hoped for, and the increasing surplus which the colonists sent abroad each year signified growing wealth and prosperity. The experimental stage of colonization had passed. Industrial and commercial activities had reached such proportions in the colonies that the time had arrived for the English government to undertake their regulation by law. The year 1660 witnessed the first important step taken by Parliament in the formation of an economic policy with respect to the English colonies.

Questions and Topics

1. Show the causes that have led to concentration upon certain industries in your own State.
2. From your observation of industries in America, would you say that the production of necessities or luxuries pays better?
3. Compare the life of the American colonial farmer with that of the English farmer of the same period.
4. What indirect influence did the Indian have upon commerce?
5. Name three instances where communal ownership has proved unsuccessful. What are the weaknesses of such a form of government?
6. Make a list of some present day farm implements that have added to the efficiency of farm production and reduced the number of men required for operation.
7. What relation does the existence of waterways bear to the development of a country?
8. Make parallel lists of the products of the Virginia and Plymouth colonies, and their present day States?
9. As a venture in colonization, which would you consider more successful—Plymouth or Virginia? Why?
10. How can you account for the fact that New England and not Virginia became the center of the shipbuilding trade?
11. What influence did climate have on industries in the colonies?
12. Can you give any instances of legislation to encourage industry in your own State comparable with the Massachusetts legislation to encourage textile industries?

CHAPTER V

ENGLISH COLONIAL POLICY, 1660–1763

The Mercantile System. In order to understand the nature and purpose of the colonial policy of England one must know the general economic policy which the nations of Europe followed during the seventeenth and eighteenth centuries. This policy, which has been named the "mercantile system," was founded upon extreme national selfishness. National feeling was very strong. Many European countries were endeavoring to build up great empires, and all followed the plan of regulating industry and trade in a manner which it was thought would contribute most effectively to national strength and prosperity. Each country was extremely jealous of all other countries; each wanted to be strong itself and wanted all others to be weak; and each thought that what was one nation's loss was sure to be another nation's gain. A peculiar feature of the mercantile system was the belief that wealth consisted chiefly of precious metals. The nation which had the most silver and gold was thought to be the richest and most prosperous. It was considered desirable therefore to sell as many goods as possible to foreign countries and to buy very little from them. The country which sold much and bought little would constantly increase its stock of gold and silver. One reason why European countries wanted colonies was to relieve themselves of the necessity of purchasing goods from rival countries.

Each nation protected its industries to the fullest possible extent. England protected her agriculture by high

tariff duties on some foodstuffs and by the exclusion of others. Manufacturers were protected by regulations which forbade the exportation of raw materials and the importation of finished products. In 1651 the English Parliament passed the famous Navigation Act, the purpose of which was to give greater protection to English shipping, which at that time was not very prosperous because of the active competition of Dutch shipowners. One man writing of this time said: "It had been observed with concern that the merchants of England, for several years past, had usually freighted Dutch shipping for fetching home their own merchandise, because the freight was at a lower rate than that of English ships. The Dutch shipping were therefore made use of even for importing our own American products; whilst our own shipping lay rotting in our harbors." The Dutch were outstripping the English in the competitive struggle for carrying the great commerce which was being developed through the exploration and colonization of America, Africa and Asia. The Act of 1651 was intended to help English shipping interests chiefly at the expense of the Dutch.

This act provided that all goods of the production of Asia, Africa and America imported into England must be carried in English owned ships of which the master and at least three-fourths of the crew were English. It also said that such goods must be imported directly from the place of production, a feature of the law which prevented the Dutch from carrying the goods to Dutch ports and sending them to England in English ships. The law further provided that goods produced in Europe and imported into England must be carried either in English ships or in the ships of the country from which the goods were sent. Dutch vessels could not carry articles from Spain or France to England. The law also excluded all foreign

vessels from the English coastwise trade, and forbade the sale in England of fish caught in foreign fishing vessels.

The purpose of this law was to protect and encourage English shipping. The act made no specific reference to English colonial trade and its only effect on the colonies in America was to require the goods which they sent to England to be shipped in English vessels, the same as goods from any part of America which did not belong to England. This law did not forbid the colonists to sell their products where they chose nor to buy goods where they desired to buy. Under this law the colonists could employ other than English ships in any of their commerce except that with the mother country. Parliament did not begin to apply the mercantile system in full to the colonies until a few years later.

How the Mercantile System Applied to Colonies. The application of the mercantile system to colonies was based upon the theory that colonies were planted and maintained only to promote the interests of the mother country. It was believed that colonial industry and trade should exist primarily for the purpose of contributing to the wealth of the nation to which the colonies belonged. If colonial industry and trade did not develop naturally in such a way as to promote the interests of the mother country then it was the right, and even the duty, of the mother country to direct the course of colonial economic activity into its proper channels. Colonizing nations naturally desired that their colonies should be prosperous, but the prosperity should not be of a nature to work injury to the mother country. One English writer said:

> "Colonies ought never to forget what they owe to their mother country in return for the prosperity and riches they enjoy. Their gratitude in that respect, and the duty they owe, indispensably oblige them to be immediately dependent on their original parent, and to

make their interest subservient thereunto. The effect of that interest, and of that dependency will be, to procure the mother country: (1) a greater consumption of the production of her lands; (2) occupation for a greater number of her manufacturers, artizans, fishermen and seamen; (3) a greater quantity of such commodities as she wants; (4) a greater superfluity, wherewith to supply other people.

"From the end of the establishment of colonies result two kind of prohibitions. First, it is a law founded on the very nature of colonies, that they ought to have no culture of arts, wherein to rival the arts and culture of their parent country. For which reason, a colony, incapable of producing any other commodities than those produced by its mother country, would be more dangerous than useful: it would be proper to call home its inhabitants and give it up.

"Secondly, colonies cannot in justice consume foreign commodities with an equivalent for which their mother country consents to supply them; nor sell to foreigners such of their own commodities as their mother country consents to receive. Every infringement of those laws is a real, though, too common, robbery of the mother country's labourers, workmen and seamen, in order to enrich the same classes of men belonging to rival nations, who will sooner or later take advantage of it against those very colonies."

In formulating a colonial policy the English lawmakers had the following ends in view with regard to colonial economic growth:

1. Industries desired by the mother country should be encouraged and aided.

2. Industries which it was thought might injure England should be forbidden.

3. English merchants should have the first right to buy any colonial product which they desired to have.

4. English merchants should have the first right to sell to the colonists the goods which the colonists wanted.

5. All articles carried to and from the colonies should be carried in English vessels.

This program was worked out in a number of laws, the first important one being enacted in 1660. Even before 1660 some efforts had been made to direct colonial industry and trade. King James and King Charles I gave instructions to colonial authorities not to trade with foreigners. James wanted to put an end to tobacco culture in Virginia. After it had been decided to let the Virginians have their way, they were ordered to send all their export tobacco to England. In return however the colonial tobacco planters were given a monopoly of the English market by means of laws which forbade tobacco culture in England and placed very high tariff duties on foreign tobacco. In 1650 a law was passed prohibiting foreign vessels from trading with the colonies except by special license, but this act was passed primarily for the purpose of punishing the people of Virginia and Bermuda for supporting the cause of King Charles I during the civil war in England (1642–49). While these royal orders and early statutes clearly indicated the trend of the colonial policy, the important legislation did not come until after the restoration of the English monarchy in 1660.

The Act of 1660. The law of 1660 repeated the provisions of the Act of 1651 with respect to the protection of English shipping. This was done because the new royal government did not recognize as valid the acts passed by Parliament during the time of Cromwell's rule, but it wished nevertheless to continue the shipping policy which the Commonwealth government had adopted.

In addition to continuing the important features of the Act of 1651 the Act of 1660 made special provisions for the regulation of colonial trade. It stated that all

commodities exported from or imported into the English colonies should be carried in ships which belonged to the people of England, Ireland or Wales, or in ships which were built in the colonies and were owned by the colonists. The shipowners of England were permitted by this act to use in colonial trade vessels not built by English shipbuilders, but this was changed two years later, when for the protection of the shipbuilders the colonial trade was confined to English built vessels, including vessels built in the colonies.

The second important feature of the act of 1660 was a section carrying into effect the belief that English merchants had the first claim on any colonial commodities which they desired to have. The law stated that all sugar, tobacco, cotton, indigo, ginger, fustic or other dyewoods exported from an English colony should be sent only to England, Ireland, or Wales, or to some other English colony. The articles, the exportation of which was thus restricted, became known as the "enumerated" articles. The list was increased on later occasions, molasses and naval stores being added in 1704, rice in 1706, copper, beaver and other furs in 1722. However, partial relief was given from the operation of the restriction in the case of rice and sugar. The production of these two articles by English planters became too large to be absorbed by the English markets. The cost of transshipment by way of England to the European continent was great enough to prevent the successful competition of the English planters in the markets of continental Europe. When this fact was recognized by Parliament it enacted laws permitting rice (1730) and sugar (1739) to be transported from the colonies direct to any part of Europe south of Cape Finisterre. Only vessels owned in England could engage in this trade however; colonial vessels were permitted to

carry sugar and rice only to the mother country or between colonial ports.

Concerning the trade in articles which were not "enumerated" Parliament enacted no general legislation until 1766. The colonists were free to sell them, with a few exceptions to be mentioned later, wherever they could find a market. However not all the articles which were not enumerated could be sold in England. While Parliament did not pass any laws specifically excluding colonial products from the mother country the laws which were enacted to protect English industries against outside competition operated against colonial products just as against the products of a foreign country. The most important of these laws, with respect to the effect on colonial trade, were the laws preventing the free importation of certain food stuffs into England. The landholding and farming interests of England wanted special protection just as the manufacturers and shipowners did, and in their interest the English Corn Laws and other laws of a similar nature were enacted. Under these laws the New England colonies and the other northern colonies could not send their most important exports—fish, wheat, corn, flour and meat—to England. Articles other than foodstuffs could however be sent to the mother country.

Method of Securing Compliance with the Law of 1660. It was necessary to make some provision to prevent the transportation of the enumerated articles to the markets of the continent of Europe, and to this end the Act of 1660 stated that the masters of vessels should be placed under bond (£1,000 if the vessel was less than 100 tons, £2,000 if the vessel was larger) to carry to a legal destination any enumerated article which might be taken on board. The bonds were to be given in such a manner that vessels of the mother country were favored in the

transatlantic trade while colonial shipping was favored in the intercolonial trade. This was brought about in the following way. A vessel leaving the mother country, bound for the colonies, was required to give bond *before sailing,* that if it took any enumerated articles on board they should be brought to *England, Ireland or Wales.* A vessel touching a colonial port, not coming directly from the mother country, was required, when taking on enumerated articles, to give bond at the colonial port to take the articles to *England or to some other English colonial port.* A vessel going from England to the colonies was therefore legally excluded from carrying enumerated articles from one colony to another. The law tended to prevent vessels of the mother country from engaging in intercolonial trade, and it likewise tended to discourage colonial shipowners from sending their vessels to England. To have a bond canceled it was necessary for the master of the vessel to secure a certificate from the port authorities where the enumerated articles were unloaded and present it at the port where the bond was given.

The Act of 1663. The law of 1663 was enacted to give English merchants a commanding position in the import trade of the colonies. Since the colonies existed primarily for the benefit of the mother country it was thought that the colonists should not buy from a foreign country anything which English merchants could supply them. The law stated that all goods of European production imported into the colonies must be laden and shipped in England or Wales and carried directly to the colonies. The only exceptions were salt for the New England fisheries (and later for the fisheries of New York and Pennsylvania), wines from the Madeira and Azores Islands, and servants, food and horses from Ireland and Scotland. Salt for the fisheries was the only article of European production which the colonists could buy wherever they chose. It must be

noted that this law applied only to products of European origin. It placed no restrictions on trade in the products of foreign colonies in America.

The Act of 1673. Though the colonists did not deny the right of Parliament to make such regulations as those contained in the laws of 1660 and 1663, they did not take kindly to the restrictive measures and forthwith began to disobey them, carrying enumerated commodities such as sugar and tobacco directly to the countries of continental Europe and buying from those countries many articles besides salt for the New England fisheries. English merchants were quick to complain about the loss of profits which they thought to be rightly theirs. In the illegal sale of enumerated commodities in the ports of continental Europe the colonists could make lower prices than the English merchants because when the articles passed through England they had to bear transshipment charges as well as small taxes. To meet the situation created by the violation of the law Parliament enacted a measure in 1673 which imposed an export tax on enumerated articles shipped from any colony to another. These export taxes were equal in amount to the import taxes levied on the same articles when shipped to England. The taxes tended to equalize prices which the colonial merchant could charge with the prices of the English merchant, and thereby discouraged attempts on the part of the colonists to ship enumerated articles to illegal destinations in Europe. The law also had the effect of raising the price of sugar and other enumerated articles to the colonial consumers but this was thought in England to be no more than a proper punishment for past violations of the law.

The Act of 1696. Some of the colonists interpreted the law of 1673 to mean that once they had paid the export taxes on enumerated goods they had the right to send them wherever they chose. That is, they thought the act of 1673

virtually repealed that section of the act of 1660 with respect to the enumerated articles. The English Attorney-General said that the law of 1673 made no change in the act of 1660, and that regardless of the payment of the export taxes the colonial merchant could legally send enumerated articles only to the mother country or to another colony. Because of the misunderstanding about this matter another law was enacted in 1696 which stated in definite terms the substance of the Attorney-General's opinion. This act also made better provision for the enforcement of all the acts for the regulation of colonial trade by creating a new official machinery for their administration.

Restrictions on Colonial Industries. The people of England did not want the colonists to have industries which it was thought would have an injurious effect on the trade and industry of the mother country. One of the purposes of establishing colonies was to create a market for English manufactures and particularly for manufactures of wool. The early home manufactures of the New England and other northern colonies eventually expanded to such an extent that by the end of the seventeenth century the northern colonists not only were supplying a part of their own needs for woolens but were also selling woolens to the people of the other colonies. When this became known in England the woolen manufacturers protested. In answer to their protests Parliament passed a law in 1699 forbidding the people of any colony to export woolen yarn, woolen cloth or any manufactures of wool either to another colony or to a foreign country. Each colony was permitted to produce woolens for itself but it was not to compete with English manufacturers in selling to others.

In 1732, because of complaints of English hat manufacturers, Parliament imposed the same restrictions on the

exportation of hats from the colonies that had been placed upon the exportation of woolens, and to restrict still further the colonial hat-making industry each master hat-maker was forbidden to have more than two apprentices; and each apprentice was required to serve his master seven years.

In 1750 Parliament enacted a law to restrict the development of iron manufactures in the colonies. The mother country desired the opening of iron mines in her American colonies, and the production of pig iron and bar iron was encouraged. But since the manufacture of iron into finished products would create competition with English manufacturers the law provided that no rolling mills, slitting mill, plating forge or steel furnace should be erected or operated in the colonies.

Encouragements of Colonial Industry and Trade. In order to bring about the development of desirable colonial industries Parliament frequently gave inducements in the way of bounties and special privileges. England wanted to become independent of foreign nations for her supply of naval stores, and to encourage the production of those articles in the colonies a law was passed in 1706 providing for the payment of substantial bounties upon all masts, tar, rosin, turpentine and hemp shipped from the colonies to the mother country. A bounty was also given on colonial indigo.

Another way in which Parliament favored colonial industry and trade was by granting preferential import duties upon certain colonial products. A considerable number of articles imported into England from the colonies were taxed at a lower rate than similar articles from foreign countries. The preferential treatment given to colonial tobacco was sufficient to exclude virtually all foreign tobacco from England. Moreover the law forbidding

tobacco culture in England was strictly enforced. Preferential tariff duties were granted on whale oil, silk, pot and pearl ashes, iron and molasses.

Though the colonists were compelled by law to purchase virtually all their European imports in England, the mother country taxed but lightly the articles which were produced originally in the countries of continental Europe. The full import duty was charged when the articles entered England, but if they were subsequently shipped to the colonies virtually all the duty was returned. These "drawbacks" made it possible often for the colonists to buy goods manufactured on the continent more cheaply than the people of England could buy them. A system of drawbacks was also in effect upon colonial products reexported from England to some foreign country, so that colonial producers were not placed at a great disadvantage in competition with others.

The English shipping policy gave complete protection to the shipbuilding and navigating interests of the colonies. Foreign ships were excluded from colonial trade; the commerce of the English possessions in America was carried on entirely by the ships of the mother country or of the colonies themselves. Colonial shipping secured a virtual monopoly of the intercolonial trade. English shipping interests asked from time to time that the development of colonial shipping be restricted by law, but that was not done. The growth of the English empire demanded strength upon the sea, and political considerations took precedence over the selfish desires of the shipbuilders and shipowners of the mother country.

The Molasses Act of 1733. In only one act of legislation previous to 1764 did the English Parliament treat the colonies in a grossly unfair manner. This occurred with the passage of the Molasses Act in 1733, a law which rep-

resented an effort to discriminate against one group of colonies for the purpose of aiding another group.

After the enumeration of sugar in 1660 the English sugar planters in the West Indies were placed at a disadvantage in disposing of their sugar. England could not consume all the sugar which they sent and when it was transshipped to the continental markets the price established by the sale of sugar shipped directly from the French, Spanish and Dutch sugar islands was so low that there was no profit left for the English planters. While the planters were suffering losses in the competitive struggle the English colonists on the American continent were buying much of their sugar, molasses and rum from the non-English West Indian colonies. Rum and molasses were both sold cheaply in the French West Indies because the French government did not permit rum to be sent to France where it might harm the brandy manufacturing industry. It was suggested to Parliament that the English sugar planters would be helped if the continental colonies should be required to buy their sugar, rum and molasses in the English sugar islands. Acting on this suggestion Parliament passed the Molasses Act, which imposed duties of six pence a gallon, nine pence a gallon and five shillings a hundredweight respectively upon the molasses, rum and sugar imported into the American continental colonies from any non-English colony.

This unfair law brought forth a vigorous protest from the colonists of the continent. It was shown that the English sugar colonies did not produce enough molasses to meet the demand of the continental colonies. Moreover the continental colonies, particularly those of New England, had one of their leading export markets in the foreign West Indies. If they were prevented from buying the products of these islands they would no longer be able to sell to

them, and the industries and trade of the continental colonies would be greatly harmed. With their prosperity destroyed, it was pointed out, it would be impossible for them to make their customary purchases from England, and the English merchants too would suffer loss because of this bad law.

Fortunately the Molasses Act, in its original form, was never enforced. The English sugar planters secured the relief needed when in 1739 Parliament passed the law permitting the exportation of sugar directly to Southern Europe. Later the English government tried to enforce the Molasses Act. The attempt marked the beginning of a quarrel between the colonies and the mother country, a quarrel which was to end with the War for Independence. This phase of England's colonial policy will be taken up in a later chapter.

Influence and Effect of England's Colonial Policy. It has often been said that England's colonial policy was from the beginning harsh and burdensome, and that the colonies were ground down for generations under England's heel until they finally were driven to rebellion. As a matter of fact England's policy, previous to 1764, was not harsh, and, compared to the colonial policies of other countries at that time, it was extremely liberal.

The regulatory acts passed between 1660 and 1764, with the exception of the Molasses Act (which was not enforced) imposed no undue hardships on the colonists, and for every restriction which they contained there were ample compensatory advantages.

Tobacco and rice were the most important "enumerated" commodities produced in the continental colonies. The tobacco planters received a monopoly of the English market. After 1730 the rice planters could send their rice directly to points south of Cape Finisterre.

The restrictions imposed upon the manufacturers of

woolens, hats and articles of iron were of no vital significance because the colonies were primarily agricultural and in no event would have developed manufacturing to any great extent. Moreover the provisions of the laws regulating these industries were never rigorously enforced.

The act requiring the colonists to purchase European products in England likewise worked little hardship because after all England was the natural source of supply of virtually all the European goods which they desired. Even had this law not been passed England would have supplied most of their wants.

Much has been said about the evasion and violation of the acts for the regulation of colonial trade. Unquestionably the colonists disobeyed these laws when they desired to do so, and for many years the English government did not endeavor to enforce them with strictness. However the evasions were probably not extensive because colonial industry and trade naturally took the direction which the laws marked out. The laws were by no means the chief influence in determining the nature of the economic development of the colonies.

Questions and Topics

1. What causes have contributed to a strong international feeling in the 20th century as opposed to the extreme national selfishness of the 17th century?
2. Do you know of any modern regulations of commerce comparable to the mercantile system?
3. Do you think the colonies prospered more or less as a result of the English restrictions on trade?
4. In what respect do your own ideas of the purpose of a colony differ from those of the English writer quoted in this chapter?
5. What is your own idea of the purpose of a colony and the rights of the colonists?
6. Why did not the trade regulations imposed upon the colonists before 1764 cause them openly to revolt?

CHAPTER VI

COLONIAL DEVELOPMENT, 1660–1763

Population. The century following 1660 witnessed no change in the fundamental character of colonial industry and commerce. The methods of production, the tools and equipment of industry, and the variety of resources used were virtually the same in 1760 as in 1660. Significant changes in economic organization and activity did not begin to occur until late in the eighteenth century when new mechanical devices began to work a transformation of industry throughout the civilized world.

With few changes in industrial methods, the economic progress of the colonies depended mainly upon the increase in the number of inhabitants to work in field and forest and upon the sea. Development was quantitative rather than qualitative and the chief factor in productive capacity was the growth of population. There was throughout the century a steady flow of immigration, and the birth rate among colonial families was high. By 1760 virtually the entire coast from the Penobscot River in Maine to the St. Mary's in Florida was occupied. In New England and in the Middle Colonies the settled regions extended to the crest of the Appalachian highland, and even beyond the crest in the valleys of the Mohawk and Potomac Rivers. The Carolinas, Pennsylvania, and Georgia were settled during this period. When the pioneers going in advance of the English settlements came into contact with the French, working their way southward from the Great Lakes, a contest for control of the great interior valley

ensued, resulting in the extension of English dominion to the banks of the Mississippi.

It is estimated that in 1760 the population of the thirteen colonies was 1,596,000. Of this number 473,000 lived in New England, 405,000 in the Middle Colonies, and 718,000 in the southern group. There were 386,000 negroes in the colonies, of whom only 87,000 lived north of Maryland. In South Carolina, with a total population of 100,000, the black race outnumbered the white more than two to one, and in Virginia, the most populous single colony, the number of negroes was only slightly less than the number of white people. While the white population was overwhelmingly of English origin, there was, particularly after the beginning of the eighteenth century, a constantly increasing proportion of "foreigners." French, German, Scotch, and Irish settlers came to America in large numbers. They were scattered throughout all the colonies, though here and there they organized communities of their own, good examples of such communities being the German and Welsh settlements in Pennsylvania.

General Character of Colonial Industry. In Chapter IV it was pointed out how New England and Virginia differed sharply in their early economic development. The contrast between these two sections was typical of the contrast between the northern and southern groups of colonies. In the South agriculture remained the sole industry of importance, except in North Carolina, where considerable effort was given to the production of lumber and naval stores. Large plantations and slave labor were the main characteristics of the southern agricultural system. All the southern colonies raised sufficient grain for their own use. In Virginia, Maryland and North Carolina tobacco was the leading agricultural product, while in South Carolina and Georgia rice and indigo were the

chief articles raised for export. Maryland, lying between the North and the South, had a substantial shipbuilding and commercial center at Baltimore, and displayed a slightly greater diversity of industry than her sister colonies of the South.

In the Middle Colonies, New York, New Jersey, Pennsylvania and Delaware, the farms were comparatively small, and the chief agricultural product was grain. Large quantities of corn, oats, rye, wheat, barley and buckwheat were raised for home use and for export. Many people in these colonies engaged in commerce, owning and navigating ships in which they carried their products to distant markets and brought to America the commodities of other lands. Towns and villages were more numerous and more populous than in the South; shipbuilding, lumbering and manufacturing claimed the attention of a great many people. In New England the farm products were the same as those of the middle colonies, though the quantity was not nearly so large. Shipbuilding, fishing, lumbering, manufacturing and commerce were more actively pursued in New England than elsewhere.

Colonial Agriculture. Most of the colonists who landed on the shores of America became farmers. Farming offered the easiest and surest road to economic independence because it was possible to start with little or no capital, and the rewards to industry were certain. One early writer on colonial agriculture said,

> "It is common to see men demand and have grants of land, who have no substance to fix themselves further than the cash for the fees of taking up the land, a gun, some powder and shot, a few tools and a plow; they maintain themselves the first year, like the Indians, with their guns and nets; and afterwards by the same means with the assistance of their lands; the labor of their farms they perform themselves even to being their own carpenters and smiths; by this means people, who

may be said to have no fortune, are enabled to live, and in a few years to maintain themselves and families comfortably."

While newcomers and persons of wandering inclination, who because of an unwillingness to be "crowded" moved toward the wilderness whenever neighbors became numerous, were forced to undergo the many hardships of frontier life, the inhabitants who "fixed" themselves were able not only to live in comfort but to enjoy actual luxury. Though writing of a somewhat later date than 1760, Washington Irving gave a description of the typical comforts of colonial farm life when he pictured the

> "ample charms of a genuine Dutch country tea-table in the sumptuous time of autumn. Such heaped up platters of various and almost indescribable kinds, known only to experienced Dutch housewives. There was the doughty dough-nut, the tenderer oly koek, and the crisp and crumbling cruller; sweet-cakes and short-cakes and honey-cakes, and the whole family of cakes. And then there were apple-pies and peach-pies and pumpkin-pies; besides slices of ham and smoked beef; and moreover delectable dishes of preserved plums, peaches, and pears and quinces; not to mention broiled shad and roasted chickens; together with bowls of milk and cream, all higgledy-piggledy, pretty much as I have enumerated them, with the motherly tea-pot sending up its clouds of vapor from the midst."

With their great abundance it was not surprising that the colonists carried on agriculture in a wasteful manner. What was the need of being careful about the soil when there was so much more land than could be used? They cut down the forests and burned the trees; cropped the land until it lost its fertility, after which they used it for pasture and raised their crops on new ground. Cattle, horses and hogs received little care, and though increasing greatly in numbers they deteriorated in quality.

In 1730 an unusually severe winter caused the loss of 10,000 cattle in South Carolina, but said the writer who told of the loss, "the people will not change their conduct." European travelers who visited America during the colonial period and wrote of their experiences seldom failed to speak of the wasteful and extravagant methods of agriculture which they found wherever they went. "Their eyes" said one keen observer of the colonists, "are fixed upon the present gain, and they are blind to futurity."

Fishing. Fishing ranked next to agriculture among colonial industries. In all the colonies large quantities of fish were taken for home use by people living near the shore, and for negroes and the poorer white people fish formed a staple article of diet the year around. In the South fishing was one of the many minor activities which formed a part of plantation economy. In the Middle Colonies the wonderful spring runs of shad and alewives in the rivers and the oyster beds along the coast yielded much cheap and wholesome food. Pearl Street, New York, received its name, during the period of Dutch occupancy, from the fact that it was paved with oyster shells.

It was only in New England however that the fisheries were developed on a large scale. In this section fishing competed with agriculture for first place among the economic activities of the people. Marblehead, Gloucester, Nantucket, Salem, Boston, in fact all the seaports of New England had their fleets of small vessels bringing in cod, mackerel, herring, halibut, sturgeon and other varieties of deep-sea fish. The industry not only produced food for home use and for export but was also a wonderful "nursery for seamen," seamen who were without equal in the world for courage, skill and powers of endurance. At first the fishermen limited their operations to the fishing grounds in the Gulf of Maine, but as the business expanded they went farther and farther from home, to the coast of Nova Scotia

and the Gulf of St. Lawrence, to the Grand Bank of Newfoundland, the principal codfishery in American waters.

Though the New England fishing industry grew constantly it was hampered by the enmity of the French who claimed exclusive control of the fishing grounds along the coasts of Nova Scotia and Newfoundland. The French frequently seized and confiscated New England fishing vessels in these waters, and they incited the Indians to attack the New England fishermen who went ashore on the Maine coast to obtain firewood. The New Englanders welcomed the struggle between France and England for the control of the American continent, and each time war broke out the sturdy colonists sent armed expeditions against the French. It was due to the efforts of the New Englanders that Nova Scotia was captured in 1690 and again in 1710. In 1744, when war broke out a third time, William Pepperell, with a small force composed largely of New England fishermen, captured the strongly fortified city of Louisbourg on Cape Breton Island, an exploit which was one of the most remarkable military events of colonial history. His act had no substantial results however, for once more England restored the territory which the colonists had taken from their unfriendly neighbors. The final French and Indian War (1754–1763) found the New Englanders once more eagerly striving to expel the French; and they had a leading part in the struggle by which England gained an empire from her ancient rival.

Notwithstanding the interruptions and losses due to the frequent wars with the French, the New England fisheries had a remarkable growth. Barely established in 1635, they gave employment in 1765 to nearly 700 vessels and 10,000 seamen, and yielded an annual product of approximately $2,000,000 in value. So vital was the codfish to New England prosperity that the legislature of Massa-

chusetts voted to "hang a representation of a codfish in the room where the House sit, as a memorial of the importance of the codfishery to the welfare of this Commonwealth," a custom which is followed to the present day.

Of equal interest with the growth of the codfishery was the development of whaling. The oil and bone of whales were the basis of a valuable European industry even before the settlement of America, and one of the resources of New England frequently mentioned by early writers was the whales seen along the coast. Richard Mather, who came to Massachusetts in 1635, told of seeing "mighty whales spewing up water like the smoke of a chimney, of such incredible bigness that I will never wonder that the body of Jonah could be in the belly of a whale." The first stage in the development of the whale fishery consisted of using the occasional drift whales cast ashore by the sea. The second stage of development was soon reached. High masts or scaffolds erected on the beach supported platforms from which observers watched for the appearance of whales. When one was seen the fishermen put out in small boats, made their kill, and towed the carcass ashore to be cut up and the oil and bone extracted. By the end of the seventeenth century deep sea whaling was established. In 1736 whaling vessels from Provincetown went as far north as Davis Straits in search of whales. The field of operation was extended until by 1760 the colonial whalers frequented all the known whaling grounds of the North Atlantic Ocean. Nantucket was at this time the chief center of the industry, with a fleet of sixty vessels.

Other Extractive Industries. The natural resource of greatest commercial value, next to the fertile soil and the fisheries, was the great forests which covered the Atlantic slope. Sawed lumber, masts and timbers for ships, shingles, clapboards, staves, heading and hoops were pro-

duced in huge quantities. West Indian sugar planters built their homes of frames sawed and fitted in New England, and shipped their sugar and molasses in barrels and hogsheads made of American materials. English woolen manufacturers bleached their cloth with pot and pearl ashes from America; English shipbuilders obtained a large part of their timbers and naval stores from American forests. Vessels of the royal navy were equipped with masts which had been American pine trees, and so much did the English government think of this source of supply that agents of the king went through the forests marking with a broad arrow the trees suitable for masts. These trees the colonists were forbidden to cut for their own use.

The chief mineral resource of the colonies was iron. Copper was discovered in several colonies, but was found in workable quantities only in Connecticut. Iron ore deposits were worked in all the Middle Colonies, in Massachusetts, Connecticut and Rhode Island, in Virginia and Maryland.

Another natural resource which contributed largely to colonial wealth was furs and skins. These articles took high rank among American exports throughout the colonial period. Though the settlement of the country near the coast was soon followed by the decrease of wild animals in that region, hunters, trappers, and traders moved westward to the Appalachian highland and then across the mountains in search of furs and peltry. Traders of South Carolina and Georgia bought skins of deer and other animals from the Indian tribes living on the banks of the Mississippi. The fur trading post usually marked the location of a later settlement; it was the outpost of the white man's advance.

Shipbuilding. In shipbuilding, as in fishing and commercial activity, New England led the other groups of colonies, but she did not have so nearly a complete monopoly

of shipbuilding as of the fishing industry. New York, Pennsylvania, and Maryland had busy shipyards, and in Virginia and the Carolinas some shipping was constructed during the latter part of the colonial period. All kinds of vessels, both large and small, were built in colonial yards. A favorite type for fishing and also for oversea trade was the schooner, a type designed by Captain Andrew Robinson, a Gloucester fisherman, in 1713. Up to that time the square rig was favored for all vessels with more than one mast. Captain Robinson built a two-masted vessel with a fore-and-aft rigging that could be easily handled from the deck. When he launched his first vessel, a bystander exclaimed, "Oh, how she scoons," whereupon the designer responded, "A schooner let her be." The schooner could sail "closer to the wind" than a square-rigged vessel, and its course could be more easily controlled.

Exact information as to the progress of colonial shipbuilding is not available, but enough is known to show that the growth of the business compared favorably with the advance of other leading industries. By 1676 Massachusetts colonists had built 730 vessels, of which 30 were from 100 to 250 tons, and 400 from 30 to 100 tons each. In 1769 a survey of shipbuilding in the colonies showed the number and tonnage of vessels built that year to be as follows:

Colony	Square-rigged Vessels	Sloops and Schooners	Tonnage
New Hampshire	16	29	2,442
Massachusetts	40	97	8,013
Rhode Island	8	31	1,425
Connecticut	7	43	1,542
New York	5	14	955
New Jersey	1	3	83
Pennsylvania	14	8	1,469
Maryland	9	11	1,344
Virginia	6	21	1,269
North Carolina	3	9	607
South Carolina	4	8	789
Georgia	0	2	50

The colonists made many of the vessels which the English used to maintain their leadership among commercial nations. Just before the Revolution England's merchant marine consisted of 7,694 vessels, of which 2,342 were of American construction. It was not an uncommon occurrence for a colonial merchant to send a shipload of goods to England and sell both ship and cargo.

Manufactures. To a very large extent the colonists depended upon the mother country for manufactured



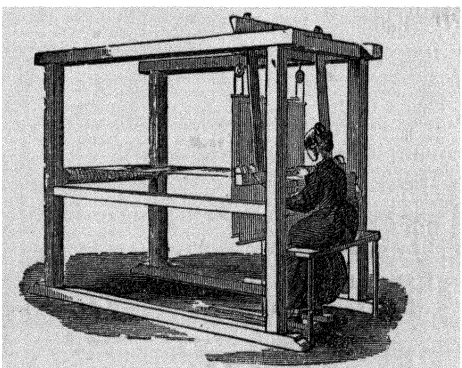
Spinning-Wheel

goods. The articles made in the colonies were not so good as those produced in England, and because of the high wages of skilled labor colonial manufacturing was expensive. Many attempts to establish industries failed because of the excessive cost of labor.

Grist mills for making meal and flour were common in all the colonies. The spinning wheels and looms of colonial housewives made a large part of the textile goods which the people used, but this homespun cloth was of coarse grade, rough woolens and linens, and linsey-woolsey, a

cloth with a woof of woolen and a warp of flaxen threads. In New England and in the Middle colonies some households had a surplus of cloth or knit goods which was sold with other products of the farm. These colonies had a number of shoemakers and hatters who carried on a thriving business. Hempen ropes and sail cloth of domestic manufacture were used on colonial ships; brick and tile yards supplied material for colonial houses; leather harness and saddles, rude furniture and farm carts and wagons were also in the list of colonial manufactured products.

At nearly all the colonial iron furnaces various wares



Hand Loom

were made for domestic use. Kettles, andirons, and other household articles, plowshares, anchors and chains were made in the northern colonies. These colonies had a number of slitting mills and rolling mills, many of which continued to operate even after the restrictive law of 1750 was enacted. In the Schuylkill valley, at Sterling Mountain, New York, in Morris County, New Jersey, and in various towns of Rhode Island and Connecticut were the chief iron manufacturing industries. A common household industry of New England was the making of nails from the

wire drawn in Connecticut and Rhode Island mills. In addition to the iron made into finished articles by the colonists, a large quantity of pig and bar iron was exported to England, the amount reaching 7,525 tons in 1771.

One of the most important colonial manufacturing industries was the distillation of rum. The colonists found that they could make a greater profit by importing molasses and making their own rum than by importing rum from the West Indies. The vessels which took fish, pickled beef and pork, and forest products to the West Indies returned with hogsheads of molasses. In all the New England colonies a number of distilleries were erected, the chief center of the industry being Newport, Rhode Island. Thousands of gallons of New England rum were consumed in the colonies and exported abroad. The most important outside market was Africa, where Newport merchants exchanged rum for negro slaves.

Colonial Commerce. One indication of the growing wealth of the colonies was the steady expansion of their commerce. Unfortunately colonial officials were careless both in making and in preserving records, and we do not have complete statements of colonial trade such as we now have of the trade of nearly all countries. However the customs authorities of England, after 1697, kept a fairly accurate acount of the commerce between the mother country and the colonies. The record of this trade, as summarized in the following table, may be taken as evidence of the growth of colonial trade as a whole:—

ANNUAL AVERAGE OF THE COMMERCE BETWEEN ENGLAND AND THE THIRTEEN COLONIES.

Annual Average	Colonial Exports to England £ s. d.	Colonial Imports from England £ s. d.
From 1700 to 1710	265,783 0 10	267,205 3 4
From 1710 to 1720	392,653 17 1	365,645 7 11
From 1720 to 1730	518,830 16 6	471,342 12 10
From 1730 to 1740	670,128 16 0	660,136 11 1

ANNUAL AVERAGE OF THE COMMERCE BETWEEN ENGLAND AND THE THIRTEEN COLONIES.

From 1740 to 1750	708,943 9 6	812,647 13 0
From 1750 to 1760	802,691 6 10	1,577,419 16 2
From 1760 to 1770	1,044,591 17 0	1,763,409 10 3

In addition to their commerce with England the colonies carried on an extensive trade with the West Indies, Southern Europe and Africa. Of the value of this traffic before 1760 little exact information is to be had. For a period of five years however, from 1768 to 1772, statistics of the entire colonial trade were collected by colonial officials. The following table shows the value of the imports and exports of the various colonies for the year 1770:

Colony	Imports From Great Britain £ s. d.	Southern Europe £ s. d	West Indies £ s. d.	Africa £ s.
New Hampshire ...		652 7 6	48,528 18 7	
Massachusetts	223,695 11 6	21,908 3 6	155,387 1 4	180
Rhode Island		2,580 19 6	56,839 17 3	
Connecticut		267 5 3	53,993 17 3	
New York	75,930 19 7	14,922 7 8	97,420 4 0	697 10
New Jersey		326 18 2	1,663 19 9	
Pennsylvania	204,979 17 4	14,249 8 4	180,591 12 4	
Maryland	714,943 15 8	4,683 2 3	32,197 13 9	5,400 0
Virginia		9,442 2 4	77,453 12 6	7,020 0
North Carolina	327,084 8 6	932 19 9	10,603 13 3	1,080 0
South Carolina		6,166 6 1	65,666 4 8	124,180 10
Georgia	58,340 10 5	547 7 7	9,407 9 9	13,440 0
Total	1,604,975 11 11	76,684 9 11	789,754 4 5	151,998 0

Colony	Exports To Great Britain £ s. d.	Southern Europe £ s. d.	West Indies £ s. d.	Africa £ s. d
New Hampshire		464 0 5	40,431 8 4	96 11 3
Massachusetts ...	142,775 12 9	76,702 0 4	123,394 0 6	9,801 9 10
Connecticut		1,440 11 0	65,206 13 2	7,814 19 8
Rhode Island ...		2,567 4 5	79,395 7 6	.....
New York	113,382 8 8	50,885 13 0	6,632 17 5	1,313 2 6
New Jersey	.....	.....	2,531 16 5	
Pennsylvania ...	28,112 6 9	203,752 11 11	178,331 7 8	560 9 9
Maryland	759,961 5 0	66,555 11 11	22,303 9 2	
Virginia		73,635 3 4	68,946 9 1	
North Carolina ..	405,014 13 1	3,238 3 7	27,944 7 9	71 15 4
South Carolina ..		72,881 9 3	59,814 11 6	619 16 9
Georgia	82,270 2 3	614 2 0	13,285 15 1	.....
Total	1,531,516 8 6	552,736 11 2	747,910 3 7	20,278 5 1

This table shows that all the colonies received the greater part of their imports from the mother country. These imports consisted chiefly of manufactured goods, of which wearing apparel was the most important single item. All the colonies bought largely of the West Indies, the imports of the northern colonies from this source being much greater than that of the southern colonies because of the large quantities of molasses taken for the rum distilleries. South Carolina and Georgia imported some of their slaves directly from Africa, but most of the negroes brought to the continental colonies were purchased in the West Indies. The northern colonies bought much of the salt used in their fisheries from Spain and Portugal; all the colonies used wine from the Madeira and Azores Islands.

The export trade of the northern and southern colonies showed the results of England's commercial policy. Since tobacco, rice and indigo, the leading commercial products of the South, were enumerated, the exports of this section were confined almost entirely to the mother country. England would take but little of the fish, grain and flour of the northern colonists, who had their chief markets in Southern Europe and the West Indies. Trade among the thirteen colonies was relatively unimportant, since no colony produced anything which could be sold in large quantities in any other colony. The southern colonies produced their own food and bought nearly all their imported necessities from England. The northern colonies consumed some of the tobacco and rice of the South, but not enough to create an important intercolonial trade. Perhaps the most important article of intercolonial traffic was rum, which the New England traders sold in all the colonies.

Tobacco led all other colonial exports in value. For the greater part of the colonial period fish had second place, but by 1770 the exports of wheat, flour and bread greatly exceeded in value the exports of fish, which were third in

rank, with rice a close fourth. Forest products, including naval stores, indigo, whale oil and bone, deerskins and furs, pig and bar iron, pot and pearl ashes, pickled beef and pork, and horses were the next most important exports.

The frequent wars in which England became involved during the century following 1660 were detrimental to colonial trade. In those days, as now, the ships and property of the enemy country captured on the seas could be confiscated as prizes of war. Not only did ordinary naval vessels prey upon commerce, but warring countries would grant "letters of marque and reprisal" to private shipowners authorizing them to capture the merchant ships of enemy nations. Privateering of this kind had only the excuse of war to distinguish it from piracy. When England went to war the merchant ships of the colonies were subject to the risk of capture. This naturally tended to hamper colonial trade. Moreover colonial commerce suffered because colonial seamen forsook merchant vessels for the ships of the royal navy, and because many colonial shipowners temporarily abandoned their ordinary business to take the chance of making large profits by arming their vessels and sending them out as privateers.

During the seventeenth century and the early part of the eighteenth, colonial trade, as well as the trade of all European countries, suffered great loss on account of piracy. Many unscrupulous adventurers engaged in this nefarious business, pillaging peaceful merchant ships and often murdering their crews. The West Indies were a favorite resort of pirates, and many legends and stirring tales still survive of the exploits of the sea-thieves who infested the waters of these islands. They captured many colonial trading ships and occasionally they attacked and robbed the settlements along the coasts of the southern colonies.

Some of the pirates made a practice of bringing their illgotten merchandise to America to dispose of it. In

some of the colonies, notably New York and Pennsylvania, avaricious governors enriched themselves by giving protection to pirate traders. Toward the close of the seventeenth century the English government took energetic measures to suppress piracy, and a few years of vigorous activity left the seas much safer for peaceful traders. One of the pirates caught and hanged was the famous Captain Kidd, whose "buried treasure" has furnished the theme of many tales.

With war and piracy and the perils of the sea to contend with the life of colonial traders was never monotonous. But the merchants of New England and the Middle Colonies were men who seemed to thrive on adversity. Though the dangers were great the profits of successful voyages were likewise great, and there were many who willingly took the risk. Successful merchants, such as Peter Faneuil and Thomas Amory of Boston, and the elder Derbys of Salem, became very wealthy. In those days it was customary for the merchant to own both merchandise and ship. He loaded his vessel with home products gathered from country stores or directly from producers, and sent it away in charge of a trusted captain who sailed from port to port, bartering, selling and buying, always endeavoring to make a profit on each exchange. A vessel might be gone for two years or more before finally reaching the home port with a cargo. One of the favorite branches of the New England commerce was the triangular trade to Africa and the West Indies. Loaded with rum a vessel proceeded to the African coast where the liquor was exchanged for slaves. The slaves were taken to the West Indies and the proceeds of their sale invested partly in molasses which was brought home to make more rum. The voyage from Africa to the West Indies, because it was the second part of this three-cornered voyage, was known as the "Middle Passage." During this part of the journey the

slaves were on board the ship. At a later date, after the slave trade became illegal, the Middle Passage was noted for the horrors arising from the crowding and the brutal treatment of the negroes, but during the colonial period the human cargoes seem to have been well treated.

Colonial Money and Exchange. The American colonists suffered some inconvenience in their commercial affairs because of a lack of sufficient currency. They could never keep very long any metallic money which they obtained. In any new country the imports are usually larger than the exports. The people need all kinds of tools and equipment, and their purchases of such goods always keep ahead of their production for export. Though constantly growing richer they are incurring debts for goods which will enable them to do better. These debts carry away the metallic money, which is the only kind of money accepted in international trade, and unless a satisfactory substitute is provided there is a chronic shortage of currency.

The colonists tried to meet this lack of metal currency in many ways. In New England, during the early days, they used Indian wampum as a medium of exchange. Later they used beaver skins, corn, wheat and other grains. They also established a mint, at which they converted their silverware into coins, but these coins met the fate of others which reached the colonies—they were soon exported to pay foreign debts. The Virginians used tobacco for purposes of exchange; the inhabitants of South Carolina and Georgia used rice. In 1727 the Virginia government authorized the use of tobacco notes. Planters put their tobacco into public warehouses, taking in exchange receipts or certificates of deposit made payable to the bearer. These certificates could be passed from hand to hand the same as money.

The system of making exchanges by the use of com-

modities was known as "country pay." For greater convenience commodities used in exchange were given values in English currency—pounds, shillings and pence. Accounts were kept by the same standard, but the colonists saw little English money. The coins which came to the colonies were chiefly Spanish and Portuguese coins obtained in the West Indies and Southern Europe, pieces of eight, milled dollars and smaller coins of silver, and "joes" and pistoles of gold. Even these coins were always valued in terms of English currency. Some colonies tried to attract coined money from other colonies by giving the coins a higher currency value. This practice added to the confusion of the colonial monetary system.

Another method of meeting the lack of metallic money was by the use of bills of exchange. A New England fisherman would sell a cargo of fish to a sugar planter in the West Indies. In return he would receive an order for a sum equal to the price of the fish, drawn upon a London merchant to whom the planter had shipped his crop of sugar. The fisherman might give the bill of exchange to a New England merchant in payment for sail cloth and fishing tackle, and the New England merchant would send it, as part payment for imported goods, to a creditor in London, who in turn would present it to the merchant upon whom it was drawn. A single bill could thus be employed in several transactions. The chief difficulty in using bills of exchange was that all the transactions after the first one usually involved sums of money of a different amount from that named in the bill. For this reason bills of exchange could be used best by those who had frequent and regular dealings with one another. Purchases of goods were charged to the buyer and he was credited with the bills of exchange as they were presented. A very large part of the colonial overseas trade was carried on through the use of book credit and bills of ex-

change. The books of a London merchant sometimes showed a balance against, and sometimes a balance in favor of his colonial customer. Usually however the balance was against the colonial merchants, because however much they might export they always had a market for imports larger than they could supply except by straining their credit to the fullest possible extent.

While bills of exchange worked well in foreign trade and could be used to some extent in domestic trade they did not offer an adequate means of carrying on the many small commercial transactions which are a part of the daily life of a community. "Country pay" was unsatisfactory, because the commodities were perishable and inconvenient to handle, and because their value changed so frequently. Though the commodities used as money were declared to have a certain value in English currency nobody would accept them at such a value if their actual value in silver was less, and nobody would let them go at such a value if their price in silver was greater. The fluctuations in the value of commodity currency frequently caused debtors and creditors to suffer heavy losses. In 1758 when a short crop caused a substantial increase in the price of tobacco the Virginia legislature passed a law authorizing the people of the colony to settle their debts in money at the rate of twopence a pound for the tobacco which they would have paid. Since tobacco was worth much more than twopence a pound this law made creditors lose money. The king disallowed the act, and one of the Virginia clergymen brought suit for the money due him on the basis of the actual price of the tobacco which he should have received as his year's salary. It was in the trial of this "Parson's Case" that young Patrick Henry achieved fame as an orator. Henry vigorously defended the Twopenny Act and said that "a king by disallowing acts of this salutary nature, from being

a father of his people, degenerated into a tyrant and forfeited all his right to his subjects' obedience."

In all the colonies efforts were made to use paper money as a medium of exchange. The first colonial paper money was issued by Massachusetts in 1690–91 to pay the soldiers who had taken part in the invasion of Canada. The General Court issued £40,000 in "bills of credit" of small denomination. They were made receivable for taxes; two years later they were made legal tender in all payments and also made redeemable in silver after twelve months. Other colonies soon followed the example of Massachusetts, and in a short time all of them were experimenting with paper currency. The bills were issued first to pay the debts of the colonial governments; then they were issued to pay current expenses; and in some colonies they were issued as loans to private individuals who could offer suitable security. In nearly all cases the bills were made legal tender.

Had the colonial authorities acted with caution these experiments might have been beneficial. But instead of adopting a wise policy of taxation to provide for current expenses and for the redemption of the bills of credit, they reissued the old bills as soon as they were paid in for taxes, and as expenses grew they authorized the issue of still more. Since the bills were irredeemable and the quantity constantly increased the people soon lost confidence in them. They depreciated rapidly, being accepted in ordinary exchanges for only a small fraction of their nominal value and in many cases becoming totally worthless. It was always the debtor class who profited by the depreciation of the paper currency. Obtaining the bills of credit at actual value they could compel creditors to accept them at face value for the satisfaction of debt. Honest business men were defrauded and they vigorously

opposed the issue of more paper money, but unfortunately for them the colonial legislatures were usually made up of representatives of the debtor class. Not only did these debtors make fraudulent use of paper money as individuals, but they caused the colonial governments to repudiate their debts by enacting laws recognizing the depreciation of the currency which had been out for some time and refusing to accept it for taxes at face value.

Dishonorable practices of this kind destroyed all confidence in the bills of credit. Rhode Island, New Hampshire, Connecticut and the Carolinas were the worst offenders in the issue of worthless paper money. In Pennsylvania the government exercised moderation and care, and the bills of that colony were usually equal in value to silver. In 1751 Parliament forbade the issue of paper money by the New England colonies except in cases of great emergency or in time of war, and thirteen years later a more stringent law was passed, applicable to all the colonies, which forbade making bills of credit legal tender. This legislation caused much irritation and contributed not a little to the ill feeling which eventually led to the war for independence.

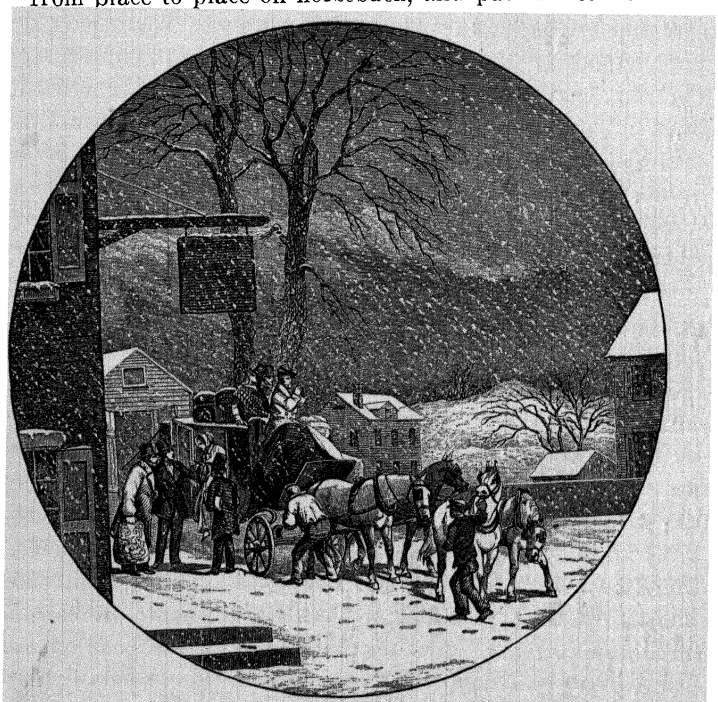
In addition to the bills of credit issued by the legislatures the colonies had a small amount of paper currency issued by associations of individuals. The usual origin of these notes was for the members of the associations to deposit mortgages of their lands with trustees, who would issue the notes, holding the mortgages as security for their redemption. The mortgagors agreed to accept the notes in all payments. These land-banks were looked upon with disfavor by the colonial governments and by Parliament, and all of them had brief careers, usually ending in disaster for the promoters who were compelled to redeem the notes issued. No more land-banks were organized after 1740. Even had they not been suppressed by law they

would inevitably have failed to perform their purpose of supplying a satisfactory currency. The great essential of a paper currency—of any *promise to pay* that is meant to circulate as money—is that there be entire certainty among the people that it can be redeemed in actual money on demand. Since it would have been impossible for the organizers of the land-banks to redeem their obligations on demand there is no doubt that the notes would have depreciated even if the law had not intervened to put a stop to their issue. Paper money is a dangerous expedient, and it can be used successfully only when proper safeguards are provided. Unhappily the experiments of colonial days did not impress the lesson upon the American people. It took many years of bitter experience to teach them the truth.

Colonial Transportation and Communication. The first settlers in America lived near the ocean, and those who led the way to the interior made their homes along the rivers of the Atlantic slope. The ocean and the rivers afforded ample means of transportation and the colonists found it unnecessary to give much time to the construction of roads. All the rivers of the Atlantic coast were important highways throughout the colonial period, not only the large streams such as the Hudson and Delaware, but the Merrimac, Connecticut, Susquehanna, Potomac, James, Savannah, and many smaller streams now considered unnavigable. For short-distance travel people used canoes and row boats, and they moved their goods in flatboats, scows and barges propelled by poles or long sweeps. Long distances were traversed in sailing vessels.

When the population spread back from the edges of the natural highways it became necessary to provide means for land transportation. In 1639 the General Court of Massachusetts directed each town in the colony to build roads connecting with roads of adjacent towns. In the

other colonies similar measures were taken for the construction of local highways. These early roads usually followed the forest trails of the Indians. They were all unspeakably poor, sloughs of mire in the spring and thick with dust in the summer and fall. Early travelers went from place to place on horseback, and packhorses were em-



Colonial Stage Coach

ployed to transport freight. The roads in the more populous districts were gradually improved until it became possible to use wagons and coaches upon them.

As the number of people increased the network of highways became more extensive. A number of long roads were built. In 1654 land travel between Boston and Provi-

dence became possible over the Common Road; the Shore Road later gave connection with New York. From the Jersey shore opposite that city the King's Path led to the Delaware River near Philadelphia. Before the end of the colonial period a highway was established from Savannah to Baltimore and Philadelphia. When Braddock led his ill-fated expedition from Alexandria, Virginia, against Fort Duquesne in 1755 his men cut a road through the wilderness and hauled their equipment in wagons. General John Forbes opened a road from Philadelphia entirely across Pennsylvania when he led his troops across the colony to occupy Fort Duquesne in 1758. Both these roads to the west later became important routes of travel for emigrants to the Ohio Valley.

With the poor roads that existed the amount of colonial travel and trade was necessarily small. Traveling was not only highly uncomfortable but often dangerous. Vehicles overturned in the deep ruts and mud-holes. Only the smaller streams were bridged, the others being forded or crossed by ferry. For the most part travelers rode their own horses or used their own vehicles. Regular service by stage-coach did not become common until after the Revolution. One of the early regular stage lines was that established between New York and Philadelphia about 1750. The trip between the two cities took three days. The stage left Paulus Hook (now Jersey City) and went by way of New Brunswick to Trenton, the passengers completing the journey from that city by boat.

The regular traffic of most importance on the colonial highways was that of the post-riders. All the colonies had local postal service early in their history and in 1672 New York established a monthly postal service to Boston. Madam Sarah Kemble Knight, who wrote an interesting account of her trip from Boston to New Haven in 1704, told of her dependence upon the post-riders for guidance

over the route which she traveled. Early in the eighteenth century the English government established a postal service for all colonies. In 1720 mail was carried regularly once a week between New York and Philadelphia, the trip in each direction taking three days. In 1754 Benjamin



Stage Coach Advertisement, 1771

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Franklin, who the preceding year had been named Postmaster of Philadelphia, was made Deputy Postmaster General in charge of all the colonial postal service. Franklin was a good business man. He systematized the service, extended it, and managed it so economically and efficiently

that it not only became at once self-supporting but produced a revenue for the government. He reduced the time of service between Philadelphia and New York to thirty-six hours, and despatched mails from each city three times a week in summer and twice a week in winter. In 1755 he started a weekly service between Philadelphia and Boston, announcing that a letter could be sent from one city to the other and the answer returned in three weeks. This was a long time, as we view the matter, but it was just one-half the time of the service before Franklin's management began.

By the end of the colonial period the inhabitants of America were becoming keenly aware of their lack of adequate means of inland transportation. The number of people living at a distance from navigable waterways was steadily growing and the heavy costs of transportation were becoming a serious handicap to economic development. People began to study seriously the problem of constructing more and better roads, and in some of the colonies canal routes were surveyed. However the work of improvement had to wait until after the Revolutionary War had been fought and a stable government established.

Relations of the Colonies with the Mother Country. The relations between the colonies and the mother country during the century following 1660, while not always harmonious, were nevertheless of such a friendly nature that few people dreamed of the possibility of armed rebellion against English rule. Though because of the coming of so many "foreigners" the Americans of 1763 were not wholly Anglo-Saxon, yet their language and customs were predominantly English, and they felt a pride in being a part of the powerful British empire. They were loyal subjects of the English crown and were perfectly willing to remain such.

But while the colonists looked upon themselves as loyal

English subjects they did not have any feeling of subserviency to or of dependence upon the English government. In many respects they had become different from the people of England. They had different methods of government, different systems of labor and land tenure, and different industries. Their political, religious and economic organization was different from the political, religious and economic organization prevailing in England; they had many interests which were peculiarly their own, in which the people of England had no part. The colonial policy of England had long been of a nature to permit the colonists to develop a spirit of independence. They had a large measure of freedom in the management of their internal affairs, and this freedom they looked upon as a right not to be interfered with by the English government. They recognized the right of Parliament to enact laws regulating their external relations. While they did not always approve of the commercial regulations of Parliament, and frequently disobeyed or evaded them, they did not question the right of Parliament to make and enforce such regulations. On the other hand they bitterly opposed all Parliamentary legislation which tended in the least to take from them the management of their domestic affairs. And in nearly all the colonies the frequent and prolonged contests between the representatives of the people and the royal governors served to show that they were willing to defend what they considered to be their rights and privileges as a free people.

Moreover the Americans did not place the interests of the empire as a whole above their own personal interests. They did not permit loyalty to the empire to cause them any undue inconvenience. During the French and Indian War they joined whole-heartedly in the attempt to expel the French from Canada and the Ohio Valley, but at the same time they did not hesitate to carry on an active

trade with the French possessions in the West Indies. The efforts of the English navy to conquer the French islands in the Caribbean Sea were seriously impeded by this treasonable commerce. English armies in America were forced to obtain provisions from England at the very time the New England colonists were selling dozens of shiploads of food to the French authorities in the West Indies. In the final year of the war Lord Amherst, the English commander in America, had to place an embargo on all trade of New England and the Middle Colonies.

However, the views which the colonists held of their peculiar rights and privileges would not have caused a break with the mother country had there not been a sudden radical change in the English colonial policy. By 1763 the colonies had come to be virtually self-governing dominions, and had they been permitted to remain such they might have long been a part of the British empire. But the English government adopted a new policy toward the colonies; this policy the colonists resented; their protests soon became riots, and the riots developed into armed resistance to English authority.

The responsibility for the new colonial policy of England and the resulting loss of the American colonies rests almost wholly on George III, who became king of England in 1760. In the seventeenth century England had witnessed a bitter struggle between the king and the people, in which the people had taken from the crown its autocratic power and made Parliament the real governing authority in England. In the contest for self-government they had put one king to death and driven another from the country. Notwithstanding these object lessons George III was determined to be the real ruler of his empire; he wanted to be king in fact as well as in name. Supported by a powerful group known as the "king's friends" he broke down the factions opposed to him and secured a

Parliament the majority of which was willing to carry out his directions. The resistance of the colonists to the king's policy was only a phase of the final struggle between autocracy and democracy in the English political system. The leading Englishmen that opposed the king indorsed the stand of the colonists because they knew that the cause of the colonists was their own.

When the war with France ended in 1763, the colonists, rejoicing in the final defeat of their unfriendly neighbors, were looking hopefully to the future. The long war had caused heavy losses in men and money, it had disorganized commerce and production; with the return of normal conditions the people expected a revival of business and renewed prosperity. Instead they were just entering upon a momentous struggle which was to change the entire course of American political and economic history.

Questions and Topics

1. Compare the nationality, characteristics, and destinations of the immigrants of to-day with those of the period from 1660 to 1763.
2. Do you know of any communities of foreigners who have not become fully Americanized?
3. Compare the sources of our increase in population from 1660 to 1763 with those shown by our latest census.
4. Can you point out any locality where natural resources are being wasted at present? How?
5. Make a list of the natural resources of your own State.
6. What does your own community produce in excess of its own needs?
7. Why do people to-day feel confidence in paper currency?
8. Compare the time required for present day transportation from Philadelphia to New York by water, by rail, by automobile, by airplane with the time required for the trip in 1720 by post-riders.

Show one difference between England and one of her colonies in 1763 in each of the following:

1. Method of government.
2. System of labor
3. Land tenure
4. Economic organization
5. Industries
6. Religion

CHAPTER VII

THE NEW COLONIAL POLICY AND ITS RESULTS

The Beginning of the New Policy. Almost the first step of George III after he became king was to get rid of William Pitt, the leader of the English ministry, who had been chiefly responsible for the energetic prosecution of the war against France by which England had so widely extended her imperial domain. Pitt was succeeded by Lord Bute, one of the staunchest of the "king's friends." Associated with Lord Bute in the ministry were George Grenville and Charles Townshend, who were destined to be prominent figures in the approaching struggle with the colonies. With the aid and counsel of these men King George laid his plans to restore the supremacy of the crown.

Peace was made with France and Spain. The end of the war found England with a debt of some £130,000,000, which at that time was thought to be enormous. The expenses for the protection of the great empire and the interest charges upon the national debt made necessary a large increase in revenue. Before this time a large part of the revenues of the English government had been obtained by the taxation of land. The English landholders were averse to any further increase in their taxes, and it was thought desirable for the ministry to seek new sources of revenue. One of the most promising sources appeared to be the American colonies. The foremost feature of the new colonial policy was taxation.

Not only were the colonies to be taxed but they were to be governed with a firmness which had before been lack-

ing in English colonial administration. The ministry announced that all the navigation laws and acts of trade were to be enforced to the letter, including even the obnoxious Molasses Act of 1733. A standing army of at least ten thousand men was to be stationed in the colonies and the colonists were to pay for its maintenance. The old export duties levied by the act of 1673 and the duties imposed by the Molasses Act were to be supplemented by other duties on commerce, and the stamp taxes, long common in Great Britain, were to be extended to America.

When the colonists heard that the British government was intent upon a strict enforcement of the navigation laws, and particularly of the Molasses Act, they were filled with dismay. Their expectations of peaceful prosperity were replaced with forebodings of commercial ruin. Protests and petitions were sent to England in an endeavor to convince the authorities that the enforcement of the Molasses Act would not only bring disaster to the colonies but would injure the trade of England. A remonstrance from Rhode Island stated that the colony imported fourteen thousand hogsheads of molasses each year, of which not more than twenty-five hundred came from the British West Indies. Moreover the English islands did not produce enough molasses for export to meet the needs of the Rhode Island distillers alone. If the New Englanders should be prevented from conducting their customary trade with the foreign West Indies their economic prosperity would be destroyed.

In spite of the remonstrances of the colonists the English ministry proceeded with its designs. Lord Bute, somewhat dismayed by the agitation about the new colonial policy and by the clamor about certain other activities which the ministry had undertaken in behalf of the king, resigned from office, and was succeeded by Grenville, under whose leadership the new policy was put into effect. Gren-

ville's first act was to issue orders to all colonial governors and customs officials that they should require a strict observance of the laws relating to colonial trade. His next step was to start his legislative program.

The Sugar Act of 1764. The first law on Grenville's program was the Sugar Act of 1764. This law was the Molasses Act of former years reënacted in a modified form. The preamble of the act left no doubt as to the purpose of the authors. It stated, "Whereas it is expedient that new Provisions and Regulations should be established for improving the Revenue of this Kingdom, and for extending and securing the Navigation and Commerce between Great Britain and Your Majesty's Dominions in America, which by the Peace, have been so happily enlarged and whereas it is just and expedient that a Revenue be raised in Your Majesty's said Dominions in America for defraying the Expenses of defending, protecting, and securing the same . . ."

A duty of threepence a gallon was placed upon foreign molasses imported into the colonies instead of the prohibitive duty of ninepence provided in the act of 1733, and a duty of one pound two shillings a hundredweight was laid upon foreign sugar. The importation of foreign rum by the colonies was forbidden. Very heavy duties were laid upon all wines which were not imported from Great Britain, this being a direct reversal of the policy embodied in the act of 1663 which gave the colonies permission freely to import wines from the Madeira and Azores Islands. The British wine merchants had long desired the trade of the colonists. Relatively light duties were placed upon several other articles, among which were foreign indigo, coffee, wines and East India textile goods. Export duties similar to those of 1673 were laid upon coffee and pimentoes exported from one colony to another, and the list of enumerated commodities was increased by the addition of

coffee, pimentoes, cocoanuts, whale fins, raw silk, hides and skins, and pot and pearl ashes.

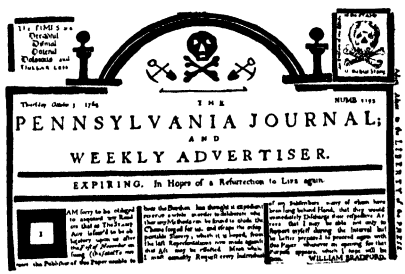
It was estimated that the duties collected in the colonies would amount to about £20,000 a year. A substantial reduction was made in the amount of the drawbacks previously allowed upon European goods shipped from England to America, and this reduction, it was thought, would increase the royal revenues by £25,000 annually. Since the total revenue which the Sugar Act was expected to produce, £45,000 a year, fell far short of the £300,000 which it cost England to support its military and civil establishment in the colonies, Grenville made preparations to exact additional revenue from the colonists by means of stamp taxes.

The Stamp Act. In March, 1765, George III gave his assent to the Stamp Act. This law required the colonists to place stamps upon all legal papers, such as deeds, bonds, contracts and licenses, upon newspapers and pamphlets, college diplomas, ship's papers and many other documents. So long was the list of documents to be stamped and so numerous the rates named that the printed act filled sixty-two pages.

The colonists had protested vigorously against the Sugar Act of 1764. Its enforcement soon injured the trade of the merchants of New England and the Middle Colonies. The depression of commerce caused hard times for everybody, and people showed their displeasure with the new colonial policy in a number of ways. Merchants in Boston agreed not to buy certain English goods; artisans agreed to use work clothes made only of domestic leather; efforts were made in many places to encourage the development of manufactures. However it was very difficult to make any organized resistance to the operation of the law. Smuggling was attempted more frequently, but with the increased watchfulness of the customs officials smuggling

became a more difficult undertaking. The colonists grumbled, but it seemed that the Sugar Act would eventually be accepted. The English ministry believed that the Stamp Act too would excite nothing more than verbal protests. Even the leading men of the colonies did not believe the enforcement of the Stamp Act would be actively resisted, and some of them actually asked for positions as stamp distributors.

However, the English ministry and the colonial leaders had deceived themselves. A number of colonial legislatures sent dignified petitions to the king, some of them


PENNSYLVANIA JOURNAL;
AND
WEEKLY ADVERTISER.
EXPIRING. In Hopes of a Refurrection to Life again.

Announcement of the Suspension of the *Pennsylvania Journal* because of the Stamp Act

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even going so far as to say that no taxes could be rightly collected from the colonists unless levied by the colonists themselves. The legislature of Massachusetts passed a resolution inviting all the colonies to send delegates to New York to draw up a joint remonstrance to be presented to the king.

The people were not content, however, with mere petitions and resolutions. They saw their trade dwindling away under the restrictive laws; they saw the English government taking away the metallic money of the colonies and at the same time forbidding the use of paper money;

they felt that these new taxes were only the beginning of a policy designed to impoverish them and destroy their freedom. It was much easier to offer resistance to the Stamp Act than to the Sugar Act, because the former affected directly a much greater number of people. The opposition took the form of mob violence.

In Boston, where the resentment against taxation was greatest, because of the strength of the commercial interests, a mob destroyed the office where the stamps were put on sale, stormed the home of the stamp collector, making him promise to resign, and even sacked the home of the acting governor of the colony. In several other colonies violent demonstrations took place. It was impossible to collect the stamp taxes. Inasmuch as legal papers without stamps were invalid there was much question as to how the courts and other public agencies should conduct their business.



British Stamp

In October, 1765, a congress assembled at New York in response to the invitations which the Massachusetts legislature had sent out. The gathering was made up of representatives from nine colonies and included some of the most able men in America. These men drew up petitions to the king and a "Declaration of Rights and Grievances of the Colonists in America." They asserted that "taxation without representation" was unjust, and they also complained of the Sugar Act which was destroying the commerce of the northern colonies. Though the declaration contained no threat of rebellion it indicated clearly that the colonies were ready to make a united stand against the English government.

Meanwhile the indignant colonists had begun to use a weapon which was more effective than mob violence. This

weapon was non-importation. In Boston, New York, Philadelphia and many other places the merchants signed agreements binding themselves to buy no goods whatever from Great Britain until the Stamp Act should be repealed. Many associations called "Sons of Liberty" were formed, the members agreeing to buy no articles imported from Great Britain. In a very short time the exports of English manufacturers and merchants began to show an alarming decline, and Parliament was urged to give heed to the protests of the colonists.

The Victory of the Colonists. King George was highly displeased with the results of Grenville's legislation. He approved of the purpose of the laws, but he thought the purpose should be accomplished without so much commotion. He was also displeased because Grenville tried to "lecture" him on his royal duties. If any "lecturing" was to be done George thought that the king should be lecturer and the minister listener. Grenville was dismissed from office and a new ministry formed. Because Parliament was not yet under control the king was forced to name the Marquis of Rockingham in Grenville's place. Rockingham did not approve of the king's colonial policy, and the leading members of the ministry were likewise opposed to the course which Grenville had pursued.

In March 1766 Parliament repealed the Stamp Act. At the same time however it passed the Declaratory Act in which it was asserted that Parliament had the legal right to enact laws binding the colonies in all ways whatsoever. A little later the Sugar Act was modified. For the duty of threepence a gallon on foreign molasses there was substituted a purely revenue duty of one penny a gallon on all molasses imported into the colonies. The high duties on foreign sugar remained unchanged, but the export duties on British sugar, levied by the act of 1673, as well as the export duties on coffee and pimentoes shipped from one colony to another, were repealed.

New import duties were laid upon coffee and pimentoes originating in British colonies. The import duties on textiles provided in the act of 1764 were replaced with export duties to be collected in England. The commerce of the colonies was restricted by a clause forbidding them to export anything whatever to European ports north of Cape Finisterre. Previously the colonists had been permitted to take non-enumerated goods wherever they chose.

The colonists heard with great enthusiasm of the repeal of the Stamp Act. New York City voted statues to George III and William Pitt, the latter having warmly defended the colonists before Parliament. A figure of King George, on horseback, was cast in lead and erected in Battery Place. A few years later it was pulled down and melted into bullets to be used against the king's soldiers.

Though the colonists did not like the tone of the Declaratory Act they were content to remain silent as long as Parliament did not endeavor to exercise the rights claimed in the act; and though they preferred that the commercial regulations and taxes of the act of 1764 should have been repealed altogether, they were willing to accept the restrictions and the exactions of the act of 1766. The quarrel with the mother country, it was thought, had come to a peaceful end.

The Townshend Acts. The Rockingham ministry did not last long. It had neither the favor of the king nor the support of the more powerful of the king's opponents. Rockingham resigned late in 1766, and a new ministry came into power headed by Wiliam Pitt, now the earl of Chatham. Pitt was friendly to the colonies, but unfortunately he was compelled by sickness to withdraw for a time from all public activities. During his absence Charles Townshend, the Chancellor of the Exchequer and one of the leading men of the ministry, reopened the struggle with the colonies. Townshend believed the colonies should be

taxed, and partly because of his belief and partly because he wanted to do something which others had apparently been unable to do, he brought a new program of colonial taxation and commercial regulation before Parliament.

Townshend's program was carried out in four laws. Two of them provided new official machinery and methods for the enforcement of the colonial revenue laws, another suspended the legislature of New York for its refusal to make provision for the British troops quartered in the colony, the fourth levied duties on all tea, glass, printers' colors, and paper imported into the colonies.

The Second Non-Importation Movement. Again the colonists witnessed with alarm the efforts of Parliament to tax them and interfere with their liberties, and again they offered resistance. The victory in the struggle over the Stamp Act had been comparatively easy, and little difficulty was expected in bringing Parliament to terms once more. The chief method chosen by the colonists to display their rebellious spirit was the renewal of the non-importation associations. This time the agreements to buy no British goods were much greater in number than at the time the Stamp Act was being resisted. All the leading commercial cities of the northern colonies had non-importation associations, and the people of the southern colonies likewise showed their disapproval of the Townshend acts by curtailing their purchases from the mother country. Some of the non-importation agreements applied only to taxed goods; most of them however applied to all goods of British origin.

Defiance of law again bred disorder. In 1768 a Boston mob roughly handled some customs officials who had seized John Hancock's sloop *Liberty*, upon which some Madeira wines had been imported without payment of taxes. Troubles of this kind caused the British government to send over additional soldiers, which the colonists were

required to support. The presence of the soldiers was a constant source of irritation. In 1770 a part of a British regiment stationed in Boston fired upon a mob which attacked them, killing and wounding a number of persons. This "Boston Massacre" served to inflame the minds of the Americans still more.

Meanwhile the British ministry had changed again. Townshend had died even before the laws which bear his name had all gone into effect. Pitt did not recover his health and his ministry was dissolved in December 1769. By this time George III had obtained control of Parliament and for his prime minister he was able to name a man who he knew would follow his wishes. This man was Lord North, who took office early in 1770. Lord North believed in colonial taxation, but he did not approve of all the Townshend taxes because they were levied in part on British manufactures. One object of having colonies was to provide a market for British goods. In 1770 Parliament passed a law removing the duties on British colors, glass and paper, but retaining the taxes on those articles which were of foreign production and also retaining the tax on tea.

Colonial Resistance Wanes. The colonists did not abandon their non-importation associations at once after the enactment of the law of 1770. Some were determined by this time to keep up resistance until all the obnoxious Parliamentary taxes were repealed and the policy which prevailed before 1764 restored. Action of this kind however meant heavy losses to traders and a number whose desires for profits got the better of their patriotic inclinations began to weaken. In New York and in some of the Southern colonies the non-importation agreements were rescinded. When one city or district resumed active trade other sections could not be expected to hold out, and trade with the mother country was soon restored in all

the colonies. The people were nevertheless watchful for fresh activities by Parliament. At the suggestion of Samuel Adams "committees of correspondence" were organized throughout the colonies for the purpose of maintaining frequent communication concerning relations between the colonies and the mother country. The radical element was guilty too of occasional acts of violence, an example of which was the destruction of the *Gaspee* in 1772. The *Gaspee* was a small British naval vessel which had been employed effectively in the suppression of smuggling. It ran aground on Namquit Point, Rhode Island, while endeavoring to capture a colonial trading vessel, and during the night it was attacked and burned by some citizens of Providence.

In spite of such outbreaks it seemed for a time that the trouble between the king and his colonial subjects was coming to an end. Colonial commerce and industry resumed its former prosperous state. The people paid the import duties which had not been repealed, even the tax on tea, though not a few merchants engaged in smuggling to a greater extent than in former years. If matters had been allowed to rest as they were it is possible that in the course of a few years harmony would have been restored. But the British government could not let well enough alone. In 1773 it made another mistake.

The Boston Tea Party. Parliament's mistake was its endeavor to give financial aid to the British East India Company, which for some time had been near to bankruptcy. The method adopted by Parliament was to remit the English duties on the Company's tea and allow consignments of it to be sent to the colonies for sale. The remission of the duties usually collected in England would enable the Company to sell its tea at a very low price and still obtain a good profit.

Tea was a favorite article in the colonial smuggler's

business, because under ordinary conditions it could be bought more cheaply in the Netherlands than in England. Moreover, with the exception of wine, tea was the only important product imported from Europe which the colonists had much desire to buy elsewhere than in England. When it was heard in America that the East India Company had been authorized to send cargoes of tea to the colonial cities, the merchants, knowing that the tea would be placed on sale at a low price, immediately began to complain that Parliament was organizing a conspiracy to ruin them because of their opposition to taxation. The merchants were especially angry because the East India Company had selected as its agents for the sale of the tea many colonial traders who had refused to join the non-importation associations.

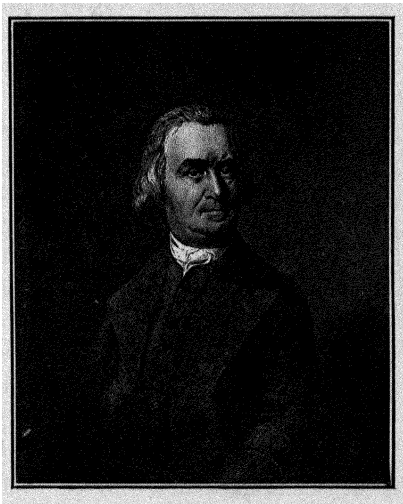
Late in 1773 the East India tea ships arrived at Boston, New York, Philadelphia and other colonial ports. The people declared that the tea should not be landed. The vessels which reached New York and Philadelphia returned to England with their cargoes. At Boston the customs authorities refused to let the ships sail until the tea was landed and the duties paid. If the tea was not voluntarily landed within a certain time the customs officers had the right to seize it and hold it for the payment of taxes. The owners of the tea hesitated. On December 16, the day before it was necessary for the customs officials to act, a body of men clothed in Indian garb boarded the ships and emptied the tea into the harbor.

Parliament Tries Coercion. The British government now made a mistake which was fatal to the cause of reconciliation. King George was furious when he heard of the "Boston Tea Party," and he decided that instead of endeavoring to appease his enraged subjects by amendment of the unpopular laws he would punish them for their past misconduct and compel their obedience in the future. Five

new laws were hastily passed by Parliament. One closed the port of Boston to all external commerce, except coastwise traffic in food and fuel necessary for the city, until the people made submission to the king and paid for the destroyed tea. Another act changed the form of government of Massachusetts; a third permitted colonial agents of the king, who were accused of violence in executing the law, to be taken to England for trial; a fourth provided for the quartering of soldiers upon the people of Massachusetts; and the fifth annexed to Quebec the territory between the Ohio and Mississippi Rivers and the Great Lakes. The last act was passed to extinguish the claims of the colonies to the lands west of New York and Pennsylvania. Additional soldiers were sent to Boston. General Gage was named governor of Massachusetts and directed to enforce the law. Instead of coöperating with the new governor, the people of Massachusetts set up a separate government of their own and openly defied the authority of crown and Parliament.

The First Colonial Congress. The other colonies were not slow in showing their sympathy with Massachusetts and in taking steps to express their feeling toward the British government. On September 5, 1774, a congress of delegates from all the colonies except Georgia met at Philadelphia. This congress, like the one of 1765, contained some of the most influential Americans of the time, among whom were John Adams, Samuel Adams, John Jay, Richard Henry Lee, Patrick Henry, and George Washington. The delegates drew up a "Declaration of Rights" in which they recited their many grievances, denied the right of Parliament to legislate for them on matters of taxation and management of their internal affairs, protested against the maintenance of a standing army in the colonies, and named a long list of acts of Parliament which violated the legal rights of the colonies.

What was more important than the declaration of rights was the enactment of the famous "continental association." Stating that "To obtain redress of grievances . . . we are of the opinion that a non-importation, non-consumption, and non-exportation agreement, faithfully adhered to, will prove the most speedy, effectual and peaceable measures," the delegates agreed that unless the "cruel and oppressive" acts of Parliament were repealed the



Samuel Adams

colonists would, after December 1, 1774, import nothing whatever from Great Britain, no molasses, syrups, coffee or pimentoes from the British West Indies, and no East India tea from any part of the world; that they would not purchase or consume any East India tea or any other article which they agreed not to import; and that they would not, after September 10, 1775, export anything whatever to Great Britain or the West Indies. One article of the association bound the colonists not to import any

slave after December 1, 1775, after which time they were wholly to discontinue the slave trade even to the extent of refusing to hire vessels or sell goods to those engaged in it. Before adjournment the congress agreed to assemble a second time the following May if in the meantime the grievances of the colonies had not been redressed.

The association was ratified almost immediately by all the colonies except Georgia. Committees were appointed to see that the agreement was kept. Provincial congresses assembling in the various colonies enacted resolutions concerning the enforcement of the association and some even established penalties for disobedience. Such resolutions and penalties had small show of legality however and the enforcement of the association was obtained chiefly by violent action on the part of the radical element. A few merchants who would not observe the rules were tarred and feathered; others were driven from the colonies. In a short time the association was made completely effective and imports from Great Britain were almost entirely excluded.

The association had a pronounced effect in Great Britain and the West Indies. English merchants and manufacturers began at once to suffer large losses of trade, and they appealed to Parliament to grant the demands of the colonists. The people of the West Indies, being dependent upon the continental colonies for a large part of their food, were thoroughly frightened by the threat of non-exportation, and they too appealed to Parliament to give in to the American demands. William Pitt defended the colonists, and the great orator, Edmund Burke, made a powerful plea for conciliation. But Lord North and King George were done with peaceful methods. In response to the refusal of the colonists to trade with Great Britain and the West Indies a law was enacted early in 1775 forbidding New England to trade with any part of the world

except the British Isles and the British West Indies. This act of restraint was subsequently extended to most of the other colonies. Lord North thought that since the colonists had refused to trade with Great Britain it was but just that they should be deprived of the right to trade with other nations. The New Englanders were also forbidden to fish along any part of the coast of North America. The king had decided to starve his rebellious subjects into submission.

The Final Break. Even before the king's final measure of coercion became known in America the colonists had come to the conclusion that they must either submit or fight. They did not hesitate in their choice. A second provincial congress elected by the people of Massachusetts began to organize a military force, enlisting men and gathering ammunition and other military stores. On April 18, 1775, General Gage sent a force of men from Boston to destroy the stores at Lexington and Concord. The war had come.

On May 10 the Continental Congress met again at Philadelphia. It assumed at once the direction of the contest with the mother country, authorizing the raising of a "continental army" and naming Washington as commander-in-chief of all forces "raised or to be raised for the defense of American liberty."

For a time the members of Congress hoped for reconciliation instead of separation. They urged the enforcement of the non-importation and non-consumption features of the association of 1774, and after September 10, 1775 they put non-exportation into effect, still hoping that commercial warfare would make Great Britain yield. Their efforts had no effect on King George. He declared the colonies to be in a state of rebellion, and Parliament passed a law ordering the seizure and confiscation of all vessels which should be found trading with the rebel col-

onies. The commercial restrictions which the colonists had imposed upon themselves were injuring their own prosperity and were not having the desired effect on England. On April 6, 1776 Congress enacted a measure throwing the commerce of the colonies open to all nations of the world except Great Britain. The navigation acts and all other commercial regulations of the British government were nullified and discarded. King George's new colonial policy had reached its culmination. The colonists had undertaken the management not only of their internal affairs but also of their external relations. After this the declaration of independence was but a formality. The final step was taken July 4, 1776; the thirteen English colonies became the United States of America.

Questions and Topics

1. Do you consider that any of the acts of Parliament from 1763 to 1775 were just? Give reasons.
2. Explain why in recent years stamp duties have not met with opposition in the United States.
3. Can you quote any instances where public opinion has controlled trade by concerted action similar to the non-importation agreement?
4. Why are our colonies more loyal to the United States than Massachusetts was to England?
5. Can you outline any effective scheme other than non-importation by which the colonists might have protested?
6. Why was smuggling not considered by the colonists wrong or unpatriotic at this period of our history? Why is it wrong now?
7. Why may it be said that the Revolution was not a war between England and the colonies but a war between George III and the colonies?

PART III

THE NEW NATION

CHAPTER VIII

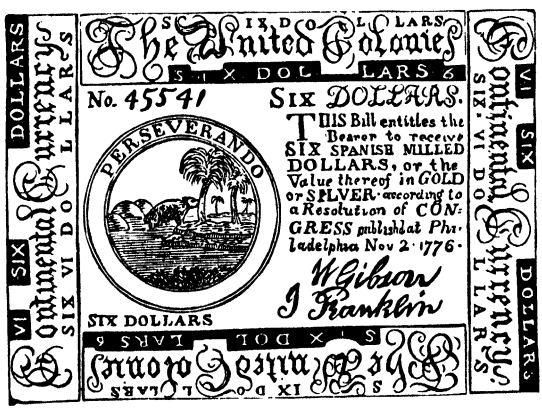
THE REVOLUTION

The Lack of Union. It was one thing for the Continental Congress to declare that the thirteen colonies were free and independent States: it was quite another thing to make Great Britain acknowledge the truth of this declaration. Working under the most favorable conditions the new nation would have found the military defeat of the mother country an achievement of no little difficulty; as conditions actually were the task was almost impossible.

There was no bond of union among the colonists except their objection to a continuation of British rule, and they were by no means unanimous on this point. The various colonies had long possessed distinct interests, and they were inclined to be extremely jealous of one another. Intercolonial trade, for reasons given before, had always been small, and since there had been no commercial relations of importance there had been little need and little opportunity for the development of close political relations. The Continental Congress, through which the States endeavored to act in unison, had no legal standing. It quietly assumed the duty of directing the war and a few other functions of government, but such powers as it exercised were exercised by the toleration of the States and not by their formal consent. At the time a committee was named to draw up the Declaration of Independence another committee was appointed to draw up a written instrument of government. This committee formulated a document known as the "Articles of Confederation," which was submitted to the Congress on July 12, 1776. There was so much difference of

opinion among the delegates from the several States that the Congress did not succeed in agreeing upon a draft of the Articles until November 15, 1777, and so great was the dissension among the States that the Articles were not accepted by all of them until 1781. The government for which the Articles provided was so ineffective that conditions were no better than they had been when the Continental Congress was exercising its informal and unsanctioned powers.

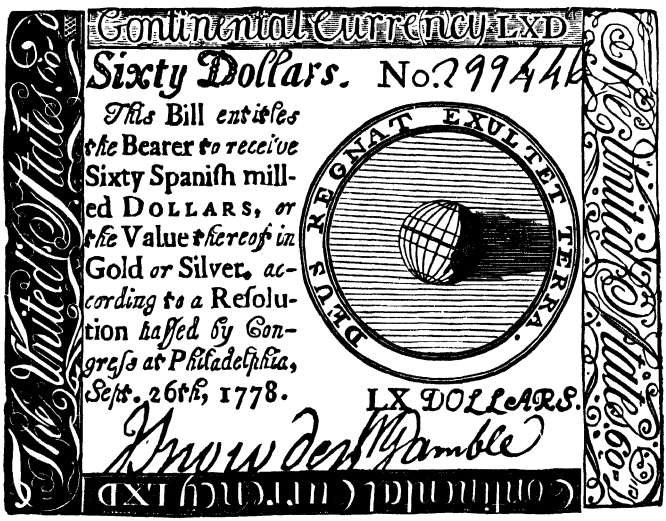
The lack of an adequate system of government was the



Early Continental Currency

chief obstacle to the efficient prosecution of the war. The Congress authorized the organization of a "continental army," which was supplemented by the militia of the individual States. Nearly all of the States insisted upon retaining their militia for their own defense; the main hope of the country rested upon the continental army. To maintain this army it was necessary to pay the officers and soldiers and to provide them with food, clothing, shelter and military equipment. These things the Congress could not easily do.

Financing the War. A government has two ways of getting money to meet expenses, by taxation and by using its credit. A government's credit remains good only so long as it exercises the power of taxation. The Continental Congress had no power to tax the people and it soon exhausted its credit. The States had the power of taxation but they were reluctant to use their power to aid the Congress. In the first place the people opposed taxation; the



Continental Currency

primary cause of the war was the efforts of the British government to tax them. In the second place the people of one State objected to paying taxes for the purpose of defending the people of another State.

The Congress tried many ways to secure the means to carry on the war. Its first expedient was the issue of paper money similar to the bills of credit formerly issued by the colonial governments. In June, 1775, an issue of 2,000,000 Spanish milled dollars was authorized. These

were to be redeemed within four years by taxes levied and collected by the States in proportion to their population. Another issue of $1,000,000 was voted in July and $3,000,000 more before the end of the year. Before the Declaration of Independence was signed $9,000,000 had been issued, and by October 1778 the amount had reached $63,000,000. In addition to these issues of continental currency the individual States put out large quantities of State bills.

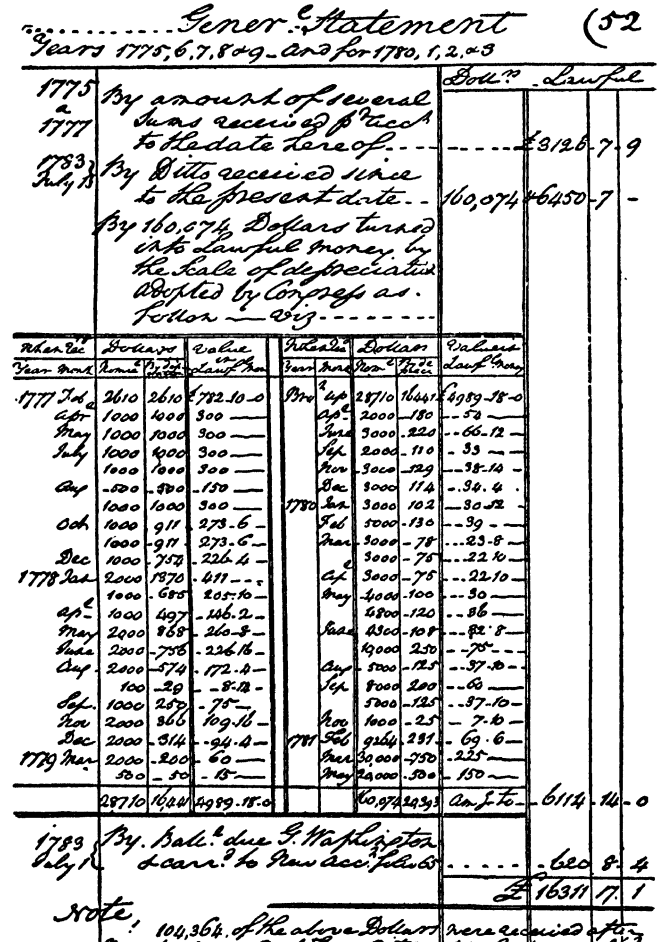
It did not take long for depreciation to begin. The States endeavored to counteract the decline by enacting legal tender laws, but such laws were of no avail. In the absence of a program of vigorous taxation and with military reverses creating doubt as to the ultimate success of the struggle with Great Britain, the people had little confidence in the paper money; and as its quantity increased their confidence grew less. Conventions were held in many places to fix prices, mob violence was employed to compel dealers to accept the paper currency at its face value, buildings were broken open and goods taken by force, but in spite of such methods the currency continued to fall in value until by the end of the year 1778 one dollar of continental paper money was worth less than one-fifth of a dollar in specie. When agents of Congress wanted to buy goods worth one hundred dollars they had to give notes amounting to more than five hundred dollars.

Meanwhile the Congress had endeavored to obtain money by other means. In October, 1776, a loan of $5,000,000, bearing interest at the rate of four per cent was authorized. The credit of the government was too weak to make such a loan attractive to investors. Subsequent loans were tried at six per cent but they too failed to attract private capitalists. Benjamin Franklin and John Jay succeeded however in borrowing several million dollars from the French and Spanish governments.

The Congress tried a government lottery, which produced but little because the prizes were only four per cent certificates of indebtedness. Direct requisitions for money were made upon the States, but no State paid its allotment. Some money was raised by confiscating the property of Tories who sympathized with Great Britain. Robert Morris used his personal influence and credit more than once to obtain hard money when the outlook was darkest.

Early in 1779 the Congress requested the States to furnish supplies of flour, beef, pork, rum, corn and hay. This system of obtaining provisions called for means of transportation which the States did not have, and it also opened the door for evasion and fraud. The States empowered agents to seize supplies wherever needed. For these impressed goods the agents gave certificates of indebtedness bearing interest. Seizures of this nature caused much irritation and resentment and led to the concealment of supplies, the deliberate wrecking of wagons, and the withdrawal of horses and oxen from the reach of the government agents.

The Congress continued to issue paper money throughout the year 1779, the total authorized issues finally reaching forty, and the amount about $242,000,000. The individual States issued about $210,000,000. Large quantities of counterfeit notes were put into circulation by British agents and by criminals. By 1780 one hundred dollars in silver could be exchanged for five thousand dollars in continental currency, and it was useless for Congress to issue more. Prices of merchandise were fantastic. In October, 1780, corn sold in Boston for $180 a bushel, tea at $90 a pound, butter $12 a pound and flour $1,575 a barrel. Samuel Adams bought a suit of clothes and a hat for $2,000. The pay of the soldiers, nominally seven dollars a month, had fallen to less than one-fifth of a dollar. The



Gener.l Statement (52

Years 1775, 6, 7, 8 & 9 — and for 1780, 1, 2, & 3

		Doll.rs	Lawful		
1775 & 1777	By amount of several Sums received & Paid to Redate Hereof		£3126	7	9
1783 July 18	By Ditto received since to the present date	160,074	6450	7	-
	By 160,674 Dollars turned into Lawful Money by the Sale of depreciation Adopted by Congress as. follow — viz				

When Rec.d Year	Month	Dollars Rem.g	Pc.	Value in Lawf.l Mon.y	When Paid Year	Month	Dollars Year	Pc.	Value Lawf.l Money
1777	Jul.	2610	2610	£782-10-0	1779	Apr.l	28710	16441	£4989-18-0
	Oct.r	1000	1000	300 —		Aug.t	2000	180	— 54 —
	May	1000	1000	300 —		June	3000	220	— 66-12 —
	July	1000	1000	300 —		Sep.t	2000	110	— 33 — —
		1000	1000	300 —		Nov.r	3000	129	— 38-14 —
	Aug.t	500	500	150 —		Dec.r	3000	114	— 34-4 —
		1000	1000	300 —	1780	Jan.y	3000	102	— 30-12 —
	Oct.	1000	911	273-6 —		Feb	3000	130	— 39 — —
		1000	911	273-6 —		Mar.h	3000	78	— 23-8 —
	Dec	1000	758	226-4 —			3000	75	— 22-10 —
1778	Jan.y	2000	1870	411 — —		Apr.l	3000	75	— 22-10 —
		1000	685	205-10 —		May	4000	100	— 30 — —
	Apr.l	1000	497	146-2 —			4800	120	— 36 — —
	May	2000	868	260-8 —		June	4300	108	— 32-8 —
	June	2000	756	226-16 —			12000	270	— 70 — —
	Aug.t	2000	574	172-4 —		Aug.t	5000	125	— 37-10 —
		100	29	— 8-12 —		Sep.t	8000	200	— 60 — —
	Sep.t	1000	257	— 75 —			5000	125	— 37-10 —
	Nov.r	2000	366	109-16 —		Nov.r	1000	25	— 7-10 —
	Dec.r	2000	314	— 94-4 —	1781	Feb.y	9264	231	— 69-6 —
1779	Mar.h	2000	200	— 60 — —		June	30,000	750	— 225 — —
		500	50	— 15 — —		May	20,000	500	— 150 — —
		28710	16,441	4989-18-0			160,674	2434	Am.t to — 6114 — 14 — 0

1783 July 1	By Balc.e due G. Washington Acco.t to New Acco.t folio 63		620	8	4
			£16311	17	1

Note! 104,364 of the above Dollars were received after March 1780 — and all the credited at 40 for 1 many of them did not yield 1 for a hundred — While 71,775 of them were retired with Interest — any thing from the above Acco.t

A Page of Washington's Account Book, Showing a Complete Summary of His Account with Congress from 1775 to 1783.

final campaign of Yorktown would have been impossible had not Rochambeau loaned the government specie for the back pay of Washington's army.

With the prevailing methods of finance it is little wonder that Washington's troops suffered from hunger and exposure. There was plenty of clothing and provisions in the country; the misery of the soldiers was due solely to the lack of means to purchase these things from their owners. While the little continental army was freezing and starving at Valley Forge the British army in Philadelphia, twenty miles away, was obtaining supplies in abundance from New Jersey and Pennsylvania. It was useless for the Congress to resolve that any person refusing to accept the bills of credit should be "deemed, published and treated as an enemy of the Country." No resolutions of the Congress could induce people to give up their wealth for promises to pay in which they had no confidence.

The depreciation of the currency not only multiplied the difficulties of the weak government; it caused distress among the people. Debtors took advantage of the legal tender laws just as they had done when the colonial bills of credit depreciated, settling their debts by returning but a small portion of the value they had received. Administrators of estates, guardians of orphans and other trustees defrauded their charges by making settlements in the depreciated notes. The fluctuating value of the currency gave rise to much speculation. Depreciation not being so rapid in some sections as in others, unscrupulous individuals made large fortunes by selling goods where the money was lowest in value and then quickly buying where it was highest. Washington wrote, "Speculation, peculation, engrossing, forestalling afford too many melancholy proofs of the decay of public virtue. . . . Nothing I am convinced but the depreciation of the currency . . . aided by stock-

jobbing and party dissensions, has fed the hopes of the enemy."

In March, 1780, when one hundred dollars in continental bills had a value of about one dollar in specie Congress urged that the States offer to redeem the $200,000,000 of notes outstanding with bills of "new tenor" at the rate of one dollar of the new for forty of the old. This was repudiation, an offer to settle obligations of $200,000,000 for $5,000,000. New tenor notes were issued and exchanged for about $120,000,000 of the old notes. The new notes quickly began to depreciate. In a short time virtually all of the continental currency disappeared from circulation. The expression "not worth a continental" still remains as a synonym for utter worthlessness. In 1790 the new government offered to accept the continental currency in payment for government bonds at the rate of one hundred to one, and notes to the amount of $6,000,000 were received and canceled. The others had been lost or destroyed.

The cost of the war amounted in specie to about $135,000,000. To meet this cost, notes, bonds and other evidences of debt were issued to the amount of $650,000,000. The distress caused by the depreciation of the currency was much greater than any distress which would have been caused by a thorough system of taxation. The people had to contribute the supplies which the army consumed regardless of the method by which the supplies were obtained. Had they been obtained through an orderly system of taxation the cost would have been no greater and it could have been equitably distributed. Moreover had ample supplies been constantly available the war could probably have been won much sooner and consequently at a smaller cost.

Industrial Conditions During the Revolution. What made the difficulties of Washington and the Congress all the harder to bear was the fact that after 1776 the United States was fairly prosperous. Before hostilities began the

voluntary restriction of commerce by the colonists and the prohibitory regulations of the British government had caused an economic depression, and the outbreak of actual war tended still further to dislocate industry. But once the people became adjusted to the new state of affairs there was a revival of industry and, in spite of the activity of the British navy, a substantial recovery of commerce.

With the exception of the indigo planters of South Carolina, who had been dependent upon British bounties for their earnings, the farming interests of the country suffered little injury from the war. Agriculture continued throughout the conflict with little change. Only small portions of the settled country districts were disturbed by the operations of opposing armies. In the South there was no military activity of any consequence until 1780; the British were driven out of Boston early in 1776; the British armies in the Middle States were inactive much of the time, and since they were plentifully supplied with money from England their presence in Philadelphia and New York served to stimulate rather than depress agriculture. The French army brought over a large quantity of gold and silver which passed into circulation through the hands of the New England farmers. Until methods of conducting commerce were perfected the tobacco planters of Virginia, Maryland and North Carolina suffered some loss, but their distress was not of long duration.

Though agriculture prospered, another important branch of colonial industry was virtually destroyed. This was the fisheries. English naval vessels haunted the waters along the coasts of New England and Newfoundland, making it impossible for the Americans to carry on fishing operations. Many of the fishing vessels were converted into privateers, and the fishermen, as crews of these plundering ships, found a life as full of excitement and danger as their former occupation had been. The destruction of the fish-

ing industry worked a hardship upon the West Indian sugar planters who had been accustomed to exchange molasses and sugar for New England fish. The decline in the imports of molasses injured the rum distilling business and led to the partial substitution of whisky made from corn, rye and other grains for the long familiar New England and Jamaica rum.

One extremely important effect of the war was its stimulation of manufacturing in America. Cut off from the customary source of manufactured goods the people were forced to make for themselves many of the articles which they had formerly imported. Tanneries, fulling-mills, and iron works increased in number and extended their production. Large buildings were erected by enterprising capitalists in Boston, Philadelphia and Baltimore, and people hired to operate looms weaving linen and woolen cloth. The spinning wheels, looms, and knitting needles of northern households were busier than ever before. In the South the cultivation of cotton, which for several years had been carried on in an experimental way, was extended until enough fiber was produced to supply a large part of the material for clothing the negro slaves. Muskets and cannon were made in Massachusetts, New Jersey and Pennsylvania factories. The Sterling iron works in New York cast several cannon and also made the great iron chain which was stretched across the Hudson River at West Point to prevent the British fleet from passing up the stream. The lead deposits at Chiswell, Virginia, were worked vigorously to secure material for bullets. Additional salt works were operated along the coast to separate salt from the water of the sea. This indispensable article became very scarce, its price advancing from eighteen pence a bushel in 1774 to six silver dollars a bushel in 1781.

Commerce During the War. When the Continental Congress opened the ports of the thirteen colonies to the

world in April, 1776, merchants and shipowners of Holland, France and Spain began at once to seek their way to American markets. Since the colonists had imported but little during the preceding year, their stock of foreign goods had run low and they were willing and eager to buy. At first Congress forbade the importation of British goods, but this prohibition was soon removed, all imports being gladly received whatever their origin. Dutch, French and American ships slipped past the British cruisers, bringing cargoes of clothing, war materials, metal wares and salt into American ports. Large quantities of English manufactures were landed in Nova Scotia whence they easily found a way to the markets of the United States. While the British were holding New York, Philadelphia and Savannah a constant stream of imports flowed into those cities in British ships.

Many American merchant vessels as well as vessels of France and Holland were captured by the British ships of war. In retaliation the Continental Congress and the governing authorities of the States sent out privateers to prey upon the commerce of Great Britain. The Congress also managed to maintain a small navy which harried the shipping of the enemy and also gave a good account of itself in various engagements with vessels of the royal navy. It is estimated that as many as two thousand American privateers were sent out during the war. The English ships which they took as prizes replaced the American tonnage captured by the British fleet. The privateers were used also as merchant ships bringing in not only cargoes of captured goods but cargoes of goods purchased in European markets. The Cabots of Beverly and the Derbys of Salem became rich from the successful operation of the armed ships which they sent to sea during the Revolution.

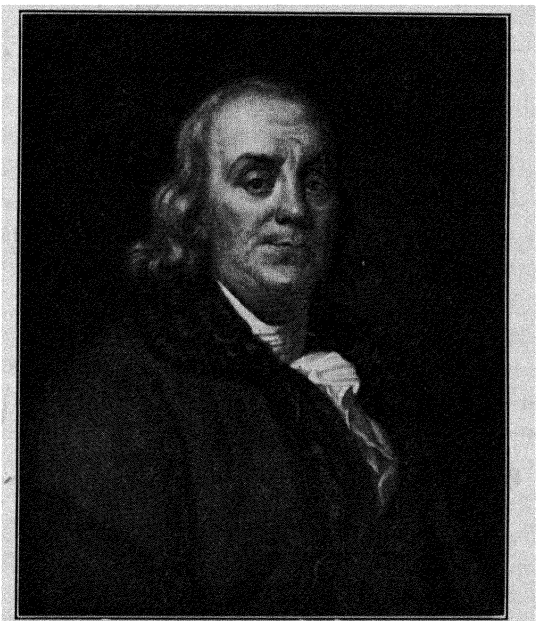
The vessels which brought imports to America sailed away laden with American products. Hundreds of ship-

loads of tobacco, rice and flour went to the ports of Europe and the West Indies. The Continental Congress authorized its agents to buy up produce and ship it abroad to exchange for money and military supplies. Holland, France and Spain were eager to obtain American products. American tobacco even found its way to English markets regardless of the laws forbidding its importation. Though the people of the northern States could no longer catch fish to send to the West Indies, they could and did export flour, wheat and pickled beef and pork. The Dutch island of St. Eustatia and the Danish islands of St. Croix and St. Thomas were favorite places for the exchange of American products for European goods. The English sugar planters did not hesitate to buy American flour and meat, sometimes receiving openly the American ships but more often obtaining the merchandise indirectly through Dutch merchants and shipowners.

The exports of tobacco, rice and flour brought good prices. Since the total exports were greater in value than the imports the balance in favor of the American traders was paid in coin. The British and French governments sent over large sums to pay for the food supplies purchased for their armies. After 1778 the Americans for the first time had an abundance of gold and silver money. The poverty of the public treasury was not due to a lack of hard money in the country but to the neglect of taxation and the unwillingness of the people to make loans to the government. The demand for goods and the abundance of coin imparted a brisk activity to domestic trade. When the war came to an end the people were singularly prosperous. In fact there was much concern among thoughtful men about the luxury and extravagance of the population. Franklin wrote in 1779, "The extravagant luxury of our country in the midst of all its distress is to me amazing."

One branch of trade which did not prosper was the slave

trade. The Continental Association in 1774 had contained an article by which the colonists agreed to stop the commerce in negroes. In April, 1776, the Congress voted that "no slave be imported into any of the thirteen colonies." However the States and not the Congress had the right to regulate commerce. The ideals expressed in the Declaration of Independence reflected the opposition of many peo-



Benjamin Franklin

ple in the northern States to human slavery. In 1780 Massachusetts abolished slavery, and was shortly afterwards followed in this action by New Hampshire and Connecticut. In Virginia and Maryland there was a widespread belief that slavery was immoral and uneconomical. This belief was not shared however by the people of the Carolinas and Georgia. Many persons, both North and

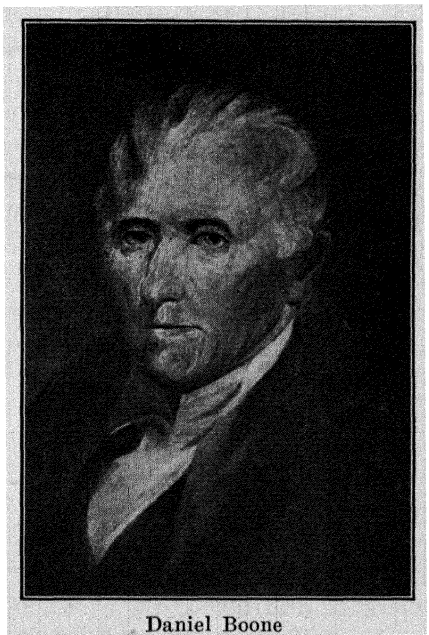
South believed that slavery was dying out, and for the time being it seemed that they were right, but the beginning of extensive cotton culture in the South was soon to destroy their hopes and give the institution a fresh and stronger hold.

Occupation of the West. One of the most important events of the Revolutionary period was the occupation and conquest of the West by the American people. By the treaty of 1763 Great Britain secured undisputed possession of the great area of land stretching from the Appalachian highland to the Mississippi River. King George, instead of encouraging the occupation of this territory by settlers, issued a proclamation shortly after the treaty was signed, forbidding colonial governors to grant lands "beyond the head or sources of any of the rivers which fall into the Atlantic Ocean from the west and northwest," and prohibiting the settlement of these lands by his subjects. His chief object was to maintain the fur trade, which was sure to decline if the forest lands were cleared and cultivated. He was afraid too that many people living along the coast might decide to emigrate to the fertile western lands out of reach of his "law and government." Since western settlers would be obliged, because of the great distance of their homes from the sea, to produce their own manufactures, the market for the products of English industries would be decreased. Plainly colonies west of the Appalachian highland would not conform to the prevailing mercantilist notions of what colonies ought to be.

Notwithstanding King George's wish to keep the colonists near the sea, the years between 1763 and 1775 witnessed a gradual movement of settlers to the west, and in many sections the emigrants took up lands in the prohibited districts. The western movement in southern New York and northern Pennsylvania was necessarily slow and cautious because the region was held by the Six Nations,

a part of the Indian tribes making up the powerful Iroquois confederacy. In 1759 English provincial forces erected Fort Stanwix near the present site of the city of Rome, New York, and for more than a score of years this post marked the western limit of white settlements in New York.

South of New York the resistance of Indians to the tide



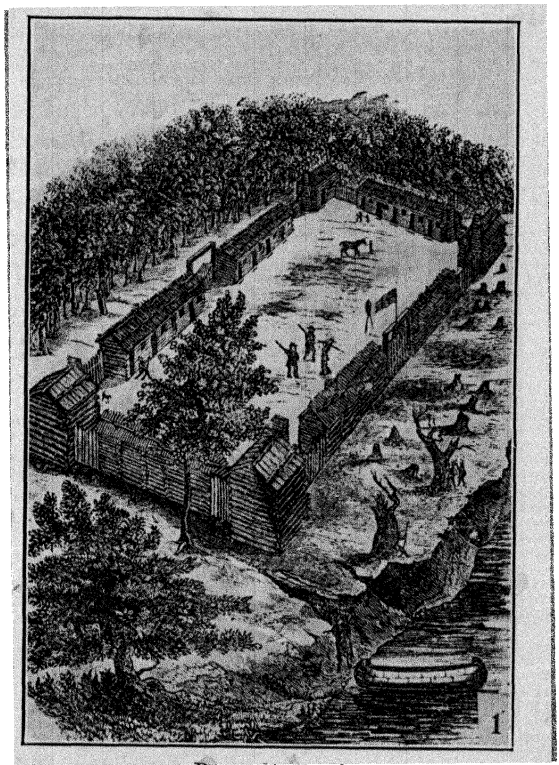
Daniel Boone

of emigration was not so strong. On the site of Fort Duquesne General Forbes's troops founded the settlement of Pittsburgh, and constructed Fort Pitt for its defense. The Indians in this region were soon subdued. Emigrants coming up the Potomac Valley to Fort Cumberland crossed the mountain pass to the Youghiogheny and Monongahela valleys. Other settlers traveled overland from Philadelphia by way of Forbes Road. By 1775 the region south of

this road between Fort Cumberland and Pittsburg was all occupied, and the line of settlements was creeping down the southern bank of the Ohio River. This stream afforded an easy highway to the unsettled regions farther west, but the presence of large numbers of Indians on its northern shore tended to check emigration by this route.

Farther south people from the Carolinas and Virginia were making their way to Kentucky and Tennessee. By 1770 adventurous pioneers had crossed the mountains and taken up lands in the valleys of the Watauga, Holston and Clinch Rivers, all tributaries of the Tennessee. In 1769 Daniel Boone of North Carolina made his way through Cumberland Gap to central Kentucky, staying for more than a year in the wonderful hunting grounds which before his arrival few white men had disturbed. Kentucky, though visited frequently by parties of the Iroquois and Cherokee Indians, was the permanent home of no Indian nation, and of all the western country it offered the most favorable conditions for settlement. Boone returned to his home in North Carolina in 1771, and two years later he and six other men started with their families for Kentucky. Before reaching Cumberland Gap they were attacked by Indians and a number of the party, including Boone's seventeen-year old son, were killed. The survivors decided to live in the white settlements of the Clinch valley until others joined them. In 1774 Judge Richard Henderson of North Carolina organized the Transylvania Company for the purpose of settling the region bounded by the Ohio, Cumberland and Kentucky Rivers. His plan was to secure a title to the land from some of its Indian claimants, send out settlers, and make a fortune from the sale of farms and from quitrents, very much after the plan of the commercial companies which sent the first colonists to America. Negotiations were opened with the Cherokee Indians, and in March 1775 the company acquired their title to the land. Before the negotiations were completed

Henderson sent Boone, at the head of a party of woodsmen, to blaze a path through the wilderness and choose a location for the first settlement. By the middle of April Boone had finished the trail and built a small log fort on

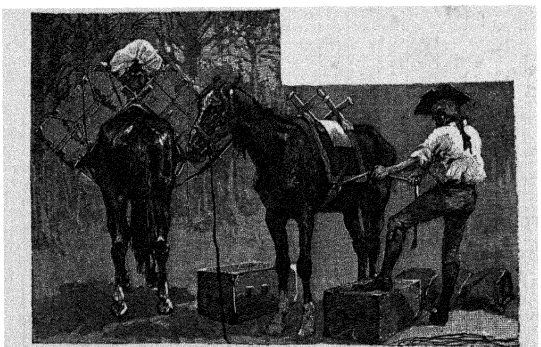


Boonesborough

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the Kentucky River, the beginning of the settlement of Boonesborough. Henderson soon came with more men, and Boone hastened back to the Clinch River for the waiting families, who two years before had started under his guidance for Kentucky. Before the end of the year the

settlements of Harrod's Town and Boiling Spring were founded. Boone's trail became the Wilderness Road, and it was soon being traveled by hundreds of families, who, discouraged by the hard times in the East during the first two years of the Revolutionary War, decided to brave the terrors of the wilderness and make new homes on the banks of the Kentucky and Tennessee Rivers. The State of Virginia protested the Transylvania Company's title and Henderson's dreams of wealth vanished. The settlers were not disturbed however, and their rights to the land which they occupied were confirmed. Among these early Kentucky settlers were the grandparents of Abraham Lincoln. His



Pack-Horses

paternal grandfather whose name was also Abraham Lincoln, was murdered by Indians while working in his fields with his sons. Many settlers went down the Ohio River from Pittsburgh to take up lands in Kentucky. A settlement established at the falls of the Ohio was incorporated as the town of Louisville by an act of the Virginia legislature in 1780.

The life of these early frontiersmen was not an easy one. Their difficulties were not unlike the difficulties of the European colonists who first came to America. Far from

civilized communities, they had to depend upon their individual efforts to satisfy their daily wants. Their first task was to build log cabins, and perhaps a block-house and stockade for protection against the Indians. The openings between the logs of their cabins they stopped with clay. A large fireplace at the end of the single room served both for cooking and for heating. Their rifles supplied much of the food during the first year until some of the forest could be cleared away and the soil planted with corn and vegetables. They clothed themselves with buckskin and on their feet wore moccasins. After a few years of persevering industry, their fields, orchards and gardens, and their droves of cattle and hogs abundantly supplied their wants for ordinary material comforts. Their chief problem was to secure such indispensable articles as salt, gunpowder, and metal tools and utensils, which it was impossible for them to produce themselves. A wearisome and dangerous journey to some eastern city, with packhorses bearing peltry, ginseng and other light and valuable products, was the only way of meeting this problem until the country was sufficiently settled for the construction of adequate transportation facilities and the establishment of an organized commerce.

Conquest of the West. When the Revolutionary War began both the Iroquois and the Cherokee Indians joined the British. Urged on by British agents and often aided by British troops and officers the Indians tried to drive the white settlers back to the sea. In New York and northeastern Pennsylvania the Six Nations pillaged and burned dozens of settlements, cruelly slaughtering hundreds of men, women and children. One successful expedition was made against the Indians in 1779, when General Sullivan led a small army from the Wyoming Valley into the heart of the Indian country about Seneca and Cayuga lakes, where his men destroyed the growing crops of the Indians

and burned many of their villages. However this did not put an end to the depredations of the Indians, who continued their border massacres until the war ended.

On the Carolina frontier the Watauga settlers, aided by a small force of militia from Virginia and the Carolinas, overcame the Cherokee tribes, forcing them to give up a portion of their lands.

Every settlement along the Ohio River and in Kentucky was attacked by the savages. Only too often their assaults were successful. Had it not been for George Rogers Clark the white settlers of these regions would probably have been exterminated and Great Britain might have continued in nominal possession of the region between the mountains and the Mississippi. Clark made a journey from his home in Albemarle County, Virginia, to Kentucky in 1775 and again in 1776. Aroused by the Indian massacres instigated by the British he went to Patrick Henry, the Governor of Virginia, with plans for a war against the Indians and for the expulsion of the British from the Ohio Valley. Though Governor Henry could not provide Clark with troops he gave him a colonel's commission and twelve hundred pounds in Virginia paper currency, and authorized him to raise several companies of militia for the defense of Kentucky against the Indians and for the capture of the British posts in the West. Proceeding to Fort Pitt in 1778 Clark raised a small force and went down the Ohio River to a point near the present site of Louisville, where he was joined by a number of Kentucky frontiersmen—"big knives"—most of them seeking revenge for the murder of relatives and friends by the savages. He boldly led his little army into the enemy's country. He seized the small French settlements of Kaskaskia and Cahokia on the Mississippi, overawed the Indians and compelled them to make peace. In February, 1779, he captured the British garrison at Vincennes on the

Wabash River. Detroit, Sandusky and a few other posts on the Great Lakes were the only points of importance in the West remaining in the hands of the British.

Disagreements of the States over Western Lands. In the autumn of 1776 the Virginia legislature enacted a resolution declaring Kentucky to be a county of Virginia. In October, 1778, the region northwest of the Ohio was likewise declared to be a part of Virginia and named the county of Illinois. North Carolina claimed the region now composing the State of Tennessee. Both States opened land offices, offering to sell large tracts of land at low prices and on easy terms. Clark and his men were rewarded with grants of land north of the Ohio River, and Virginia began to pay off her soldiers in the continental armies with similar grants.

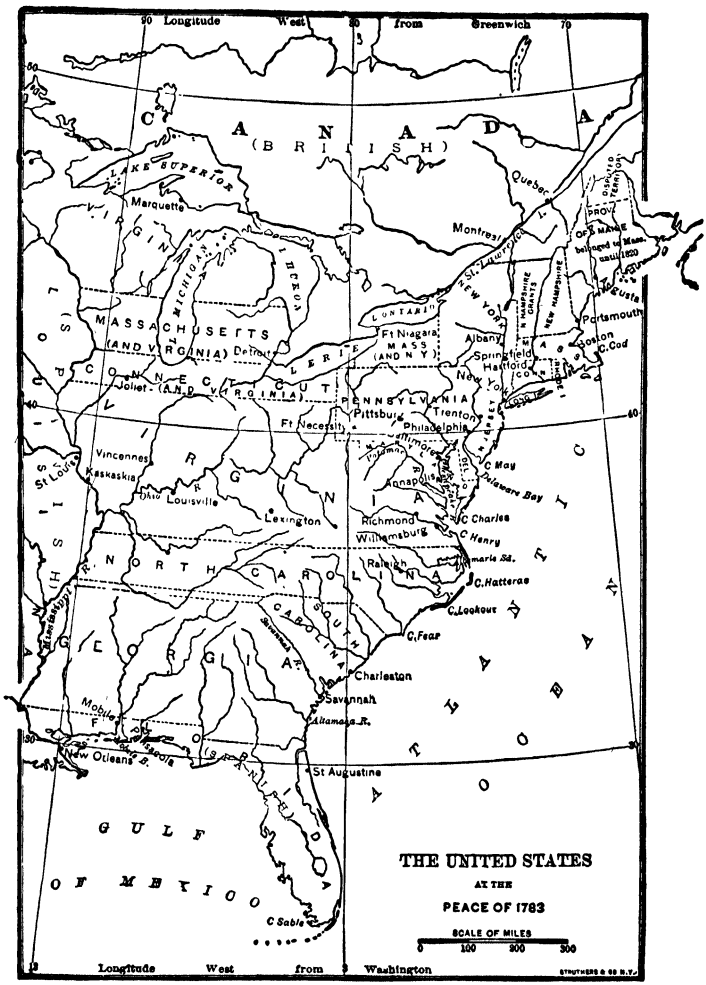
The claims of Virginia to the region north of the Ohio were disputed by New York, Massachusetts and Connecticut. New York claimed part of the territory by virtue of treaties with the Indians, the other two States based their claims on original charter rights. Connecticut and Massachusetts also claimed title to lands in unsettled portions of New York and Pennsylvania. Only five States, New Hampshire, Rhode Island, New Jersey, Delaware and Maryland had definite western boundaries. The people of these States opposed the claims of the other eight States to unoccupied western lands, and suggested that all this territory be ceded to the United States to be used for the benefit of the whole country. Unless the land should be used for the common good the States with no claims would be compelled to pay their share of the war debt entirely by taxation. Maryland flatly refused to ratify the Articles of Confederation unless the pretentious claims of Virginia were disallowed. In 1778 New York ceded her claims to lands west of Pennsylvania to the United States. Early in 1781 Virginia offered to surrender her rights to the

region northwest of the Ohio, retaining only lands already granted or promised to soldiers. The cession was not completed until 1784. Connecticut gave up all her western lands with the exception of a strip extending one hundred and twenty miles west of the Pennsylvania boundary. The United States thus came into possessin of a large and valuable public domain. Kentucky remained a part of Virginia until becoming a separate State in 1792. The States south of Virginia gradually gave up their jurisdiction over western lands, though the land itself was nearly all disposed of before this action was taken. Connecticut gave up jurisdiction over her "Western Reserve" in 1800 after having given several thousand acres to her citizens whose homes were destroyed during the Revolution and selling the remainder for $1,200,000, the money being used to establish the Connecticut educational fund.

The End of the War. Though Cornwallis surrendered at Yorktown on October 19, 1781, it was not until two years later that the definitive treaty of peace with Great Britain was signed. King George stubbornly opposed giving up part of his empire, but Parliament finally took action and negotiations were opened. A provisional treaty was signed on November 30, 1782, and the final treaty on September 3, 1783, after the completion of negotiations between England and France.

Great Britain acknowledged the independence of the United States. The American peace commissioners obtained virtually all of their territorial demands, though the treaty described the northern and southern boundaries of the United States in such terms as later to cause controversies with both Great Britain and Spain. The treaty contained a secret article stipulating that if Great Britain should retain the province of Florida the southern boundary of the United States should be farther north than should be the case if Florida were returned to Spain. In

the treaty between Spain and Great Britain Florida was returned to the former country, and Spain refused to rec-



ognize the provisional boundary agreement of the secret article. The controversy over the Florida boundary was

not settled until 1819 when the United States purchased the province from the Spanish government. The treaty of peace made no mention of commercial relations between the two countries. Upon the insistence of John Adams Great Britain acknowledged the right of the people of the United States to take fish upon the Newfoundland banks, in the Gulf of St. Lawrence, and along the coast of Newfoundland, and even gave the American fishermen the privilege of drying fish on unsettled portions of the shores of Nova Scotia and Labrador. These concessions were of the highest importance. Both countries agreed that nothing should be done to obstruct the collection of debts contracted before the war, and American delegates agreed that the Congress should recommend that the legislatures of the various States restore the confiscated property of American loyalists who had objected to the separation from Great Britain. Finally it was agreed that the "navigation of the river Mississippi, from its source to the ocean, shall forever remain free and open to the subjects of Great Britain and the citizens of the United States." By the treaty of 1763 Great Britain had received from Spain the right of free navigation of the Mississippi, and this right she now agreed to share with the United States. Since Spain controlled all of the west bank of the Mississippi and the east bank south of the thirty-first parallel of latitude, this section of the treaty amounted to but little without Spain's assent to it. The Government of the United States soon found out that Spain was not disposed to recognize the right of the American people freely to use the great river.

Freed from British rule the United States assumed a place among the nations of the world. The people confidently expected to enter at once upon a period of great material prosperity. Relieved of the restrictions imposed upon their industry and commerce by the British Parlia-

ment they felt that they had greater opportunities for economic development than they had ever enjoyed as colonists. They were soon to find out however that it takes more than mere political freedom to create economic prosperity; that liberty is of little advantage without industry, thrift and order.

Questions and Topics

1. Why does the Federal Government now prohibit lotteries?
2. What methods are now used by the United States to raise money in time of war?
3. Is it always true that war stimulates home industries? Give reasons for your answer.
4. Why does a war seem to bring an aftermath of extravagance?
5. Compare the two modes of westward emigration—by land and by water.
6. Write a short essay describing the life of the frontiersman.
7. Compare the life of the uncivilized with the civilized Indian. Did the settlers of America do him a service or an injustice?
8. Write a short biography of Daniel Boone.

CHAPTER IX

AN ECONOMIC CRISIS; THE CONSTITUTION

The Resumption of Peaceful Trade. Hostilities between Great Britain and the United States were declared at an end early in 1783, Washington reading the official proclamation at the head of his army on the eighth anniversary of the battle of Lexington. Arrangements were soon made for the resumption of peaceful trade. The blockading squadrons of the British navy were withdrawn from the American coast, and it was possible once more for merchant vessels to enter and leave the ports of the United States without risk of capture.

The war had placed many restrictions upon the ordinary operations of trade and once these restrictions were gone there was a rapid expansion of commercial activity in the United States. In fact, the reaction following the long period of war and the general expectation that great prosperity would come with peace and independence aroused a spirit of speculation among the people which soon had disastrous results. A significant feature of the increased commercial activity was a great increase in import trade and particularly an increase of imports from Great Britain. Before the Revolution, America had long been one of the most profitable markets of British merchants. They were glad when this market was again opened freely to their merchandise, and the people of the United States were glad to have the opportunity once more of freely buying British products. A few Americans and Frenchmen believed that after the war ended France would get a large

part of American trade. It soon became evident, however, that it was not alone the British commercial policy which had caused the American colonists to buy their imported goods from England. The Americans were grateful to the French for their generous help during the Revolution, but, as it has often been shown, sentiment has little to do with commerce. A nation buys where it can get the most desirable goods at the best prices and on the most favorable terms. English manufacturers produced what the people of the United States wanted to buy; English merchants were familiar with the needs of American consumers, and they were willing to give the long-term credits which a country must have if its chief industry is agriculture. The Americans did not like French manufactures as well as they liked English, and the French merchants did not understand the commercial needs of America. Another condition which made it more convenient for the United States to trade with England was the fact that the two countries used the same language. The records of the British customs show that in 1784 the imports of the United States from Great Britain amounted in value to £3,670,467, and in 1785 to £2,308,023. The value of American imports from other countries during these years is not known, but it is certain that the purchases from no other country were as large as the purchases from Great Britain.

Unfortunately for the United States the exports of the nation, for the time being, fell far short of imports in value. There were two reasons for this; first, the lack of exportable commodities, and second, the unfavorable commercial regulations of European countries. The chief exports of America had long been tobacco, wheat and flour, fish and rice. The war had destroyed the fisheries, and though the fishermen began operations as soon as hostilities ended it was impossible to restore the fishing industry

in a single year. During the last three years of the war, the production of rice in Georgia and South Carolina had been crippled by military operations and by the confiscation of several thousand slaves by British military authorities. Rice culture could not be restored to its former state until the supply of slaves was replenished. Tobacco, wheat and flour were the only important exports the production of which was near normal. But even if there had been an abundant production of all the important export commodities it would have been impossible to market them.

The people of the United States suddenly discovered that their position as an independent nation was not without its disadvantages. Though Great Britain had restricted the economic development of her colonies in certain directions, she had encouraged it in others. Moreover, she had used her great power to defend and protect the colonies and to secure for them commercial privileges in many markets of the world. The Americans now had to shift for themselves. Great Britain was no longer a powerful protector but a keen and even an unfriendly rival. France and Spain, who had helped the United States achieve independence, also showed a changed attitude when the war was over. They had been willing enough to injure their ancient enemy by giving encouragement and assistance to her rebellious colonies, but once the discomfiture of England was accomplished, they had no desire to promote the development of a new commercial rival.

The law enacted by the English Parliament in 1660 provided that all products of Asia, Africa or America imported into England should be carried directly from the place of production in English ships. It also provided that all goods exported from or imported into the English colonies in America should be carried in English ships. Since the United States was now an independent nation this law operated against American vessels. It not only

forbade vessels of the United States to engage in trade with the British West Indies, but strictly interpreted, it forbade them to carry products of this country even to Great Britain. Under this law American shipping interests were excluded from what in colonial days had been the most profitable branches of their trade.

Early in 1783 Parliament enacted a law authorizing the king temporarily to regulate British commerce with the United States. Acting through his Privy Council, the king issued "orders in council" with respect to the privileges which the United States might have in commerce with the British empire. The first important order, published July 2, 1783, was drawn up by a member of the council, William Knox, who wrote that he carried it through against the opposition of Edmund Burke and other friends of America, "and thereby saved the navigation and maritime importance of this country and strangled in birth that of the United States." The order was typical of the selfish mercantile spirit of the times. It placed the vessels of the United States on virtually an equal footing with vessels of Great Britain in the direct trade between the two countries, but it did not permit vessels of the United States to trade with the British West Indies. Moreover, it permitted British vessels to carry only a limited number of the products of the United States to the British colonies in the West Indies, and among the commodities named fish and salted meats did not appear. The purpose of excluding these articles was to stimulate and aid their production and export by the people of Canada. The order in council was continued from year to year until 1788 when its provisions were enacted into law.

Throughout the colonial period the West Indian trade had been the leading business of American merchants and shipowners, and the English islands had been one of their

leading markets. At the close of the war, they were confidently expecting a further development of their commerce with these islands. The action of the British government was a severe blow. But this was not all. Before the end of 1783, Spain and France also closed their West Indian ports to American ships. The entire West Indian trade of American shipowners was virtually destroyed, and since Spain and France had few vessels to carry traffic from the United States to their colonies, one of the most important outlets for American exports was closed. The small islands belonging to the Netherlands and Denmark were the only places in the West Indies where the ships and products of the United States were freely received.

Before the war, markets of Southern Europe had offered a good commercial opportunity to colonial shipowners. When they endeavored to develop this trade again at the close of the war their vessels were captured by the pirates of the Barbary States in northern Africa. Before the Revolution colonial vessels had been protected from pirates by the powerful British empire; after 1783 this protection was lacking. It was a matter of satisfaction to the great maritime nations of Europe that these African pirates could prevent the weaker nations of the world from extending their carrying trade. Lord John Sheffield, an ardent defender of Great Britain's commercial policy, wrote, "It is not probable the American States will have a very free trade in the Mediterranean. . . . That the Barbary States are advantageous to the maritime powers is certain. . . . The Americans cannot protect themselves. . . ."

Economic Depression. A nation can pay for its imports only by exporting goods or specie. Since the merchants of the United States could export only a limited amount of goods they were forced to send abroad nearly all the

specie of the country. Even after this was done they were still heavily in debt to foreign merchants. Meanwhile they had sold their imported goods on credit to the farmers, planters, workmen and other classes of the population. These purchasers had expected to pay with the money which they received for their products. Unfortunately, they could not do this. The exportation of specie caused prices to fall very rapidly and even if the farmers succeeded in selling their products, they could not get enough money to enable them to meet their debts. The large imports of British manufactured goods quickly caused the ruin of the struggling manufacturing industries in the United States, the workmen were thrown out of employment, the employers suffered heavy losses. The consequence of the purchase of excessive quantities of foreign goods was that nearly everybody in the United States became heavily involved in debt, and there was no means of making payment. A number of State legislatures enacted laws suspending the right of creditors to collect debts, or requiring creditors to accept certain commodities at prices named in the laws. All the States but four, New Hampshire, Massachusetts, Maryland and Virginia, tried to help matters by the issue of paper money, but as usual this only made the situation worse, giving debtors a way of shifting their losses to others and thereby creating discontent. The use of "country pay" or commodity currency again became common. In 1785 and 1786 there was great distress throughout the country, and serious trouble in nearly all the States. In Massachusetts, the merchants brought suit for the collection of the money owed to them, and the courts ordered the sale of the debtors' property. Since property of all kinds would bring only a small fraction of its price in ordinary times, there was a great outcry on the part of the debtors against the courts and the

merchants. An organized body of malcontents, led by Captain Daniel Shays, took up arms to resist the authorities, and for a time it seemed that the government of Massachusetts would be overthrown. An armed insurrection in New Hampshire was narrowly averted, and in other parts of the country there were serious disturbances. The conditions of unrest tended to discourage industry and thus made matters worse.

One effect of the hard times was a greatly increased emigration to the West. For many years the great area of unoccupied land across the Appalachian highland was to be a haven of refuge for the inhabitants of the Eastern States in times of commercial and industrial depression. For several years after 1784 hundreds of men, overcome by their burden of debt, gave up their possessions and went to Kentucky, Tennessee, and western Pennsylvania to start life anew. On the fertile lands of the great interior valley they could at least make a living for their families.

At this time, however, the people of the West were having trouble, and they too became infected with the general spirit of discontent. They were beginning to produce a large surplus of grain, tobacco and live stock, which they could not consume themselves but which, if they could but sell it, would enable them to buy many articles which they could not make. It was impossible for them to take their heavy agricultural products across the mountains to eastern markets, but it was comparatively easy to send them in flatboats down the Mississippi River to the Spanish port of New Orleans. The Western farmers carried on a considerable trade with the Spanish city during the closing years of the Revolution, but to their surprise and dismay, when the war was over, the Spanish authorities closed the river to them and proceeded to confiscate the loaded flatboats which were floated down the stream into Spanish territory.

The Western people were highly incensed at the action of the Spanish government, and they asked the Congress to require Spain to open the river to the flatboat trade. The Congress apparently had no desire to help. The merchants and shipowners of the New England and Middle Atlantic States wanted Spain to open her West Indian ports to American ships, and agents of the Congress for a time tried to negotiate a treaty in which the United States was to consent to the closing of the Mississippi for a period of twenty-five years in return for commercial privileges in the Spanish West Indies. When the people of Kentucky, Tennessee, and Western Pennsylvania heard of these negotiations they became greatly excited. Some talked of withdrawal from the United States and union with the Spanish province of Louisiana; others wanted to seize New Orleans by force and compel the Spanish authorities to open the river. The people of the region now composing the eastern part of Tennessee declared their independence of North Carolina, organized the state of "Franklin," and for two years (1785–86) had a government of their own. If Spain had offered any inducements to the Western settlers, they might have broken entirely away from the United States; but instead of encouraging them, Spain repelled them by her policy of selfishness. The Spanish authorities thought that Louisiana could be held more easily if American settlers were kept out of the region between the Appalachian highland and the Mississippi. Washington was greatly disturbed over conditions in the West. Late in 1783 he wrote to a friend, saying, "The Western states hang upon a pivot. The touch of a feather would turn them either way." He believed that the difficulty could best be solved by providing adequate means of transportation between the eastern and western districts. In 1785 he became president of a company organized to improve the navigation of the

Potomac River, and, if possible, to construct a navigable waterway extending to the Ohio River.

Weakness of the Government. A serious difficulty of the people in the midst of their distress was the utter inability of their government to do anything to relieve the situation. Though it is probable that even the strongest government could have done little to save the people from the results of their speculations, the government which they had could not even attempt to take action. The Articles of Confederation provided for a Congress, but the only important powers of the Congress were to make war and peace, negotiate treaties, borrow money and operate the Post-office. Each State had one vote in the Congress and in all matters except postal affairs the vote of nine States was required for affirmative action. A State could send from two to seven delegates to the Congress and could recall any or all of them at will. Amendments to the Articles of Confederation had to be enacted by the Congress and then ratified by the legislatures of all the States.

The Congress could pass laws but their enforcement was left to the States; it could not regulate commerce and it did not have the power of taxation. By a vote of nine States it could determine the expenses of the government, and make a requisition on the States for the necessary sums of money, each State being supposed to contribute in proportion to the value of the real estate within its boundaries. At no time during the period from 1781 to 1789, while the Articles were in effect, did the States contribute all the money which the Congress requested, and there was no way to make them pay. The Congress could not get sufficient money to meet expenses and pay the interest on the national debt. In June, 1783, several hundred mutineers from the army surrounded the building in which the Congress met in Philadelphia, and demanded

their pay, causing the Congress to abandon Philadelphia and hold its meetings in Princeton and in Trenton, and later in New York. Had some Dutch bankers not come to the aid of the government with loans of $1,600,000, the Congress would have defaulted the interest on the debt, and the country would have become bankrupt.

Since the Congress could not regulate commerce and could not enforce the laws which it passed, it could not secure desirable commercial privileges from foreign nations. It negotiated commercial treaties with the Netherlands, Sweden, and Prussia between 1782 and 1785 but these treaties, and the one negotiated with France in 1778 at the same time the military alliance with that country was formed, gave no trading privileges except in the home ports of the countries with which the treaties were made. What the United States needed most was commercial privileges in the West Indies. When American commissioners tried to secure a commercial treaty with Great Britain the Duke of Dorset inquired to what extent the commissioners were "authorized to enter into any engagements with Great Britain, which it may not be in the power of any one of the States to render totally fruitless and ineffectual." In open violation of the treaty of peace of 1783 a number of States enacted laws to prevent British creditors from collecting the debts which Americans had contracted before the Revolution. In answer to this dishonorable conduct the British Government declared that it would not surrender the military posts which it held on the northern frontier of the United States until the debts were settled.

Quarrels Among the States. The economic depression tended to strengthen the spirit of distrust and suspicion among the States and they endeavored to take unfair advantage of one another in a number of ways. When New York tried to retaliate against Great Britain by plac-

ing high duties on British ships and goods, Connecticut and New Jersey endeavored to capture the British trade by granting special privileges. New York then imposed duties on all goods, both foreign and domestic, coming from the two rival States, and New Jersey responded by placing a tax of thirty pounds a month upon a few acres of land which the State of New York had bought at Sandy Hook for the purpose of erecting a lighthouse. The States which had no good ports were taxed by the neighboring States through whose ports their commerce was conducted. On several occasions there was actual danger of civil war because of the jealousies and conflicting interests of neighboring States.

Unsuccessful Efforts at Improvement. The financial distress of the Government prompted the Congress early in 1781 to ask the States for power to levy duties on imports for a limited period of time in order to obtain funds to meet the expenses of the war and pay the interest on the debt. All the States consented except Rhode Island. "It is certainly pernicious to leave any government in a situation of responsibility disproportioned to its power," said the committee of the Congress which endeavored, without success, to induce the Rhode Island legislature to reconsider its refusal. In April, 1783, the Congress again appealed to the States for power to raise revenue, and again the appeal was without satisfactory result.

By 1784 the Congress was disturbed not only by the financial condition of the government, but also by the adverse commercial regulations of Spain, France, and Great Britain. A committee submitted a report on April 30, which read in part as follows:

> "The trust reposed in Congress renders it their duty to be attentive to the conduct of foreign nations, and to prevent or restrain, as far as may be, all such proceedings as might prove injurious to the United States.

> The situation of commerce at this time claims the attention of the several States; and few objects of greater importance can present themselves to their notice. The fortune of every citizen is interested in the success thereof, for it is the constant source of wealth and incentive to industry; and the value of our produce and our land must ever rise or fall in proportion to the prosperous or adverse state of trade.
>
> "Already has Great Britain adopted regulations destructive of our commerce with her West India Islands. There was reason to expect that measures so unequal and so little calculated to promote mercantile intercourse, would not be persevered in by an enlightened nation. . . .
>
> "Unless the United States in Congress assembled shall be vested with powers competent to the protection of commerce, they can never command reciprocal advantages in trade; and, without these, our foreign commerce must decline, and eventually be annihilated. Hence it is necessary that the States should be explicit, and fix some effectual mode by which foreign commerce not founded on principles of equality may be restrained."

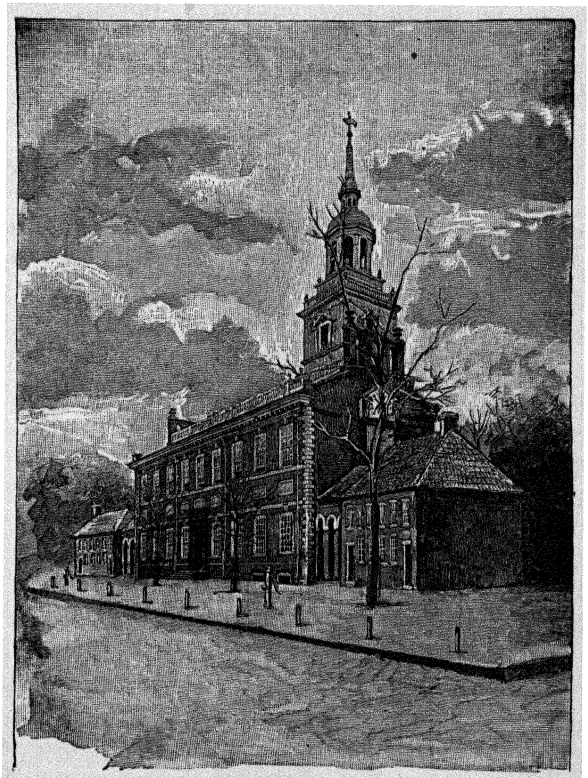
It was suggested by the committee that the Congress be given authority, for a term of fifteen years, to regulate commerce with foreign nations, it being hoped that by a process of retaliation Great Britain could be induced to open her West Indian ports. Three States refused absolutely to entertain this proposal. On July 13, 1785, the Congress submitted to the States another amendment of the Articles of Confederation, authorizing the Congress to exercise a limited control over foreign and domestic commerce, and again the same disheartening response was forthcoming. It was clear that the Articles of Confederation could never be amended by the prescribed method. The union of States seemed to be breaking up, when help suddenly came in an unexpected manner.

The Annapolis Commercial Convention. In 1785 dele-

gates from the States of Virginia and Maryland met at Alexandria, Virginia, to see if they could make an agreement concerning the navigation of the Potomac River and Chesapeake Bay, over which both States claimed certain rights. Washington invited the delegates to hold their deliberations at his home, Mount Vernon. After they had amicably adjusted the matter for which the meeting was held, it occurred to them that it would be a good thing if such meetings were held at regular intervals to discuss commercial problems of common interest to the two States, and the delegates returned home pledged to ask their respective legislatures to make provision for future meetings. The Maryland legislature not only consented to the proposal but suggested that delegates from Pennsylvania and Delaware be invited to join the conferences. In Virginia the legislature went a step farther. James Madison introduced a resolution in January, 1786, providing that all the States be asked to appoint commissioners to meet "at a time and place to be agreed upon, to take into consideration the trade of the United States, to examine the relative situations and trade of the said States; to consider how far an uniform system in their commercial regulations may be necessary to their common interest and permanent harmony. . . ."

Several States accepted the suggestion contained in Madison's resolution, and in September, 1786, a commercial convention assembled at Annapolis. Georgia and South Carolina sent no delegates and none came from New England. The legislatures of Massachusetts and Rhode Island appointed commissioners but they did not reach Annapolis before the meeting ended. The convention did not last long and its only action of importance was to submit a report, drawn up by Alexander Hamilton of New York, recommending that a meeting of delegates from all the States be held in Philadelphia in 1787 "to

take into consideration the situation of the United States, to devise such further provisions as shall appear to them necessary to render the Constitution of the Federal Government adequate to the exigencies of the Union. . . ." Thus out of the commercial difficulties and economic needs



Independence Hall, Philadelphia

of the country came the call for a new and better form of government. On February 21, 1787, the Congress resolved that a convention be held in Philadelphia in May for the purpose of revising the Articles of Confederation.

All the States except Rhode Island sent delegates to the convention and it assembled at the appointed time.

The Constitution. The constitutional convention sat through the hot summer months, completing its work in September. Its primary purpose was to draw up a new instrument of government, providing for an organization with power to regulate the commerce and maintain the credit of the nation, and to manage external relations. Defining the powers of the new government and creating the machinery to carry these powers into effect were matters of no little difficulty because of the rivalries and conflicting interests of the States. The small States were afraid that the large States would be given too much power; the large States did not want to be dictated to by States inferior in wealth and population. The commercial States of the North wanted Congress to have power to protect shipping and trading interests; the agricultural States of the South were opposed to giving Congress such power because they feared the taxation of exports and high freight charges. The Southern States did not want Congress to have the power to prohibit the slave trade or power to tax it out of existence. They denied the negroes the right to vote but they wanted them counted in the apportionment of representatives. With such wide divergence of interests, agreement could be reached only by compromise. In presenting the new Constitution to the Congress, Washington wrote, "Individuals entering into society must give up a share of liberty to preserve the rest. . . . It is at all times difficult to draw with precision the line between those rights which must be surrendered and those which may be reserved; and on the present occasion this difficulty was increased by a difference among the several States as to their situation, extent, habits and particular interests."

From the standpoint of economic history the most im-

portant features of the Constitution were those defining the powers of the National and of the State Governments with respect to commerce, industry and finance. Congress was given power "to lay and collect taxes, duties, imposts and excises, to pay the debts and provide for the common defense and general welfare of the United States"; "to borrow money on the credit of the United States"; "to regulate commerce with foreign nations and among the several States, and with the Indian tribes"; "to coin money, regulate the value thereof, and of foreign coins, and fix the standard of weights and measures"; "to establish post-offices and post-roads"; to maintain copyrights and patents; to provide for the punishment of counterfeiters; to make uniform bankruptcy laws. On the other hand, Congress was forbidden to prohibit the slave trade before 1808 or to lay a tax on imported slaves exceeding ten dollars a head; to levy duties on exports; to give preference to the ports of one State over those of another; to lay direct taxes unless in proportion to the population. The power to negotiate treaties was vested exclusively in the President and the Senate.

The States were forbidden to coin money; to emit bills of credit; to make anything but gold and silver coin a legal tender; to pass any law impairing the obligation of contracts; to lay tonnage duties or duties on exports and imports without the consent of Congress; to enter into any compact or agreement with another State or with a foreign power without the consent of Congress.

The convention voted that special conventions should be called in the several States to deliberate upon the question of ratifying the new Constitution, and in the final article of the document it was most wisely provided that ratification by nine States should be sufficient to establish the Constitution for those nine.

The Congress of the Confederation quickly voted that

the Constitution should be submitted to the States, and the State legislatures called conventions to take up the question of ratification. In many conventions there were long and bitter conflicts, the new Constitution being opposed by many men of unquestioned ability and patriotism. In several States earnest efforts were made to accompany the resolutions of ratification with amendments and reservations, but these efforts were finally unsuccessful. New Hampshire was the ninth state to ratify, in June, 1788, Virginia and New York being respectively tenth and eleventh. North Carolina did not ratify until November, 1789, and Rhode Island held back until May, 1790. On September 13, 1788, the Congress of the Confederation resolved that the new Constitution had been ratified and directed that elections of new federal officers should take place, fixing the first Wednesday in the following March as the date when the new Government should go into operation.

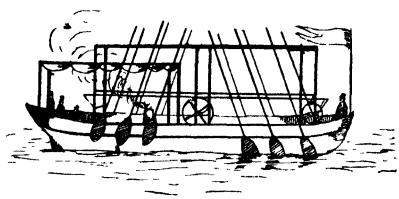
The Revival of Prosperity. Many months before the Constitution was ratified and the new Government established, the industrial and commercial condition of the United States took a distinct turn for the better. The crisis of 1785–86 was of a kind from which a nation can easily recover. There had been no great decline in production nor great destruction of wealth. The depression was due primarily to the extravagant purchase of foreign goods on credit by American merchants, who passed the goods on to their customers, also on credit. The exportaiton of specie having caused a sharp drop in prices, when creditors pressed for what was due, debtors were unable to pay. There were no banks or other credit agencies to which debtors could go for temporary relief. They had to suffer because they had formed an incorrect judgment of their capacity to pay. The only methods by which business could be restored to a normal state was

by decreasing purchases of foreign goods and by increasing, if possible, the production and export of domestic goods. In this way debts could be paid off, specie would come into circulation, prices would rise, and business become normal.

The people were compelled to reduce their purchases of foreign goods because they had almost exhausted their credit. The imports from England in 1786 amounted in value to £1,603,465, less than one-half the amount in 1784. In 1787, they were slightly in excess of £2,000,000 in value, and in the following year somewhat less than that amount. The imports from other countries doubtless declined in similar fashion. On the other hand, the people were able to increase their exports. Their sales to Great Britain advanced in value from £749,345 in 1784 to £1,023,789 in 1788, and their exports to other parts of the world increased even more rapidly. They sold more goods to the Netherlands, Denmark and Prussia, and opened up new markets in Sweden and Russia. In 1783, a New York ship, the *Empress of China*, sailed for Canton, the first vessel of the United States to go to China. It returned to New York in 1785. Merchants of Salem and Boston began trading with the Orient during this period, and the American flag became a familiar sight in the seaports of the Far East. Out of forty-six ships lying in the harbor of Canton on one occasion in 1789, eighteen were American. But what was even better for the United States than these new branches of trade was the almost complete recovery of the West Indian commerce.

The planters of the West Indies did not approve of the exclusion of American ships and food products from their markets. During the seven years following 1780 several terrific hurricanes swept over the West Indies causing much destruction of growing crops and other property, and seriously limiting the domestic food sup-

ply. Because the British government insisted that only British ships should be permitted to carry food and other supplies to her colonies, fifteen thousand negro slaves in Jamaica died of famine or of diseases caused by insufficient food. There were many deaths from starvation in the other islands. The protests of the indignant French planters caused the government of France, in 1784, to open a number of French West Indian ports to American ships of less than seventy tons. The Spanish and English colonists proceeded to connive with American merchants and shipowners to evade the regulations of Spain and Great Britain. American vessels carried cargoes of fish and flour to St. Eustatia and St. Thomas, whence they



Fitch's Second Steamboat

were smuggled into the Spanish and British islands. The chief method of evasion was for the American vessels to carry forged Spanish and British registers. In British ports the vessels were British, in Spanish ports they were Spanish. British naval officers endeavored to put an end to these fraudulent practices but they could do nothing without the coöperation of the British customs officials in the islands. Since these officials were willing to encourage American trade and even supplied most of the false registers, the naval force received little help from them. By 1788 the West Indian trade of the United States was as large as ever and the New England fisheries, which were dependent chiefly upon this commerce, were

restored to their former prosperous condition. There was even a substantial revival of trade to the ports of southern Europe, protection of American vessels from the Barbary pirates being secured by papers forged to show British registry.

The restoration of the export trade was accompanied by an expansion of agriculture, shipbuilding and manufactures. People paid off their debts and business activity resumed its normal condition. New manufacturing industries were established in the towns of Pennsylvania, New York and New England. State legislatures and private societies sought to encourage invention and in-



Fitch's Third Steamboat

dustry by offering prizes and bounties for new products and new methods of production. A number of people began to experiment with the steam engine, which for nearly half a century the English had been gradually applying to many industrial operations in place of water power. Between 1785 and 1790 John Fitch built three steamboats and operated them on the Delaware River near Philadelphia, though none of them was near enough to mechanical perfection to be commercially successful. The return of prosperity and the general increase of wealth were indicated by the fact that in 1789 the people were able to buy merchandise of England of a value of £2,525,-298.

Western Expansion. Notwithstanding the stubborn attitude of Spain with regard to the navigation of the Mississippi, the settlement of the West continued. Not only did the population of Tennessee, Kentucky and Western Pennsylvania increase steadily, but emigrants began to enter the lands in the great public domain north of the Ohio River. In 1784 a treaty with the Indians opened the southern part of this territory to occupation by white settlers, and the following year a survey of the region was begun. The land was mapped out into congressional townships six miles square, each one divided into thirty-six sections of six hundred and forty acres each. These sections the Congress offered for sale. At the request of a group of New England men who contemplated emigration to the Ohio country, the Congress enacted the famous Ordinance of 1787 for the government of the Northwest Territory. The ordinance guaranteed representative government to the people who should settle the territory and stipulated that the region should eventually be divided into not less than three nor more than five States which should be admitted to the Union on equal terms with existing States. Slavery was forever excluded from the territory, the inhabitants were to have freedom of religion, one section of land in every township was set aside for a public school system.

Shortly after the enactment of the ordinance the Ohio Company, an organization made up chiefly of officers of the Continental army, purchased one and a half million acres of land in the Muskingum valley, and immediately sent out a small group of settlers who founded the town of Marietta. Members of the Miami Company to which Congress sold a million acres between the Little and Great Miami Rivers, founded thc city of Cincinnati. The new settlements along the Ohio met with the same difficulty which injured the prosperity of all the Americans west of

the mountains; they could not take their heavy agricultural products to market. Large numbers of farmers solved this difficulty in part by converting their corn into whisky, which, because of its smaller bulk, could be carried on packhorses to eastern cities. There was much dissatisfaction however on account of the closing of the Mississippi. For a brief period in 1789 the authorities in New Orleans opened the river to the flatboat trade, but only long enough to show the Westerners how much they were losing by not having the right of free navigation at all times.

Economic Conditions in 1789. Except in the Western communities the people of the United States were exceedingly prosperous in 1789. The business crisis and the political crisis had been safely passed. The new Government came into existence under the most favorable conditions and its success was assured from the beginning. Nobody understood the situation better than Washington, who wrote to Lafayette in 1788,

> "I expect that many blessings will be attributed to our new government, which are now taking rise from that industry and frugality, into the practice of which the people have been forced from necessity. I really believe, that there never was so much labor and economy to be found before in the country as at the present moment. If they persist in the habits they are acquiring, the good effects will soon be distinguishable. When the people shall find themselves secure under an energetic government, when foreign nations shall be disposed to give us equal advantages in commerce from dread of retaliation, when the burdens of war shall be in a manner done away by the sale of western lands, when the seeds of happiness which are sown here shall begin to expand themselves, and when every one, under his own vine and fig tree, shall begin to taste the fruits of freedom, then all these blessings (for all these blessings will come) will be referred to the fostering influence

of the new government, whereas many causes will have conspired to produce them. . . .''

Questions and Topics

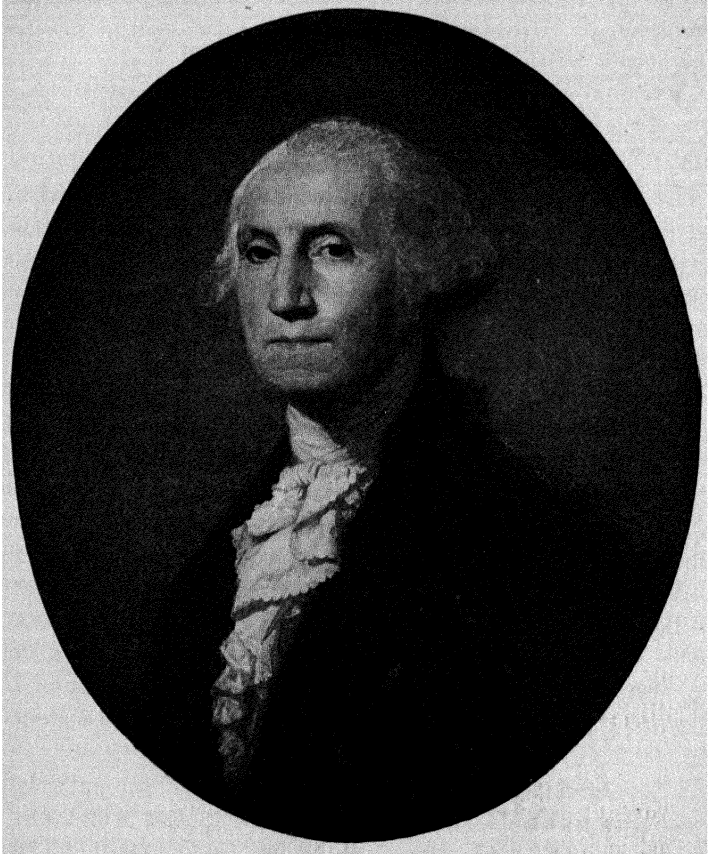
1. Outline the economic situation in one State previous to the Annapolis Convention and tell what it lost or gained by the adoption of the Constitution.
2. What do you think would have happened to the States if no strong centralized government had been established?
3. Would a nation be more or less prosperous if it could furnish all its own products and neither export nor import anything? Why?
4. Make a list of all the causes that tended to discourage emigration to the Western lands after 1763.
5. Why were the various States more jealous and quarrelsome at the period after the Revolution than they are now?

CHAPTER X

THE NEW GOVERNMENT

The New Government Organized. In accordance with the directions of the Congress of the Confederation, ten States proceeded to choose the presidential electors, senators and representatives provided for in the Constitution. New York took no part in the election of the first officers of the Federal Government because the two houses of the legislature could not agree upon a method of election. Though March 4, 1789, was the date set for the new Government to begin its work, the members of Congress were so slow in reaching New York City that it was not until April 6 that quorums of both houses were assembled. On that day the electoral vote was counted and a messenger despatched to Mount Vernon to give formal notification to Washington that he had been the unanimous choice of the electors for the presidency. After a triumphal journey to New York, Washington assumed office on April 30, taking the oath on the balcony of Federal Hall in Wall Street.

It was necessary for Congress to establish an entirely new organization to undertake the many duties which the Constitution imposed upon the Federal Government. The old Congress had possessed few powers of importance, and with the exception of a small diplomatic and consular service and the Post-office, it left virtually no official machinery. Congress soon created three important executive departments, the State, War and Treasury Departments. It provided for the organization of the Supreme Court, deciding that the court should consist of one Chief



G. Washington

Justice and five Associate Justices; it established a number of inferior Federal courts and authorized the appointment of an Attorney-General to assist the president and the courts in enforcing Federal laws.

National Revenues. The first important care of Congress was to get money to meet the expenses of government and to pay off the debts inherited from the Confederation. Exercising its constitutional powers of taxation, Congress enacted a law July 4, 1789, levying duties on imports. Specific or ad valorem duties were placed upon a large number of articles, among which were salt, sugar, molasses, tea, coffee, iron and manufactures of cotton, wool and glass. Though intended primarily as a revenue measure, this first tariff act was designed also to give encouragement to the manufacturing industries of the United States, but since the highest duty amounted to less than ten per cent of the value of the taxed article it cannot be said that the tariff was "protective" in the modern sense of the word. The revenues under this law were not large enough to meet the needs of Congress and the duties were increased in 1790, 1792 and 1794. Congress also imposed tonnage taxes upon ships which entered the harbors of the United States.

In the first tariff law and in the law establishing tonnage duties Congress endeavored to protect the shipping industry. The tariff law provided for a reduction of ten per cent in import duties when the taxed goods were imported in American ships. A special discrimination was made in connection with the tea trade, tea imported directly from China in American vessels being taxed from six to twenty cents a pound, that imported in American vessels from Europe from eight to twenty-six cents a pound, that imported in foreign vessels from fifteen to forty-five cents a pound. Tonnage taxes on vessels built

and owned in the United States amounted to but six cents a ton, on vessels built in the United States and owned by foreigners the tax was thirty cents a ton, and on vessels which were foreign in both construction and ownership fifty cents a ton. Though foreign vessels were not excluded from the coastwise trade of the United States, they were charged a tax of fifty cents a ton each time they entered an American port, while American vessels in the coasting trade were required to pay a duty of six cents a ton once a year. Discriminating tariff and tonnage duties of this nature were continued for several years. They did not give much help to American shipping, however, because foreign nations discriminated in favor of their vessels in the same manner. What a vessel gained in home ports through low duties it lost because of high duties in foreign ports. American vessels would frequently sail for foreign ports without cargo, and foreign vessels would come to American ports without cargo to avoid the excessive tariff duties. This practice was uneconomical and served only to make freight rates higher than they might otherwise have been. Congress protected the shipbuilding industry by permitting only vessels built in the United States to be registered under the American flag. This provision of our shipping laws remained unchanged till 1912.

The collection of the tonnage taxes and import duties was the work of the Treasury Department. Early in July, 1789, Congress enacted a law establishing "customs districts" in the various States, naming "ports of entry" at which goods should be entered for the payment of duties, and authorizing the appointment of customs officials who should undertake the actual work of carrying out the provisions of the revenue and shipping laws. Early in August the customs force was fully organized. In 1791, Congress passed a law imposing excise taxes upon spirituous liquors,

and the Treasury Department established an internal revenue service to collect these taxes.

National Credit. Washington chose Alexander Hamilton as his Secretary of the Treasury. Hamilton worked earnestly to put the finances of the National Government upon a sound basis. He induced Congress to authorize the issue of six per cent government "stock" or bonds, to be given in exchange for the outstanding obligations of the United States. He also succeeded in persuading Congress to enact a law in 1790 providing that the Federal Government should assume the debts of the States. There was much opposition to this measure, particularly from those States which had already paid off a large portion of their Revolutionary War debts, but Hamilton won over some Southern opponents to his plan by effecting an arrangement for the location of the permanent capital of the country on the bank of the Potomac River. The total debt of the nation after Hamilton's program was carried out was $75,000,000. Before his funding scheme was adopted, the interest bearing obligations of the United States were selling for about one-fourth of their nominal value. With the receipts from customs duties and other taxes the Treasury began to meet promptly the interest payments on the new bonds. They immediately began to rise in value, and within two years were selling at par. Hamilton had successfully established the credit of the Government both at home and abroad.

The United States Bank. Another important feature of Hamilton's financial policy was the establishment of a national bank. At the time of the adoption of the Constitution there were only three banks in the United States, the Bank of North America in Philadelphia, the Bank of Massachusetts in Boston, and the Bank of New York. The Bank of North America had been chartered by the Con-

gress of the Confederation in 1781, but because some doubt existed as to the right of the Congress to charter a bank, the directors secured an additional charter from the State of Pennsylvania. This bank gave great help to Robert Morris in the management of the finances of the Government during the closing years of the Revolution, but after the war its connection with the Government ended.

Hamilton desired to create a strong financial institution which could make loans to the Government in time of emergency and could act as a fiscal agent, aiding in the collection of revenues and in the disbursement of public funds. He thought such a bank would be of great benefit to business. It would afford an opportunity for safe investment, it would help business men in their commercial transactions, and it would issue notes to be used as currency. The law authorizing a bank such as Hamilton suggested was passed early in 1791. The charter provided that the bank should be capitalized for $10,000,000. Of this amount the government might subscribe $2,000,000, and private investors $8,000,000, one-fourth in specie and three-fourths in Government bonds. The notes of the bank were to be receivable for taxes as long as the notes were redeemable in specie at the bank. The amount of notes which the bank might issue was limited to the amount of its capital stock. The Secretary of the Treasury was authorized to inspect the bank's affairs at any time and to require reports from its officers. The bank was permitted to establish branches wherever the directors thought it advisable.

The stock of the new Bank was oversubscribed within two hours after the subscription books were opened. The Bank started business in Philadelphia in December, 1791, and from the beginning it was a great success. Since the Bank's stock was paid for partly with Government bonds the rising credit of the Government strengthened the Bank, and the prosperity of the Bank in turn aided in the main-

tenance of Government credit. The Treasury kept about two-thirds of the public money on deposit with the Bank, and employed it regularly as a fiscal agent. The managers of the Bank were conservative in granting loans and the institution had no difficulty whatever in redeeming its notes and other obligations in specie. It refused to receive notes of non-specie-paying banks, thereby compelling all banks established by the States to follow conservative and honest methods of banking. Commerce and industry were quickened by the creation of a safe and reliable currency, and business men everywhere gave their earnest support to the Bank and to the Government which established it.

Currency and Coinage. One effect of the new Bank was the substitution of dollars and cents for pounds, shillings and pence as the standard of value in exchanges and in commercial accounts. Though the Congress of the Confederation had issued bills of credit promising the payment of Spanish milled dollars and had later formally adopted the dollar as the monetary unit of the country, people had continued to use English currency as a standard. Washington kept his accounts during the Revolutionary war in terms of English currency, calculating the value of the continental bills in English money according to the prevailing scale of depreciation. Virtually all the coins in the country before 1794 were foreign coins. Their value, which depended upon the amount of metal which they contained, was stated in terms of English money. When the notes of the Bank began to circulate freely, people gradually adopted the dollar as the unit of their business transactions, though there was no change in the metallic currency of the nation.

In 1792 Congress passed the first coinage act. The valuation of the Spanish milled dollar was 24.75 grains of gold, and this was made the value of the American dollar. Since one grain of gold was thought to be equivalent in value to fifteen grains of silver the coinage act provided that the

silver dollar should contain 15×24.75 or 371.25 grains of pure silver. Gold and silver were to be coined freely at this ratio of 15 to 1. The half-dollar was to contain one-half as much pure silver as the dollar and smaller silver coins were likewise to be of proportionate weight. Congress decided that until the new national coinage was available certain foreign coins already common should be legal tender according to the weight of metal in them.

Though the mint began to coin silver in 1794 and gold in 1795, it failed to provide the country with a new metallic currency. Silver was slightly overvalued. One grain of gold was the equivalent of fifteen grains of silver in United States coin, but in the bullion market it was equivalent to 15.47 grains of silver. In other words people in the United States could exchange one hundred dollars in silver coin for one hundred dollars in gold coin, and exchange the bullion in the gold coin for silver bullion enough to make 103.13 dollars. Under such conditions gold coins were exported as fast as they came from the mint, and the only domestic coins were of silver.

The first silver dollars coined, though less in weight than new Spanish milled dollars, were accepted in West India trade at the value of the Spanish dollars. This caused merchants to export the American dollars and exchange them for Spanish dollars, which were brought home, melted, and recoined into American dollars, a profit of about one per cent being made on such a transaction. This process could not have lasted long, but since the mint was working for the bullion merchants without pay and was not giving the country a supply of silver dollars for home use, the coinage of dollars was ordered to be stopped in 1806. Until the coinage system was ordered changed in 1834, the only domestic coins in circulation were the coins of small denomination. Since the number minted was not large enough to meet the needs of trade the country continued

to use the silver and copper coins of foreign countries.

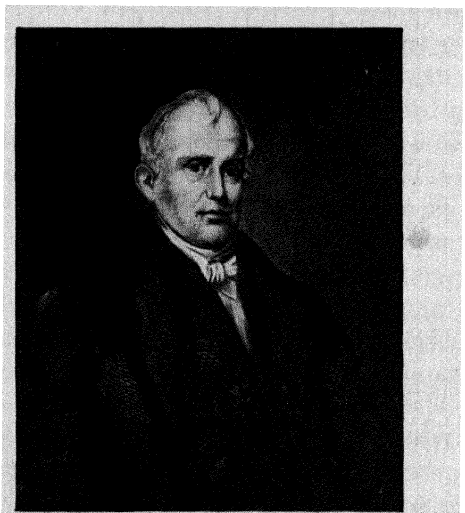
The Patent Law. Another law which Congress enacted for the encouragement and protection of individual enterprise was the patent law of 1790, which secured to the inventor of "any useful art, manufacture, engine, machine, or device, or any improvement therein not before known or used" an exclusive monopoly of sale for a term of fourteen years. It was not long before American inventors were seeking the protection of this law.

A Prosperous Nation. While Congress was providing for the organization of the new Government and adopting measures for the encouragement of industry and commerce, the nation as a whole was vigorously prosperous. Throughout Washington's first administration business was unusually good, and the people rallied to the support of the new Government with an increasing measure of confidence and respect. Two events of singular importance occurred during this period. They marked the beginning of an economic revolution in the United States. One was the introduction of the "factory system," the other was the invention of the cotton gin.

The Industrial Revolution. During the latter part of the eighteenth and the early years of the nineteenth century, the industry of the civilized world underwent a profound change. This change was caused by two things, the application of machinery to manufacturing processes and the use of steam as a source of power. Machines began to perform a part of the work which had previously been accomplished only by human hands; steam engines were used to drive the machines employed in manufacturing and to provide the power for transportation on water and on land. The great change which the use of steam-driven machinery brought about in industry has been termed the "industrial revolution."

One of the first important events of the industrial revo-

lution occurred in 1767 when James Hargreaves, an English weaver, invented the spinning-jenny. Hargreaves found it difficult to obtain from the spinners in his neighborhood enough yarn to keep his loom going. The old-fashioned spinning wheel drove only one spindle; he made a machine to drive eight spindles at once. Two years after the invention of the spinning-jenny, Richard Arkwright invented a "drawing-frame" or "throstle" which sup-



Samuel Slater

From Hunt's Lives of American Merchants

planted the hand in "drawing out" the carded cotton or wool before it was spun. A few years later Samuel Crompton combined the invention of Hargreaves and Arkwright into the "mule-spinner," a machine which carried a large number of spindles and did the work of drawing, spinning and winding. The process of carding cotton had meanwhile been greatly improved, and yarn was produced much more rapidly than the weavers could use it. This difficulty

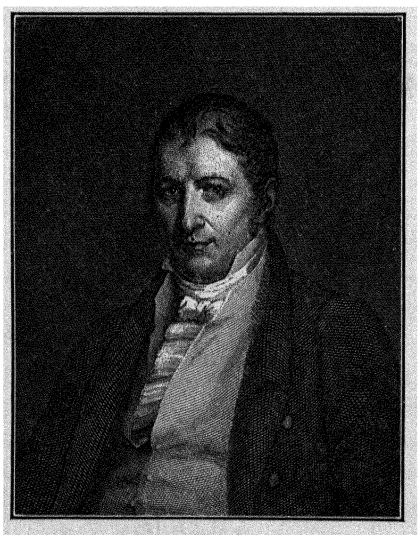
was solved in 1785 when Edmund Cartwright invented the power-loom to take the place of the hand-loom so long used by English weavers.

The invention of power-driven machinery made it necessary to transfer the spinning and weaving industries from workmen's homes to factories. The old domestic system of industry, in which the worker owned all his tools and often bought his own raw materials and marketed the product of his industry, came to an end, to be replaced by the "factory system," in which raw materials, tools and finished products were owned by capitalists, and the workmen labored for daily wages. At first the new textile machinery was operated entirely by water power, but by the close of the eighteenth century the stationary steam-engine was sufficiently developed to afford a reliable and economical source of power in numerous English factories.

The new textile machinery was not introduced in the United States until several years after its invention. The British government would permit neither drawings nor models of the new devices to be taken from the country. In 1789 Samuel Slater, who had served as an apprentice under Richard Arkwright's partner, emigrated to America. The following year, with the aid of American capital, he built a cotton mill, to be operated by water power, at Pawtucket, Rhode Island, constructing entirely from memory the machinery for carding, roving and spinning. This was the first American factory for the manufacture of cotton yarn.

The Cotton Gin. The invention of spinning and weaving machinery in England resulted in a greatly increased production of textiles, which in turn created an urgent demand for greater and greater supplies of raw materials. In 1775 British cotton manufacturers used less than five million pounds of cotton; in 1786 they used twenty million pounds. Three-fourths of this supply was imported from

the West Indies and nearly all the remainder from Egypt. Only a few thousand pounds were imported from the United States; cotton was not yet an important export of this country. However, the increasing demand for cotton served to arouse the interest of southern plantation owners, and a number of them began to raise it on a more extensive scale. In 1792 the exports were about 150,000 pounds and in 1793 almost 500,000 pounds. While cotton could be easily raised in the South, it was not a highly



profitable product because of the labor it took to separate the fiber from the seeds. A machine was needed to accomplish this work before cotton culture could become profitable.

The need of such a machine was called to the attention of Eli Whitney, a graduate of Yale College, who went to Georgia in 1792 to secure a position as a school-teacher, and Whitney devised the cotton gin. In his model the teeth of

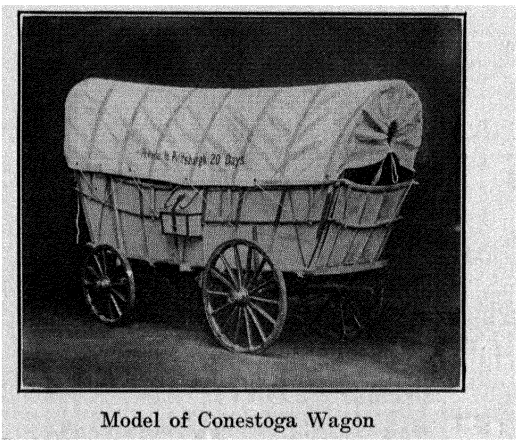
revolving circular saws pulled the cotton fiber through a wire grating the openings of which were too small to permit the seeds to pass. Brushes were arranged to remove the cotton fiber from the saw teeth. This contrivance, operated by a man and a horse, could clean more cotton in a day than three hundred men could clean by hand. Before Whitney could obtain a patent a large number of gins were put into operation in Georgia and South Carolina, and after the patent was granted he failed to secure any royalties on the invention. The legislature of South Carolina gave Whitney $50,000, nearly all of which he lost in expensive litigation over patent rights.

Though the cotton gin earned nothing for its inventor, it made millions for the Southern planters, and completely transformed Southern industry. In 1795 more than six million pounds of cotton were exported, and five years later the exports amounted to eighteen million pounds. Within fifteen years after the cotton gin was invented, cotton became the leading export of the United States. One effect of cotton culture was to give renewed strength to the institution of negro slavery. Cotton culture created a demand for cheap, unskilled labor, and in the Southern States all thought of abolishing slavery vanished.

Transportation Improvements. One indication of the advancing prosperity of the nation during the early years of the new Government was the general interest in the improvement of transportation facilities. The improvements of greatest importance, which were completed at this time, were a number of turnpikes, constructed in the New England and the Middle Atlantic States. These turnpikes were improved highways built by private corporations. State and local governments were yet unable to raise by taxation sufficient money to build needed highways, but State legislatures readily gave charters to corporations, authorizing them to construct roads and charge

tolls for their use. At the points where tolls were collected long poles armed with sharp pikes were mounted on posts in such a manner that they could be swung across the highway. From these poles the roads took their names.

The first turnpike company of importance was one chartered by the Pennsylvania legislature in 1792 to build an improved road between Philadelphia and Lancaster. The latter city, at that time, was the largest city in the United States not situated on a navigable waterway. It had a large trade with Philadelphia over a road which frequently



Model of Conestoga Wagon

Courtesy of U. S. National Museum.

became impassable. The Lancaster turnpike was completed in 1794. Lancaster Avenue, Philadelphia, which joins Market Street a short distance west of the Schuylkill River, is a part of the old Lancaster turnpike. The charter named the tolls which the company might charge for the use of its road. For every space of ten miles the tolls for a score of sheep or of hogs were one-eighth of a dollar, for a score of cattle one-fourth of a dollar; for a horse and rider one-sixteenth of a dollar; for a two-horse carriage one-fourth of a dollar; for wagons the amount varied according to the

width of wheels and number of horses. The traffic on the new highway was large from the beginning and the stockholders of the company found their investment a most profitable one. Individuals in several States formed similar corporations, and within a few years a number of improved toll-roads were constructed, some of which still remain the property of private corporations, though most of them have long since been bought by State or local governments.

Improved highways offered a much better and even a cheaper means of transportation than the poor roads which they supplanted, but they could not solve the problem of transportation over long distances. As the population of the interior districts increased, the transportation question became more and more pressing, and in several States a beginning was made in the construction of artificial waterways. In 1792 the New York legislature chartered two corporations, the Western and the Northern Inland Lock and Navigation Companies, the former being authorized to provide a navigable waterway from the Hudson River to Seneca Lake and Lake Ontario, and the latter to open communication with Lake Champlain. The Western Company soon began work and by building locks and canals at Little Falls and Fort Stanwix (Rome) succeeded, by 1797, in establishing a water route through the Mohawk Valley west of Schenectady. The Massachusetts legislature chartered a company in 1793 to build a canal from Boston to the Merrimac River. In 1794 the Dismal Swamp Canal was completed between Albemarle Sound and Chesapeake Bay. None of these early waterways was of great importance. There was not yet sufficient private capital in the country for large improvements, and the Federal and State governments were not yet ready to undertake the work.

Isolation of the West; the Whisky Rebellion. While the people living on the Atlantic coast were enjoying great

economic prosperity the people in the region west of the Appalachian highland continued to suffer because of the refusal of Spain to permit the free navigation of the Mississippi River. The first census of the United States, taken in 1790, showed that Kentucky had 75,000 and Tennessee 35,000 inhabitants. Several thousand people lived in the western counties of Pennsylvania, and a few hundred in Ohio. With no way of getting their agricultural produce to market the settlers of the West became each year more restless and discontented. When, in 1791, the new government laid a tax on whisky, which was the only form in which the Western farmers could take their grain to Eastern markets, the people became violently angry. In 1794 an armed rebellion was attempted in western Pennsylvania, and it became necessary for President Washington to send troops to restore order and enforce the law.

Opening of the Mississippi. Anxious to avoid a renewal of trouble, and understanding the difficulty of the Western farmers, the president began negotiations with Spain for the opening of the river. Because of unsettled conditions in Europe, the King of Spain was anxious to establish friendly relations with America, and in October, 1795, a treaty was signed in which the object of the American Government was attained. The people of the United States received the right of free navigation of the Mississippi, and they also obtained the "right of deposit" at New Orleans. By this right the Western farmers were permitted to land their products at the Spanish port and ship them to other markets without the payment of duties to the Spanish authorities. The treaty provided that this right of deposit should be given at New Orleans for at least three years, and if not continued at that port an "equivalent establishment" would be assigned on another part of the banks of the river.

The negotiation of this treaty was hailed with much

rejoicing in Tennessee, Kentucky, Ohio and Pennsylvania. Fleets of flat-boats loaded with flour, grain, tobacco, pork and whisky began to move down the river. The owner of a flat-boat would dispose of his cargo at New Orleans, break up the boat and sell the lumber, after which he would sail for Baltimore or Philadelphia. Here he would buy shoes, cotton cloth, farm and household equipment, rifles and gunpowder to be transported to his home across the mountains on packhorses or in strong wagons. The entire journey usually took six months. The opening of the river was a fortunate occurrence. It brought prosperity to the Western people and made them friends and supporters of the new Government.

In his annual message to Congress in December, 1795, President Washington was able to say,

> "Our agriculture, commerce, and manufactures prosper beyond former example. . . . Our population advances with a celerity which, exceeding the most sanguine calculations, proportionally augments our strength and resources, and guarantees our future security. Every part of the Union displays indications of rapid and various improvement; and with burthens so light as scarcely to be perceived, with resources fully adequate to our present exigencies, with government founded on genuine principles of rational liberty, and with mild and wholesome laws, is it too much to say that our country exhibits a spectacle of material happiness never surpassed, if ever equaled?"

Foreign Commerce. While agriculture and other economic activities were making progress there was a steady expansion of foreign trade. Exports of tobacco, breadstuffs, fish, skins, and lumber continued to flow in a steady stream to West Indies, European and Oriental markets; in exchange the United States received sugar, tea and manufactured goods. During the three years following 1789 American exports had an annual value of twenty million

dollars, and the value of imports was somewhat greater. A large part of this foreign trade was carried in American vessels; each year the merchant fleet under the American flag showed a gratifying increase in tonnage.

In 1793 war broke out between France and Great Britain. Until 1815, except for a brief interruption of one year, the entire continent of Europe was shaken with a series of conflicts known as the Napoleonic Wars. These struggles had a marked effect upon American commerce and in an attempt to defend the right of peaceful trade the United States finally became involved in another war with Great Britain. How this came about will be told in the following chapter.

Questions and Topics

1. How many Executive Departments have we at the present time? What are they?
2. Compare our sources of national revenue in 1789 with present sources.
3. What advantage had the American system of coinage over that used in England?
4. How did the industrial revolution affect the home?
5. Can you trace any relation between the industrial revolution and woman's present place in the industrial world?

CHAPTER XI

THE STRUGGLE FOR NEUTRALITY

Washington's Proclamation of Neutrality. When war began between France and Great Britain in 1793, many people in the United States felt that this country should enter the war on the side of France. Some thought that our Government was bound to take this course by the treaty of 1778 in which the United States guaranteed to France "forever, against all other powers" possession of the French colonies in America. On the other hand, many people thought that the treaty of 1778 had been abrogated because the French monarchy existing at the time the treaty was negotiated had been overthrown between 1789 and 1793, the king executed, and a French republic established. Though the members of Washington's cabinet were divided upon the question of the validity of the treaty of 1778, they united in advising the President that it would be wise for the United States to stay out of the war. President Washington issued a proclamation on April 22, 1793, announcing the impartial attitude of the United States Government in the European war, and admonished all citizens to govern their actions accordingly.

The French authorities were greatly displeased with Washington's attitude. They had confidently expected the United States to join France in the war and had sent over a special minister, "Citizen" Genet, to make arrangements for American coöperation. When the proclamation of neutrality was issued, Genet endeavored to stir up the people against Washington. His unwarranted action caused public opinion to turn against France.

Effect of Neutrality on American Commerce. The first effect of the neutral position of the United States was to stimulate the carrying trade of American ships. A large number of British vessels were withdrawn from the merchant marine to be devoted to naval service. The great superiority of the British navy made it virtually impossible for French merchant vessels to traverse the seas. The United States was the only neutral nation with a large tonnage of shipping, and American vessels were soon in demand everywhere. In a few years the transatlantic commerce between European countries and their American colonies was carried largely in American ships, and a large part of the carrying trade between European nations was conducted under the American flag.

In addition to stimulating the business of American shipping the war in Europe caused an increase of American exports. Many Europeans were transferred from industrial to military pursuits and the lessened production was reflected in a demand for American commodities. The exports of domestic products of the United States advanced in value from about $19,000,000 in 1792 to nearly $41,000,000 in 1796.

British and French Interference with American Commerce. Upon the beginning of the war both France and Great Britain adopted the customary policy of endeavoring to cripple the enemy's commerce. Such a policy involved not only the capture of enemy shipping but the prevention, if possible, of enemy commerce in neutral shipping. On May 9, 1793, French naval vessels were ordered to seize all neutral ships laden with grain, and on June 8, British ships received similar orders. In November orders were given to British naval commanders to stop all ships laden with French colonial products as well as all ships carrying provisions and supplies to French colonies, and to send such vessels to British ports, where they were con-

demned and sold. Under the first orders a number of cargoes of American grain were seized by British and French warships, and under Great Britain's second order a large number of American ships trading with French West Indian colonies were seized and confiscated by the British government.

The United States Government protested vigorously against these acts, claiming that neutral ships and cargoes bound for unblockaded ports in belligerent countries were not properly subject to seizure unless the cargoes consisted of contraband of war, and that grain was not contraband. The United States contended moreover that "free ships make free goods," and denied the right of a belligerent nation to confiscate enemy property found on neutral ships. Because of these protests Great Britain modified her orders January 8, 1794. She refused to accede to the principle that "free ships make free goods," and ordered the seizure of enemy property on neutral vessels. Orders were given to seize all vessels carrying contraband of war to French ports and all vessels bound for blockaded ports. Directions were likewise given to seize ships carrying cargoes from French colonies directly to Europe. This last order was a revival of the so-called "Rule of 1756," in which Great Britain had laid down the principle that if a European country excluded foreign vessels from its colonial trade in time of peace it could not legally open that trade to the ships of neutral nations in time of war. France had long followed the policy of confining trade between French colonies and the mother country to French ships. However, when France got into war with England, the French merchant marine was usually driven from the sea, and the only way for France to get the products of her colonies was to permit their transportation in foreign shipping. When the war broke out in 1793, American vessels immediately began to carry French colonial prod-

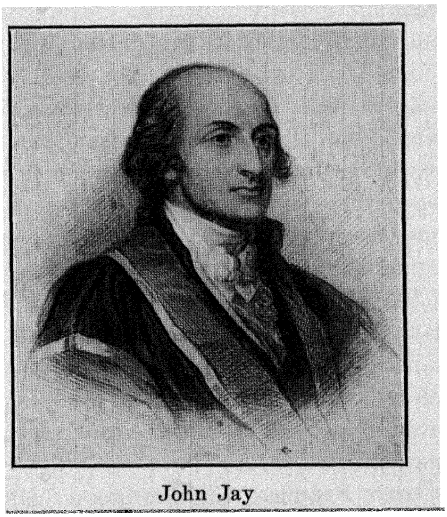
ucts to France. This practice Great Britain held to be illegal. The shipowners of the United States easily evaded the restrictions of the Rule of 1756, however, by the simple expedient of carrying French West India products to their home ports in the United States and then reëxporting them to European ports. Great Britain, for the time being, did not interfere with this practice.

Had the commercial restrictions contained in the British orders of January 8, 1794 been the only grievance of the United States against Great Britain, there would have been little trouble between the two nations. Unfortunately, however, Great Britain followed a course of conduct which was obviously designed to provoke resentment and anger in this country. She refused to surrender the military posts which she still occupied in the western territory of the United States; she persisted in her policy of excluding American vessels from her West Indian possessions; she refused to make reparation for the ships and cargoes illegally seized and confiscated; and she adopted the practice of "impressment," authorizing British naval commanders to search neutral ships and seize for naval duty any British seamen found on such ships. This practice of impressment resulted in the frequent search of American ships and on several occasions native American sailors were impressed into British naval service on the pretext that they were of British birth.

Early in 1794 it seemed for a time that the United States would declare war on Great Britain. President Washington decided, however, to make a last effort to preserve peace, and he sent Chief Justice John Jay to England to present the views of the United States Government and if possible to negotiate a treaty in which American rights would receive recognition.

The Jay Treaty. Jay succeeded in negotiating a treaty which was signed November 19, 1794. Great Britain

agreed to give up the western posts and pay for the property illegally confiscated during the preceding two years, while the United States was to settle British claims arising from American debts contracted before the Revolution and never paid. Great Britain refused to acknowledge that food and provisions were not contraband of war, but agreed that in case of their seizure as contraband they should not be confiscated but taken and paid for. The question of impressment was not mentioned in the treaty



John Jay

and no reference was made to the "Rule of 1756." Great Britain was determined to suppress direct trade in neutral ships between the French colonies and Europe, and she also desired to put a stop to the practice which American shipowners had been following of carrying French colonial products to the United States for reëxportation to Europe. To accomplish this purpose a bargain was placed in the twelfth article of the treaty providing that for the duration of the war Great Britain would admit American vessels of seventy tons or less to British West Indian ports

on the condition that no vessel of the United States should be permitted to carry molasses, sugar, coffee, or cotton "either from his Majesty's islands, or from the United States to any part of the world except the United States." The Senate indignantly refused to ratify this article of the treaty. It is difficult to understand how Jay came to negotiate such an agreement. It not only forbade American ships to engage in the reëxportation of the most important West Indian products to Europe, but it actually forbade American vessels to carry American cotton to Europe, and cotton was fast becoming the most important American export.

The Senate ratified the treaty with the exception of the twelfth article, but the treaty was highly unpopular. It pledged Great Britain to a belated recognition of a few of the obvious rights of the United States, but it contained no concession with respect to such controversial matters as the rights of enemy property on neutral ships; it did not bind Great Britain to give up the practice of impressment; and it did not open the ports in the British West Indies to American ships. For a few years, however, British naval vessels virtually ceased their depredations on American commerce, and danger of war with Great Britain was for the time being averted.

Trouble with France. The leaders of the French republic were greatly angered by the Jay treaty. French naval commanders redoubled their efforts to interfere with American trade and many American vessels were captured and condemned on the flimsiest pretexts. The United States protested and demanded reparation; but instead of replying to the demands of the American representatives sent to Paris, French agents requested large bribes before they would consent to the opening of negotiations. The American representatives indignantly withdrew, President Adams laid an account of their experiences before Congress,

and the country began to prepare for war against France. On July 7, 1798 American naval vessels were authorized to attack French cruisers. About this time Napoleon assumed control of the French government. He was not desirous of engaging in war with the United States, and at his request American representatives went to France and in 1800 negotiated a treaty in which it was agreed that France would thereafter respect the rights of American vessels.

Growth of American Commerce. Even in the midst of the controversies with France and Great Britain there was a steady and rapid expansion of American commerce. The exports of domestic products declined somewhat after 1796, but there was a marked advance in the exports of foreign merchandise, most of which consisted of West Indian products. The following table shows the development of the export trade and the growth of the American merchant marine engaged in foreign trade from 1793 to 1802:

Year	Domestic Exports	Foreign Exports	Tonnage of American Ships Engaged in Foreign Trade
1793	$24,000,000	$2,110,000	367,734
1794	26,500,000	6,526,000	438,863
1795	39,500,000	8,490,000	529,471
1796	40,764,000	26,300,000	576,733
1797	29,850,000	27,000,000	597,777
1798	28,527,000	33,000,000	603,376
1799	33,142,000	45,523,000	657,142
1800	31,142,000	39,130,000	667,107
1801	47,473,000	46,642,000	630,558
1802	36,708,000	35,775,000	557,760

In many of these years the exports of foreign products were greater in value than the exports of domestic merchandise. This reëxport trade was extremely profitable for American shipping and mercantile interests. The merchants and shipowners of New York City displayed the greatest activity in securing this lucrative trade for their port. Of the three largest cities of the United States, Boston, New York and Philadelphia, New York was most

favorably situated to handle the reëxport business, being closer than Boston to the West Indies and not a river port like Philadelphia. By 1800 New York had a commanding lead among American seaports, a lead which the city has never relinquished.

The Treaty of Amiens; the Renewal of the War. In March, 1802, the Treaty of Amiens was signed and Europe had a short period of peace. With the return of peace French and British merchant vessels resumed operations and the great carrying trade of American shipowners quickly declined. For the year ending September 30, 1803, the value of the exports of foreign goods from the United States was only $13,594,000, a little more than one-third what it had been the preceding year. Peace in Europe was, however, of short duration. The conflict between England and France was resumed in May, 1803, and within a short time almost the whole of Europe was again involved in war. The merchant vessels of the United States began once more to gather the rewards of neutrality. Exports of foreign merchandise reached the high total of $60,283,000 in 1806, and the American merchant fleet engaged in foreign trade grew to nearly 800,000 tons.

Suppression of the Barbary Pirates. During the years of expanding commerce following 1790, the United States had not been able to put an end to the attacks upon American vessels by the Barbary pirates. Following the custom of European nations. the Government had given large bribes to the rulers of Tripoli, Algiers, Tunis and Morocco to secure immunity for American shipping, but each payment to one ruler had caused the others to make new demands. Eventually American patience was exhausted, and in 1802 Congress declared war on Tripoli. Energetic action by our small but intrepid navy brought all the robbers to terms, and they were glad to agree—without receiving any bribes—to let American ships alone.

Napoleon and England. When the European war was resumed in 1803 it was apparent that there was to be a struggle to the finish between Napoleon and Great Britain. Napoleon had become master of France and he was ambitious to control all of Europe. England opposed his ambition and Napoleon knew that his dream of power could never be realized as long as England remained unconquered. The British government, on the other hand, realizing that the domination of Europe by Napoleon would endanger England, knew that England would be safe only when Napoleon's power was completely destroyed. Both parties to the struggle were willing to go to almost any length to obtain their ends. The rights of neutrals could be given scant consideration. Each power was ready to use every weapon at its command.

After war was declared Napoleon assembled a great army at Boulogne, with the intention of invading England. Had he been able to secure control of the English Channel for only a brief time, he might have carried out his design, but his fleet was blockaded in Cadiz by the superior forces of the British navy. When Austria and Russia joined with Great Britain early in 1805, Napoleon was compelled for the time being to abandon his plan of invading England; and when on October 21, his fleet was destroyed at the great battle of Trafalgar, the possibility of his landing a French army on the English shore forever vanished.

Napoleon quickly crushed Austria, the campaign culminating on December 21, 1805, with the French victory at Austerlitz. Prussia took the field against him the following year, but her military power was crushed at Jena on October 1, 1806. The following spring Napoleon overwhelmed the Russian forces at Friedland. He had conquered a peace on the continent, but he had not yet subdued his implacable foe across the English Channel.

England could not meet Napoleon on the land; Napoleon

could not cope with England on the sea. Each was desirous of destroying the other. Since military contest was impossible, both resorted to economic warfare. Each tried to destroy the other's commerce. England controlled the sea and endeavored to prevent ships from reaching French ports; Napoleon controlled virtually the entire continent of Europe and he tried to ruin England by excluding English goods from continental markets.

The British Orders in Council and Napoleon's "Decrees." It had long been apparent to English statesmen that France derived much strength from commerce with neutral nations, and it was decided that this neutral trade should be stopped. The best expression of the necessity for this action was given in a remarkable pamphlet written by James Stephen, a member of the House of Commons, and published in 1805 under the title, *War in Disguise; or the Frauds of Neutral Flags.* Stephen advocated the discontinuance of the policy followed after the ratification of the Jay treaty, urging the application of the "doctrine of continuous voyage" with respect to West Indian products reëxported from the United States to Europe. That is, this reëxport trade should be subjected to the "Rule of 1756" just as if the voyage from the West Indies to Europe had been continuous. British admiralty courts were already inclining toward this interpretation of the "Rule of 1756," as was shown in the condemnation of the American ship, *Essex,* though other issues were involved in that particular case which would have led to the condemnation of the ship without the application of the doctrine of continuous voyage.

Great Britain not only decided that the American reexport trade was illegal, but she took other measures to destroy French trade. On May 16, 1806, the British government issued Orders in Council declaring the coast of Europe blockaded from the mouth of the Elbe River to

the port of Brest. Thereafter all neutral vessels destined to ports along that part of the European coast, if captured by British vessels, were to be confiscated.

Napoleon began his attack on English commerce immediately after he had crushed Austria and Prussia. On November 21, 1806 he issued, from the captured capital of Prussia, the "Berlin Decree," in which he declared the British Isles to be blockaded, and announced the novel doctrine that enemy property on land should be subject to capture and confiscation.

In 1807 Great Britain extended her commercial warfare. Napoleon had subjugated a large part of the European continent. British merchants were suffering heavy losses because of the exclusion of British ships from continental ports and because of the seizure of British goods. In January Orders in Council were published declaring it to be illegal for a neutral vessel to engage in trade between ports unfriendly to Great Britain; on November 11 the final step was taken of forbidding neutral vessels to enter the ports of any European country with which Great Britain was at war or to enter ports from which British vessels were excluded, unless such neutral vessels should first touch at a British port and obtain permission to proceed.

Napoleon struck back December 17, 1807, with the "Milan Decree" in which he declared that all vessels touching at British ports or submitting to search by British naval authorities should be considered "denationalized" and subject to capture and confiscation wherever found. Napoleon by this time controlled virtually all the European coast except that of Russia and Turkey; he had an alliance with the Emperor of Russia, who had agreed to enforce the "continental system" against England. He was in a position to destroy English commerce if he could but hold firm.

The Policy of the United States. When it was heard

in the United States that Great Britain was contemplating the adoption of the "doctrine of continuous voyage" navigation and mercantile interests were deeply concerned. Efforts were made to induce Congress to bring pressure to bear upon Great Britain to forego any change in her former policy. In January, 1806 Andrew Gregg of Pennsylvania introduced a resolution in the House of Representatives designed to commit Congress to the enactment of a non-importation law against Great Britain. John Randolph of Virginia vigorously opposed the resolution and warmly defended Great Britain's attitude, saying "the liberties of the human race are threatened by a single power, more formidable than the coalesced world, to whose utmost ambition, vast as it is, the naval force of Great Britain forms the only obstacle." The resolution was not passed.

Had Great Britain adopted a conciliatory attitude towards the United States it is probable that she could have obtained our friendship and even our aid against the autocratic Napoleon. However, Great Britain chose to be offensive and arrogant. British naval vessels were stationed along the American coast to stop American ships and impress seamen. On April 18, 1806, Congress enacted a law which provided that after November 15, no manufactured goods should be imported from Great Britain or from British colonies. The law was in effect but a short time when it was suspended. President Jefferson sent James Monroe to London early in the year, and Monroe and William Pinkney negotiated a treaty with Great Britain, obtaining several important concessions. The treaty as a whole was unsatisfactory to Jefferson, however, and he refused to submit it to the Senate for consideration. On June 27, 1807, the United States was subjected to insult and outrage. As the American frigate *Chesapeake* was leaving Norfolk for the Mediterranean it was attacked and seized by the British frigate, *Leopard,* and four of her crew carried

away, three of whom were American citizens. Even after this event Jefferson refused to counsel war, confining his efforts to demanding apologies and reparation, and warning all armed British vessels out of American waters.

When the Orders in Council of November 1807 and the Milan Decree were published, American shipping interests were placed in a well-nigh unbearable situation. If a vessel stopped at a British port it was subject to capture and confiscation in any port of the European continent; if it endeavored to go to a port on the continent without securing permission in a British port it was subject to capture and confiscation by British authority. Napoleon declared it illegal for neutrals to trade with Great Britain; Great Britain declared it illegal for neutrals to trade directly with continental ports.

Embargo and Non-intercourse. Though realizing that the United States was being treated in a humiliating fashion, Jefferson was averse to going to war with either France or Great Britain. He endeavored to gain redress by other methods. Upon his advice, even before word of the Milan Decree had been received, Congress passed on December 22, 1807, the Embargo Act, which put an end to all foreign commerce of the United States. American vessels were forbidden to sail for foreign ports, and foreign vessels could depart from the United States only in ballast or with the cargo on board when the law was passed. It was thought that the total loss of American commerce would bring the French and British governments to terms.

Though the embargo caused serious losses in England and in France, it produced its most distressing results in the United States. The shipping business was destroyed, sailors were thrown out of employment, prices of agricultural products became so low that farmers were ruined. Efforts to evade the law caused the enactment of repressive measures which created violent resentment. In New

England, where the shipping and mercantile interests were strongest, the dissatisfaction with Jefferson's policy was so great that there was imminent danger of disruption of the Union.

Popular disapproval of the Embargo Act became so great that on March 1, 1809, it was repealed and in its place was substituted the Non-Intercourse Act which forbade all commercial intercourse with France and Great Britain and their possessions but restored the right of trade with the rest of the world. Under this law commerce revived. Little attention was paid to the fact that the law forbade trade with France and England, and American merchants traded regularly, either directly or indirectly, with both these countries. Napoleon insulted the United States in March, 1810, by confiscating all American vessels then in French harbors on the pretext that he wanted to help our Government enforce its non-intercourse law. This piece of hypocritical thievery brought several hundred thousand dollars into his treasury.

Efforts to induce Great Britain and France to withdraw their orders and decrees were without satisfactory result. Finally on May 1, 1810, Congress adopted a new plan, enacting the "Macon Bill No. 2," which repealed the Non-Intercourse Act but provided that if either France or Great Britain should withdraw her edicts, and if the other nation should not take similar action within three months, then the Non-Intercourse Act would be revived against the nation refusing to revoke its objectionable orders. Again Great Britain refused the opportunity to obtain the friendship and support of the United States. Napoleon informed President Madison that after November 1 the Berlin and Milan Decrees would not be enforced against the United States, provided the United States should cause Great Britain to respect American rights. Ignoring the conditional nature of Napoleon's offer Madison issued a procla-

mation on November 2, stating that the Berlin and Milan Decrees had been revoked. England refused to recall her Orders in Council on the ground that Napoleon's revocation of his decrees applied only to the United States and not to all neutral nations. In December Napoleon took advantage of the fact that his offer to withdraw the decrees had been conditional, and on the pretext that the United States had failed to obtain the repeal of the British Orders in Council, he confiscated about ten million dollars' worth of American ships and cargoes in French ports. His offer had been merely a trick to make further robbery possible.

The New Congress. In November, 1811, a new Congress assembled in Washington. It was composed largely of vigorous young men, who were intensely American in their views and who, unlike the statesmen hitherto in control of the political destinies of the United States, had had little or no foreign experience. They were American by birth, training and education, and they were ready to protect American rights. It would have been much better had they arrived on the scene somewhat earlier. Among these men were Henry Clay, who was elected Speaker of the House of Representatives though serving his first term in that body, John C. Calhoun, Langdon Cheves, and William Lowndes. These rising political leaders of the South and West were tired of the dilatory policies of Jefferson and Madison, and they insisted upon action. The grievances of the United States against both France and England were sufficient to justify war. England was chosen as the opponent chiefly because it was possible to fight England both on the sea and in Canada. Waging war on France would have been a difficult matter. As it turned out the opportune time for declaring war on either France or England had passed.

The Failure of the "Continental System." Napoleon's "continental system" was a powerful weapon, but he was

unable to enforce it long enough to destroy England. English manufactures had long been widely used on the European continent and people were unwilling to do without them. Even Napoleon managed to buy material for soldiers' uniforms from English sources. From Turkish ports and from the small island of Heligoland large quantities of English goods were smuggled into Europe. English vessels carried forged American registers to gain admission to ports which English ships were forbidden to enter.

Even with these violations of the continental system Napoleon might have succeeded in ruining English industry had he been able to keep the friendship of his continental allies. The Spanish people rose against him, however, and in 1811 his most powerful ally, Alexander of Russia, turned against him and refused longer to support the continental system. It was obvious that Napoleon's power was beginning to crumble. In 1812 his armies were overwhelmed in the disastrous Russian campaign.

When Napoleon's power began to wane, Great Britain became willing to promote friendly relations with the United States. She offered reparation for the "*Leopard-Chesapeake* affair," and finally on June 16, 1812, she withdrew the Orders in Council against which the United States had been so long protesting. Unfortunately there were no transatlantic cables or wireless telegraphy in those days; it usually took six weeks for news to be carried across the ocean. Two days after the Orders in Council were revoked Congress declared war.

The War of 1812. Coming when it did, the War of 1812 was an unfortunate occurrence. It began after the causes for it had virtually disappeared; it was so unpopular in New England that it almost led to secession; it caused enormous commercial losses; it was conducted with such incompetence as to cause much unnecessary loss, distress and humiliation; its only great battle on land, that

of New Orleans, was fought after the treaty of peace had been signed; and finally, the treaty made no reference to the issues which had been the fundamental cause of trouble—the rights of neutral nations in time of war.

A century later we were to learn again that a general European conflict inevitably results in interference with apparently established rights of neutrals, and that we cannot help becoming entangled in such a conflict; that the wise course is to base the choice of sides upon the moral issues involved in the struggle, without too much insistence upon commercial rights, which signify but little when the "liberties of the human race" are at stake.

Questions and Topics

1. Do you think America should have helped France in 1793 or remained neutral? Why?
2. In what sense did the Neutrality Proclamation become a part of the permanent policy of the United States?
3. Compare the commercial rights of neutral nations in 1800 with those of the present day.
4. Why may the war of 1812 be called a war of commercial origin?
5. What is the importance of foreign trade to any country at war?
6. Compare the causes and effects of the embargo act with the non-importation agreements of the colonists.

CHAPTER XII

INTERNAL CONDITIONS, 1795–1819

Agriculture and Foreign Trade the Chief Economic Interests Before 1807. Until 1807, when the Embargo Act was passed, agriculture and foreign trade were the most important branches of economic activity in the United States. Foreign markets for agricultural products were good because of the war in Europe, and the shipping and shipbuilding industries gave abundant opportunity for the investment of surplus capital. The New England fisheries continued to grow, but the time was at hand when the fishing industry could no longer be considered of great importance in comparison with the expanding industries on land.

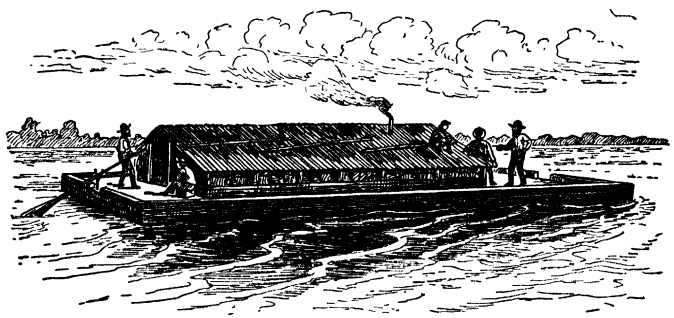
Exports of grain and flour increased in volume. Cotton culture in the South was steadily extended, the total production of cotton rising from 8,000,000 pounds in 1795 to 80,000,000 pounds in 1807. A few important improvements were made in agricultural implements. Thomas Jefferson designed a mold-board for plows which would give a minimum of resistance when the plow passed through the earth. In 1797 Charles Newbold of New Jersey took out a patent on an iron plow, but it was several years before plows of iron came into general use, the farmers claiming that the metal poisoned the soil. Other inventions of this period were the cradle for cutting grain and the fanning-mill for use in separating threshed grain from chaff.

Emigration to the West; Public Lands Policy. Though the prosperity of farmers in the East tended to check emigration to the West, the love of adventure and

the desire for greater opportunity tempted many people to try their lot on the frontier. The opening of the Mississippi River in 1795 gave Western farmers easy access to a market and they became more prosperous and contented. The population of Kentucky increased from 73,677 in 1790 to 220,955 in 1800, while that of Tennessee advanced from 35,061 to 105,602 in the same period. The growth of population in the Northwest Territory was not rapid before 1800 because the government did not sell land in smaller tracts than 640 acres, and the prices of Federal lands were somewhat higher than the prices charged in Kentucky and Tennessee and in Eastern States which had "back lands" to sell. In May, 1800, Congress enacted a law permitting the sale of lands on the instalment plan, at a minimum price of two dollars an acre, in tracts as small as 320 acres. This law, especially because of the credit feature, stimulated settlement. In 1803 the State of Ohio was admitted to the Union, the first of the "not less than three nor more than five States" promised in the Ordinance of 1787. In 1804 Congress made a further concession to prospective settlers by authorizing the sale of tracts of land as small as 160 acres.

Commerce of the West. The settlement of the West was accompanied by an expansion of internal trade. After the Whisky Rebellion many Western farmers turned to raising hogs and cattle. Large corn crops and an abundance of mast in the forests made stock raising a profitable business. Live stock furnished its own transportation to market. Large droves of hogs and cattle were driven across the mountains to Philadelphia and Baltimore, to be slaughtered for the foreign and domestic provision trade. The chief outlet for Western produce, however, was the Mississippi River. Flatboats loaded with wheat, corn, oats, flour, bacon, lard, whisky, tobacco and other farm products floated down to New Orleans in

increasing numbers each year. Little effort was made to send shipments up the river. Since it took thirty men more than three months to work a loaded flatboat from New Orleans to the mouth of the Ohio River it was cheaper for the Western farmers to obtain their cloth, shoes, tools, and hardware overland from Eastern cities. Though the roads across the mountains were poor, large "Conestoga" wagons, drawn by ten horses and capable of carrying two or three tons, regularly took loads of merchandise from Philadelphia, New York and Baltimore to Pittsburgh, the "Gateway of the West," to be distributed by boat among



Flat-boat on the Mississippi

the settlements down the river. Pittsburgh, by 1800, was a thriving manufacturing center with furnaces and mills working up the iron deposits discovered in nearby valleys into nails, kettles, and other kinds of ironware, and with boat-yards constructing flatboats and barges to be sold to emigrants on their way to the Western lands. As early as 1794 a regular passenger service was established between Pittsburgh and Cincinnati on "bullet-proof" keel-boats, armed with one-pounder guns for defense against Indians.

The Mississippi Closed; the Purchase of Louisiana. In October, 1802, without any warning whatever, the Spanish

Intendant of Louisiana announced that the Mississippi River was closed to American commerce. He refused to permit the flatboat owners from the United States to exercise the "right of deposit" at New Orleans, and, contrary to the provisions of the treaty of 1795, he did not assign another place on the banks of the river where this right might be exercised. The enraged Western farmers threatened to send an armed expedition to capture New Orleans. Trouble was averted when the Spanish government disavowed the action of the Intendant and ordered him to restore the privileges which he had taken away.

President Jefferson was greatly disturbed when the river was closed. In 1800 Spain ceded Louisiana to Napoleon, but the French did not take charge of the province. When Jefferson first learned of the cession, he expressed the fear that French occupation of New Orleans would give rise to trouble. Desirous of avoiding all difficulties, he sent James Monroe to France to negotiate for the purchase of New Orleans, and the French territory east of the Mississippi. Napoleon was preparing to renew his contest with England; he needed money, and he felt sure that if he retained Louisiana, England would take the province from him. He offered to sell the entire Louisiana province to the United States for $15,000,000 and his offer was accepted. Jefferson had not only secured undisputed control of the Mississippi, but he had almost doubled the territory of the United States. In 1804 two exploring expeditions penetrated the new territory, one led by Meriwether Lewis and William Clark, and the other by Zebulon M. Pike. The leaders of both expeditions brought back interesting accounts of the regions which they explored, but their stories received little attention. Nobody dreamed that it would be possible to settle and develop the great territory beyond the Mississippi. At best it could be used as a reservation for Indian tribes

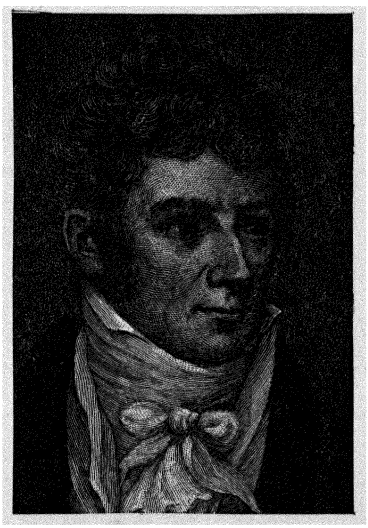
which it might be necessary to remove from the Northwest Territory.

The Transportation Problem. The problem of obtaining better means of transportation became more pressing as the settlement of the West continued. Private capitalists were not willing to undertake the work of constructing long highways to the West. It was suggested that the Federal government should undertake to build an improved road across the mountains. In 1802 when Congress enacted a law providing for the admission of Ohio to the Union it stipulated that one twentieth of the revenues obtained from the sale of public land in Ohio should be used to construct a road leading "to and through" the State. It was decided that the road should begin at Cumberland, Maryland, and following for part of the way the path of Braddock's Road, extend to Wheeling, Virginia. The first contract for construction of this highway was let in 1807; the road was opened to Wheeling in 1818.

Congress was desirous of doing more than constructing a road to the Ohio River. It wanted to undertake a complete program of internal improvements. On March 2, 1807, the Senate adopted a resolution requesting Albert Gallatin, the Secretary of the Treasury, to place before the Senate what information he could obtain concerning the conditions of transportation in the United States and the needs for the future. In an elaborate report submitted the following year, Gallatin described the transportation facilities of the United States and outlined a comprehensive plan of improvement. He calculated the cost of the various projects which he thought desirable and recommended that the Federal Government bear a large part of the construction expense. By the time the report was submitted the Embargo Act had caused such a diminution of Federal revenue that there were no funds in the Treasury; the country was deeply involved in the dis-

pute with France and England over neutral rights; and nothing could be done for the time being to follow out Gallatin's suggestions.

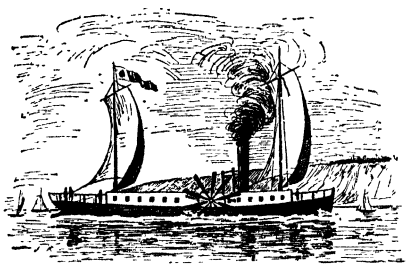
The Steamboat. While the transportation problem was being widely studied and discussed, Robert Fulton of New York built the *Clermont,* the first successful steamboat. Inventors had been striving for several years to use the power of the steam engine to drive a boat through the



water, and though several had met with a considerable degree of success, none had been able to produce a steamboat that was commercially practicable. Fulton solved the problem. In August, 1807, his boat steamed up the Hudson from New York to Albany in thirty-two hours. The advantages of the new means of transportation were perceived at once, and in a short time steamboats were operated on several eastern rivers. In 1811, Fulton built a steamboat for use on the Ohio River. It was thought at

first that a steamboat could not be built to stem the powerful current of the Mississippi, yet it was only six years after the first steamboat appeared on the Ohio that one was built which successfully made a trip from New Orleans to Louisville. Steam transportation by water was a complete success; and inventors were at work on a device for steam transportation by land, a problem which was of greater difficulty.

The Rise of Manufacturing. While foreign trade and agriculture were prospering so greatly the people of the United States devoted comparatively little attention to manufacturing. Though Slater's mill at Pawtucket con-

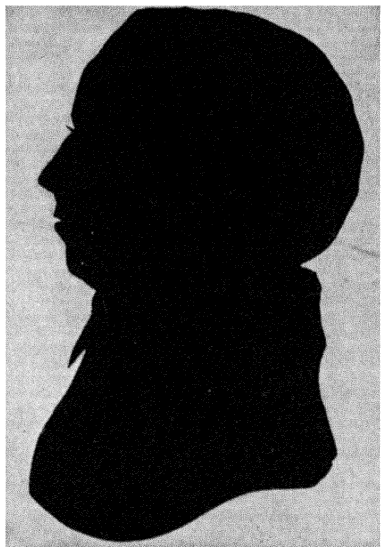


The Clermont

tinued in successful operation, only three additional cotton mills were established before 1805. The people depended chiefly upon England for their manufactured goods just as the people of the colonial days had done. In 1807 the embargo suddenly brought foreign commerce to an end. Since it was no longer possible to obtain English textiles and other manufactured supplies there was an immediate expansion of manufacturing in this country. A period of progress began which lasted until after the war of 1812.

During the first year of the embargo a dozen new mills were erected for the spinning of cotton yarn. In 1811 American cotton mills, with a total of 80,000 spindles, used 10,000 bales of raw cotton. In 1815 the number of

spindles in American cotton factories was 500,000 and the amount of raw cotton converted into yarn was 90,000 bales. The machinery in most of these early cotton mills was crude, and the yarn which they produced served to make only coarse fabrics. Weaving was done entirely on hand-looms until 1814 when Francis C. Lowell introduced the power-loom. His factory at Waltham, Massachusetts, was the first in which the various processes of carding, rov-



Francis C. Lowell

ing, spinning and weaving were carried on under the same roof. As in the English cotton mills more than three-fourths of the workers in the early American factories were women and children. Water-power was generally used to drive the machinery, though after 1810 a few mills were equipped with steam engines.

The manufacture of woolens also became a factory industry of some importance during this period in a few

New England towns. Iron manufactures too had a period of great prosperity, eastern and western Pennsylvania becoming the chief centers of production of pig iron as well as of finished articles of iron. A noteworthy achievement of this time was the first successful use of anthracite coal as fuel. Some "stone coal" was brought to Philadelphia from the Lehigh Valley in 1803, but nobody could get it to burn. By 1812 the process of making a fire on iron gratings, which made possible a strong draft, was worked out, and anthracite began to be used both for manufacturing and for household purposes. It could not compete extensively with wood, however, until means of cheap transportation from the sources of supply were provided.

In 1809 Albert Gallatin made a report upon the manufacturing industries of the United States, estimating the value of the annual products of manufactures to be $120,000,000. He named a number of articles, such as leather, soap, candles, refined sugar, coarse earthenware and chocolate which were being produced in sufficient quantities to meet the needs of the country; and he gave a list of manufacturing enterprises which were firmly established but not yet sufficiently developed to supply the wants of the people, the most important products of this class of industries being ironware, paper, glass, gunpowder, hats, liquors, and textiles of cotton, wool, hemp and flax.

Many of the new manufacturing enterprises were owned by corporations instead of by individuals or by partners. In banking and in turnpike construction the corporation had shown its usefulness by making it possible to assemble the investment funds of many individuals to be used for a single purpose. Such an effective institution was of great help in starting manufacturing enterprises for which fairly large sums of money were needed for the construction of buildings, the purchase of machinery and the payment of wages during the early stages of production.

End of the First United States Bank; Financial Difficulties. The charter of the United States Bank, granted by Congress in 1791, had a time limit of twenty years. In 1810 the question of renewing the charter arose in Congress. The Bank had been a highly successful business enterprise, and it had been of great service to the Government and to private business. However the conservative methods of the Bank's directors had prevented speculative activities by many State bank managers, who now brought all their influence to bear upon Congress to defeat the bill for a new charter. Albert Gallatin, the Secretary of the Treasury, was strongly in favor of granting a new charter and he advised Congress that the Government could not well do without the Bank's services. By a close vote the bill for a new charter was lost, and in 1811 the Bank wound up its affairs.

The Bank had always redeemed its notes promptly in specie and by refusing to accept the notes of non-specie-paying banks, it had forced the State banks to be cautious in making loans and issuing notes. As soon as the Bank passed out of existence a large number of new State banks were organized. With no check of any kind upon their activities they began to make extensive loans to speculators, and within a short time there was a large expansion of the bank-note currency of the country. Most of the new currency was issued in the West and South where the development of new resources tended to excite a spirit of speculation. The excessive issues of banknotes began about the time the United States declared war upon Great Britain, weakening the currency of the nation at a most inopportune time.

During the early part of the war all of the American coast except that of New England was blockaded by the British navy, and the people of the South and West turned to New England merchants for all foreign goods. When

the blockade was later extended to include the New England coast, the manufacturers of New England did their best to supply to the South and West the articles usually obtained from Europe. As a result of this commerce virtually all the specie of the country soon found its way to New England. In 1814 all the banks outside of New England declared a suspension of specie payments, that is, they announced that they would no longer redeem their notes in coin. This removed all restrictions on the issue of bank-notes and dozens of new banks were organized to add to the quantity of paper money. People feared that the bank-notes would never be redeemed, and their loss of confidence was soon reflected in a depreciation of the paper currency. The value of any bank-note depended entirely upon the confidence of the people in the ability of the issuing bank ultimately to redeem it.

Meanwhile the sharp reduction in foreign imports had almost deprived the Government of its only important source of revenue. Instead of adopting a resolute policy of internal taxation Congress decided to depend chiefly upon loans to pay the cost of the war. Without a satisfactory program of taxation to support Government credit the Treasury found it impossible to sell bonds at par. Nearly all the New Englanders, strongly opposed to the war and on the verge of secession, refused to lend money to the Government on any terms. The Treasury issued notes, some of which were of such small denomination that they could be used as currency. They were not legal tender, but had the war continued much longer there is little doubt that Congress would have authorized the issue of legal-tender paper money. The Treasury accepted depreciated bank-notes at par in payment for bonds, thereby becoming a partner in the issue of unredeemable paper. This practice added millions of dollars to the cost of the war. When hostilities finally ended the currency was in

a deplorable state in all sections of the country except New England where the banks had succeeded in maintaining specie payments. The New England bankers had not issued an excessive amount of notes themselves and they had refused to receive the notes of non-specie-paying banks of other sections of the country. When commerce was restored after the war the Government accepted the depreciated bank-notes in payment of import duties, a practice which caused imports to enter the country at Philadelphia, Baltimore and Southern ports where the depreciation of the currency was greatest. As one historian expressed it, "The New Englanders were punished for being honest; and those places in which swindling was carried on to the greatest extent, and the greatest depreciation of the currency produced, obtained, as a reward for their villainy a monopoly of foreign trade."

Economic Lessons of the War. The war of 1812 served to emphasize the fact that the United States was dependent upon foreign trade for economic prosperity. Farmers and planters lost their markets during the war with England; people suffered because they could not obtain the articles which they customarily imported from Europe. Manufacturing industries prospered but they could not develop rapidly enough during the short period of the war to supply the needs of the whole country, and even if the factories could have been built and the machinery provided, the lack of adequate means of internal transportation would have prevented the assembling of raw materials and the distribution of finished products. While the war was in progress the coastwise trade was virtually suspended because of the British blockade, and nearly all domestic trade had to be carried on by means of wagons.

It was plain to everybody that war with a power having greater strength upon the sea than the United States would always result in such hardships as were experienced

during the war of 1812, unless preventive measures of some kind were taken. The United States must have a navy strong enough to control the sea and keep the road to foreign markets open, or the people must try to produce for themselves a larger portion of those things which they had been accustomed to obtain from foreign lands. The political leaders of the time determined that Congress should enact legislation which would give greater economic strength to the nation. Their program was designed to foster and encourage all varieties of business activity in the United States.

The Tariff of 1816. One of the first things which was determined upon was the enactment of a protective tariff law. The encouragement of manufactures would, President Madison declared, "relieve the United States from a dependence on foreign supplies, ever subject to casual failure, for articles necessary for the public defense or connected with the primary wants of individuals." Alexander Dallas, the Secretary of the Treasury, was unreservedly in favor of protection. In a report to Congress he divided American industries into three classes; first, those which were developed sufficiently to meet the needs of the people; second, those which were not yet able to supply the home demand but with a little encouragement would soon be able to do so; third, those, in which there was, for the time being, little prospect of extensive growth because of the lack of expert labor and proper machinery. The leading products of the industries of the first class were carriages, cabinet wares, cordage, firearms, hats, boots and shoes; of the industries of the second class, cotton and woolen textiles of the coarser grades, liquors, manufactures of iron, brass and tin; of the industries of the third class, hardware, cutlery, porcelain, high-grade textiles of cotton, wool, silk and linen, carpets and hosiery. For the first group of articles Secretary Dallas recommended

prohibitive duties which would exclude all foreign competition, asserting that competition among domestic producers would keep prices down to a proper level; for the second group he advised high duties, which would encourage American manufactures but would not exclude all foreign competition; for the third group he suggested that duties be adjusted according to the needs of the Government for revenue.

The shipping interests of New England and the Middle Atlantic States were strongly opposed to the protection of manufactures because they feared it could cause a reduction of foreign trade and injure their business. The manufacturing interests favored protection because they could not pay the high rate of wages prevalent in America and compete with foreign producers without the aid of a high tariff. The planters of the South were opposed to protection because it would compel them to pay higher prices for manufactured goods. The grain raising farmers realized that protection would make the prices of manufactured goods higher, but they did not have as certain a foreign market for grain as the Southern planters had for cotton and tobacco, and consequently they favored protection on the ground that the development of manufacturing industries would give them a larger and more certain market for grain and provisions.

In 1816 the division of these various interests on the tariff question was not so pronounced as it was later. The effects of the recent war were fresh in the minds of everybody. Even the Southern planters knew that the cheapness of foreign manufactures was of no advantage when war interrupted foreign trade. They remembered that the war had deprived them of a market for cotton and felt that it might be wise to have a domestic market to rely upon in case of another war. The tariff bill of 1816 was introduced by William Lowndes of South Caro-

lina, and John C. Calhoun, who later became an uncompromising opponent of protection, led the fight for its enactment. In a speech defending the tariff bill he said:

"We cannot be indifferent to dangers from abroad, unless, indeed, the House is prepared to indulge in the phantom of eternal peace. . . . It must ever be considered the plain dictate of wisdom in peace to prepare for war. What, then, let us consider, constitute the resources of this country, and what are the effects of war upon them? Commerce and agriculture, till lately almost the only, still constitute the principal, sources of our wealth. So long as these remain uninterrupted, the country prospers; but war, as we are now circumstanced, is equally destructive to both. They both depend on foreign markets; and our country is placed, as regards them, in a situation strictly insular; a wide ocean rolls between. Our commerce neither is nor can be protected by the present means of the country. What, then, are the effects of a war with a maritime power—with England? Our commerce annihilated, spreading individual misery and producing national poverty; our agriculture cut off from its accustomed markets, the surplus products of the farmer perishes on his hands and he ceases to produce because he can not sell. . . . The recent war fell with peculiar pressure on the growers of cotton and tobacco, and other staples of the country; and the same state of things will recur in the event of another, unless prevented by the foresight of this body. . . . When our manufactures are grown to a certain perfection, as they soon will be under the fostering care of Government, we will no longer experience these evils. The farmer will find a ready market for his surplus produce, and what is almost of equal consequence, a certain and cheap supply of all his wants. . . . To give perfection to this state of things it will be necessary to add, as soon as possible a system of internal improvements, and at least such an extension of our navy as will prevent the cutting off our coasting trade."

A third of the Southern representatives in Congress

voted for the bill, and a majority of the representatives from New England supported it. Eight years later when the memories of war had faded and the House seemed willing to "indulge in the phantom of eternal peace" the sacrifice of selfish interest for the sake of national strength in time of war was a forgotten ideal. The tariff law, as finally passed, placed duties ranging from 7.5 per cent to 30 per cent ad valorem on a large number of manufactured articles. Coarse cotton fabrics were given special protection by the requirement that a minimum valuation of twenty-five cents a yard be set upon all imported cottons. A specific duty of forty-five cents a hundredweight was placed upon hammered iron and $1.50 a hundredweight on rolled iron. The duties on iron were increased in 1818 because of Swedish and English competition.

The Second United States Bank. Another important step which Congress took in the interest of business stability was the chartering of the second United States Bank in 1816. The excesses of the State banks in issuing notes and the need of the Government for a reliable fiscal agency were the chief reasons for creating another Bank. Calhoun supported the project, and so did Henry Clay, who in 1811 had been a leading opponent of the renewal of the charter of the first Bank. The act creating the new Bank authorized a capitalization of $35,000,000, one-fifth of which was to be subscribed by the Government. Of the stock allotted to the public one-fourth was to be paid for in specie and three-fourths in Government bonds. The President of the United States appointed five of the twenty-five directors. The charter ran for twenty years, and the obligations and privileges of the Bank were similar to those of the first Bank. The main Bank opened at Philadelphia in January, 1817, and twenty-five branches were established in other cities.

Internal Improvements. Congress was desirous of undertaking a system of internal improvements at Federal expense such as had been suggested by Gallatin in 1808, and as a beginning, a bill was passed in 1817 providing that the profits of the Government from the United States Bank should be set aside to constitute a fund for constructing roads and improving rivers. President Madison, though protesting a firm belief in the policy of constructing internal improvements at Federal expense, vetoed this bill on the grounds that Congress had no power under the Constitution to build roads or waterways within the States. He had suggested on several previous occasions that the Constitution be amended to give Congress the power which it lacked in this particular, and in his veto message of 1817 he renewed this suggestion

Madison's action was a great disappointment to those who were anxious for the Federal Government to lead the way in promoting the economic development of the country. There were many projects of highway and canal construction for which Federal aid was earnestly desired. With the prospect of help from the National Treasury darkened, State Governments and private capitalists began to undertake the responsibility of financing certain internal improvements. The most notable work undertaken at this time was the Erie Canal.

White settlers had gradually pushed across the State of New York until the line of settlements reached Lake Erie. The inhabitants of the western part of New York were most unfavorably situated. They were far from markets and their facilities for transportation were not so good even as those of the settlers of the Ohio Valley, who had an outlet by way of the Mississippi. The war of 1812, by interrupting the small commerce between western New York and Montreal, had emphasized the need for better transportation facilities between the lake districts and the

Hudson River. In 1817, under the energetic leadership of DeWitt Clinton, the people of New York began the construction of a barge canal between Albany and Buffalo.

The Navigation Act of 1817. While Congress seemed to emphasize the need of encouraging internal development rather than foreign commerce it nevertheless showed a disposition to aid the shipping business, which after the war was much in need of help. The end of the Napoleonic wars had released a large tonnage of European shipping for commercial service, and American shipowners, who for several years before the war of 1812 had enjoyed a virtual monopoly of the carrying trade of a large part of the world, now found that the field was full of active and energetic competitors.

By this time it was perceived that discriminating tariff and tonnage duties were of little advantage to shipping because foreign countries invariably discriminated against American ships to the same extent that the United States discriminated against foreign ships. Accordingly in 1815 Congress enacted a law providing for the repeal of all discriminating duties against the vessels of those countries which would abandon the policy of discrimination against American ships. The policy of discrimination was abandoned however only in the "direct trade"; that is, the United States continued to levy discriminating duties against a vessel bringing goods from another country than the one to which the vessel belonged. Great Britain soon accepted the terms of the act, and the discriminating duties imposed by each country on the vessels of the other were repealed.

The chief handicap affecting American shipping was the navigation laws of European nations. The British law of 1660 was still in force, which permitted goods to be imported into Great Britain only in British ships or in ships of the country from which the goods were derived.

American vessels were not permitted to carry goods from South America or from any European country to Great Britain but only goods from the United States. Virtually all European countries had laws similar to that of Great Britain. The United States before 1817 had no such law. British vessels could bring French or Spanish or Dutch goods to the ports of the United States as freely as American vessels could do so, with the exception that American ships paid lower tonnage and tariff duties.

In 1817 Congress passed a navigation act for the protection of American shipping. This law did not go so far as the European navigation laws. It stipulated that all goods imported into the United States should be carried in American vessels or in the vessels of the country from which the goods were derived, but provided that the prohibition should not apply to the vessels of those countries which did not have similar laws. That is, if Great Britain would permit American ships to carry goods from a foreign country, such as France or Spain, to Great Britain, then the United States would permit British vessels to bring other than British products to the United States. By this law it was hoped to force foreign countries to admit American ships to their indirect trade and give American shipowners an equal chance in the world's carrying trade. If foreign countries persisted in excluding American ships, the United States would follow the same policy with respect to foreign ships. The law also provided that foreign ships should be entirely excluded from the coasting trade of the United States, reserving this commerce solely for American ships.

Great Britain accepted the terms of the act of 1817 with respect to the trade of the British Isles, but refused to admit American vessels to the British possessions in the West Indies. One purpose of the law of 1817 was to induce Great Britain to open her West Indian ports to

American ships, and when this was not done Congress promptly passed an act in 1818 forbidding British ships to trade between the United States and British colonies in America. This law put an end to trade between the colonies and the United States because under the British law only British ships could engage in this commerce. The controversy thus begun lasted for twelve years, during which time commerce was frequently interrupted, but the matter was finally adjusted in 1830 when Great Britain gave way and granted the demand of the United States that American ships be permitted to trade with the British colonies. By a policy of retaliation the United States compelled the destruction of the old European system of navigation laws.

Business Activity Following the War of 1812. A war usually causes severe restriction of many branches of industrial activity, and the years immediately following the close of a war usually witness a lively reaction. The war of 1812 was no exception. Commerce and agriculture suffered a great decline while the war was in progress, and as soon as the war ended a period of intense activity began in both these branches of industry.

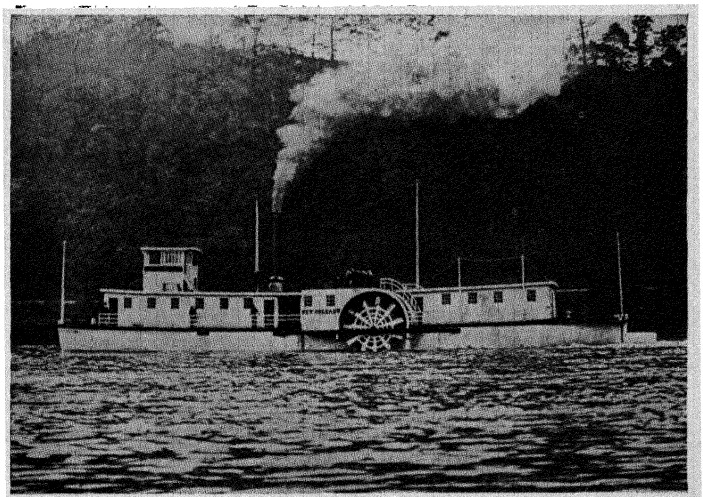
The first evidence of reaction was an enormous increase in imports, particularly from Great Britain. British manufacturers had long been excluded from many markets in Europe and America, and they had large stocks of goods on hand, much of which was loaded on ships before the treaty of peace was ratified, waiting so to speak for a signal to start for the ports of the United States. In the fiscal year ending September 30, 1815, the imports of the United States had a value of $113,000,000 and the following year a value of $147,000,000. The enormous sales of English goods in this country were due primarily to the wish of English dealers to dispose of accumulated stocks. There was a desire on the part of English political

leaders also to ruin the new manufacturing industries of the United States. Lord Brougham said "it was well worth while to incur a loss upon the first exportations, in order by the glut, to stifle in the cradle those rising manufactures in the United States which the war had forced into existence contrary to the natural course of things." America was still regarded, from an economic standpoint, as a British colony. Large quantities of English manufactured goods were "dumped" upon American markets, in spite of high tariff duties, and sold at auction at ridiculously low prices. Under such competition nearly all the new cotton and woolen mills were soon forced to shut down, and the iron manufacturers along the Atlantic coast likewise closed their plants. Only the high costs of transportation from the seaboard to the Ohio Valley saved the mill owners of the West from immediate ruin.

The plight of the manufacturers was for the time being lost sight of, so great was the prosperity of agriculture and trade. Owners of English cotton mills were clamoring for raw material and the price of American cotton soared. Previous to the war the only important centers of cotton production had been the coastal plain and upland districts of the Carolinas and Georgia. It was soon found that the rich bottom-lands in the river valleys of the Mississippi territory and Louisiana produced a better grade of cotton than the uplands of the coast States. The center of cotton culture shifted rapidly westward. In 1816 and 1817 the Federal Government sold more than a million acres of land in the Mississippi territory.

The planters of the South devoted their energies largely to the production of cotton, relying upon the farmers of the West for provisions and live stock. Shipments down the Mississippi, interrupted during the war by the British attack on New Orleans, attained a greater volume than ever before. Steamboats were a great aid to Western

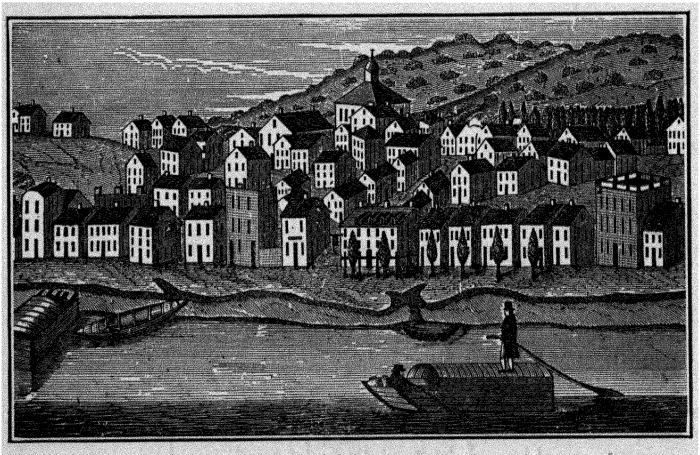
commerce. They did not at once displace the flatboat in transporting farm produce down the Mississippi, but they began to carry a part of the traffic, and they afforded a cheap and convenient means for the flatboat owners to return to their homes. The prosperity of the Western farmers brought about the sale of large quantities of public land in southern Ohio, Indiana and Illinois and even across the Mississippi in the Missouri territory. Speculators bought large tracts—usually with money borrowed from



Early Steamboat on the Ohio River

banks—and sold out at higher prices to incoming settlers. Emigrants from Europe flocked to the fertile western valleys; farmers left the worn out lands of the East for the better soil available in the West; many inhabitants of Kentucky and Tennessee left those States for the better lands to be found both north and south. In 1816 Thomas Lincoln and his family, including his seven year old son Abraham, moved from Kentucky to what he thought was a better location in southern Indiana.

The cities and towns on the Ohio River—Pittsburgh, Marietta, Cincinnati, and Louisville—prospered and increased rapidly in population. During this time the custom of driving hogs across the mountains to Eastern markets began to slacken, and a great pork-packing business grew up in the Ohio Valley. Cincinnati, the chief center of the industry for a half-century, was known before 1820 as the "Porkopolis" of the United States. Since beef was consumed chiefly as fresh meat, the large trade in cattle did not diminish, and until the railroads came



Cincinnati in 1810

great herds of cattle were driven each year to the Eastern markets.

As the Western farmers and Southern planters enlarged their production of grain, live stock and cotton, they increased their purchases from Eastern merchants. A large part of the foreign imports which entered the country just after the war was sold in the South and West. The coasting trade between Northern and Southern seaports flourished, and there was a marked increase of the wagon trade across the Appalachian mountains. An English

traveler reported that 12,000 wagons went from Philadelphia and Baltimore to Pittsburgh in 1817, carrying merchandise upon which the freight charges alone were £300,000. The opening of the Cumberland Road in 1818 gave Wheeling an opportunity to share the eastern wagon trade with Pittsburgh. From these cities flatboat stores floated down the Ohio and the Mississippi, the owners peddling boots and shoes, clothing, furniture, household utensils, hardware, all kinds of agricultural implements, tobacco, liquor, and groceries from village to village and plantation to plantation.

The Panic of 1819. The "good times" came to an end in 1819, when a disastrous financial crisis, similar to that of 1785–86, overtook the country. There were many causes which contributed to the collapse, but the chief one was the over-expansion of credit. The exports of the United States after the war were not nearly so great in value as the imports, and even when nearly all the specie of the country was shipped abroad the importers were still heavily in debt. Great quantities of imported goods were sold on credit. Bank-notes were issued in large amounts to facilitate this commerce as well as to make loans to individuals engaged in speculative enterprises. As long as production was expanding and confidence in the currency was maintained there was but little danger. But the bankers made many loans to further enterprises which were not productive. This practice weakened the currency; other things happened to injure credit.

One cause of disturbance was the attempt of the new United States Bank to hasten the restoration of specie payments throughout the country. The directors of the Bank made the attempt not so much because they had the good of the country at heart as because they wanted to obtain a monopoly of the banking business by bringing ruin to their competitors. They did not comply with the

terms of their charter before opening the Bank in 1817, and they so mismanaged their business the first year that the Baltimore branch of the Bank failed in 1818 for $3,000,000. Their method of assaulting the credit of the State banks was to accumulate a quantity of the notes of a particular bank and present them suddenly for redemption. This policy forced the State banks to contract their loans, which in turn compelled individuals who had borrowed from the banks to ask their debtors for money. Farmers who owed merchants or who had mortgaged their farms to bankers to secure money to buy land or equipment were compelled to put their property on the market for sale. Speculators likewise, who still held large tracts of land for a rise of prices, were compelled to sacrifice their holdings. Many individuals had invested borrowed funds in the stock of manufacturing and turnpike companies and since they could get nothing for the stock they could not pay their debts at all. General liquidation brought about a disastrous fall in prices. Farmers, merchants and bankers were ruined in large numbers; a large part of the bank-note currency of the country became worthless. To make matters worse the export price of cotton, the great "money crop" of the country, fell from thirty-two cents a pound in 1818 to eighteen cents in 1820, and the planters too were unable to meet their debts. Business came almost to a standstill, and thousands of people were bankrupt.

The End of an Economic Period. The crisis of 1819 marks the end of a distinct period in the economic and political history of the United States. Up to this time the new nation, though politically independent, had been nevertheless little more than an economic appendage of the British Empire. Problems of domestic development had been subordinated in political thought to questions

involving the foreign relations of the country. The economic activity of greatest public concern had been the foreign trade.

There were signs that the old order of things was passing away. The legislation following the war of 1812 indicated the coming of a change, though this legislation was based upon the fear of war rather than upon a conscious desire to shape a new domestic policy for the United States. Notwithstanding this legislation business easily reverted to the conditions which had existed before the war. But nevertheless the old order was passing; domestic problems were coming to the front. For a time the people floundered to get their bearings. In the election of 1820 President Monroe carried every State in the Union. The old issues, upon which previous elections had been bitterly contested, were dead; as yet new issues and new policies had not been definitely formulated. In 1824 no candidate for President was able to secure a majority of the electoral votes and for a second time the House of Representatives chose a President. Their choice was not however the choice of the people. He was the last President of the old school, a great man, out of tune with the times, a somewhat pathetic relic of a bygone age.

After 1819 the people of the United States definitely set their faces toward the West. Their great problem was the occupation and conquest of a wide, rich belt of the North American continent. We shall try to see how they accomplished their task.

Questions and Topics

1. Show the truthfulness of the phrase "Necessity is the mother of invention," in connection with the transportation facilities of the United States before 1819.
2. Make a parallel list of the objections to and the benefits of the factory system.

3. In what respects did the experiences of the Government in the prosecution of the War of 1812 resemble those of the Revolution?

4. Why is there danger of a panic succeeding the period of prosperity that comes after a war?

5. Why do you think the War of 1812 has sometimes been called the "second war of independence"?

PART IV

THE AMERICAN SYSTEM

CHAPTER XIII

PROTECTIVE TARIFFS

The Spirit of Nationalism. The period of American history beginning about 1820 was marked by the rise of a spirit of intense nationalism. The people were fast learning that their paramount political and economic problems were internal and not external and that their chief interests were on the western side of the Atlantic rather than the eastern. The decade from 1820 to 1830 was singularly full of occurrences which indicated that the nation had come to realize the new state of affairs. President Monroe's message to Congress in 1823 declared "that the American continents, by the free and independent condition which they have assumed and maintain, are henceforth not to be considered as subjects for future colonization by any European powers." America henceforth wanted to be free from external interference. Congress enacted laws to promote the development of "home" industries. The problem of constructing a system of transportation facilities to bind the different sections of the country together was attacked with a spirit of earnest determination. The enactment of the Missouri Compromise signalized the beginning to the great political struggle in which the occupation and settlement of the West was to embroil the nation, creating differences which were to culminate in civil warfare.

Recovery from the Crisis of 1819. The severe industrial and commercial depression which came with the financial panic of 1819 lasted for more than two years. Time was necessary for the payment of debt, the readjustment of prices and the stabilization of the

currency. After the panic there was a substantial decline of imports and a slight increase of exports, resulting in a liquidation of foreign indebtedness. Congress passed "relief acts" for the benefit of the purchasers of public lands in the South and West who had been unable to pay their instalments, granting an extension of time or permitting them to surrender a portion of their lands. The management of the United States Bank was changed and under the wise policy of the new president the disordered currency was restored to a sound condition. Production gradually became normal. English manufacturers abandoned the habit of "dumping" goods on the American market at a loss, once their surplus stocks were exhausted, and under the protection afforded by the tariff of 1816 the manufacturers of the United States were able to resume operation. By 1823 all the textile mills that had been forced to close were again working, and many new mills were being constructed. The demand for American cotton goods was greater than the manufacturers could meet; the woolen manufacturers were importing raw wool to keep their spindles and looms busy. The wagon trade from Eastern cities to Wheeling and Pittsburgh was once more active, and the traffic on the Mississippi River was larger than ever before.

Distress of Grain Farmers. Though production and trade gradually recovered during the three years following the panic of 1819, the farmers of the Middle Atlantic and Western States, who were engaged primarily in raising grain and live stock, were not so prosperous as the manufacturers and cotton planters. The fertile soil of the Ohio Valley was yielding a product considerably in excess of the demand. The production of grain in the United States had increased more than six-fold since 1790, yet the annual exports were but little greater than the average exports for the five years ending with 1795. The farmers

of the West in particular were in distressing circumstances. The costs of transportation to Eastern markets were large whether their products were hauled overland or taken by water by way of New Orleans. The Southern planters took a substantial amount of Western produce but they were able to absorb only a small fraction of the total quantity seeking a market. In 1824 corn could be bought in Cincinnati for 8 cents a bushel, wheat for 25 cents a bushel, and flour for $1.25 a barrel. Many farmers let their corn and wheat rot in the fields.

Henry Clay and the American System. The distress of the grain producers could be relieved either by their obtaining a larger market or by a reduction of the crops of grain. A foreign market was not available. Though the people of the United States consumed each year large quantities of English manufactured goods England's Corn Laws forbade the importation of American grain. The farming interests urged that since there was no foreign market for American grain it was the duty of Congress to enact legislation which would result in the creation of a "home market." If England would not buy the food products of the United States, the American people must refuse to purchase manufactured goods from England. They must establish manufacturing industries, which would give rise to a non-agricultural population that would consume the excessive supplies of meat and grain. Congress should establish a high protective tariff which would encourage the investment of capital in manufacturing enterprises. This was the "American System" of which Henry Clay was the foremost advocate.

> In a speech in support of a new tariff bill Clay said: "Our agricultural is our greatest interest. . . . We must speedily adopt a genuine American policy. Still cherishing the foreign market, let us also create a home market, to give further scope to the consumption of the

produce of American industry. . . . Let us suppose that half a million persons are now employed abroad in fabricating for our consumption those articles of which by the operation of this bill, a supply is intended to be provided within ourselves. That half a million persons are, in effect, subsisted by us; but their actual means of subsistence are drawn from foreign agriculture. If we could transport them to this country, and incorporate them in the mass of our own population, there would instantly arise a demand for an amount of provisions equal to that which would be requisite for their subsistence throughout the whole year. That demand in the article of flour alone would not be less than the quantity of about 900,000 barrels, besides a proportionate quantity of beef and pork and other articles of subsistence. But 900,000 barrels of flour exceeded the entire quantity exported last year by nearly 150,000 barrels. What activity would not this give, what cheerfulness would it not communicate to our own dispirited farming interest! But if, instead of these 500,000 artisans emigrating from abroad, we give by this bill employment to an equal number of our own citizens now engaged in unprofitable agriculture, or idle from the want of business, the beneficial effect upon the production of our farming labor would be nearly doubled. The quantity would be diminished by the subtraction of the produce from the labor of those who should be diverted from its pursuits to manufacturing industry, and the value of the residue would be enhanced, both by that diminution and the creation of the home market to the extend supposed . . ."

The Tariff Act of 1824. Clay's able leadership and powers of persuasion secured the enactment of the tariff law of 1824. Higher duties were placed upon manufactures of wool, iron, lead and glass. The rate of duty on cotton goods was not increased but additional protection was granted by raising the minimum valuation of imported cottons. For the first time manufacturers of hempen materials received protection. A specific duty was placed on

raw wool for the benefit of the wool growers, though this action tended to neutralize the advantages of higher duties on woolen manufactures. The hemp-growers of Kentucky obtained protection against the hemp producers of Russia.

The tariff bill of 1824 met with vigorous opposition. The reason for urging protection this time was not to relieve the United States from dependence on foreign nations for the sake of greater strength in time of war. The advocates of this bill were seeking openly to promote the interests of particular classes of the population, and those representatives in Congress whose constituents were interested in industries other than manufacturing and grain raising tried to defeat the bill. Memorials and petitions in large numbers were sent to Congress advocating the passage of the tariff bill and protesting against it. The Chambers of Commerce of New York and Philadelphia opposed the measure, but manufacturers' organizations in both cities gave it vigorous support. In the House of Representatives Daniel Webster spoke in behalf of the mercantile and shipping interests of New England, who feared that the development of manufacturing would cause a decline in foreign trade. John Randolph spoke for the Southern planters who felt that increased tariff duties would bring higher prices for manufactured goods and food products. The bill was carried through the House by the representatives from the farming districts of the Middle Atlantic and Western States and from the manufacturing centers in Rhode Island, Connecticut, New York, New Jersey and Pennsylvania. A majority of the representatives from New England opposed the bill; the South voted almost solidly against it; the representatives from the commercial cities of the Middle Atlantic States likewise joined the opposition. The decision was so close that the change of three votes would have defeated the bill. The following table shows the vote of the representatives of different

sections of the country on the tariff acts of 1816 and 1824.

	Act of 1816		Act of 1824	
	Yeas	Nays	Yeas	Nays
New England States	17	10	15	23
Middle Atlantic States	44	10	60	15
Western States	10	1	29	0
Southern States	17	33	3	64

The Tariff of 1828. In 1824 Great Britain repealed her duties on wool, thereby enabling the British woolen manufacturers to obtain their raw material at a lower price. This caused a sharp reduction in the price of British woolens, which created among American woolen manufacturers an urgent demand for increased protection. A bill increasing the rates of duty on woolen goods passed the House of Representatives in 1827, but was lost in the Senate by the vote of the Vice-President. Shortly afterwards a convention was held at Harrisburg, Pennsylvania for the purpose of urging increased protection of American industries. This "Harrisburg Convention" recommended higher duties on virtually all manufactured goods as well as upon many agricultural products.

Shortly after Congress met in December a new tariff bill was introduced in the House and referred to the Committee on Manufactures, which made a report late in January. This was the year of a presidential election, and the new tariff bill was framed primarily with a view to political effect. Andrew Jackson and President Adams were the leading candidates for the presidency. The Northern supporters of Jackson, though believing in the protective policy, were not anxious to see a high tariff bill passed, because they feared it might lose Jackson the support of the South. At the same time they did not want to take the responsibility of defeating a high tariff bill. Jackson's Southern supporters did not want to put his Northern friends in the position of opposing pro-

tection. The Jackson men therefore, both Northern and Southern, united in framing a bill which gave greatly increased protection to manufacturers, but which carried such high rates of duty on raw materials as to make it obnoxious to the manufacturers of New England, where Adams's chief support for the presidency was to be found. In this way they hoped to force the supporters of President Adams to vote against the bill. The Jackson men of the South would also vote against it and receive credit in the South for defeating it; the Jackson men of the North could vote for it and posing as the "friends of protection" cast the blame for the defeat of the bill upon the friends of Adams. John Randolph cynically remarked, "The bill referred to manufactures of no sort or kind, except to the manufacture of a President of the United States."

To the surprise of its authors the bill of 1828 passed both Houses of Congress and became a law. It met with the entire approval of nobody, but it was thought by the ardent protectionists to be better than no legislation whatever. An interesting feature of the debate on the bill was that Daniel Webster, at this time in the Senate, made a speech in favor of protection just as vigorous and powerful as the speech which four years before he had made in the House against protection. By 1828 manufacturing had made such headway in Massachusetts that the influence of the shipping and mercantile interests was no longer the only powerful factor in politics.

The law of 1828 was the high water mark of protection until the time of the Civil War. Its chief features were increased duties upon manufactures of iron and wool and upon raw wool. The principle of minimum valuation was for the first time extended to woolen goods; and imported wool was subjected to both specific and ad valorem duties.

The law was roundly denounced throughout the South and in many Northern communities. It became known as the "Tariff of Abominations" and the "Black Tariff."

Tariff Legislation, 1830–1833. Regardless of the increased duties of 1828 there was an increase in the imports of manufactured goods. The country was growing and the demand for manufactures was greater than the home factories could supply. The high duties on imported goods brought large revenues to the Federal Treasury and it was apparent that the national debt would soon be paid off and a surplus accumulated in the Treasury. This situation worried the friends of protection because it made the demand for a decrease in duties much more insistent. In 1830 several attempts were made to revise the tariff but the protectionists blocked all efforts to decrease the duties on manufactured goods, permitting only the reduction of the duties on salt, molasses, coffee and tea. Notwithstanding these changes the revenues of the Government continued to grow. Henry Clay urged the abolition of the duties on imported articles which did not compete with American products; the opponents of protection demanded the reduction of duties on manufactures.

In 1831 the friends and the opponents of protection each held a national convention, the former meeting in New York and the latter in Philadelphia. Both conventions drew up memorials representing the current views on the tariff question, the one urging Congress to abandon the policy of protection and the other asking for legislation to strengthen that policy.

When Congress met, attempts to modify the act of 1828 were renewed. Clay, who had been elected to the Senate, defended his "American System" in a series of powerful speeches, and refused to surrender the principle of protection. The Southern members of Congress were unable to bring about a radical reduction of tariff duties, but chiefly

through the efforts of John Quincy Adams, who after retiring from the presidency had been elected to the House of Representatives, a new tariff law was enacted in 1832, which eliminated some of the worst features of the act of 1828 and restored many of the duties contained in the act of 1824. The representatives from Virginia and North Carolina supported the tariff bill of 1832, and it passed the House by a vote of two to one, the only bill enacted since 1816 which had obtained much more than a bare majority in its favor.

The law of 1832 was however decidedly protective in its provisions. The legislature of South Carolina, exasperated by what it considered the discriminatory sectional legislation of Congress, called a special convention in November, 1832, which passed the famous nullification ordinance declaring "the tariff law of 1828 and the amendment to the same in 1832" to be null and void and not binding upon the people of South Carolina. It declared that no duties under the law should be collected in South Carolina after February 1, 1833 and that no appeal should be allowed to a Federal court in any case arising from the nullification program. President Jackson quickly issued a stirring proclamation announcing his intention of enforcing the law. Calhoun resigned the vice-presidency in order to give support to the action of his State, and he was at once elected to the Senate. A new tariff bill was introduced providing for a radical reduction of import duties. Clay, fearing that a sudden reduction would cause irreparable injury to the manufacturing industries, came forward with a compromise amendment, which was accepted and passed.

Clay's compromise provided for a general reduction of all duties exceeding twenty per cent. Each year for eight years the excess above twenty per cent was to be reduced one-tenth, and in 1842 two reductions of ten per cent each were to be made. Thus by the end of 1842 there

would be no rate of duty higher than twenty per cent. The bill appeased South Carolina and received the support of virtually the entire South. A majority of Western representatives voted for the bill, but it was opposed by a majority of the representatives from New England and the Middle Atlantic States, partly because they opposed any reduction of the tariff and partly because they objected to making any concession to the defiant attitude of South Carolina.

The Effects of the Protective Policy. There has always been a wide divergence of opinion as to the results of the protective tariff legislation from 1816 to 1833. Too often people are inclined to regard any contemporaneous events in the relation of cause and effect, when possibly no such relation exists. While it is true that manufacturing prospered after the enactment of the tariff law of 1824 it does not necessarily follow that manufacturing would not have prospered had this law not been enacted. As a matter of fact the war duties of 1815 were much higher than the duties in the law of 1824, yet the manufacturing industries of the United States were ruined by the excessive imports of 1815. It is also true that manufacturing industries were generally prosperous in 1822 and 1823 before the Act of 1824 was passed.

If the depression of agriculture was as severe in 1824 as Henry Clay pictured it to be, it should not have required a protective tariff to draw labor from the farm to the factory. The price of food was sufficiently low to enable a factory laborer to live comfortably on comparatively low wages; moreover the profits of farming were so small that many farmers would have welcomed the opportunity of securing factory employment.

On the other hand, even if wages were low, it is possible that the development of manufacturing would have been much slower without protection. Manufacturers may

have been and probably were able to obtain adequate profits without protection, but with protection they could obtain very high profits. These high profits would continue as long as the demand for manufactured goods exceeded the supply offered by home producers. The price of foreign goods would be kept up by the tariff. This promise of excessive profits induced many individuals to undertake the development of manufacturing industries, who otherwise might have invested their capital in shipping or in mercantile pursuits or in cotton planting. The reasonable view seems to be that after 1820 manufacturing would have been developed gradually in the United States without further protection, but that with protection it was stimulated to a much more rapid development.

Whatever the influence of the tariff legislation, there was after 1820 a gratifying expansion of the manufacturing industries of the United States. Throughout the Northern States, both east and west, dozens of new factories were built. In 1830 the products of the cotton and woolen mills of the United States amounted in value to $37,000,000. The production of pig-iron was 195,000 tons. Cities such as Lowell, Lawrence, Paterson and Newark, which owed their prosperity chiefly to manufacturing, began to rival in wealth and population the older commercial cities. In the West the cities of Pittsburgh, Cincinnati and Louisville doubled in size during the decade from 1820 to 1830, and in all of them the people were inordinately proud of their manufacturing industries. In 1830 Pittsburgh had six "rolling mills and iron works with nail factories attached," four large cotton factories with 10,000 spindles, two "large glass works" and "270 other large manufacturing establishments of a miscellaneous character." Cincinnati, with a population of 26,000 was "the most flourishing commercial town in the West, except New Orleans; and furnishes perhaps the most original example of that

spirit and capacity for improvement, which result from the existence of free institutions, and are destined to fill the Mississippi Valley with a teeming population."

Thousands of Europeans, glad to leave places so long a scene of disorder and distress, came to prosperous America. The number of immigrants coming to the United States between 1820 and 1837 was more than 500,000. The coming of these immigrants was helpful to all branches of industry—manufacturing, mining, farming and planting.

Questions and Topics

1. Compare the motives for the tariff acts of 1816 and 1824 with those for the tariff of 1789.
2. Give three reasons why grain is no longer as cheap as it was in 1824.
3. Give examples where party interests have interfered with legislation that the majority of the people desired.
4. Does the "Black Tariff" prove to you that party politics are inimical to the best interests of the country?
5. What do you think of a principle of government "The greatest good to the greatest number of people" as a basis for the making of laws?
6. Write a short biographical sketch of Henry Clay?
7. Is there any way of punishing a State for an act of disloyalty?
8. Give a brief account of the life of Andrew Jackson?
9. Is the coming of immigrants to the United States as helpful to the country's development at present as it was from 1820 to 1837?

CHAPTER XIV

INTERNAL IMPROVEMENTS

The Federal Government and Internal Improvements. Though the most emphasized feature of the American System was the protection of manufactures by a high tariff, the advocates of the system considered the construction of internal improvements to be an indispensable part of their general plan for promoting the economic development of the country. The tariff legislation was intended to make possible a large non-agricultural population which would consume the surplus products of the farmers. It was necessary to have a system of roads and canals by which the grain and provisions could be carried from farms to factory towns. Henry Clay, the "father of the American System," spoke frequently of the need of better transportation agencies. He believed that the construction of new roads and canals should be undertaken at the expense of the Federal Government. However only a comparatively small sum from the national treasury was expended for such work.

It has already been told how in 1817 James Madison vetoed a bill authorizing the expenditure of national funds for internal improvements. In 1822 Congress passed a bill appropriating several thousand dollars for the erection of new toll gates on the Cumberland Road and authorizing the collection of tolls to obtain money for the repair of the highway. President Monroe vetoed this bill, asserting that Congress, by collecting tolls within the States, would be exercising a jurisdiction not permitted by the Constitution. He submitted to Congress a long written opinion in

which he claimed that Congress had authority to appropriate money only for the general or national welfare, and not for the benefit of a State or of a local community.

While objecting to the appropriation of money for internal improvements under Federal jurisdiction, Monroe did not believe that the appropriations for building the Cumberland Road had been made in an unconstitutional manner. This particular road he considered to be a work of general and not local benefit. It was possible therefore, according to Monroe, to proceed with the construction of this road, though the Federal government could exercise no jurisdiction over it even to the extent of policing it to prevent wanton destruction. The road was extended from Wheeling across the States of Ohio and Indiana, passing through the capitals of both States. It was planned to extend this "National Pike" to Jefferson City, Missouri, but construction ended in 1838 when it reached Vandalia, Illinois. Monroe thought, however, that before Congress should undertake to appropriate large sums for highways or canals the Constitution should be amended to give to the Federal Government the jurisdictional authority which he deemed necessary to the satisfactory execution of a comprehensive plan of internal improvements.

John Quincy Adams was not so strict in the construction of the Constitution as his two predecessors in the presidency had been, and during his term of office, from 1825 to 1829, he signed many bills which Congress passed authorizing the expenditure of Federal money on improvements in various States. Altogether Congress appropriated $2,310,000 for internal improvements during Adams's administration, most of the money being used to purchase the stock of canal and turnpike companies. After Jackson became President, Congress endeavored to continue the policy of authorizing subscriptions to the stock of private transportation companies, but Jackson vetoed the first bill pre-

sented to him appropriating money for such a purpose, raising objections similar to those formerly advanced by Madison and Monroe.

Jackson believed that the country should have internal improvements, but he thought that the only way in which the Federal Government should help was by the distribution among the several States, in proportion to their population, of whatever surplus the Federal Treasury might at any time accumulate. He was somewhat doubtful of the constitutionality of this method, but in 1836, after the national debt was extinguished, he signed a bill authorizing the distribution of the surplus funds of the Treasury. The money was to be given out in four quarterly instalments, payment beginning January 1, 1837. Three instalments, amounting to about $28,000,000, were paid, but before the fourth instalment fell due there was a deficit instead of a surplus in the Treasury, and no more payments could be made. Though under the law the money distributed was regarded as a deposit, to be recalled at will by the Federal Government, the States looked upon it as a gift and never repaid it. The obligations are still carried as an asset in the accounts of the Treasury.

The distribution of the surplus in 1837 marked the last attempt of the Federal Government, for many years, to make direct contributions of money for the purpose of constructing internal improvements within the States. Several appropriations for the improvement of rivers and harbors received Jackson's assent, partly because he believed them to be in the general interest and not for local advantage, and partly because they were passed as "riders" to general appropriation bills and he could not veto them without vetoing the entire bills. From 1839 until after the Civil War appropriations for river and harbor improvements were infrequent because of presidential opposition.

Though refusing to contribute money for the construc-

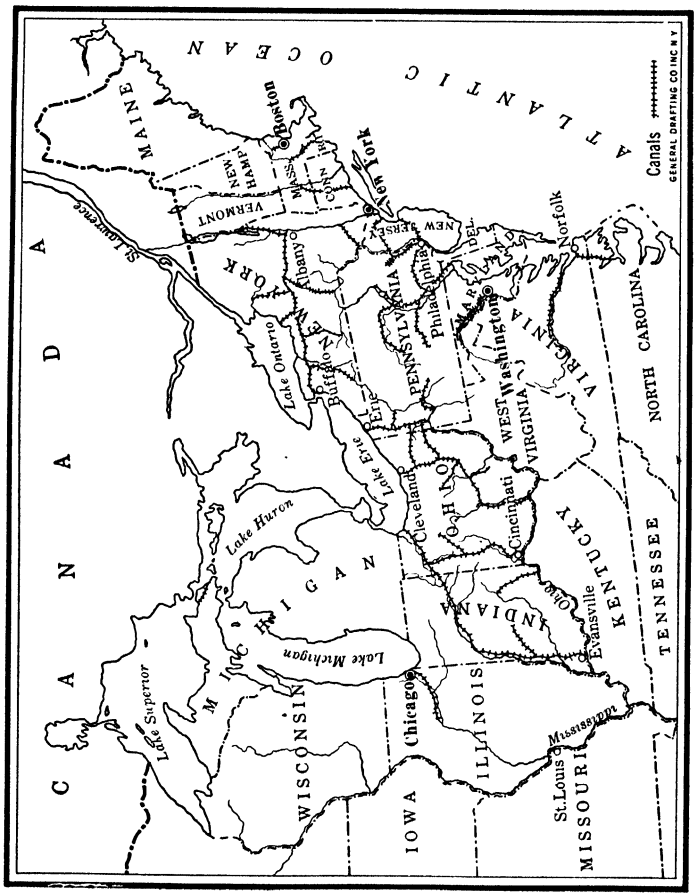
tion of roads and canals, the Federal Government often gave substantial aid for such works in the Western States by granting to the States large tracts of the public lands within their borders. The States would sell such lands and devote the proceeds usually to works of internal improvement. The policy of granting public lands to the States began on an extensive scale during the administration of John Quincy Adams, and it continued for nearly a half century.

State and Private Enterprises. While constitutional considerations caused the Federal Government to pursue a wavering policy with respect to internal improvements there was nothing to prevent the State governments from attempting to meet the need for better transportation facilities. The demand for improvements was insistent, and the State legislatures freely authorized the expenditure of large sums of money. Unfortunately the legislatures did not endeavor to raise much of the needed money by taxation, but obtained it by borrowing. State bonds were sold abroad in large quantities between 1825 and 1837. The fact that the Federal Government had paid off the national debt during this period served to put the credit of America on a high plane among European investors, many of whom did not understand that the State governments were entirely distinct from the Federal Government in the matter of financial responsibility.

In many instances the construction of internal improvements was undertaken directly by the public authorities; frequently however private corporations built the internal improvements, receiving liberal grants of money from State treasuries. These corporations secured part of their funds by selling stocks and bonds to individual investors, and as previously stated, several corporations were able during John Quincy Adams's administration, to obtain money from the Federal Government.

A Period of Canal Construction. The transportation agency which was the chief object of interest between 1819 and 1837 and upon which the most money was expended was the canal. Large sums were invested in turnpikes, and from 1830 to 1837 there was a substantial amount of investment in railroads, but the canal was of preëminent importance. It was universally recognized that transportation by water was cheaper and more efficient than transportation on ordinary highways. In Gallatin's report in 1808 a great deal of evidence was submitted to show the superiority of canals and natural waterways over turnpikes. Since steam railroad transportation was not a demonstrated success until 1829 it was but natural that people should devote their efforts to canal construction.

There were three important canal systems started or completed during this period. One system, known as the anthracite tide-water canals, was designed to provide cheap transportation from the coal mines of eastern Pennsylvania to the seaboard. A second system had for its purpose the connection of the eastern seacoast with the Ohio River Valley and the basin of the Great Lakes. The most important and the only successful canal in this system was the Erie Canal. The third system comprised canals between the Great Lakes and tributaries of the Mississippi River. Two of the canals in this system joined Lake Erie with the Ohio River, a third connected Lake Erie with the Wabash River, and a fourth joined the Illinois River and Lake Michigan. In addition to these three systems a large number of auxiliary canals were constructed for local traffic and for meeting particular problems of transportation. Among the enterprises of this nature were the Chesapeake and Delaware Canal, which was opened in 1830 between Delaware and Chesapeake Bays, and the Louisville and Portland Canal built around the Falls of the Ohio and completed in 1828. Many States planned complete sys-



Canals of the United States, 1855

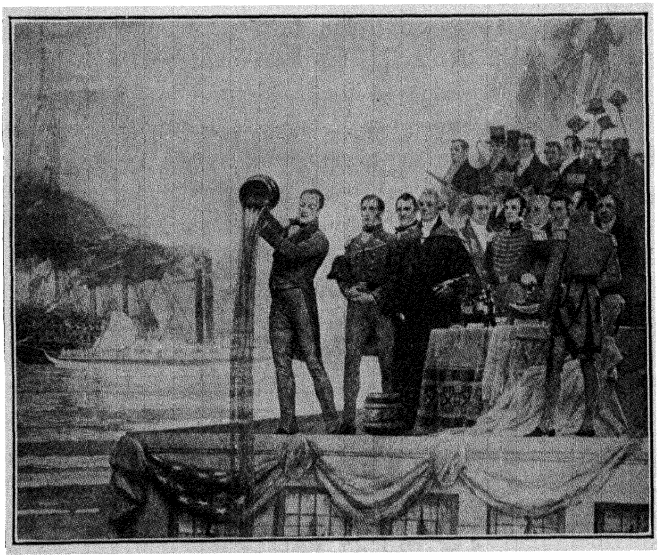
tems of "public works," with canals or roads extending to all important agricultural or industrial centers.

The Anthracite Tide-Water Canals. The anthracite tide-water canals consisted in part of canalized rivers. The first of these improvements, known as the "Schuylkill Navigation," was opened in 1826 between Mount Carbon and Philadelphia. It consisted of a series of locks and short canals which made it possible to transport coal down the Schuylkill River at all times except when the river was frozen. Shortly after this improvement was completed a similar improvement was made along the Lehigh River, which enters the Delaware River at Easton, Pennsylvania. The State of Pennsylvania constructed the Delaware Division Canal from Easton to Bristol, thus making it possible for the Lehigh Valley coal to reach Philadelphia by water.

The next problem was to establish canal connection with New York City. From Phillipsburg, New Jersey, just across the river from Easton, the Morris and Essex Canal was built to Jersey City. This canal was not equipped with locks throughout its entire length. At several points the boats were transferred from one canal level to another on wheeled trucks moving on inclined planes. The Delaware and Raritan Canal, from Bordentown to New Brunswick, afforded a second water route across the State of New Jersey, while the Delaware and Hudson Canal between Honesdale, Pennsylvania and Rondout, New York, offered a third means of transporting anthracite coal cheaply to New York City. The Susquehanna and Tide-Water Canal, along the Susquehanna River, offered an improved highway to Baltimore. These canals were nearly all opened before 1837. Most of them were constructed by private corporations, aided with appropriations from State treasuries.

The Erie Canal. In 1825 the Erie Canal, which the

State of New York had begun in 1817, was completed. The construction of this great waterway was accomplished in the face of much opposition of scheming politicians. DeWitt Clinton, who was the leading defender of the canal, was governor of New York when construction began in 1817. He was reëlected in 1820, but the opposition to the canal became so vigorous that he could not even secure a



Completion of Erie Canal

From a photograph of a painting in the DeWitt Clinton High School, New York. Copyrighted, 1910, by C. Y. Turner.

renomination in 1822. The opponents of the canal delayed the completion of the work. In 1824 Clinton was triumphantly elected governor a third time, and in 1825 he officiated at the ceremonies which marked the opening of the "Big Ditch" as the canal was derisively named by his enemies. On October 26, a canal boat, the *Seneca Chief*, started eastward from Buffalo with Clinton and other leading citizens aboard. All along the route to

Albany there were great celebrations, with parades, speeches, firing of guns and ringing of bells. From Albany the *Seneca Chief* was escorted by a fleet of steamboats to New York City, where the triumphal journey ended on November 4th. Clinton poured a keg of water from Lake Erie into New York Bay near Sandy Hook, a symbol of the "marriage of the waters" of the great inland seas of America and of the ocean.

The canal was 362 miles long, 4 feet deep, with a width of 28 feet at the bottom and 40 feet at the surface. It cost the State of New York about $8,000,000. The Champlain Canal extending from Albany to Lake Champlain, which was finished in 1824, cost about $2,000,000. Even before these two canals were finished the tolls on the local traffic which they carried produced a revenue for the State of nearly a half million dollars a year. By 1830 the tolls amounted to more than a million dollars annually; by 1837 the total tolls collected had repaid the original outlay and provided for operating expenses. In 1835 the density of traffic made it necessary for the Erie Canal to be enlarged.

Before the opening of the Erie Canal the cost of transporting a ton of freight from New York City to Buffalo was about $100, and the time consumed in making the haul was twenty days. The canal reduced the time to eight days and the cost to ten dollars.

There have been few events which have had a greater influence upon the economic development of a nation than the construction of the Erie Canal. The problem of developing the interior of the United States has been largely a matter of providing adequate transportation. The Erie Canal, at the time of its completion, was the most important artificial transportation route which the United States possessed. It not only gave economic unity to the State of New York, and afforded a cheaper means of transportation

between the seacoast and the settled regions of the interior, but it opened up and made available for settlement the vast fertile region around the Great Lakes. Before the canal was opened the Great Lakes were of little commercial importance, and there were few people in the northern part of what had been the Northwest Territory. Buffalo was but a small town, Cleveland and Toledo were struggling



Canal Boat Travel and Trade

frontier settlements, Detroit was a military and fur trading post, Chicago and Milwaukee were not yet founded. The first American schooner was launched on the lakes in 1797; a steamboat was built on Lake Ontario in 1816. When the canal was finished there were a half dozen American steamers on the lakes, most of which were engaged in taking supplies to frontier posts and returning with furs and peltries. As soon as the canal was opened thousands

or settlers swarmed into Ohio, Indiana and Michigan, and the Great Lakes became an important highway of commerce.

In addition to the Erie and Champlain canals the State of New York constructed a number of less important artificial waterways. The Oswego Canal running from Oswego to Syracuse connected the Erie canal with Lake Ontario. Short canals were constructed from the Erie Canal to the Lakes Cayuga, Seneca and Oneida. The Chenango canal extended from Utica to Binghamton on the Susquehanna River. The Black River, Chemung and Genesee Valley canals were eventually added to the system, giving to New York nearly 1,000 miles of artificial waterways.

The Pennsylvania Canal System. The Erie Canal gave New York City a great advantage over Philadelphia and Baltimore in competing for the trade of the West. Transportation from New York to Buffalo by water and thence to Pittsburgh by land was cheaper than direct transportation by land from Philadelphia to Pittsburgh. Fearing a total loss of the Western trade the people of Pennsylvania began, in 1826, an extensive system of "public works." The system, when completed, contained nearly 700 miles of improved waterways, serving various sections of the State. The most important branch of the system was the "Main Line" from Philadelphia to Pittsburgh. When finished in 1834 the "Main Line" was a composite rail and water route. A railroad ran from Philadelphia to Columbia on the Susquehanna River, thence a canal extended along the Susquehanna and Juniata Rivers to Hollidaysburg. Transportation over the mountain range between Hollidaysburg and Johnstown was acomplished by means of a system of railroads and inclined planes. On the level stretches of railroad cars were drawn by horse power. The cars were pulled up the inclined planes by means of strong cables which were wound on drums turned by stationary

engines. The cars descended the planes by action of gravity. A canal connected Johnstown with Pittsburgh. Though this route afforded a cheaper means of transportation than turnpikes it was inconvenient and expensive in its operation and was never able to compete successfully with the Erie Canal.

The Chesapeake and Ohio Canal. Two years after Pennsylvania began the construction of the "Main Line" a corporation chartered by Virginia and Maryland—a successor of the old Potomac Company of which George Washington had for a time been president—began the construction of the Chesapeake and Ohio Canal along the Potomac River, starting at Georgetown. The incorporation act of the Maryland legislature provided that a lateral canal should be constructed to Baltimore, in order to enable that city to maintain effective competition with Philadelphia and New York. Congress appropriated money to buy stock in the company and President Adams dug the first spadeful of earth at the celebration which marked the beginning of the work on July 4, 1828. It was intended to build the canal to the Monongahela River, but construction was so difficult and expensive that progress was slow. It was 1850 before the canal was finished to Cumberland. By that time the railroad had achieved such popularity that further construction on the Chesapeake and Ohio Canal was abandoned.

Canals in the West. The completion of the Erie Canal caused much rejoicing among the farmers of Ohio, who were anxious to have cheaper means of communication with the East. To take advantage of the New York waterway it was necessary for Ohio to have waterways from the central and southern portions of the state to Lake Erie. In 1832 the Ohio Canal was opened between Portsmouth and Cleveland. The Miami Canal from Dayton to Cincinnati gave the farmers of western Ohio a roundabout water route

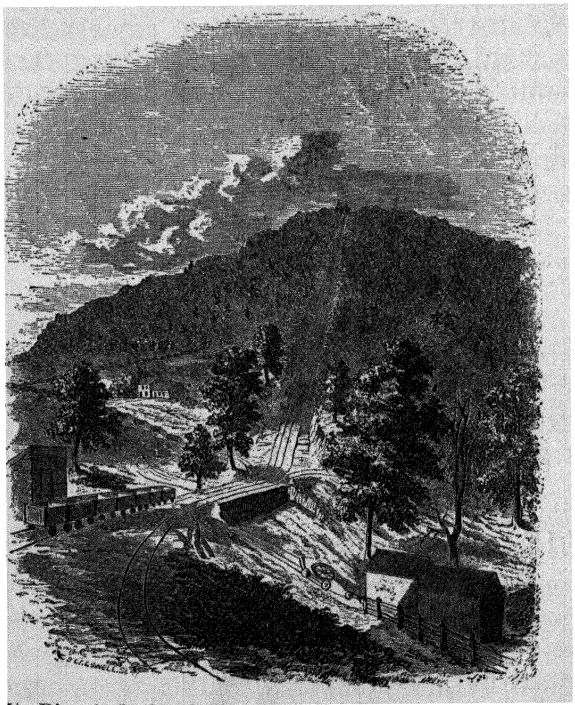
to the East. Indiana started the Wabash and Erie Canal connecting Evansville and Toledo in 1832 but the work was not completed until 1851. The northern section was opened however in 1845 and the Miami Canal was then extended northward to connect with it, giving Ohio two waterways from lake to river. The Illinois Canal, opened in 1848, extended from Chicago to LaSalle on the Illinois River. In 1855 the State of Michigan completed the first lock and canal at Sault Ste. Marie. All of the trunk line canals in Indiana and Ohio had numerous lateral branches to serve local communities. Nearly all the Western waterways were built at State expense, the money being obtained by loans and by sales of the large tracts of public lands granted to the States by the Federal Government.

The Railroad. Though canals were superior to turnpikes the transportation problem could not be solved by canals alone. They were expensive to construct, and in many parts of the country they could not be constructed at all because of the hilly character of the land. Severe winters in the Northern States often made it impossible to use canals more than seven months of the year. There was a pressing need for improved means of land transportation. The problem was solved by the introduction of the steam railroad.

The railroad was developed long before the steam locomotive. Early in the eighteenth century a few English coal mines were equipped with "rail" roads or tramways. The rails were long wooden stringers provided with wooden flanges on both sides to hold the wheels of the wagons on the track. This type of rail was succeeded by a rail with a single flange, and near the end of the eighteenth century the wheels of the wagons were made with flanges, and the wooden rails were surfaced with thin plates or straps of iron. Railroads of this kind were common in English

mining and quarrying districts at the beginning of the nineteenth century. A horse could draw a much heavier load on such a road than on a turnpike because the wheels had much less friction to overcome.

In 1826 a "rail" road or tramway was built from the stone quarries at Quincy, Massachusetts to a wharf on the

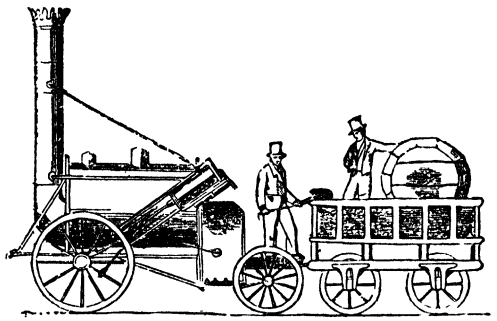


Mt. Pisgah Inclined Plane, Mauch Chunk, Pennsylvania

Neponset River for use in transporting stone for the Bunker Hill monument. This road was three miles long. Near the quarries the road ascended a steep incline, up which the wagons were drawn by a stationary engine. The loaded wagons were taken to the wharf part of the way by the action of gravity and part of the way by horses.

This Quincy tramway was the first "rail" road in the United States. In 1827 a coal company built a gravity railroad at Mauch Chunk, Pennsylvania, to transport coal from the mines to the Lehigh River. The mules which drew the coal cars or wagons up the incline rode down the incline on the cars. Another railroad for carrying coal was constructed from Carbondale, Pennsylvania, to the terminus of the Delaware and Hudson Canal at Honesdale.

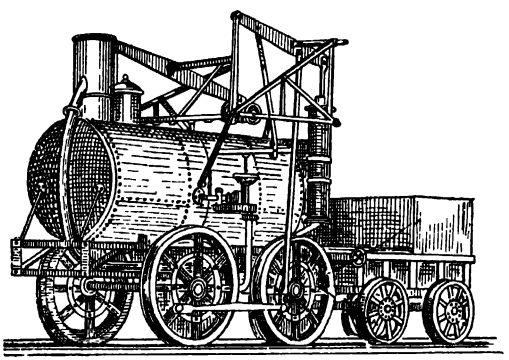
These first American railroads were designed for special purposes and were not for public use. Their superiority over ordinary highways for the speedy transportation of



The Rocket

heavy loads induced many people in America to believe that railroads would be superior to turnpikes and canals in ordinary transportation. This feeling was also common in England, and in 1826 some English capitalists began to construct a railroad between Liverpool and Manchester. The same year the Mohawk and Hudson Railroad Company was chartered by the State of New York to build a railroad between Albany and Schenectady. It did not begin construction however until 1830. The first public railroad in the United States was the Baltimore and Ohio. Some Baltimore capitalists, who were skeptical of the success of the Chesapeake and Ohio Canal, were authorized by the

Maryland legislature in 1827 to organize a corporation to build a railroad from Baltimore to the Ohio River. On July 4, 1828, the work on this historic enterprise began, the same day that marked the beginning of the canal at Georgetown. Charles Carroll of Carrollton, the last surviving signer of the Declaration of Independence, laid the first stone of the railroad track. Before the end of 1828 the road was completed to Ellicott's Mills, fourteen miles from Baltimore, and four years later it reached Point of Rocks. The example of the people of Baltimore was readily fol-

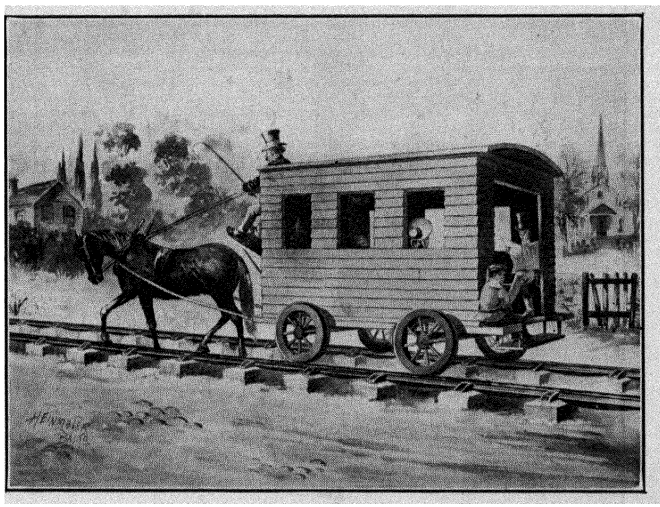


The Stourbridge Lion

lowed elsewhere. The Mohawk and Hudson Company started the first link of what was later to be the great New York Central System in 1830. Another road was started the same year between Charleston and Hamburg, South Carolina. These first railroads were considered merely as a superior kind of turnpike. Individuals were permitted to use their own vehicles on the roads, paying the companies tolls for the use of the tracks. The corporations also had carriages and wagons, and acted as common carriers of passengers and merchandise. Horsepower was used almost exclusively until after 1830, though some experiments

were made with cars fitted with sails. An invention was at hand however which was soon to revolutionize transportation and make the railroad a greater success than the first railroad builders ever dreamed it could be. This invention was the steam locomotive.

The Steam Locomotive. The first successful steam locomotive was the *Rocket*, designed by an English engineer, George Stephenson, for use on the Liverpool and Manches-

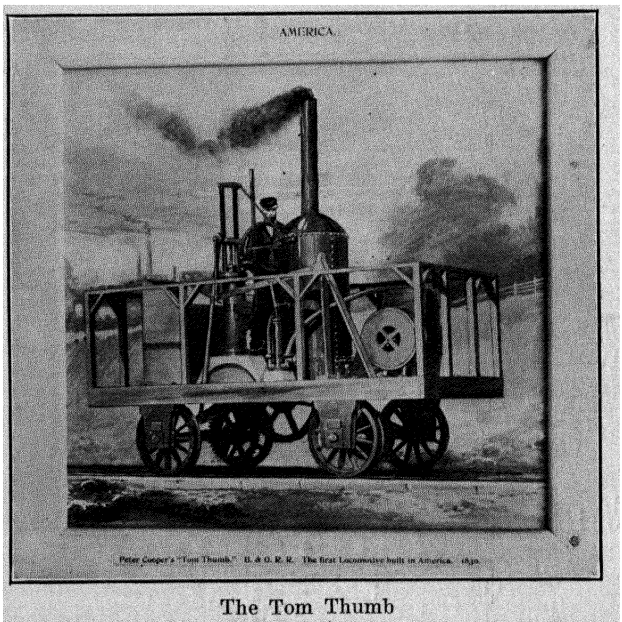


First Passenger Car on the Baltimore and Ohio Railroad
Courtesy of the Baltimore and Ohio Railroad Company

ter Railroad. Before the construction of the *Rocket* a number of workable locomotives had been built in England by various inventors, but like the early steamboats, these first locomotives were not a success commercially. Stephenson built several locomotives before 1829, some of which were used for drawing coal cars on the Stockton and Darlington Railroad in northern England, but these engines were too heavy and too slow for general serv-

ice. They weighed ten tons each and had a speed of but four miles an hour. The *Rocket* weighed but seven tons and attained a speed of twenty-nine miles an hour.

Stephenson's early experiments awakened much interest in the United States even before the Baltimore and Ohio Railroad was started. In 1825, John Stevens of Hoboken, New Jersey, built a crude experimental locomotive, which

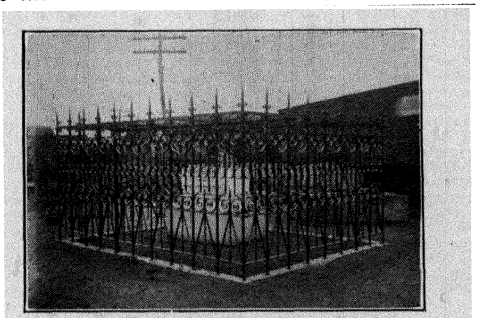


The Tom Thumb

Courtesy of the Baltimore and Ohio Railroad Company.

he operated on a small track near his home. In 1828 Horatio Allen, the chief engineer of the Delaware and Hudson Company, which owned the Carbondale and Honesdale Railroad, went to England and ordered three locomotives from George Stephenson's foundry. The locomotives reached New York City the following year, and one of them, the *Stourbridge Lion,* was taken to Honesdale and given a trial. It was operated successfully, but was too heavy

for the trestles of the railroad, and was soon withdrawn from service and dismantled. In 1830 Peter Cooper built a small locomotive, the *Tom Thumb*, similar to the one which Stevens had made, and ran it on the Baltimore and Ohio Railroad. This demonstration that steam transportation on the railroad was feasible induced the directors of the Baltimore and Ohio Company to offer a prize of $4,000 to the American engineer who, before June 1, 1831, would construct a locomotive, weighing not to exceed three and a half tons, which would be capable of drawing a load of fifteen tons on a level railroad at a speed of at least fifteen miles an hour. Phineas Davis of York, Pennsylva-



Stone Marking the Spot Where Construction of the Baltimore and Ohio Railroad Was Begun, July 4, 1828

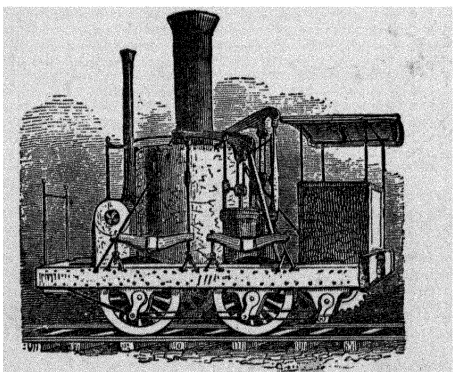
Courtesy of the Baltimore and Ohio Railroad Company

nia, built a locomotive, the *York*, which easily met these specifications.

Before Davis won the Baltimore and Ohio prize the West Point foundry of New York City built three locomotives which proved to be highly successful. Two of them, the *Best Friend* and the *West Point* were used on the Charleston and Hamburg Railroad in South Carolina, and the third, the *DeWitt Clinton*, was built for the Mohawk and Hudson Railroad. In 1831 the Camden and Amboy Railroad Company imported from England its first locotive, the *John Bull*. This engine was used for many years

and is now in the museum of the Smithsonian Institution at Washington. Matthias Baldwin, the founder of the Baldwin Locomotive Works of Philadelphia, built his first locomotive, *Old Ironsides*, in 1832. American inventors soon contributed many improvements to the locomotive as well as to all the other mechanical equipment of the railroad.

Railroad Construction. The success of the steam locomotive aroused a great enthusiasm for railroad construction, and a large number of railroad corporations were soon



The York

chartered. So rapidly did construction proceed that by 1837 the United States had about 1500 miles of railroad line. Most of this mileage was in the Eastern States. The legislatures of Western States appropriated several million dollars for railroad development but construction did not begin in the West on an extensive scale until after 1845. In the main the early railroads were intended for passenger service. Many of them were built to connect well traveled water routes. The Newcastle and Frenchtown Railroad connected boat lines on the Delaware and Chesapeake Bays; the Boston and Providence road shortened

the time of passage between Boston and New York; the railroads in the Main Line of the Pennsylvania Public Works connected sections of canal navigation. It was not generally believed that railroad transportation could ever compete successfully with water transportation, though a number of enthusiastic friends of the new device confidently predicted that it would drive the canals and the steamboats out of business. The general adoption of the locomotive made it impracticable to permit individuals to use railroads as they used other highways, and the railroads assumed the duty of supplying all motive power and most



De Witt Clinton and Train, 1831

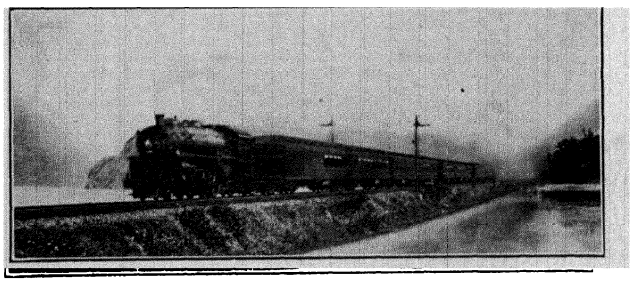
Courtesy of the New York Central Railroad Co.

of the cars. Shippers were permitted to supply their own cars if they chose to do so, but the movement of the trains was controlled by the railroad companies. The railroad company was a common carrier which not only performed the service of transportation but owned the road and the equipment with which the work was done.

Development of the Steamboat. While canal and railroad construction was adding to the transportation facilities of the country the steamboat was being steadily improved. The small *Clermont* with its uncovered paddle-wheels was succeeded on the Hudson River by vessels of 500 tons and more, with improved engines, "houses" on

the paddle-wheels, and equipment which made steamboat travel on the Hudson not only comfortable but luxurious. It took the *Clermont* 32 hours to go from New York to Albany; in 1825 the *Chief Justice Marshall* made the trip in 14½ hours. All the navigable rivers and bays of the Atlantic Coast had a large steamboat traffic, and a few strong steamboats were built before 1837 to operate along the coast.

The Mississippi River system was the most important field of steamboat service, and on these waters too larger and faster boats were built each succeeding year. In 1837 the *Tecumseh* ascended from New Orleans to Louisville in



The Twentieth Century Limited
Courtesy of the New York Central Railroad Co

8 days and 2 hours, as compared with 25 days required for a similar voyage by the *Enterprise* in 1817. By 1837 there were 250 steamboats on the Mississippi, and the number of steamboat arrivals at New Orleans each year was more than a thousand. Many of the steamboats on the Western rivers were equipped with stern paddle-wheels, which were more suitable than side-wheels for use in shallow water. Steamboat travel on the Western rivers was not free from danger. High pressure engines were used on most of the boats, and disastrous boiler explosions occurred with an all too tragic frequence. The shoals of the river bed and the "snags"—trees and logs which fre-

quently became lodged in the channel—were also sources of danger.

The opening of the Erie Canal stimulated the construction of steamboats for use on the lakes. Three new steamers were launched on Lake Erie in 1826, and regular service was established from Buffalo to Cleveland and Detroit. Shortly after 1830 steamer service was extended to Lake Michigan. In 1834 the association controlling steamboat transportation on the lakes operated 18 vessels, carrying thousands of emigrants on their way to take up Western lands. Six years later the number of steamboats had increased to 48. Dozens of sloops and schooners also took part in the development of the commerce on the lakes.

Questions and Topics

1. What advantages has water transportation over railroad transportation? Railroad over water?
2. On an outline map of the United States, mark the canal system existing in 1830.
3. If water transportation is cheaper than railroad transportation, why are the canal systems now used comparatively little?
4. Why did not the government rather than private companies build the railroads?
5. What bearing did the doctrine of "State Rights" have on internal improvements?
6. Can commercial airplane service revolutionize transportation as much as railways did in the 19th century? Give reasons.

CHAPTER XV

INDUSTRIAL AND COMMERCIAL EXPANSION

Expansion of Production and Internal Trade. While the steady improvement of the agencies of transportation was taking place there was a rapid expansion in the production of wealth throughout the United States. Better transportation facilities made possible a territorial division of labor, and the country became separated into three great economic sections: the South, where cotton culture was the all important industry; the West, where the production of grain and live stock was the leading economic activity; and the East, where agriculture gradually lost its relative rank among the industries of the people, giving precedence to manufacturing, mining, and commerce. Out of this sectional division of labor grew a large domestic commerce, much greater in value than the foreign trade which during previous times had absorbed so large a share of the national interest.

The South. The South was an important factor in the economic situation. After the "hard times" which followed the panic of 1819 had subsided, there was a great increase in the cultivation of cotton throughout the South, and especially in the lower Mississippi Valley. The cotton planters took up the best remaining lands in Alabama and Mississippi, moved across the Mississippi River, up the fertile valleys of the Red and Arkansas Rivers, and even over to the rich coastal plain of Texas. Arkansas was admitted to the Union in 1836, and a spirited agitation for the annexation of the newly created republic of Texas was begun by Southern political leaders, who were de-

sirous of extending the slave territory of the United States.

Hundreds of planters from the coastal states of the South and from the border states of Kentucky and Maryland emigrated with their slaves and live stock to the better lands of the lower Mississippi Valley. Shortly before 1830, Jefferson Davis, who, like Abraham Lincoln, was born in Kentucky, went to Mississippi to engage in cotton planting. The average cotton plantation contained several thousand acres and the wealthier planters often numbered their slaves by the hundred. From 1820 to 1830 the cotton crop of the United States increased from 334,228 bales to 732,518 bales of 500 pounds each. By 1835 the total cotton crop was more than a million bales. More than one-half the crop of 1835 was raised on the plantations of the Mississippi Valley; a quarter of a century before barely one-sixteenth of the total cotton crop was produced outside the four coastal states of Virginia, North Carolina, South Carolina and Georgia.

The chief market for the huge crops of cotton was England. The cotton mills of the Eastern states and of the cities in the Ohio Valley consumed a part of the Southern staple, but the foreign market took much more than half the annual crop. Cotton led all other American exports. From 1825 until the Civil War the exports of cotton each year were usually greater in value than all other domestic exports of the United States combined. New Orleans, the leading cotton market, had domestic exports of greater value than the domestic exports of any other American seaport.

Absorbed in the production of cotton the people of the South gave comparatively little attention to other branches of industry. The sugar planters of Louisiana were prosperous, there was a steady increase of tobacco culture in Tennessee, and hundreds of "small farmers" throughout

the South, many of whom owned no slaves whatever, engaged in diversified farming, producing corn, vegetables, cattle, mules and hogs. The more progressive cotton planters produced much of the food and live stock needed for their plantations, but no product or group of products compared favorably with cotton. Most of the planters invested their surplus savings in slaves to "raise more cotton to buy more slaves to raise more cotton." For live stock, flour and provisions they depended in a large measure upon the Western farmers; for manufactured goods and imported supplies they turned to the merchants of the East. With nearly all available capital devoted to cotton culture the South made little progress in such pursuits as manufacturing, banking, commerce and shipping. There were few cities of importance aside from New Orleans, and the great export trade of that seaport paid tribute to Northern bankers, brokers and shipowners.

The West. The expansion of cotton culture in the South and the resulting demand for grain, provisions and live stock served to relieve the distress which the Western farmers experienced after the panic of 1819. Steamboats and flatboats carried ever increasing quantities of salt meat, lard, butter, cheese, corn, wheat, flour, whiskey, hay, fruit and manufactured goods down the Mississippi. Until railroad transportation was developed the flatboat remained an important factor in the Western river trade. Steamboats could not ascend the smaller streams, and the farmers found it easier to build flatboats during the winter months, load them with produce and float them down-stream during the spring freshets, than to haul their produce to distant towns located on rivers navigable by steamboats. Part of the traffic descending the Mississippi was sold at plantation wharves and at small river towns, but most of it went to New Orleans where the agents of the planters bought it and shipped it to the plantations in the small packet-

steamers which carried the local commerce of the Southern rivers.

The expanding Southern market and the easy means of transportation brought prosperity to the West. By 1830 prices were good and trade was active. Many new settlers came to take up the vacant lands of southern Indiana and Illinois. The life of the Western farmer was full of arduous toil and great hardship. Much of the land was low and swampy, and until drainage was provided the settlers suffered from ague. Clearing the soil of trees and underbrush, building houses, barns and fences, digging ditches, planting, cultivating and harvesting the grain and taking it to market, feeding and caring for the cattle, horses and hogs—the men on the farms were always busy. The life of the women was likewise full of constant toil. Not only did they do the housework—cooking, washing and sewing for large families—but they helped with the outdoor labor of the farm, cultivating the vegetable gardens, milking the cows, making butter and cheese, caring for the poultry, and frequently working in the fields with the men. Few comforts and conveniences, scant opportunity for education, little amusement—yet these sturdy farmers and their families pursued their way with enthusiasm and perseverance, rejoicing in the "independence" which came with the ownership of the soil, filled with a glowing confidence in the future of their "great West," laboring constantly for improvement and making much of their meager opportunities The future always held "something better" in store for them. Hundreds of families were frequently on the move, barely getting settled in one community when they would sell out and move farther west where opportunities for achieving wealth seemed greater.

One can study the history of these Western farmers in the early life of Abraham Lincoln. The hardships of his boyhood days in southern Indiana he experienced in com-

mon with other people in that section. He got little schooling, but he received as much as most of the boys in his neighborhood. In 1828 he went to New Orleans as a "bowhand" on a flatboat. In 1830 his family moved to Illinois, taking up land in the valley of the Sangamon River. Young Lincoln helped his father clear the land and build a log cabin, and he split many of the rails with which the new farm was fenced. In 1831 he took a second flatboat trip to New Orleans, witnessing on this occasion the sale of negro slaves from the auction block. He was the pilot of the first steamboat on the Sangamon River, and in 1832 he entered Illinois politics as an advocate of the improvement of that stream.

Though the chief external market of the Western farmers lay in the South they sent part of their products to the East. Large herds of beef cattle were driven to the slaughterpens of New York, Philadelphia and Baltimore. It was not feasible to drive fat cattle from Illinois directly to the Atlantic coast cities, because the distance was so great, but many Illinois cattle were taken to the Scioto and Muskingum valleys in the fall, fattened with corn during the winter, and driven across the mountains to market the following spring.

The opening of the Erie Canal, the Pennsylvania Main Line and the Ohio Canal gave the Western farmers better routes of communication with the East, but the eastbound movement of traffic from the Ohio Valley over these routes was relatively light. The canals did not divert much traffic from the Mississippi. Pork products from the packing houses, whisky, hides and some flour were sent up the Ohio River to Pittsburgh, and through the Ohio Canal to Cleveland for shipment over the Main Line or the Erie Canal, but the cost of transportation over these routes was too great to permit the movement of grain. It was just as

cheap to send produce down the river to New Orleans and ship it coastwise to the Eastern cities.

After the Erie Canal opened however the region just south of the Great Lakes was settled very quickly, and the people of this section shipped all of their surplus produce to the East. The growth of this new internal trade was exceedingly rapid. Previous to 1830 virtually all of the eastbound traffic of the Erie Canal consisted of articles produced within the State of New York. In 1835 wheat and flour equivalent to 268,000 barrels of flour, from States west of New York, arived at Albany over the Erie Canal. Ohio was the first of the Western States to make use of the lake-and-canal route for the transportation of grain; Indiana and Michigan quickly followed, using the ports of Toledo and Detroit. In 1836 the first eastbound shipment of grain from a Lake Michigan port was recorded, a cargo of 3,000 bushels of wheat from Grand Haven to Buffalo. The Erie Canal made possible the commercial development of the wonderful white pine forests of the Great Lakes region, and shipments of Western lumber soon made up a part of the eastbound canal traffic. A highly important result of the development of the Great Lakes district was the commercial expansion of New York City. All the exports of the newly settled region passed through New York, greatly increasing the lead which that city had already obtained over rival Eastern ports.

Unlike the people of the South the inhabitants of the West were deeply interested in the development of manufacturing, mining and transportation. Textile mills produced some of the cotton and woolen cloth needed for local consumption, and a number of factories made hempen fabric for use in baling Southern cotton. Steamboat yards at the leading river cities, foundries and forges for the manufacture of steam engines and boat fittings, grist-mills and

pork-packing plants gave employment to several thousand laborers. The construction of highway and canal systems also caused a need for many workmen, whose wages went in part to the farmers in exchange for food. The most important mineral product of the West at this time was lead, which was produced in large quantities in the neighborhood of Galena, Illinois. The ore was smelted near the mines and the lead shipped to New Orleans, whence it was sent coastwise to Eastern cities to be converted into finished products. The great soft coal fields of the West were discovered, but little effort was made to develop them because wood was so cheap and plentiful.

The Western people fell short of producing all the manufactured supplies which they needed, and with part of the proceeds of their sales of food and provisions in the South they bought large quantities of goods from the merchants of the East. Though the steamboat afforded an easy means of transportation from the South the West bought but little from that section. The South produced few articles that the West wanted, and the Southerners did not endeavor to import goods to sell to the Western farmers. New Orleans was a great export center but its imports were comparatively small. Steamboats went down the Mississippi heavily laden but their return freights were light, consisting of comparatively small quantities of cotton and sugar and occasionally some heavy articles from the Eastern States which could be shipped more conveniently by way of New Orleans. The Eastern merchants supplied the wants of the West, and they found a good market for textiles, furniture, boots and shoes, tools, household goods, and miscellaneous manufactures. The Erie Canal took virtually all the westbound merchandise traffic from the highways, and incidentally gave New York City a commanding lead in the Western trade, a lead which was steadfastly maintained even after the Pennsylvania

Main Line enabled Philadelphia to recover a part of the traffic.

The East. While the South and West were expanding their agricultural production the most significant change in the East was the development of manufacturing. The manufacture of cotton cloth led all other industries in rapidity of growth. Throughout New England dozens of new cotton mills were erected, and in the Middle Atlantic States also large sums of money were invested in new cotton factories. In 1822 a group of Waltham capitalists obtained control of the water-power of the Merrimac River at Pawtucket Falls and founded the city of Lowell, which soon became the leading cotton manufacturing city of the country. At numerous other points along the Merrimac and along other swift New England streams cotton mills were established. Massachusetts took the lead in the production of cotton goods.

The number of women and girls employed in the cotton mills was twice as great as the number of men and boys employed. In 1831 nearly one-half of the 8,000 workers in the cotton mills of Rhode Island were children under 12 years of age. The wages of the men ranged from $4 to $7 a week and the wages of the women and children from $1.40 to $2.50. The work-day was never less than twelve hours and in many mills it was fourteen and sixteen hours. It was more difficult to obtain workers in America than in England where the cotton mill operatives consisted largely of the pauper class. However the transfer of cloth manufacture from home to factory deprived many women and girls of work which they had been accustomed to do, and some of them followed their work to the factory. Whatever reluctance parents may have felt about letting their daughters go to the cities to work in the mills was overcome by the establishment near the factories of large and comfortable dormitories, maintained by the mill

owners. The charges for room and board were deducted from the weekly wages of the workers. Many manufacturers maintained stores from which their workmen were required to purchase their food and clothing, the amount of the purchases being retained out of wages. This "trucking system" of paying wages was in a measure necessary because of the lack of currency, but it gave opportunity for grave abuses on the part of selfish and greedy employers.

Other textile industries of the Eastern States produced woolen, linen and silk materials. The value of the products of the woolen mills was less than one-half the value of the cotton goods produced. The manufacture of silk was still in the experimental stage. Leather, paper, glass, boots and shoes and other articles of leather, carriages and coaches, and furniture were among the important products of Eastern manufacturing industries.

Next to cotton manufacture the production of iron and of finished articles of iron was the most important industry. There had been a need, from earliest colonial days, for farm implements, nails, anchors, firearms and household utensils, which American iron producers had tried in part to meet. Now there was an increasing demand for iron not only for the long customary uses but for many new purposes. The machinery of the new textile mills was made partly of iron; steam engines for use on steamboats, steam locomotives, stationary engines for use in mills erected where water-power was not available, railroad rails and railroad cars and tools of all kinds represented new demands for iron. It was at this time that the manufacture of iron heating-stoves and cooking-stoves began on an extensive scale. The growing iron industry itself created a need for great mechanically operated hammers, anvils, tongs, engines and other kinds of iron equip-

ment. The establishment of the factory system introduced a new age of iron.

New methods of smelting and refining iron were developed both in England and in the United States. Some of the ores of Pennsylvania and New York were of sufficient purity that wrought iron could be made directly from the ore in "bloomeries." In most of the iron ore there was so much carbon, sulphur and other foreign substances that the ore was reduced in blast furnaces, where it was converted into "pigs" of cast iron. These pigs were then refined in forges, where by repeated heating and hammering or "squeezing" the excess carbon was expelled from the brittle cast iron, leaving an easily workable wrought-iron. Very little steel was made in America partly because of the lack of the necessary skill and technical knowledge and partly because of the difficulty and expense of the processes of steel making then known. The "puddling-furnaces" afforded an improved method of refining the pigs of cast iron. In this type of furnace the iron could be reduced to a molten state without being brought into direct contact with the fuel, thus making it possible to expel the impurities with only one heating. The puddling process was introduced from England about 1817 and its use was gradually adopted in all the iron producing centers. Refined iron was sent to foundries, rolling mills, cutting mills and forges to be cast, rolled, cut or forged into finished products.

Until 1840 charcoal was virtually the only fuel used in smelting and refining iron, and the charcoal burning industry was closely associated with the iron industry. Some ironmasters experimented with anthracite coal, with mixtures of anthracite coal and charcoal, and even with coke, but their early efforts to use these fuels did not meet with much success. Moreover there was a prejudice against the

use of mineral coal, it being thought that it injured the quality of the iron.

There were other uses for anthracite coal, however, which brought about a greatly increased demand for it throughout the East. It was used for household purposes and for firing steam engines, and it was also used in the iron foundries and shops where finished castings and forgings were made. The shipments of anthracite coal from the Lehigh, Schuylkill and Wyoming districts of eastern Pennsylvania mounted from 365 tons in 1820 to 684,000 tons in 1836. Bituminous coal from Virginia and Nova Scotia was sold in the cities of New England and the Middle Atlantic States, and imports of coal from England continued to enter the country.

One effect of the development of manufacturing was the demand for better artificial light. The days of factory labor began long before dawn and ended long after sunset during a large part of the year. The whale-oil lamps, sperm and tallow candles, and other old-fashioned lighting devices were not adequate for factory lighting. A great improvement came with the introduction of coal-gas illumination. Coal-gas production began in Boston in 1821 and in New York in 1822, and its manufacture soon spread to other communities. The new kind of illumination was used not only for lighting factories, but for lighting streets and dwelling houses. The manufacture of the gas created new demands for iron for the ovens, tanks, pipes and fittings used in production and distribution.

The Beginning of the Labor Movement. The factory system brought large profits to many investors, and it also brought large losses, because of fluctuating market conditions and because of stock speculation and mismanagement of new industries. Workmen found their employment irregular; when they had work their wages were comparatively small and their hours of work excessive. It was

inevitable that such conditions should create dissatisfaction. The unrest and discontent resulted in an organized movement among the workers to improve the conditions of labor. Shortly after the beginning of the nineteenth century certain printing and building crafts had founded labor organizations, but the "labor movement" can scarcely be said to have started in the United States until after the factory system was well established.

An event which greatly stimulated the labor movement was the coming of Robert Owen to the United States in 1824. Owen had done some wonderful work in the improvement of the conditions of labor in the textile mills of New Lanark in Scotland. He was greatly distressed by the abject misery and poverty of the great mass of factory workers in England. He came to America with the idea of establishing a new type of social and industrial organization based upon community coöperation. He founded a model community at New Harmony, Indiana, but it did not meet with success. Notwithstanding the failure of Owen's communistic experiment his teachings and the knowledge of the work he had accomplished in New Lanark had a profound effect upon the American public. Many leading citizens endorsed his views and encouraged the organization of workers as a means of bettering the condition of the laboring population.

There was a general demand among laborers for a ten-hour day, increased wages, extension of the suffrage, a better system of education and the abolition of imprisonment for debt. Labor unions were organized in a number of industries, and in 1833 a trade union council was held in New York City. The workingmen of New York endeavored to enforce their desires through political action, and they organized a party which had a candidate for governor in the election of 1830. The following year, in combination with the Whigs, the Workingmen's party suc-

ceeded in electing a few members of the New York legislature, an event which created considerable excitement. In 1836 the Workingmen's party, then known as the Loco-Foco party, supported Van Buren for the presidency. Subsequently President Van Buren issued an executive order prescribing a ten-hour day for laborers engaged in government work.

Trade of the Eastern States; Coastwise Shipping. A large part of the manufactured products of the Eastern States, as has been previously indicated, was marketed in the Southern and Western States. The merchants of the East also sent to the West and South most of the imported goods which those sections consumed. The merchants, bankers and shipowners of the East conducted the business transactions of the foreign trade of the United States. The imports of New York City were greater than the imports of all other seaports of the United States combined, and New York merchants derived much profit from the distribution of imported goods to the markets of other States. Traffic between the East and the South was carried on in coastwise shipping, and with the increased consumption of Southern cotton in Eastern mills and the enlarged demand for Eastern manufactures throughout the South, the coastwise trade grew even more rapidly than the trade of the Mississippi River. There is little exact information available concerning the volume of the coastwise trade of the United States. In keeping statistics of the American merchant marine the Treasury Department failed to deduct each year the tonnage of the vessels lost at sea or worn out. For this reason the statistics of American shipping for the years previous to the Civil War are misleading, and the exact increase of tonnage each year cannot be ascertained. Deductions for lost ships and worn out ships were made in a lump every ten or twelve years so that the statistics for years when the corrections were

made seem to indicate that there was a great loss in tonnage when there was really a net increase. However, the information available in trade journals and newspapers shows that there was a steady development of coastwise trade after 1820. Moreover the statistics of tonnage for 1830, after losses for a period of more than ten years had been deducted, show that for the first time the coastwise merchant fleet of the United States exceeded in tonnage the merchant shipping engaged in foreign trade.

Foreign Trade. From 1820 to 1830 the foreign commerce of the United States made comparatively little progress. The primary interest of the nation was internal development. As Prof. Frederick J. Turner has said, "The nation was building an empire of its own with sections which took the place of kingdoms." At no time during this decade did the annual value of the imports reach $100,000,000, and in only one year did it exceed $90,000,000. About one-third of the imports of each year were reëxported to foreign markets. There was a steady increase in domestic exports, due to the growth of the cotton trade. For the ten year period there was an excess of exports of only $33,000,000, which was more than balanced by the loans contracted abroad through the sale of bonds for internal improvements.

Beginning with 1831 there was a rapid growth in the foreign trade of the United States. Both exports and imports increased in amount but the increase of imports was much greater than that of exports. Many reasons existed for the sudden expansion of the import trade. In part it was due to the reduction of protective tariff duties, though the comparative unimportance of this cause is indicated by the fact that the imports which showed great increases were luxuries such as silks and wines, and tropical foodstuffs such as sugar, and not manufactured articles which competed with American made products. The extensive

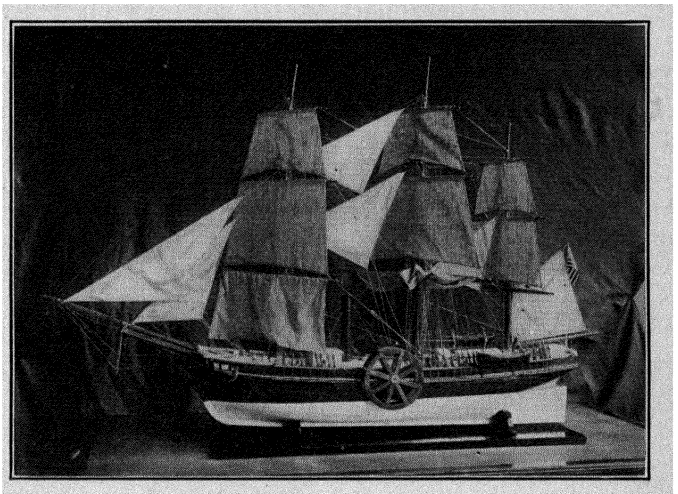
borrowing in foreign countries was also a cause of increasing imports. The mere fact that credit was so easily obtainable in Europe tended to encourage buying by American merchants. The excess of imports represented in part the investment of foreign capital in American enterprises. Finally the five years preceding 1837 were years of great speculative activity. There was a curtailment of production in some branches of industry and a general advance in the consumption of luxuries among the thousands of people who believed they were getting rich much faster than they really were. Successful speculation is usually accompanied by wasteful extravagance. The total imports rose from $103,000,000 in 1831 to $189,000,000 in 1836, while exports advanced from $81,000,000 to $129,000,000. The foreign purchases caused the people of the United States to become heavily involved in debt again, and once more became a cause of serious economic disturbance.

Ocean Shipping. The relative stagnation of foreign trade between 1820 and 1830 tended to check the development of the shipping industry, and it did not grow as it had grown during the years of the Napoleonic wars. However the protective legislation of 1817 gained the admission of American ships to the carrying trade of foreign countries, and there was no decline of the shipping business. Immigration to America from England, Ireland and the countries of continental Europe gave rise to a large passenger traffic from which American shipowners derived large profits.

This period witnessed the establishment of a number of fast sailing "packet lines" between the United States and Europe. The first regular transatlantic packet line, the Black Ball Line, had been established in 1816. Previous to that time there had been little effort to operate vessels on regular schedules. Ships were owned by merchants, and sailings occurred whenever cargoes were available.

The increase of ocean traffic between Europe and America made it possible to separate the shipping business from the business of trading, and "common carriers" were established on ocean routes. Individuals and companies acquired fleets of sailings vessels, announced regular schedules of sailings, and carried passengers and whatever freight was offered.

Ocean vessels of large size and better sailing qualities were constructed. Double-decked vessels of 800 tons and



Model of the *Savannah*

Courtesy of U. S. National Museum.

more made their appearance in transatlantic trade. Boston, New York, Philadelphia and Baltimore were important shipbuilding centers. In 1819 a New York firm installed an engine in a sailing vessel, the *Savannah,* and operated it under steam nearly all the way from Savannah to Liverpool. This feat was regarded with much wonder in Europe, and the vessel was taken to several ports and placed on exhibition as the "first steamboat to cross the Atlantic." Its owners did not seriously consider the pos-

sibilities of steam transportation on the ocean and soon removed the engine from the ship. In 1833 a steamship, the *Royal William,* crossed the Atlantic from Quebec to Liverpool, all the way under steam. This event convinced English shipowners that transatlantic steamboat navigation was entirely feasible, and in 1837 the first steamship designed for regular transatlantic service, the *Great Western,* was launched at Bristol. The initial trip, made the following year, marked the beginning of a new era in ocean transportation.

Shipping Reciprocity. The abolition in 1815 of discriminating tariff and tonnage taxes in the direct foreign trade of the United States had met with such favor that from time to time it had been suggested that the principle of reciprocity in shipping duties be extended to include the indirect trade. American shipowners were required to pay out each year many thousands of dollars in foreign ports because of high tariff and tonnage duties. Since more than ninety per cent of the foreign trade of the United States was carried in our own ships our Government obtained but little extra revenue from the discriminating duties imposed on foreign ships. The discriminating duties gave little protection to the shipping business, and they occasionally caused much inconvenience. Ships of all countries were frequently forced to make voyages in ballast to avoid the payment of excessive duties which would have absorbed the profits obtained if cargoes had been carried. By producing this effect the policy of discrimination added to the expense of operating ships and caused freight charges to be higher than they otherwise might have been. In 1828 Congress enacted a law abolishing all discriminating duties imposed on the vessels of those countries which would agree not to levy any discriminating taxes whatever on the vessels of the United

States. The offer was readily accepted by the leading maritime nations of Europe.

The abolition of discriminating duties abroad opened a wide field for American ships, and the increase of the foreign trade of the United States after 1830 likewise enlarged the opportunities of American shipowners, who entered upon a period of unprecedented prosperity. Vessels could be built cheaply in America and our seamen were without equal. During the six years following 1830 the merchant shipping of the United States engaged in foreign trade increased on the average more than ten per cent each year. Continuing its growth thereafter our merchant fleet at the beginning of the Civil War was larger than the merchant fleet of any other nation.

Questions and Topics

1. What additions have been made to the three great economic sections of the United States, as classified in the early 19th century?
2. Expand the sketch of Lincoln's boyhood and youth by adding details selected from one or two of his biographies.
3. What natural resources of the Eastern States made feasible the manufacture of leather, paper, glass, shoes, carriages, furniture and cook stoves?
4. Selecting one article, show how its manufacture entails the manufacture of numerous other articles.
5. Make a list of various products that are used for fuel in other countries.
6. Compare the demands of the laborers in 1830 with the demands of laborers today.
7. Trace the improvements in lighting from the discovery of America to the present day, and point out some of the social and economic results of the improvements.
8. List all the causes that contributed to the commercial supremacy of New York before 1830.
9. How can you account for the fact that ocean steamships were not built until some time after river steamboats were used?

CHAPTER XVI

CURRENCY AND BANKING; THE PANIC OF 1837

Prosperity and Speculation. The years from 1830 to 1835 were years of great prosperity in the United States. In all branches of industry there was much activity and progress; many new enterprises were successfully started; there was a rapid expansion of national wealth. As has often happened, however, rapid expansion bred a spirit of speculation, and many persons, in the eager pursuit of riches, overreached themselves. Once more there was a great expansion of credit, and the people of the United States became loaded with debts which they could not pay. The inevitable collapse ensued in 1837, and the country passed through another great industrial and financial crisis.

One of the causes of the panic of 1837 was a disordered banking and currency system. A financial crisis of an entire people is something like the financial crisis of a single individual; it is the result of an expansion of credit, the accumulation of debts that cannot be paid, an excess of liabilities over present or immediately prospective assets. A national crisis may come without any derangement of the banking and currency system. The crises of 1785–86 and of 1819 would probably have occurred however sound a system of banking and currency the country might have had. But since the beginning of the nineteenth century all financial crises have been closely related to the conditions of the banking business, and as a matter of fact, unsound banking practice has been one of the primary causes of financial disturbances. This has been true be-

cause since the early years of the nineteenth century credit operations in business have been conducted largely through banking institutions rather than directly between individuals. Bank credit superseded ordinary book credit. Whereas formerly a merchant bought directly on credit from a wholesaler, he now borrowed credit at the bank to make his purchases. Or the wholesaler might trust his customers directly, and, on the strength of the sums due him, borrow funds at the bank to finance his business operations. In other words business men exchanged their own credit for the credit of the bank. The evidences of bank credit were more acceptable; and the banks were convenient and effective agencies for the collection and payment of obligations.

During the first half of the nineteenth century much of the bank credit took the form of bank-notes. These were the banks' promises to pay certain sums, given to borrowers in exchange for their notes. The bank-notes were payable to the bearer and were placed in circulation by the borrower. Sound banking practice required that a bank be always ready to redeem its notes in specie. When a bank made unwise loans in large amounts it was unable to collect from its debtors and was consequently unable to redeem its notes. Whoever held such irredeemable notes was a loser. Bank credit also took the form of deposits. The borrower gave his note to the bank and received credit for a certain sum on the books of the bank. Such credit could be transferred from one individual to another by means of checks and drafts. If a bank made unsound loans it became unable to pay its depositors' claims, and the effect was just the same as when the evidence of the bank credit was in the form of bank-notes. With this brief explanation of how banking became related to commercial transactions and of the manner in which unsound banking may result in the improper inflation of credit we

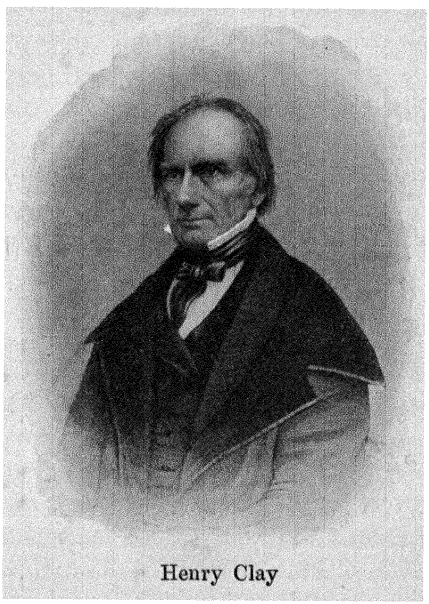
shall observe what happened in the United States between 1830 and 1837.

Andrew Jackson and the Second United States Bank. In his first message to Congress after becoming President, Andrew Jackson raised the question of the constitutionality of the United States Bank, and, asserting that the Bank had "failed in the great end of establishing a uniform and sound currency," suggested that Congress should begin to consider the propriety of renewing the Bank's charter which was to expire in 1836. In reply to this message the Committee on Ways and Means of the House of Representatives expressed satisfaction with the record of the Bank and asserted that it had been a highly valuable institution which was worthy of continued existence. In his second annual message in 1830 Jackson again expressed some doubt as to the advisability of rechartering the Bank.

Jackson's aversion to the Bank at this time had two reasons back of it. He had a profound distrust of all paper currency, a distrust based upon the unhappy experience of the people of the United States and especially of the people of the West where Jackson had lived. In the second place he doubted the wisdom of giving to a private corporation a virtual monopoly of the issue of paper currency. He saw that an intimate relation existed between the level of prices and the amount of currency in the country. If the currency consisted largely of paper, an institution which could almost at will reduce or increase the amount of currency in circulation was in a position to exercise a large measure of control over the business activities of the nation.

There has been much discussion of what Jackson meant in saying that the Bank had failed in the great end of establishing a uniform and sound currency. After the management of the Bank was changed in 1819 it had pursued a policy of safety and conservatism. Not only had

its notes always been promptly redeemable in specie, but it had, by refusing to accept the notes of non-specie paying State banks, virtually compelled all rival banks to follow the ordinary rules of safe banking. What Jackson probably meant by his remark was that the Bank had not brought about the general use of gold and silver currency. Jackson was a believer in "hard money." He thought that bank-notes should not be issued at all if their use

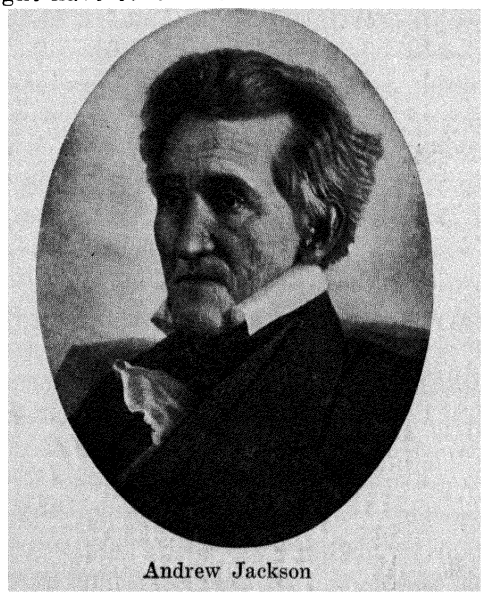


Henry Clay

could possibly be avoided. At most only notes of large denomination should be issued. He wanted to restore the "money of the Constitution." He felt that the Bank had purposely refrained from trying to compel the use of gold and silver, and that it had preserved a paper currency which it could manipulate to its own advantage and often to the disadvantage of the people.

Whatever he meant by his remark about the Bank in

his message of 1829 Jackson certainly showed a dislike for the Bank during the first two years of his presidency. He was amenable to reason, however, and there is some evidence to show that by 1831 he had overcome whatever prejudice he might have had against the Bank and was willing to give favorable consideration to the eventual renewal of its charter. Had the question of rechartering not been made a political issue by Jackson's enemies the Bank might have continued its existence.



Andrew Jackson

In 1831 the National Republican party named Henry Clay as its candidate for the presidency, and in its platform—the first "platform" ever issued by a political party in the United States—declared that Jackson was pledged to veto any bill which might be passed for rechartering the Bank. Clay's supporters then induced Nicholas Biddle, the president of the Bank, to petition for a renewal of the Bank's charter. Many of Jackson's friends and support-

ers were heartily in favor of rechartering the Bank, and they warned Biddle against endeavoring to make the Bank a campaign issue. The Bank's original charter had four years to run and it was not necessary to take up the question of rechartering so early. Biddle knew that Clay would support the Bank's cause; he had good reason to be doubtful of Jackson. Notwithstanding the warnings of Jackson's friends, he and Clay's adherents succeeded in pushing through Congress the bill to recharter the Bank. Then they virtually dared Jackson to use his veto power. They hoped, in fact, that he would veto the bill, because they thought that such an act would bring about his defeat at the polls in November. Jackson did not disappoint them. He was not the kind of man to shun a fight which was forced upon him. Convinced now that the Bank was not only a mischievous institution from an economic standpoint but also a powerful and corrupt political influence which was trying to keep Andrew Jackson from being reelected, he vetoed the bill to recharter without the slightest hesitation, denouncing the Bank and all its works in unsparing terms. Biddle was greatly pleased. But his pleasure turned to astonishment and dismay in November when Jackson won an overwhelming victory. The days of the Bank were numbered.

The Removal of the Government Deposits. Feeling that the "sovereign people" had fully endorsed his stand against the Bank, Jackson resolved to terminate its relation with the Treasury. In a paper submitted to his Cabinet in September, 1833, he presented his reasons for discontinuing the use of the Bank as the fiscal agent of the Government. More than half the members of his Cabinet opposed his views, but Jackson was in a vindictive mood and determined to punish and humiliate his enemies. According to the law the Secretary of the Treasury had the right to select the banks in which the Government's money

should be deposited. Jackson suggested to his Secretary of the Treasury, Louis McLane, that he remove the money which the Government had on deposit with the Bank, but McLane did not think it wise to take such action. McLane was then appointed Secretary of State and William J. Duane made head of the Treasury Department. Though Duane was not friendly to the Bank and was opposed to its recharter, he thought that the removal of the deposits would be a violation of the contract existing between the Government and the Bank, and he too refused to carry out Jackson's wishes. He was promptly removed from office and Roger B. Taney appointed in his place. Taney did not transfer the money which the Government had in the Bank, but he ordered that no more public funds be deposited with that institution. The Government funds which the Bank held were soon exhausted through ordinary Treasury disbursements, and Jackson's desire was accomplished. A number of State banks were selected as depositories for the Government money. These banks—"Jackson's pet banks" they were called—performed for the Treasury the fiscal duties previously entrusted to the United States Bank. Biddle obtained a new charter for the Bank from the State of Pennsylvania, and when the Federal charter expired in 1836 the institution continued in business as a State bank.

Revision of the Coinage System. In furtherance of Jackson's desire to restore the "money of the Constitution" Congress proceeded to revise the coinage system. In Chapter X it was told how the coinage act of 1792 had failed to meet the expectations of Congress and how its only tangible result had been the addition of a relatively small number of fractional coins to the currency. In 1834 a new coinage law was passed; it was slightly modified in 1837. Under the new law 23.22 grains of gold were made the equivalent of a dollar instead of

24.75 grains. The amount of pure silver in a dollar was kept at 371¼ grains, though the weight of the silver dollar was reduced from 416 grains to 412½ grains by decreasing the amount of alloy. The ratio between gold and silver was thus fixed at 15.98 to 1 instead of 15 to 1. This law overvalued gold, just as the former law had overvalued silver. In the bullion market the ratio of silver to gold had come to be 15.625 to 1. This meant that a person owning $100 in silver coin could melt it down, export it, and obtain in exchange gold bullion which would have a coinage value of a little more than $102. The result of this law was the immediate exportation of whatever silver dollars were coined and also of the full-weight fractional silver coins. For the first time a considerable number of gold coins entered the circulating medium of the United States. The silver coins in circulation consisted of worn and abraded domestic coins and a large number of Mexican, Spanish, Portuguese and other foreign coins.

The laws of 1834 and 1837 are usually referred to as laws for the "debasement of the coinage," inasmuch as individuals possessing coins of the old standard could convert them into a larger number of coins of equal debt-paying power. A person having 100 ten-dollar gold pieces could convert then into coins having a value of nearly $1066, and a person having a thousand dollars in silver coin could exchange it for gold bullion convertible into coins with a value of about $1023. Since there were virtually no gold coins in circulation in 1834, no domestic silver dollars, and comparatively few full-weight fractional silver coins the effect of the "debasement" was of minor importance.

The revision of the coinage system did not accomplish President Jackson's purpose. Even had a proper ratio between gold and silver been adopted the disorder of the currency could not have been avoided without stringent regulation of the banking business. Jackson certainly

meant well in bringing about the destruction of the United States Bank, but as events proved, his remedy produced much worse effects than the disease with which he thought the country was afflicted.

The Operations of the State Banks. At the time of the removal of the deposits from the United States Bank the State laws for the regulation of banking were wholly inadequate. The United States Bank had exercised a wholesome influence on State banking, but now that this influence was removed there was a rapid increase in the number of the State banks. In the absence of effective regulation many of these banks began to indulge in extremely unwise practices. Banks were started with little capital and little specie. They printed notes in large quantities and made generous loans on highly speculative enterprises. Between 1829 and 1837 the number of banks in the country increased from 329 to 788. The capital of the banks advanced from $110,000,000 to $290,000,000, while their loans advanced from $137,000,000 to $525,000,000 and their note circulation from $48,000,000 to $149,000,000.

Speculation. Unsound banking invited and encouraged speculation. The country was seized with a speculative mania. One of the chief objects of speculation was the public land of the West. In 1820 Congress passed a law requiring cash payment for all public lands and placing the minimum price at $1.25 an acre. The land agents of the Government could under the law accept the notes of the United States Bank in payment for land. Inasmuch as the notes of State banks were also readily payable in specie most of the time between 1820 and 1833, the land agents accepted bank-notes without discrimination, depositing them to the credit of the Government in branches of the United States Bank. After the United States Bank succumbed to Jackson's attacks, the land agents unfortu-

nately continued their customary policy of accepting all varieties of bank-notes. Land jobbers and speculators, in collusion with mushroom banks and even with the aid of the banks which Jackson selected as depositories for the public funds, bought large quantities of public lands and paid for them with new bank-notes. The results were bad. As Jackson said in a message to Congress, "It was perceived that the receipts arising from the sales of public lands were increasing to an unprecedented amount. In effect, however, the receipts amount to nothing more than credits in bank. The banks lent out their notes to speculators. They were paid to the receivers [land agents] and immediately returned to the banks, to be lent out again and again, being merely instruments to transfer to speculators the most valuable public lands and pay the Government by a credit on the books of the banks. . . . The spirit of expansion and speculation was not confined to the deposit banks, but pervaded the whole multitude of banks throughout the Union." The receipts from the sale of public lands, which amounted to $1,880,000 in 1830 reached $12,564,000 in 1835 and $20,075,000 in 1836.

Land speculation was accompanied by other kinds of speculation, also encouraged by the banks. Large sums were invested in visionary schemes of internal improvements, which were destined from the beginning to yield little return. State legislatures were equally guilty with individuals in promoting unworthy enterprises. Many States loaned their credit to unsound banks, receiving in exchange large quantities of bank-notes to be placed in circulation. The States borrowed large sums of money abroad. By 1837 the debts of the States amounted to $170,000,000, much of the money having been sunk in projects which turned out to be worthless. The law enacted in 1836 for the distribution of the Federal surplus only

served to stimulate the excesses of the State legislatures and caused them to squander money at a more rapid rate than before.

The "easy money" and the "get rich quick" fever created a spirit of extravagance and waste which was soon reflected in excessive purchases of foreign goods, particularly of luxuries for immediate consumption. The imports of silk, which amounted in value to $5,932,000 in 1831, reached $10,998,000 in 1834 and $22,980,000 in 1836. There were large increases also in the imports of wines and sugar. The large imports were purchased abroad on credit and sold on credit to consumers in the United States.

The bubble of credit became larger and larger. Promises to pay millions of dollars existed, and in most cases there was little behind the promises, too frequently not even the intention or desire to pay. It was only a question of time until the bubble would burst.

The Crop Failure of 1835. An event which hastened the financial collapse was a shortage of the grain crop throughout the United States in 1835. The shortage was due chiefly to bad weather, though the diversion of labor from farm work to the construction of internal improvements and to other speculative enterprises was in a measure responsible. The quantity of wheat produced was so small that in 1836 European wheat was imported into the United States at a price of about two dollars a bushel. The failure of the crops made it impossible for farmers to pay the speculators from whom they had bought lands, and the merchants who had sold the farmers large quantities of goods on credit were likewise unable to collect their bills. Speculators and merchants were accordingly unable to pay their loans at the banks. For a time the banks extended more credit, but this only postponed the day of general liquidation. As long as the bank-notes in circu-

lation maintained their nominal value the crisis would be delayed. But if people once lost confidence in the bank-notes there would be at once a general demand for specie on the part of depositors and holders of notes. Such a demand would at once reveal the unsound condition of the banks and cause a panic.

Late in 1835 a disastrous fire occurred in New York City destroying nearly $20,000,000 worth of property. This sum was added to those liabilities for which there were no corresponding assets.

The Specie Circular. In the summer of 1836 President Jackson took a step which did much to destroy public confidence in the paper currency. He was alarmed by the expansion of credit and the excessive issues of paper currency, and he also felt much concern because the Government held, in exchange for much of the public land which had been sold, only large credits in a number of banks. In order to check speculation in lands and save the Government from the danger of greater loss he caused the famous "Specie Circular" to be issued on July 11. This circular stated that all payments for public land must be in specie, exception being made for a short time in favor of purchasers who intended actually to settle upon the lands which they bought. Since the Government had not been selling land on credit this circular did not cause an immediate "run" on the banks. It did tend to check land speculation and caused a fall in the prices of the land, which speculators were holding for sale at a profit. Moreover the specie circular aroused suspicion concerning the value of the paper currency. If the Government refused the current bank-notes, individuals were not likely to accept them readily. New purchasers of public lands were forced to demand specie from the banks.

Foreign Credits Withdrawn. The crop failure of 1835 and the large increase of foreign imports created a heavy

balance of trade against the United States. American drafts and bills of exchange began to sell at a discount in England. When the fall in exchange occurred the Bank of England immediately raised its discount rates. This not only served as a warning to English exporters to curtail their credits to America, but also caused them to demand payment of the obligations outstanding. All English firms that had sold heavily to American customers asked for a settlement. Since the exports of the United States were much too small to create a foreign credit balance sufficient to meet the debts owed on account of imports, American importers were forced to seek specie with which to pay their English creditors. This at once precipitated the crisis.

The Panic. The demands made by the English exporters upon their American customers started a demand for settlement all along the line of credit. The American importers asked payment from the dealers to whom they had sold goods; the dealers demanded payment of their customers. There was a general scramble to get hard money from the banks. The bankers immediately called upon their debtors for payment, but of course they could obtain nothing from the speculators whose notes they held. Since the American importers could not collect their debts they could not pay their English creditors. Three great mercantile houses in London, known as the three W's, Wildes, Wiggins and Wilson, whose chief assets were the debts owed them by American importers, failed with a loss of many millions of dollars. Their failure immediately caused the failure of dozens of English manufacturers and merchants from whom goods had been obtained to export to America. A panic seized England and general liquidation set in there. This at once made matters worse in the United States. When the English cotton mills closed down the demand for American cotton fell off, causing the

ruin of hundreds of cotton planters and dozens of Southern banks. The failure of the planters brought added distress to the Western farmers, and the ruin of planter and farmer was a source of disaster to the Eastern manufacturer. Business came to a complete standstill. In May, 1837, every bank in the United States suspended specie payment, and the notes of many of them became utterly worthless. In many instances the original capital of the bank was exhausted and depositors and note-holders obtained nothing. The losses were enormous.

In a message to Congress in September, 1837, President Van Buren summed up the situation. He said,

> "The history of trade in the United States for the last three or four years affords the most convincing evidence that our present condition is chiefly to be attributed to overaction in all the departments of business —an overaction deriving, perhaps, its first impulses from antecedent causes, but stimulated to its destructive consequences by excessive issues of bank paper and by other facilities for the acquisition and enlargement of credit. At the commencement of the year 1834 the banking capital of the United States, including that of the national bank, amounted to about $200,000,000, the bank-notes then in circulation to about $95,000,000 and the loans and discounts of the banks to $324,000,000. Between that time and the first of January, 1836, being the latest period to which accurate accounts have been received, our banking capital was increased to more than $251,000,000, our paper circulation to more than $140,000,000 and the loans and discounts to more than $457,000,000. To this vast increase are to be added the many millions of credits acquired by means of foreign loans, contracted by the States and State institutions, and, above all, by the lavish accommodations extended by foreign dealers to our merchants.
>
> "The consequences of this redundancy of credit and of the spirit of reckless speculation engendered by it were a foreign debt contracted by our citizens estimated in March last at more than $30,000,000; the extension

to traders in the interior of the country of credits for supplies greatly beyond the wants of the people; the investment of $39,500,000 in unproductive public lands in the years 1835 and 1836, while in the preceding years the sales amounted to only four and a half millions; the creation of debts, to an almost countless amount, for real estate in existing and anticipated cities and villages, equally unproductive, and at prices now seen to have been greatly disproportionate to their real value, the expenditure of immense sums in improvements which in many cases have been found to be ruinously improvident; the diversion to other purposes of much of the labor that should have been applied to agriculture, thereby contributing to the expenditure of large sums in the importation of grain from Europe—an expenditure, which amounting in 1834 to about $250,000, was in the first two quarters of the present year increased to more than $2,000,000; and finally, without enumerating other injurious results, the rapid growth among all classes, and especially in our great commercial towns, of luxurious habits founded too often on merely fancied wealth, and detrimental alike to the industry, the resources and the morals of our people.

"It was so impossible that such a state of things could long continue that the prospect of revulsion was present to the minds of considerate men before it actually came."

Slow Recovery. In 1838 solvent bankers again resumed specie payments, hoping to restore confidence and bring about a gradual contraction of credit. The attempt might have been successful had it not been for the actions of Nicholas Biddle. Biddle desired to avoid a too rapid deflation of currency, and to counteract the prevailing tendency toward contraction he engaged in a number of unwise speculations in State bonds and cotton. He bought at high prices in the United States and sold at low prices abroad hoping to sustain foreign credit until conditions became tranquil. His speculations brought about another general suspension of specie payments in 1839, and this

time liquidation was thorough and complete. Biddle's bank paid its depositors and the holders of its notes, but the stockholders lost every cent of the $35,000,000 capital. Biddle lost everything he possessed. Dozens of other banks failed completely.

Many people were imprisoned for debt and there was a feeling of unrest and discontent. Acting under the power granted in the Constitution Congress passed a general bankruptcy law in 1841, and 39,000 persons took advantage of its terms to obtain a settlement of their indebtedness. Under this process some $441,000,000 of debt were cancelled. Bank debts to the extent of $200,000,000 were added to this loss. While liquidation in private business was in progress the States began to encounter difficulty in meeting the interest and the principal of the huge debts which they had contracted. The improvements in which the money had been sunk yielded no revenue, and if payment were to be made, the funds had to be obtained by taxation. The legislatures of a number of States took the dishonorable course of repudiating the principal and the interest of the debts. Since a State could not be sued without its consent it was impossible to compel payment. Foreign holders of State bonds lost large sums of money, and American credit received a severe blow.

The Federal Government lost heavily through the failure of the banks, and because of the lack of sound fiscal agencies had much difficulty in making collections and disbursements. Congress decided that banks should no longer be employed to take care of public funds and in 1840 established an independent treasury system. The law of 1840 was repealed the following year and several attempts were made to establish another national bank. These attempts failed because of the opposition of President Tyler, and in 1846 the independent treasury system was reëstablished. The law directed that strong vaults be constructed at

various cities, and provided that the Treasury Department should be the actual custodian of the public money.

The crises of 1837 and 1839 put an end to speculation for the time being and brought prices down to a specie level. Reorganization proceeded slowly but surely. People were compelled to go to work; there was a sharp decline in the purchase of foreign goods. By 1843 business had become almost normal again, and another period of industrial and commercial expansion started.

Questions and Topics

1. What now happens to an individual whose liabilities are greater than his convertible assets? What happened in 1830?
2. How does history seem to prove that United States bonds are safer investments than State bonds?
3. Compare the services that the first and second United States Banks performed for the Government with those performed by the Treasury Department.
4. Is the Federal Reserve System anything like the Second United States Bank and its branches? Explain.
5. Would you call Jackson a good President or not?

PART V

OCCUPATION OF THE GREAT WEST

CHAPTER XVII

TERRITORIAL AND INDUSTRIAL EXPANSION, 1840–1860

The Western Advance. A resistless drive toward the West has been an outstanding feature of American history since the beginning of colonization. Between 1840 and 1873 the western advance exercised a peculiarly dominating influence upon national history. It was during these years that the people acquired and occupied the Great West. They did not settle all of it—the work of settlement has not yet been accomplished, and will not be accomplished for many generations to come—but they extended their political dominion to the Pacific coast, and by opening lines of transportation into the new region they completed the work of occupation and prepared the way for settlement and development. The occupation of the West was related to the most important events of the political history of the nation during these years. The Civil War was a part of the problem of western expansion. Though the immediate cause of the war was the question of the right of secession, the fundamental cause was a difference of opinion as to whether the Great West should be developed by the enterprise and initiative of free labor or be subjected to the deadening influence of negro slavery.

In our study of this period of national expansion we shall deal first with industrial and commercial development before the Civil War, then examine the condition of the nation while the war was in progress, and finally note the course of development during the period of reaction following the war.

General Characteristics of the Period from 1840 to 1860. An interesting feature of the economic history of the United States from 1840 to 1860 was the comparative lack of artificial stimulation of any particular branch of industry. Previous periods had witnessed the encouragement of foreign commerce or of manufactures. During this period no industry received special favors in any marked degree. All branches of economic endeavor competed openly and freely for labor and for capital, with the result that all kinds of industry prospered. While the sectional division of labor caused the country to be separated more distinctly than before into a cotton-raising South, a grain-raising West, and a manufacturing and commercial East, the industrial development of the nation, as a whole, was more symmetrical than in previous years. Agriculture prospered, and because of natural advantages easily retained the lead among industries. But manufacturing, mining, transportation, shipping and commerce all had a noteworthy expansion. Though tariff duties were materially lower than during the decade preceding 1833, it was found that many varieties of manufacturing industry could thrive without the aid of special protection. With competition entirely free American shipping interests enjoyed exceptional prosperity and the American merchant marine attained a tonnage which was not to be equaled again until the time of the recent World War. The railroad facilities of the country were greatly extended, and domestic and foreign trade increased in volume and value.

An important effect of this symmetrical development of industry on the country as a whole was the general diffusion of material comforts among the people. There were opportunities on all sides for workers and for investors. So general was the prosperity of the nation that this period has often been called the "Golden Age" of American his-

tory. There were no individuals possessing enormous wealth, and what was still better there were few paupers. Europeans who traveled in the United States invariably commented on the absence of pauperism. The condition of the people as a whole was far superior to the condition of the people of Europe.

An Era of Great Inventions. The years from 1840 to 1860 were rendered notable by the bringing into practical use of a number of highly important inventions. These years compare favorably with the early years of the Industrial Revolution in England. The great inventions of this time, like the inventions which transformed the textile industries, derived their importance from the fact that they did work which had previously been done entirely by hand. Such inventions revolutionize the processes of production; they are few in number and usually far apart in time. In all branches of industry American skill and ingenuity were applied in a practical way to increase production. Previous to 1849 not more than 660 patents had been taken out in the United States in a single year; between 1850 and 1860 the number of patents granted annually fell below 1,000 in only three years, and in 1860 the number reached 4,819.

Territorial Expansion. During the ten years following 1844 the territory of the United States was almost doubled. The first increase came early in 1845 with the annexation of the republic of Texas. In December Texas was received into the Union, the last slave State to be admitted.

The following year the United States obtained control of a portion of the Oregon Territory. Both Great Britain and the United States claimed the great region west of the Rocky Mountains extending between the latitudes of 42° and 54° 40′. In 1843 Marcus Whitman led a caravan of 200 wagons from Westport Landing on the Missouri River over the Great Salt Lake and the Oregon Trails into

the Oregon country. Within a short time a few thousand Americans were domiciled in the Northwest and the question of political jurisdiction had to be settled. Many people in the United States demanded that Great Britain be required to give up all claim to the disputed territory, and with the battle-cry of "Fifty-four, forty or fight" they urged the Federal authorities to uphold the American claims, if necessary, by force of arms. For a time there was grave danger of war with Great Britain. Fortunately the dispute was amicably settled in 1846. The territory was divided between the rival claimants, the forty-ninth parallel of latitude being made the northern boundary of the United States.

The land hunger of the nation was not appeased by these two acquisitions. The slave-holding interests of the South turned covetous eyes on the Mexican possessions west of Texas. President Polk found it an easy matter to provoke a war with Mexico. Torn by internal dissensions Mexico could offer but feeble resistance to American arms and could not avoid the surrender of the territory which the United States demanded as the price of peace. By the treaty of Guadaloupe Hidalgo, signed February 2, 1848, Mexico gave up the vast region north of the Rio Grande and the Gila River, receiving in exchange fifteen million dollars. Five years later the "Gadsden Purchase" added fifty thousand square miles more of Mexican territory south of the Gila River to the possessions of the United States. The "star of empire" had crossed the continent. The area of the United States had increased to 3,026,000 square miles.

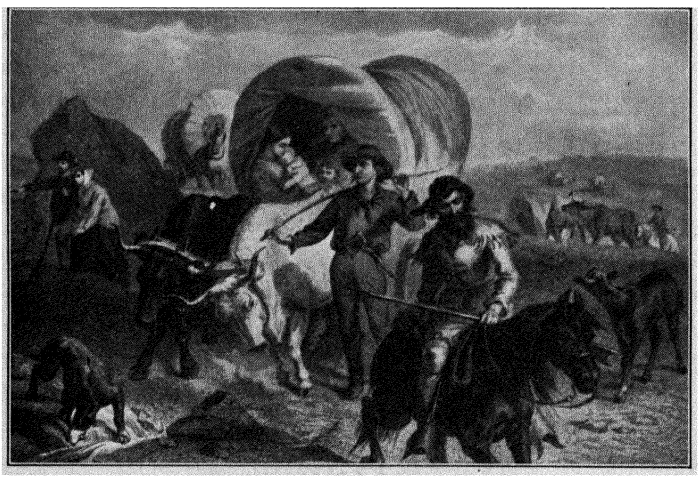
Population: Increase and Distribution. Between 1830 and 1860 the population of the United States advanced from 12,866,020 to 31,443,321. Each decennial census showed an increase of aproximately one-third in the number of people. The promise of economic independence and

political freedom attracted thousands of immigrants from Europe. The revolutionary disturbances of 1830 and 1848 caused many Europeans to seek refuge in "free America," and recurring shortages of food in Ireland and other European districts drove large numbers of people across the Atlantic. During the twenty years preceding 1860 nearly four and a half million immigrants came to the United States. More than half of them came from Great Britain and Ireland, and more than a fourth from Prussia and other German states.

The population of all parts of the country increased at a rapid rate, but the rate of increase was by no means the same in all sections. In both the South Atlantic and the North Atlantic States the rate was less than the rate for the country as a whole. In the cotton belt of the South Central region the rate of increase was somewhat greater than the rate for the entire country. In the great Middle West—what we shall now call the North Central States—the increase in numbers was spectacular. The fertile soil of this region, opened to settlement by the Erie Canal and by new steam railroads, drew thousands of European immigrants and thousands of the inhabitants of the older States in the East and South. New Englanders abandoned their rocky hillside farms and made their way to the West; many "small farmers" of the South sold their lands to the great cotton planters and went to the region where individual enterprise, initiative, and manual labor had a more respectable standing and were productive of better results. In 1830 the North Central region contained a little more than one-tenth of the entire population of the country; in 1860 it had considerably more than one-fourth. The rate of increase in this section was more than twice the rate of increase for the entire country. The admission of Wisconsin as a state in 1848 brought the last of the territory east of the Mississippi into the Union, and the ad-

mission of Minnesota in 1858 completed the tier of States just west of the Misssissippi. The region across the Missouri River began to fill up and the quarrel over the admission of Kansas was one of the direct causes of the attempt to destroy the Union.

Between Kansas and California there were few inhabitants in 1860, the only settlements of much importance being the Mormon settlements in the vicinity of Great Salt Lake. A small group of Latter-Day Saints emigrated to the Great Desert in 1847, and in a region of sage-brush



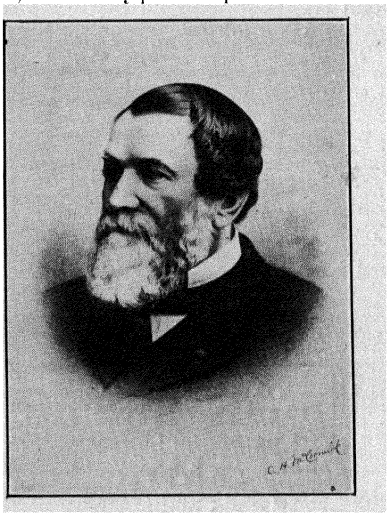
plain, believed by explorers to be useless and barren, they established a system of irrigation which created farms of surprising productiveness. Converts to the church were brought from Europe and from the Eastern States, and a thriving community soon grew up centering about Salt Lake City.

When the Mexican provinces of California and New Mexico were taken by the United States the population

consisted of a few thousand people engaged chiefly in raising sheep and cattle. The ink on the treaty of Guadaloupe Hidalgo had scarcely dried when gold was discovered in the gravel of a river bed near Sutter's Mill in California. The announcement of this discovery was the signal for a great rush of gold-hunters from all over the world. Around Cape Horn, by way of the Isthmus of Panama and directly across the plains and mountains of the United States the excited and eager "forty-niners" hastened to reach the new El Dorado. Though gold was the lure which drew men to California it was the agricultural and forest resources which constituted the basis of the permanent prosperity of the Pacific Coast. By 1860 the population of the Pacific Coast region was more than half a million. California entered the Union in 1850 and Oregon followed in 1859.

Agriculture. The increase in the production of cereals and cotton between 1840 and 1860 was proof of the advancing prosperity of the United States. The great crops of cereals were due in a large measure to the introduction of labor saving machinery on the farms. Until after 1840 the planting, cultivating, harvesting and threshing of grain were performed almost entirely by manual labor. Only in plowing and harrowing the soil did the farmer use the power of horses and oxen. Then in quick succession came mechanical planters, cultivators, mowers, reapers and threshing machines. The most important of the new mechanical devices was probably the reaper—the harvesting machine. Wheat, oats, rye and other small grains ripen quickly and must be harvested soon after they have ripened or the grain may be lost. The slow process of cutting with scythe and cradle limited greatly the amount of grain which a single farmer could raise. The reaper could cut as much grain as a dozen men working with cradles.

The mower and reaper were developed together. The former, used in cutting grass or hay, permitted the grass to fall to the ground as it was cut; the latter, used in harvesting grain, had just back of the cutter-bar a carrier or table which carried the grain until enough was accumulated to make a sheaf. With the early types of reapers, a man walking, or riding on the machine, raked the sheaves to the ground; later types deposited the sheaves auto-



Cyrus H. McCormick
Courtesy of International Harvester Company of America.

matically. The grain was bound by hand, the automatic binder not being introduced until after the Civil War.

One of the first reapers was invented by Obed Hussey in 1833. The following year Cyrus H. McCormick, a Virginia blacksmith, took out a patent on a reaping machine. These early machines, like the first steamboats, locomotives, automobiles and other similar mechanical devices, were too crude and unwieldy to be of practical use. By 1840 McCormick had built a reaper which would do the work it

was designed to do, and do it well. He sold several reapers to Ohio and Virginia farmers, and secured capital which enabled him to establish a factory in the new and rapidly growing city of Chicago, close to the center of the great grain belt. By 1855 he was manufacturing and selling hundreds of reapers and mowers each year. Several other factories were erected in both the Eastern and the Western States to make reapers, mowers and other kinds of farm machinery. At the great exposition held in Paris in 1855 an American reaper showed its superiority over machines of foreign manufacture by cutting an acre of oats in 22



A Reaper of 1860

minutes as compared with 66 minutes taken by the next best machine, which was of British manufacture. In 1860 the number of reapers made and sold in the United States reached 20,000.

Horse drawn rakes and hay tedders supplemented the mower in solving the problem of caring for the large crops of hay needed for the maintenance of live stock on Northern farms during the winter. Horse-power threshing machines of a successful type were manufactured before 1850. In 1853, at a New York fair, a machine threshed, cleaned, and measured wheat, at the same time placing it in bags and recording the number of bushels threshed.

The American machine exhibited in Paris in 1855 threshed twelve times as much grain in an hour as six men working with the old-fashioned flails. The census of 1860 stated that in a number of States portable steam engines were being used to supply power to operate threshing machines. Farm machinery did what the cotton spinning machinery and the cotton gin had done. It increased many times the effectiveness of the individual laborer. It soon made the United States the greatest food producing nation in the world. One writer said, "The reaper, the thresher, and the mower are types of the ever restless and progressive spirit of the age. They point out to us a glorious future, in which they will accomplish for us and for our country triumphs grander than the triumphs of arms for they will develop the means of supporting millions of human beings which the implements of war can only destroy."

With the introduction of farm machinery and the settlement of the North Central States the center of cereal production moved steadily westward. In 1840 and in 1850 Pennsylvania, Ohio and New York were the three leading wheat producing States, but in 1860 Illinois was first, Indiana second, and Wisconsin third. Illinois led also in the production of corn. The census of 1850 showed that the South produced more corn and swine than the North, though the chief producing centers of the South were the border States and not the States of the cotton belt. Ten years later the North led in the production of all kinds of grain and live stock. The hog raising business moved westward with the center of corn production, and with it went the meat-packing business, Chicago taking the lead from Cincinnati as a meat-packing center shortly after 1860.

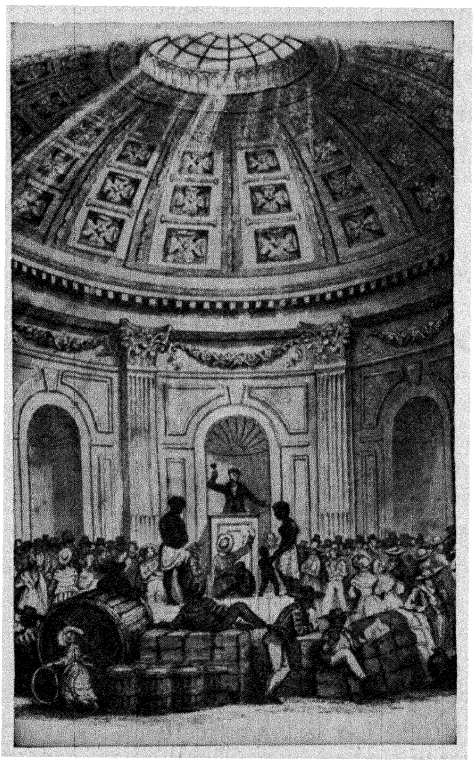
The cotton planters of the South received no new mechanical devices comparable to the reapers, mowers, and threshing machines of the Northern farmers, but they increased the size of their plantations and employed larger

numbers of slaves. It is estimated that in spite of the stringent laws which placed the external slave trade in the class of crime with piracy some 270,000 African negroes were smuggled into the United States between 1808 and 1860. The planters of the coast States north of Georgia sold many of their slaves to the more successful planters of the Gulf States, and slaves from Kentucky and Missouri were also sold "down the river" to toil in the cotton fields. By 1860 a first class negro laborer would bring as much as $1500 on the auction block at New Orleans. Each year the output of cotton increased until in 1860 it reached the large total of 3,841,000 bales of 500 pounds each, more than five times the quantity raised in 1830. Sugar, tobacco, and corn maintained a place among the agricultural products of the South, but no product was of sufficient importance to challenge the lead of "King Cotton."

Manufacturing. When the period of annual reduction of tariff duties, provided for in the law of 1833, came to an end, there was a deficit in the Federal Treasury because of the ill effects of the panics of 1837 and 1839. In 1842 the tariff was revised and a number of high protective duties restored. The protective features of the new law were designed by the Whigs to attract political support, but they did not have the desired effect. When the Democrats were restored to power they revised the tariff again, in 1846, framing the new law primarily with regard to the revenue needs of the Government and granting only incidental protection to manufacturers. After the enactment of this law the tariff question virtually disappeared as a political issue. When in 1857 the Government was embarrassed by surplus revenue, representatives from all parts of the country joined in voting to reduce the rates of duty which had been provided in the law of 1846.

Notwithstanding the "revenue tariffs" manufacturing industries continued to prosper throughout the Eastern

States. In the Central States, too there were many busy manufacturing centers, and even in the South—particularly in the States along the Atlantic coast—a number of factories were successfully operated. The census of 1860 showed the value of the manufactured products of the



Auction Sale of Slaves in the Rotunda, New Orleans, 1842

United States to be $1,855,000,000, as compared with a value of $1,019,106,616 shown by the census of 1850.

Textiles. In 1860 the cotton mills of the United States turned out more than a billion yards of cloth. Twenty-nine States had cotton mills manufacturing either yarn or

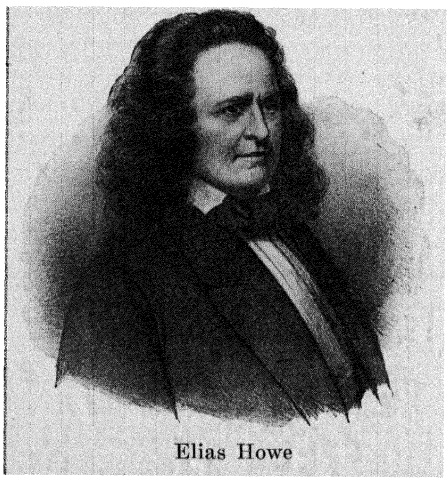
cloth or both. One-half the entire number of mills were to be found in New England. Because of the advantage of an early start the great water-power centers, such as Lowell, Lawrence and Manchester, all located on the Merrimac River, remained the chief centers of production; but water-power was, by 1860, no longer a necessary factor in the production of cotton cloth. Many plants operated by steam power were in successful operation at various places scattered throughout the country, and the spirited debate on the relative advantages of the steam-engine and the water-wheel was ending with a definite verdict in favor of neither. The traveling ring spinner, an American invention, was supplanting the mule spinner in the manufacture of yarn; larger and faster looms made cloth in greater quantities; wonderful machines were perfected to print multicolored designs on the bleached fabrics.

Though cotton manufacturing was the leading textile industry, its products were not quite twice as great in value as the products of the 1700 woolen mills which the census of 1860 showed to be in operation in the country. Successful silk mills at Paterson, New Jersey, South Manchester, Connecticut, and other Eastern cities indicated that the manufacture of silk thread and silk fabrics had passed the experimental stage and was taking a permanent place among American manufacturing industries.

The Clothing Industry: the Sewing Machine. Closely related to the manufacture of textiles was the clothing industry. Previous to 1835 American clothing was made in the home or was made to order by professional tailors. About 1835 or 1836 some New York cloth merchants began to manufacture and sell "ready-to-wear" men's clothing. Their business was ruined by the panic, but when normal conditions were restored they started anew on a larger scale than before. By 1860 the manufacture of clothing was one of the leading industries of New York

City, and it was an industry of importance in Boston, Philadelphia and several other cities. Undergarments, shirts and outer garments were made in standard sizes and sold at retail. The manufacturers bought the cloth and trimmings for the clothing, hired expert cutters to cut the cloth, and employed men, women and children to sew the garments, the work usually being done in the homes of the workers. The "sweat-shop" was a part of the clothing industry.

Few of the home duties long performed by hand had



Elias Howe

been more tedious and trying than sewing. The development of the ready-made clothing trade emphasized the need for a mechanical sewing device. In 1846 Elias Howe, a Boston mechanic, took out a patent on a sewing machine. Howe did not have enough money to manufacture his machine, and failing to obtain the necessary aid in the United States, he went to England in search of capital. When he returned from England he found that during his absence several American capitalists had recognized the value of his invention and had started to manufacture and

sell sewing machines. Howe was more fortunate than the inventor of the cotton gin had been, for he succeeded in enforcing his patent rights by legal process, and derived a large fortune from the royalties he was able to exact from the manufacturers who had appropriated his patent. He also engaged in the manufacture of machines himself.

The sewing machine soon became immensely popular. Its manufacture began on an extensive scale about 1852, and during the next eight years more than 130,000 machines were made and sold. The sewing machine was essentially a device for home work and the chief buyers were the men and women who worked in the ready-to-wear clothing industry. Most of the workers earned but a few dollars a week, and to make it possible for them to buy machines, the Singer Company began the practice of selling on the instalment plan, "a dollar down and a dollar a week."

Sewing machines were used in factories where shirts, collars, clothing and hats were made. In some mills batteries of machines were operated by steam power. Heavy machines were made, capable of stitching leather, and were immediately adopted in the boot and shoe industry for sewing together the various parts of the uppers of boots and shoes. Until the McKay machine was invented in 1861, the uppers and soles were fastened together with wooden pegs. As a rule the pegging was done by hand, though before 1860 a pegging machine was introduced which drove the pegs at the rate of fourteen a second.

The Iron Industry. The general expansion of manufacturing, the increased used of mechanical devices in many kinds of industry, and the growth of steam transportation by rail and by water created a greater and greater demand for iron and its products. Agricultural implements, sewing machines, textile machinery, wheels, steam engines, railroad cars and many other devices were made in part or

wholly of iron. By 1860 the pig-iron product of the United States amounted to more than a million tons a year. Pennsylvania was far in the lead in the production of iron with more than one-half the entire output of the country. The ores of Pennsylvania provided most of the raw material for the pig-iron, with other Eastern sources of supply in Ohio, New Jersey, and the Lake Champlain district. In 1855 shipments of rich ore began to move from the district around the western end of Lake Superior to the furnaces of Cleveland, Buffalo and Pittsburgh.

After 1840 the ironmasters came to depend more and more upon anthracite coal and coke for fuel. Timber was still plentiful, however, and it was not until 1855 that the amount of pig-iron smelted with anthracite coal exceeded the output of the charcoal furnaces. Soft coal and coke were not used extensively until after the Civil War. Cast iron and wrought iron remained the leading furnace and forge products. In 1851 William Kelly, a Kentucky ironmaster, discovered a process of making low-carbon steel by the use of an air blast, similar in nearly all respects to the process which Sir Henry Bessemer, the English inventor, perfected and patented about 1859. Kelly was unable to control the process to a degree that would enable him to produce steel of a uniform quality, and he did not succeed therefore in making much commercial use of his discovery.

Foundries, forges, machine shops and rolling mills turned out the finished products of iron. In the foundries were cast stoves, ranges, utensils, carwheels, iron pipe, iron fences, rollers and parts of engines. Machine-shops with turning-lathes equipped with ingenious automatic contrivances made standardized parts for the engines and the machinery used in American factories. Saws, files, cutlery, augers, metal buttons and hardware were among the products of American mills.

Before this period the rolling-mills and slitting-mills of the United States had turned out only flat bars, sheets and rods, out of which various finished articles were made. In 1845 a rolling-mill at the Mount Savage Works in Maryland began to make iron railroad rails. The following year a second rail mill began to operate at Danville, Pennsylvania, and by 1860 American mills were producing 200,000 tons of rails each year. Rolling-mills turned out boiler plates also, as well as I-beams and girders and other shapes used in the construction of bridges and buildings.

Other Manufactures. Many other kinds of manufactured products told of the industrial advance of America. The working of the food products of farms into form suitable for human use was then, as now, an industry of leading rank. The census of 1860 showed that flour and meal were the most valuable manufactured products of the country. The sawing of lumber, sugar refining, tanning, printing and publishing, distilling, brewing and the manufacture of paper, glass, soap, candles, snuff and tobacco, carriages and furniture were thriving industries. One of the most interesting manufacturing enterprises developed during this time was the making of water-proof rubber materials. Early efforts to make water-proof rubber garments resulted in dismal failure because no rubber preparation could be derived which would withstand the ordinary temperature of a summer day. After 18 years of fruitless experiment Charles Goodyear discovered by accident that mixing a small quantity of sulphur with rubber, under heat, would give the rubber the properties needed. Goodyear's ordinary "vulcanized rubber" was soon followed by "vulcanite," an extremely hard rubber product, and with these two discoveries came a long list of valuable articles made partly or wholly of rubber, such as waterproof coats, boots and shoes, belting, hose, floor covering, springs, and packing material for steam cylinders.

Labor Organizations. The growth of manufacturing led to efforts on the part of wage earners to organize trade-unions. The industrial depressions following the panic of 1837 caused the dissolution of the early labor organizations, but when normal conditions were restored the "labor movement" was started again, with organized agitation for shorter working-days, higher wages and better working conditions for the laboring classes. For a time the labor movement was related with a plan for general social reorganization known as Fourierism. This was a communistic system of life advocated by a French social philosopher, Charles Fourier. The experiments in Fourierism in the United States soon failed, after which the labor movement developed into trade-unionism. Laborers recognized the value of collective action in dealing with employers. The movement toward the organization of labor unions composed of the workmen in single trades began about 1850 with the founding of the printers' trade-union, which later became the International Typographical Union. The hat-makers' union was founded in 1854 and five years later the Iron-Workers' Union of North America and the Machinists' and Blacksmiths' Union of North America were established. There was much opposition to the trade-union movement, especially among the employers of labor, but it was apparent to many leading thinkers of the time that only through organized coöperation could the laboring classes make felt their demands for the abolition of child labor, the reduction of the twelve and fourteen hour working-day and for other reforms upon which the progress of society depended. A number of public-spirited employers welcomed the coming of labor organizations and gave their aid to the labor movement.

Mining. The United States made substantial progress during this period in the production of the three leading minerals of civilization—coal, iron and copper—though it

was not until some years later that the great exploitation of American mineral resources began. The coal-burning locomotive firebox was not developed until just before 1860, and all over the country wood was used for domestic purposes more than coal. The production of coal in 1860 amounted to 13,000,000 tons, of which two-thirds was Pennsylvania anthracite. The copper districts around the western end of Lake Superior supplied most of the 7200 tons of copper which the country produced in 1860. The Galena lead mines continued to furnish raw material for the sheet lead, shot and paint factories of the Eastern States.

The discovery of gold in California in 1848 led to a large increase in the supply of this highly prized metal. When the gravel and sand near the water-courses were "panned" of their dust and nuggets the gold-seekers turned to the "drifts" of dry gravel and the "ledges" of gold-bearing quartz, erecting stamping mills, rockers, sluiceways and other mechanical devices to separate the metal from the dross. Gold deposits were discovered in Colorado, Nevada, Idaho, and Montana, and rich silver ores were found at a number of places in the Western mountains. Each new "find" was a signal for a stampede of miners and prospectors.

In 1859 there was begun in a small way in western Pennsylvania, near Titusville, the systematic development of another great mineral product of America—rock oil, or petroleum. For many years the world had depended chiefly upon whale blubber and the fats of domestic animals for the oil used in lighting and lubrication. The general adoption of machinery in manufacture, agriculture and transportation, and the need for more and better lights in buildings and in city streets had caused a steady increase in the demand for animal oils. Though domestic animals yielded every year more lard and tallow and though the great fleet of whaling vessels brought home larger and

larger quantities of oil, the price of this needed commodity steadily advanced, and some people began to wonder how the rapidly growing demand would be supplied.

The preliminary report of the Census of 1860 contains the following statement:

> "The scarcity of whale and other fish oils in the arts has been supplied by an increased production of lard oil and especially by that beneficent law of compensation which pervades the economy of nature, and when one provision fails her children, opens to them another in the exhaustless storehouse of her natural resources, or leads out their mental energies upon new paths of discovery for the supply of their own wants. . . . When the elaboration of the metals and other igneous arts was fast sweeping the forests from the earth, the exhaustless treasures of fossil fuel, stored for his future use, were disclosed to man, and when the artificial sources of oil seemed about to fail, a substitute was discovered flowing in almost perennial quantities from the depths of these same carboniferous strata."

For many years before 1859 it had been observed that the water of certain springs in Pennsylvania was thickly coated with oil. In one of the "oil spring" districts some enterprising individuals removed the oil from the water, bottled it, and, ascribing to it the usual marvelous virtues of "old Indian remedies," sold it for medicinal purposes under the name of "Seneka Oil." About 1855 some chemists showed that the rock oil of Pennsylvania had qualities which would make it a highly successful commercial product for use in illumination and lubrication. A company was organized to search for the source of the oil. E. L. Drake drilled the first well. He struck oil at a depth of 69 feet, and installing a pump, drew from the ground a thousand gallons of oil daily. The success of Drake's undertaking had an effect similar to the discovery of gold in California. Here was a valuable natural product easily

and cheaply obtainable. A single successful well would bring fortune to its owner. Hundreds of speculators, rushing to the valley of Oil Creek, leased the lands of the inhabitants and started drilling for petroleum. Great "gushers" were tapped yielding thousands of barrels of oil. Before the end of 1860 nearly two thousand wells were sunk in the Oil Creek region, and an eager search for other oil fields was under way. The refining of the crude petroleum into lighting and lubricating products was added to the list of important manufacturing industries.

Railway Transportation. These years witnessed the development of the steam railroad as a successful agency for the transportation of freight and passengers. The Erie Canal and the Mississippi River continued to be important arteries of commerce—in fact each of these waterways carried more traffic than any of the railroads—but they gradually lost ground in the competitive struggle with the railways, while hundreds of miles of minor canals and waterways in the East and in the Northern Central States were abandoned altogether. The railroad could surmount the difficulties imposed by elevation and by a cold climate; the steam locomotive was faster and safer than the steamboat.

From 1837 to 1845 construction lagged because business was suffering from the effects of the panic. When normal conditions were restored a period of great activity in railroad building began, which lasted until the beginning of the Civil War. By 1850 there were 9,021 miles of railroad in the United States; by 1860 the mileage had grown to 30,626. The extensive construction between 1850 and 1860 was ample proof of the growing economic strength of the United States.

One of the most significant events of the railroad history of this time was the completion of the Western Railroad in 1841. This line, in connection with the Albany and West

Stockbridge Railroad, extended from Worcester, Massachusetts, to the Hudson River opposite Albany, and with the Boston and Worcester road, provided a through rail line between Boston and the eastern terminus of the Erie Canal. Previous to the completion of this line there had been some doubt as to whether railroads could be operated cheaply enough to carry heavy and bulky freight over long distances. The route from Albany to Boston was a great success, particularly in the transportation of flour and other Western food products to the commercial and manufacturing centers of Massachusetts. New York City lost its almost exclusive control of Western trade and Boston entered upon a season of great prosperity.

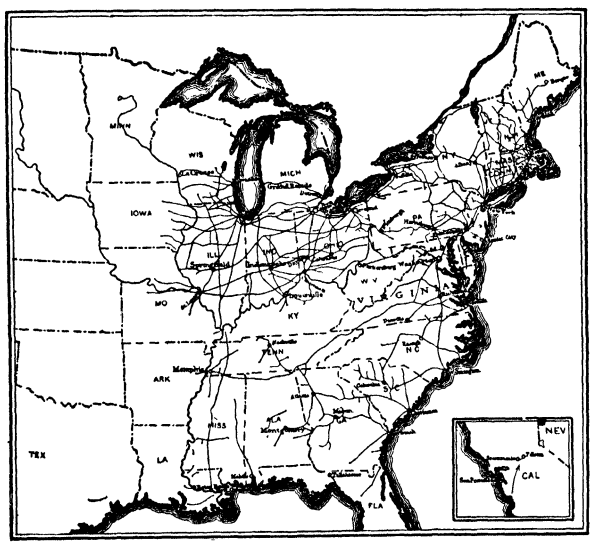
The success of Boston's railroad connection with the West had a stimulating influence upon Philadelphia and Baltimore. The people of those two cities had watched the commercial expansion of New York with envy and alarm. They now saw that the railroad would enable them to recover some of the Western trade. In 1846 the State of Pennsylvania chartered the Pennsylvania Railroad Company, authorizing it to construct a railroad between Harrisburg and Pittsburgh. With a road already in operation from Philadelphia to Harrisburg the new line would complete a continuous route across the State. The work was finished in 1854. The chartering of the Pennsylvania Railroad infused new energy into the directors of the Baltimore and Ohio road, and they pushed their rails westward, reaching Wheeling, Virginia, early in 1853.

Meanwhile the southern counties of the State of New York, whose people had received but little benefit from the State's expenditure for the Erie Canal, had induced the legislature to charter and subsidize a company to build a railroad through southern New York from the Hudson River to Lake Erie. This road, now the Erie Railroad, was opened between Jersey City and Dunkirk in 1851. Another

important event occuring at this time was the organization of the New York Central Railroad Company. In 1850 there were ten small companies owning a series of short railroads extending from Buffalo to Albany. By 1853 these roads were united into the New York Central. The Hudson River Railroad, extending along the east shore of the Hudson River from New York to a point opposite Albany, in connection with the New York Central, made a through line from the sea to the lakes. Thus four great railroad lines were opened between the North Atlantic coast and the interior during the four years following 1850. These great main lines became known as the "trunk lines," and the district through which they pass is still known in railroad geography as "trunk line territory."

While the eastern trunk lines were being pushed to completion railroad construction was being carried on with abounding energy in the Northern Central States. Most of the mileage laid down between 1850 and 1860 was built in these States, and in 1860 Illinois had more railroad track completed than any other State in the Union. The Federal Government gave great tracts of land to the Central States, both in the North and in the South, and this land was transferred to the railroad companies as a subsidy for construction. The State governments and the local governments—county, city, and town—gave large cash bonuses to railroad corporations and also bought generously of railroad stocks and bonds. Many lines were built to connect the agricultural districts with the leading commercial centers such as Cleveland, Toledo, Chicago, Cincinnati and St. Louis. The railroads in the Northern Central States, in connection with the eastern trunk lines, made possible all-rail travel and trade between all the leading cities of the North. In 1853 one could travel by rail all the way from New York and Philadelphia to Chicago, and two years later rail connection was established between

the East and St. Louis. A road was opened between Chicago and Galena on the Mississippi River in 1850. Four years later the Chicago, Rock Island and Pacific also reached the Mississippi. The following year the first railroad bridge across the Mississippi was built between Rock Island and Davenport, linking the railroad from Chicago with a line extending through the State of Iowa. The first road to reach the Missouri River was the Hannibal and St.



Railroads of the United States in 1860

Joseph, which was completed just before the Civil War began.

In the South railroad construction was not so active as in the North. In the South Atlantic States there was more construction than in the States farther west. The Baltimore and Ohio was looked upon as a southern road. Virginia and North Carolina each had a number of short lines, and just before 1860 through rail connection was

established from Richmond and Lynchburg to Chattanooga. The road from Charleston to Hamburg was pushed westward to Atlanta, and the Georgia Railroad and Banking Company built lines from Savannah and Macon to Atlanta. The State of Georgia built a railroad from Chattanooga to Atlanta, and when a line was opened from Chattanooga to Nashville and Memphis shortly before 1860, the South obtained a rail route from the coast to the Mississippi River. In the lower Mississippi Valley railroad construction proceeded slowly because few thought that railroads could compete successfully with the steamboat. Just before 1861 through rail lines were completed from Mobile and New Orleans to the Ohio River at Cairo, where connection was made with the Illinois Central Railroad leading to Chicago.

Conditions of Railroad Transportation. Though the country had a large mileage of railroad in 1860 the ease of continuous rail transportation was not so great as might be supposed. Each railroad company used its own cars and locomotives, and if goods were to be carried over more than one road it was necessary to transfer them from the cars of one company to the cars of another. In the same way passengers were compelled to change trains frequently when traveling over several connecting railroad lines. Even had the railroad companies possessed a desire for greater coöperation in caring for through traffic by the interchange of equipment such a practice would have been impossible in many cases because of the varying gauges of the railroads. The Erie Railroad and a number of railroads in the South and Central States were broad-gauge lines, having a space of 5½ feet or more between the rails, while other lines were of several different gauges most of them being somewhat less than 5 feet. However plans were taking shape, and were being carried out in part, to overcome some of the inconveniences of rail transportation.

The consolidation of the lines between Albany and Buffalo was a step in the right direction. The Pennsylvania Railroad obtained control of the connecting lines between Harrisburg and Philadelphia by lease and by purchase, and thus came into complete control of a line from Pittsburgh to Philadelphia. The managers of all the eastern trunk lines were making plans to extend their systems to the Mississippi River and Lake Michigan, either by the lease and purchase of existing western connections or by new construction. The question of uniform gauge was being considered, and much spirited argument took place over the relative advantages of the broad and the narrow gauge.

The mechanical equipment of railroads showed the same evidence of progress that was found on the farms and in the factories. The wooden rails, surfaced with straps of iron, were supplanted nearly everywhere with rolled iron T-rails. Well built bridges and tunnels testified to the ability of American civil engineers. Larger and heavier locomotives, freight cars, and passenger cars made rail transportation cheaper and more efficient. On some roads sleeping-cars were introduced. A double row of bunks on each side of the car provided comfortable sleeping accommodations, but the cars could not be converted into ordinary coaches for day travel. George M. Pullman was at work, however, on the problem of building a convertible car.

The Express Business. An interesting transportation business was begun in 1839, when William F. Harnden of Boston organized an "express" service between Boston and New York. Before Harnden's venture there was no special agency for transporting valuable parcels of merchandise and money. Harnden perceived the need for a systematic service. His business between New York and Boston grew rapidly, and he extended the service to other cities. He made special arrangements with railroad companies and

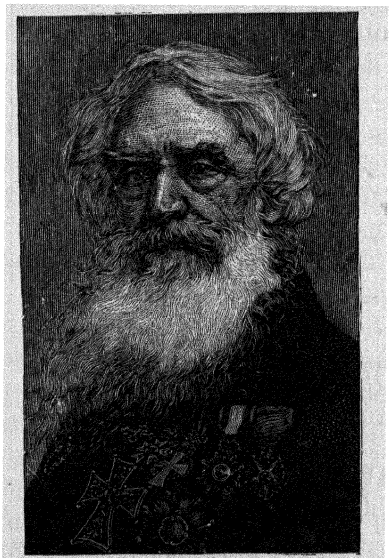
steamship lines for the transportation of his messengers and their packages. Harnden's success led others to enter the express business, and before 1850 several companies, including the American and the original Adams companies, were formed. In 1852 Wells, Fargo and Company started in business, giving particular attention to the transportation of express traffic between the Mississippi River and California. The adventures of the men who crossed and recrossed mountains and plains in the service of this company furnish a thrilling chapter in the history of the Far West.

The Electric Telegraph. One of the great inventions of this period was the magnetic telegraph. In 1835 Prof. Samuel F. B. Morse of New York University perfected a device for transmitting signals by a current of electricity. Even after he had shown that his experimental mechanism would work people scoffed at his assertion that he could send messages for long distances. Unable to interest private capitalists in his invention he went before Congress asking for an appropriation to construct a telegraph line. After several years of patient urging he secured an appropriation of $30,000 in 1843, and the following year constructed the first telegraph line, extending from the Baltimore and Ohio Railroad station in Baltimore to the Supreme Court room in the Capitol at Washington. The initial test justified the confidence of the inventor. The first message, suggested by Annie Ellsworth, the daughter of the Commissioner of Patents, was part of a verse from Numbers, "What hath God wrought."

The success of the first telegraph line assured, there was no lack of capital to undertake the construction of others. By 1860 nearly 50,000 miles of telegraph lines were in operation in the United States. A line was erected to the Pacific coast in 1861. The first Atlantic cable was laid in 1858 by Cyrus W. Field. It was operated successfully for

a few days and then failed because of faulty insulation. The jeers of the public did not keep the courageous Field from trying again, and in 1866 he successfully carried out his project.

The telegraph was not only useful in transmitting commercial information, private messages and news despatches; about 1850 its use began as an aid in the operation of steam

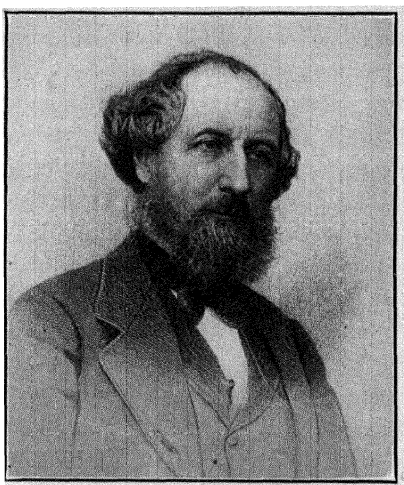


S. F. B. Morse

railroads. Trains were operated on regular schedules, and on single track lines the failure of one train to reach the appointed place for meeting and passing a train from the opposite direction upset the entire train schedule, causing much loss and inconvenience. By using the telegraph to transmit orders it was possible for a central train despatcher to appoint other meeting places for trains which did not maintain their regular schedule. Without

the aid of the telegraph railroad operation would have developed much more slowly.

Currency and Banking. The discovery of gold in California resulted in a substantial addition to the quantity of gold coin in the United States, but inasmuch as the increase in the supply of gold tended to decrease its value in comparison with silver, the practice of exporting silver,



Cyrus W. Field

caused by the undervaluation of that metal in the coinage acts of 1834 and 1837, tended to increase. The use of worn coins and of a large number of miscellaneous foreign coins of doubtful value caused much confusion. In 1853 Congress again modified the coinage laws. The new act provided that the fractional silver coins should contain a quantity of silver somewhat less in value than the nominal value of the coins. The temptation to export fractional coins was removed, because they had more value as coins than as bullion. The Government did not offer free

coinage of fractional silver coins. The mint bought silver bullion, made the coins, and the Treasury passed them out at their face value, the Government thereby making a small sum upon each fractional coin minted. The law had the desired result, and the country soon had an abundant supply of fractional metallic currency. The amount of silver in the silver dollar was not changed, and consequently no silver dollars were coined and circulated.

The crises of 1837 and 1839 were a severe lesson to the business interests of the nation, a lesson which led to efforts in a few States to regulate the banking business. The strong Suffolk Bank of Boston came to occupy a position with respect to New England banks similar to that which the United States Bank had formerly occupied with respect to the various State banks of the country. The Suffolk Bank accepted at par the notes of any New England bank which agreed to maintain specie payments and also to keep a permanent deposit with the Suffolk Bank. The Massachusetts legislature passed a law forbidding banks to pay out over their counters any notes but their own. Banks receiving the notes of other banks found it convenient to send such notes to the Suffolk Bank for redemption and collection. In this way the Suffolk Bank became a clearing house for the banks of Massachusetts, and finally for nearly all the banks of New England. Since the Suffolk Bank insisted that the banks in the "system" maintain specie payments, the bankers were careful about their loans and credits, and New England had a safe and useful banking organization.

The State of New York adopted a banking system upon which the national banking system was later to be modeled. Banks were required to deposit securities—stocks and bonds of an approved character—with the State Comptroller, as a pledge for the redemption of their notes. This system did not work well at first because of the vio-

lations of the law by unscrupulous bankers and because the securities of an insolvent bank, when sold at a forced sale, would occasionally not bring enough to redeem the outstanding bank-notes. Eventually the system was perfected however and New York obtained a satisfactory banking business.

In the South and in the Central States not so much effort was made to regulate the banking business, and while several notably strong banks were organized, there was also a large number of "wild-cat" banks, whose managers endeavored to repeat the excesses practised before the panic of 1837. The influence of the more conservative banks served to check the growth of unsound banking however, and conditions did not become so bad as in former years. Many bank-notes circulated at a discount because of lack of confidence in the banks by which they were issued. Merchants kept "Bank-Note Reporters" which gave the current value of the notes of different banks. The great variety of bank-notes, and the many differences in color and engraving, served to make counterfeiting somewhat easy, and led to attempts to print and circulate much spurious currency.

The Panic of 1857. In 1857 the United States suffered again from a financial crisis. The cause was excessive speculation following a season of highly prosperous industrial and commercial development. The discovery of gold in California and the large grants of land to railroad companies did much to encourage speculative activity. Many millions of dollars were invested in the stocks and bonds of railroads and factories. Many banks made large loans to new business corporations, taking stocks and bonds in exchange. In August, 1857, the Ohio Life Insurance and Trust Company, which had loaned several million dollars to unsuccessful railroad corporations, failed. Its failure brought failure to a number of other business es-

tablishments. There was a sudden loss of confidence in stocks, bonds, bank-notes, and other credit instruments, and people engaged in a mad scramble to turn their paper into specie. Many banks were forced to suspend specie payments, and several thousand business houses closed their doors.

The panic of 1857 was not so severe, however, as the panic of 1837. There had been much speculation, but there had also been large investments in growing productive enterprises. Wealth was increasing at a rapid rate. Before 1837 so much money had been sunk in unproductive improvements or had been spent for luxuries that debtors could not possibly pay their debts. There had been too much waste. In 1857 the borrowed funds had gone largely into railroads and factories which needed but little time to become profitable undertakings. The result was that the depression of 1857 was of short duration. Confidence was speedily restored, production resumed, and by 1860 the effects of the panic had entirely disappeared.

Questions and Topics

1. List some of the American inventions and improvements upon inventions between 1840 and 1860.
2. Are there any American inventions which are peculiarly national in their use?
3. Was the annexation of a part of Mexico by the treaty of Guadaloupe Hidalgo just to Mexico?
4. Why did slave owners usually favor territorial expansion?
5. Why is there little tendency on the part of immigrants to-day to settle in the North Central part of the United States or the uncrowded sections of the country?
6. What other settlements beside Salt Lake City have been made in various parts of the United States by groups of people seeking religious freedom?
7. What effect does the finding of much gold have on the currency?
8. Can you account for the apparent backwardness of

the South in the invention and use of labor saving and time saving devices?

9. Show how the sewing machine made a minor revolution in home industry.

CHAPTER XVIII
DOMESTIC TRADE; FOREIGN TRADE; SHIPPING.

1840–1860

Domestic Commerce. Increased production, better means of transportation and continued sectional division of labor were reflected in the constantly expanding domestic commerce of the United States between 1840 and 1860. The South continued to be the central factor in the domestic and foreign trade of the country, producing large quantities of cotton for export and relying upon the North for food, livestock and manufactured goods. Exports of Southern cotton paid in part for the foreign imports consumed in the North, the South receiving in the process of exchange the products of Northern farms and factories. One writer described the commercial situation of 1860 as follows,

> "The proceeds of Southern crops comes North simply to pay Southern debts. Take an illustration of this on a grand scale. Every year the value of merchandise going West on the Erie Canal, New York Central and Erie Railroads, exceeds that coming East on the same routes by $100,000,000. This is a puzzle to many persons. . . . It is simply the process by which that section gets pay for the products which it sells to the South. These debts cotton pays. The Northern shipper takes it to Europe, brings back the proceeds, which are distributed by Northern merchants and factors throughout the length and breadth of the land. It is not convenient for the West to receive its pay through Norfolk or Charleston or Savannah or New Orleans, but through Northern Cities and on interior routes of communication."

Of the two branches of domestic commerce, the coastwise trade and the internal trade, the former was the greater in value, though as the interior of the country was settled and rail transportation became more efficient, internal trade grew very rapidly. There were two important divisions of internal trade between 1840 and 1860, the trade on the Mississippi River, and the trade between the Eastern and the Northern Central States carried by the Great Lakes and the Erie Canal and by the trunk-line railroads. There were other minor currents of internal traffic such as the trade between the eastern and western sections of the Southern States and the overland trade with the Far West.

Coastwise Commerce. The failure of the Government to collect statistical information covering the coastwise commerce of the United States has always made it impossible to give an exact statement of the nature and volume of the coastwise traffic. The best index of the growth of the coastwise trade between 1840 and 1860 is the statistics of coastwise shipping. This shipping (including tonnage on the Great Lakes) increased from 1,176,694 tons in 1840 to 2,644,867 tons in 1860. By far the largest part of this tonnage was employed on the Atlantic and Gulf coasts, carrying Southern cotton, rice, lumber and tobacco, and some Western farm produce to the ports of the North Atlantic coast and returning with manufactured goods of domestic and foreign production and all kinds of ordinary merchandise. Cotton was the chief factor in the coastwise trade. Throughout the colonial period and down almost to the War of 1812 there had been comparatively little coastwise trade between the North and the South, because neither section produced articles which the other section consumed in large quantities. The rise of cotton culture and of cotton manufacture changed this situation. The cotton manufacturers of the North depended upon

the Southern planters for their raw material, and the planters, devoting all their energies to the production of cotton, were content to have their wants supplied by Northern merchants, manufacturers, bankers and shipowners. Most of the coastwise trade was carried in sailing vessels, though steamships were used in greater numbers each year. Before 1860 a number of coastwise steamship lines afforded regular service between the leading Northern and Southern seaports.

Commerce of the Great Lakes and Erie Canal. The outstanding feature of the internal trade carried on the Great Lakes and Erie Canal during the two decades following 1840 was the remarkable growth of the eastbound traffic in cereals and flour. When the Erie Canal was opened the region about the Great Lakes contributed almost nothing to the commerce of the nation. Until after 1835 the shipments of New York grain reaching the Hudson River on the canal were larger than the shipments of Western grain. By 1840 the quantity of Western grain moving over the canal was considerably greater than the quantity originating in New York. Increasing steadily each year the shipments of Western grain arriving at the lake ports of New York grew until in 1860 they amounted to more than sixty million bushels. The shipments of grain from the ports of Lake Michigan alone, in 1860 were 43,211,448 bushels. The first shipment of grain from a Lake Michigan port had occurred in 1836. The grain trade of Chicago did not begin until 1838 when 39 sacks of wheat were sent to Buffalo; in 1860 Chicago, one of the leading grain markets of the world, sent twenty millions bushels of grain eastward on the lakes.

The notable fact about the lake grain traffic was that it represented new agricultural development. Very little of it was traffic diverted from some other route of transportation. It was the product of newly settled lands in

Michigan and Wisconsin and in northern Ohio, Indiana and Illinois. The great grain crops of the lake district might have proved embarrassing to American farmers had new markets for grain not been found after 1840. Fortunately the British Parliament repealed the ancient English Corn Laws in 1846, thereby opening the markets of Great Britain to foreign grain and flour. The American farmer obtained a needed market, and the British factory worker enjoyed a better standard of living.

The ports of the Great Lakes quickly expanded from small towns to large cities. No city in the United States grew more rapidly than Chicago. Not mentioned in the census of 1830, and having a population of only 5,000 in 1840, Chicago was in 1860 a city of 109,000, and was growing at a rate indicating that it would soon pass New Orleans, St. Louis and Cincinnati, which were then the largest cities west of the Appalachian highland. Milwaukee, Detroit, Toledo, Cleveland and Buffalo likewise prospered greatly. Railroads radiating from these cities brought in the grain to be shipped to Eastern markets, and distributed to interior towns and cities the merchandise received in exchange for the grain.

The shipping employed in the lake and canal trade increased from 50,000 tons in 1841 to 451,000 tons in 1860. More than two-thirds of the lake vessels were sloops and schooners, but steamboats were used each year in increasing numbers. The screw propeller invented by Erickson in 1836 was found to be adaptable to lake shipping, and a number of the steamers on the lakes were equipped with this device. Such steamers were called "propellers" to distinguish them from the "steamboats," which had paddle-wheels.

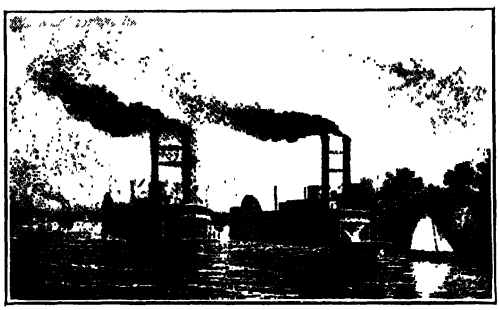
Though grain and flour made up the largest part of the eastbound lake and canal traffic they were by no means the only important commodities in this branch of the in-

ternal trade. Pork products, hides, wool, whiskey, some live stock, and iron and copper ores were also carried eastward by lake and canal. The white pine forests of the lake region not only supplied enormous quantities of building material for the towns and cities in the lake district but also provided lumber for Eastern cities.

The westbound lake and canal traffic was smaller in volume than the eastbound shipments but was considerably greater in value. It consisted chiefly of finished manufactured wares and imported merchandise of various kinds. The furniture and other household goods of immigrants were an important part of the traffic, while drygoods, cordage, wearing apparel, railroad equipment, paper, machinery, drugs, sugar, coffee, tobacco and salt reached Buffalo in large quantities to be sent to lake ports further west for distribution. The value of the Erie Canal traffic destined for States west of New York increased from $9,723,250 in 1836 to $94,230,720 in 1854. The westbound traffic reached its maximum value in the latter year. The trunk line railroads readily absorbed the high-grade merchandise traffic after that year and the value of the shipments carried on the canal declined.

The Trunk Line Railroad Traffic. The completion of the trunk line railroads had a pronounced effect upon the trade between the Eastern and the Northern Central States. Not only did the railroads take from the Erie Canal the high-grade merchandise traffic; they also took a part of the eastbound traffic in flour and other products of agriculture. More important, however, than the effect of the railroads on the canal business was their effect upon the trade of the Ohio Valley. The railroads gave this region a direct route to the East that was cheaper and faster than the roundabout route by way of New Orleans. The outbound shipments of southern Ohio, Indiana and Illinois were in part diverted from the Mississippi River to the

railroads, and the Northern Central States became much more closely connected with the East than with the South. In 1852 the railroads "captured" the lead trade of Galena. Not a single pound of lead went down the Mississippi after that year. Previously the annual shipments to New Orleans had frequently amounted to more than half a million pounds. In 1850 Cincinnati sent 375,000 barrels of flour to New Orleans and other down river markets and less than 8,000 barrels up the Ohio River. In 1858 the down-stream shipments of flour from Cincinnati were only



Steamboats on the Mississippi, 1860

18,000 barrels while 545,000 were sent east by rail and river.

The railroads also brought about a change in the live stock trade. The practice of driving cattle overland to Eastern markets stopped after the trunk line railroads were finished. In 1859 live stock was the most important single kind of traffic on the Pennsylvania Railroad. It was no longer necessary, after rail transportation became available, for the farmers of Illinois to winter their cattle in Ohio before sending them to Eastern cities.

The Mississippi River Trade. Though the Eastern trunk line railroads took away some of the traffic of the Mississippi River the loss which the river suffered was for the

time being relative and not absolute. The people of the South demanded ever increasing quantities of Northern grain and provisions and the river traffic in foodstuffs increased slowly even after the railroads took the surplus destined for the foreign market and for consumption in the East. What the river failed to obtain of the grain traffic was largely compensated for by the great increase in the cotton traffic of the States in the lower Mississippi Valley. Each year the downstream shipments of cotton



New Orleans in 1860

increased in quantity, with the result that the total receipts of produce at New Orleans grew steadily in value. Even when the through rail lines from Charleston and Savannah captured a portion of the cotton trade of Mississippi and Tennessee, the increased production of cotton in the States on the west bank of the Mississippi caused the river cotton traffic to grow, and enabled New Orleans to hold a firm lead among the cotton ports. The decade from 1850 to 1860 was the "golden age" of the river trade. The year 1860 was the "best year on the river," the receipts of pro-

duce at New Orleans reaching a value of $185,211,254, a greater amount than was carried by either the Erie Canal or by the trunk line railroads. Hundreds of steamboats, some of them of palatial luxury, plied between New Orleans and the up-river cities. Some of the boats were poorly built, many were operated recklessly, and disastrous collisions and boiler explosions were not uncommon. The great American humorist, Samuel L. Clemens, was for a time a pilot on a Mississippi River steamboat. He obtained his pseudonym "Mark Twain," as well as the material for many of his stories, from his experiences on the river.

The commercial leaders of the South began to realize after 1850 that the trade of the Mississippi was showing signs of decay because of the competition of the railroads extending to the Atlantic coast. J. D. B. DeBow, said that Northern enterprise had "rolled back the mighty tide of the Mississippi and its ten thousand tributary streams until their mouth, practically and commercially speaking is at New York and Boston rather than at New Orleans." DeBow urged that railroads be constructed parallel to the river to enable New Orleans to maintain its commercial position. He succeeded in starting a movement for railway construction, but little was accomplished before the Civil War.

Internal Trade with the Far West. Before the war with Mexico the people of the United States opened up a trade with the Mexican settlements of the Southwest. Great wagons, drawn by oxen, carried merchandise over the Santa Fe Trail to the Mexican towns and returned with loads of wool and hides. After the Mormons planted their settlements in Utah a small wagon trade was opened between St. Joseph and Salt Lake City.

The discovery of gold in California and in other Western districts caused a great demand for tools, food and cloth-

ing from the East. The greater portion of the traffic reached California on ocean vessels, but a part of it was carried overland in wagons—"prairie schooners," as the white-topped vehicles were called. A number of individuals and companies engaged in the business of "freighting" between the towns on the Missouri and Mississippi Rivers and the Far West. In 1859 one company, that of Russel, Majors and Waddell, had 6,000 wagons and 75,000 oxen employed in carrying goods between St. Joseph and Sacramento by way of Salt Lake City. The company also operated a stage coach line over this route. In the Southwest the Wells-Butterfield Company did a thriving business over a route extending from St. Louis to San Diego. In 1858 this company secured a contract for carrying the mail between St. Louis and San Francisco, over the southern route, by way of Ft. Smith, El Paso, Tucson and San Diego. The route was 2,760 miles long and the stage coaches were scheduled to make the long dangerous trip in 25 days. Russel, Majors and Waddell were anxious to obtain the mail contract, and to demonstrate the superiority of the northern route to the Pacific coast, in 1860 they established their famous Pony Express between St. Joseph and San Francisco. Every ten miles along the route they maintained posts at which their riders changed horses. Each rider covered a "section" of approximately 100 miles. In 1861 the Pony Express carried Lincoln's inaugural address over the 2,000 mile route in 7 days and 17 hours. William F. Cody (Buffalo Bill), one of the most famous of the Western frontiersmen, was for a time a Pony Express rider. In 1861 the mails were transferred to the northern route, the work of transporting them being divided between the two rival companies. Both firms had spent so much money in establishing their lines that they became involved in financial difficulties. Ben Holliday took the mail contract and operated the large

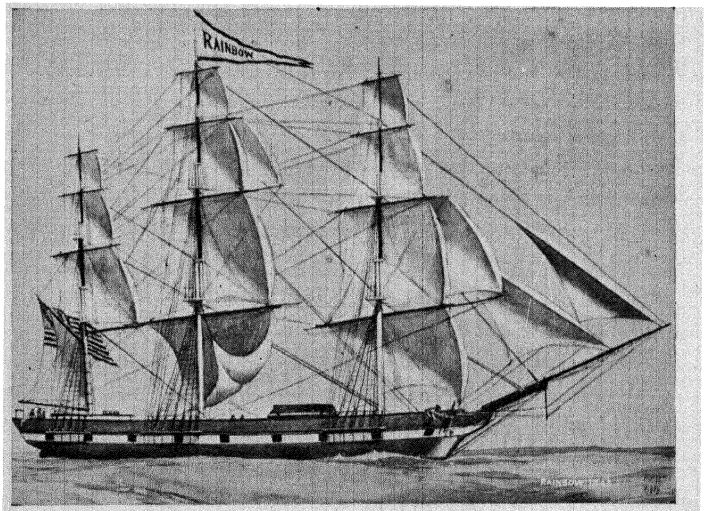
stage line for a short time, but after losing much of his equipment through Indian depredations he sold out the business to Wells, Fargo and Company.

Foreign Commerce. Until the indebtedness, created by the excessive importation of goods just before the panic of 1837, was liquidated, the overseas commerce of the United States remained somewhat stagnant, but once normal business conditions were restored there was a steady increase of both exports and imports. During the fifteen years preceding 1860 foreign commerce grew at a more rapid rate than it had ever grown before. Previous to 1840 an annual foreign trade of more than $250,000,000 was considered abnormally large. In 1860, notwithstanding the fact that the country had just emerged from an industrial depression, the merchandise exports of the United States had a value of $333,576,057 and the imports a value of $353,616,119.

Cotton was the great export product. It seldom failed to account for one-half the value of the annual merchandise exports, and occasionally the exports of cotton were twice as great in value as all other exports put together. Wheat, corn, flour, provisions and lumber were exported in considerable quantities, and small shipments of manufactured goods were sent to South American and Oriental seaports. Among imports, manufactured goods—chiefly textiles of cotton, silk and wool, and articles of iron—held a leading position, while tropical foodstuffs, such as sugar, coffee and tea, were next in importance. Europe was the chief buyer of American exports and the chief source of American imports. England led all countries in buying American products and in supplying the wants of the American people for foreign goods.

With cotton the leading export the Southern cities of the United States had a larger export trade than the Northern cities. New Orleans usually stood first as an

export city, with New York a close second. Mobile, Savannah and Charleston each sent large quantities of cotton abroad. Though the South led in exports its share of the import trade was very small. New York was the only great importing center, receiving usually two-thirds of all the imports which entered the country, or twice as much as all other ports combined. Boston held second place in the import trade, and New Orleans was a poor



The *Rainbow*

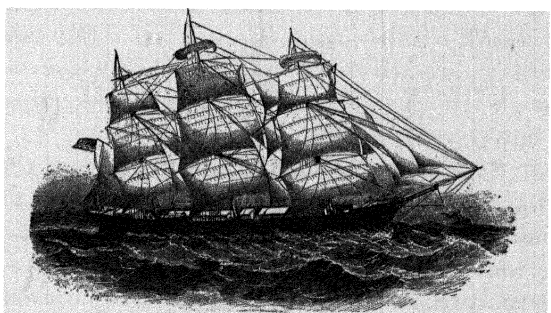
Courtesy of Keokuk Chamber of Commerce.

third, occasionally ranking below Philadelphia and Baltimore.

American Shipping. The tonnage of American shipping employed in foreign commerce grew at a more rapid rate between 1840 and 1860 than the value of the American foreign trade. Never before or since have American shipbuilders and shipowners enjoyed such a long period of uninterrupted prosperity. Ships flying the American flag

went to all the ports of the world distributing the commercial wares of all nations. American shipowners had a carrying trade larger and more valuable than the carrying trade of their British rivals, and the tonnage of the American merchant marine in 1860 was equal to the tonnage of shipping owned by the British nation.

An important factor in the success of the American shipping business was the excellence and the cheapness of American sailing vessels. From early colonial times American shipbuilders had constructed sailing vessels of superior quality, and they demonstrated their exceptional enter-



Clipper Ship

prise and ability throughout this period. In 1845 John W. Griffiths, an American naval architect, designed and built the *Rainbow*, the first "clipper ship." The hull of the *Rainbow* differed from the hull of any vessel previously constructed. Its greatest breadth was in the midship section instead of forward, and the concave lines of the long narrow bow enabled the vessel to cleave the water with a minimum amount of resistance. Many shipbuilding experts jeered at Griffiths' revolutionary work and predicted that the *Rainbow* would never return from her first voyage. Their jeers gave place to admiration when the

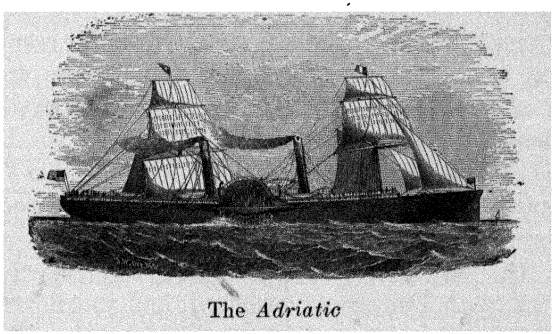
new clipper made a voyage between Canton and New York in three weeks less time than the distance had ever before been covered. Griffiths' ideas were at once adopted by shipbuilders in Boston, New York, Philadelphia and elsewhere, and in a short time a large number of clipper ships were constructed. British shipowners gladly bought vessels of the new type. The discovery of gold in California gave the operators of clipper ships an opportunity to show what their vessels could do. Dozens of ships sailed from the Atlantic ports of the United States around Cape Horn to San Francisco carrying the eager gold hunters and cargoes of picks, shovels and other tools. In 1851 the clipper, *Flying Cloud,* made the voyage from Sandy Hook to the Golden Gate in 89 days, establishing a record which had been equaled by only one other sailing vessel. With fair winds the best sailing ships of 1850 could outdistance the fastest steamboats.

Ocean Steam Navigation. The excellence of the clipper ships was in part responsible for the undoing of the American merchant marine. Just as the belief of the Southern people that the Mississippi River steamboat was superior to the railroad resulted in the decay of the commerce of New Orleans, so the confidence of American shipowners in the superiority of sailing vessels over steamships resulted eventually in a decline of the American carrying trade. An American inventor built the first successful steamboat, and an American shipowner was the first to cross the ocean in a steamship, but it was the British who recognized the commercial possibilities of ocean steam navigation and developed the ocean steamship service.

In 1839 Samuel Cunard founded the famous Cunard Steamship Company and the following year established a semi-monthly steamship service from Liverpool to Halifax and Boston. Cunard received from the British government a mail subsidy of $425,000 a year, and later $850,-

000 a year. The service offered by the Cunard line was regular and certain, and the transatlantic passenger traffic began to abandon American packet lines for the British steamships.

In spite of Cunard's success most American shipowners refused to believe in the superior efficiency of the ocean steamer until after the British had obtained a good start. Finally, in 1845 and 1847, Congress enacted legislation to promote the development of ocean steam navigation under the American flag. Liberal subsidies were offered to those who would establish American steamship lines, and



The *Adriatic*

under the influence of this legislation four lines were started. The Ocean Steam Navigation Company established service from New York to Havre and Bremen; Edward K. Collins, the head of the "Dramatic Line" of sailing packets, started a line between New York and Liverpool; a third line connected New York, Charleston, New Orleans, Havana and the Isthmus of Panama; while a fourth gave service from Panama to California and Oregon.

Of these subsidized lines the one established by Collins was the most pretentious. Collins built four wooden, paddle-wheel steamers, the *Arctic, Baltic, Atlantic,* and *Pacific,* each of them having a tonnage of more than 2,500, and in

the spring of 1850 began a semi-monthly service between New York and Liverpool, for which the Government paid a subsidy of $385,000 a year. The service was better than Collins had originally agreed to maintain, and the following year the subsidy was advanced to $858,000. In 1855 the fifth vessel of the Collins line, the *Adriatic,* was completed. It was the fastest and most luxurious steamship in the transatlantic service.

For four years after the Collins line was established it competed vigorously with the rival Cunard line. The American ships were faster and more comfortable than the British vessels, and for a time Collins was successful in the competitive struggle. Then he met with two great misfortunes. In 1854 the *Arctic* was rammed and sunk in a fog by a French vessel, near Cape Race, and only 45 out of 368 people aboard the ship were saved. Collins himself lost his wife, son and daughter in the accident. The loss of this vessel made it impossible for him to maintain the service called for in his contract with the Government and the amount of his subsidy was reduced. In January, 1856, the *Pacific* left Liverpool for New York, with 156 people on board, and was never heard from again. This loss was a crushing blow, and during the financial panic of 1857 Collins was forced into bankruptcy.

Meanwhile a sentiment against steamship subsidies had arisen in Congress. Southern representatives had in general voted in favor of subsidies in 1845 and 1847, but now they turned against them because the benefit had gone only to Northern shipbuilders and shipowners. A number of shipowners in the North opposed the subsidy policy, because it favored certain individuals and discouraged others. Many shipowners did not yet believe that the steamship would ever supplant the sailing vessel in the transportation of ocean freight. In 1858 Congress abandoned the subsidy

policy entirely and ceased to encourage the development of American steamship lines by artificial means. The remaining vessels of the Collins line were sold to British companies, and American owners retired from the transatlantic steamship service, leaving the field to their rivals. The service between New York and Chagres, on the Isthmus of Panama, and between Panama and Oregon continued to grow, notwithstanding the withdrawal of the subsidies. A railroad was built across the isthmus and a number of new steamers were added to both the Atlantic and the Pacific line.

Another change was taking place in the shipping business which boded ill for American interests. This was the substitution of iron for wood in the construction of the hulls of both steamships and sailing vessels. American shipbuilders had been able to build ships more cheaply than British builders chiefly because of the plentiful supply of cheap material for American wooden ships. By using iron instead of wood British builders obtained the advantage because hulls of iron could be built more cheaply in England than in the United States. American shipping interests were slow to recognize the superiority of iron over wood just as they were slow to realize that steam was superior to sails. By their unwillingness to adopt new methods and devices the American shipping interests let their British competitors get a long start in the race for marine supremacy.

Even with the unfavorable start, the American shipping interests might eventually have regained their position on the sea had it not been for the Civil War. During this conflict American shipowners were placed at a great disadvantage. When the struggle was over the British were far in the lead in the shipping business. Moreover new conditions had arisen which made shipbuilding and ship operation less attractive than other industries in America.

Until these conditions changed the revival of the American merchant marine was an impossibility.

Questions and Topics

1. Can you account for the comparatively slow growth of cities in the South?
2. Is the United States now raising enough wheat and cattle for home consumption?
3. To what causes do you ascribe the slowness of the South to grasp its industrial impossibilities?
4. Name other American inventions beside the steamboat that have been perfected and successfully utilized by foreign countries.
5. Did the development of the clipper ship ultimately do harm or good to American shipping interests? Give reasons for your opinion.

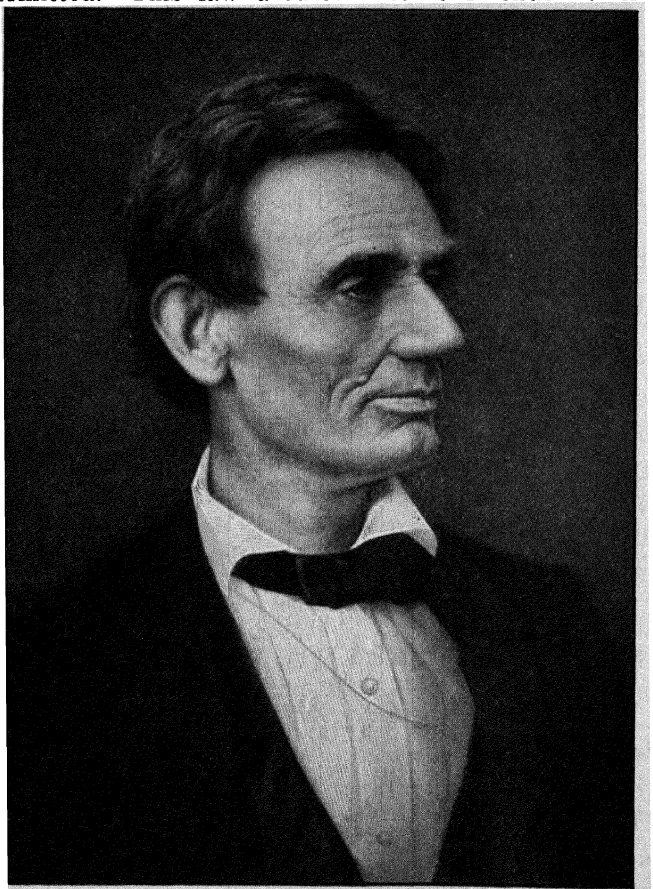
CHAPTER XIX

THE CIVIL WAR

Secession and War. Notwithstanding the material prosperity of the nation during the two decades following 1840 the period witnessed an exceedingly bitter political struggle between the people of the North and the people of the South. This struggle culminated in 1860, shortly after the election of Abraham Lincoln to the presidency, when a South Carolina convention passed an ordinance of secession declaring the Union to be "dissolved." Six other States soon followed South Carolina's lead, and in February, at a meeting held in Montgomery, Alabama, a provisional government of the "Confederate States of America" was organized. All endeavors to adjust the differences between the opposing sections of the country failed. As Lincoln said "One of them would make war rather than let the nation survive, and the other would accept war rather than let it perish, and the war came." Fort Sumter was fired on; Lincoln promptly called for volunteers to suppress the insurrection; four more States joined the Confederacy; and the great war was under way.

Slavery the Cause of the War. Though the Civil War was not fought to free the negro, slavery was nevertheless the real cause of the war. The Southern slaveholders for years waged an aggressive fight to extend the slaveholding area of the United States. In 1854 Congress unwisely passed the Kansas-Nebraska bill, which repealed the Missouri Compromise of 1820 and provided that the inhabitants of the new Territories of Kansas and Nebraska

should decide for themselves whether slavery should be permitted. This law aroused intense resentment in the



Abraham Lincoln

From a photograph made at Springfield soon after his nomination for President.

North, where for a number of years there had been a steadily growing opposition to negro slavery. A small but extremely active group of radicals had taken the at-

titude that slavery should be abolished or the Union dissolved, but these extremists were not popular. There was however a large number of men who, while not seeking the abolition of slavery, earnestly opposed the further extension of the institution. After the enactment of the Kansas-Nebraska bill this group organized the Republican party, with the purpose of resisting to the utmost the spread of slavery into the Western Territories.

In 1857 the Supreme Court declared, in the famous Dred Scott decision, that Congress did not have the constitutional authority to prohibit slavery in any Territory. If Congress had no such power, obviously a Territorial legislature, inferior to Congress, had no such power. The Republican leaders denounced the decision as a "political manifesto," and reaffirming their conviction that "freedom" was the natural condition of the Territories, denied the "authority of Congress, of a Territorial legislature, or of any individual to give legal existence to slavery in the Territories." In 1860 the Democratic party split asunder, the Southern faction demanding the recognition of rights of slaveholders as defined in the Dred Scott decision, the Northern faction adhering to the doctrine of "popular sovereignty" as embodied in the Kansas-Nebraska Act. The division of the opposition resulted in a Republican victory. The Southern leaders, professing a belief that the Republicans cherished the desire not only to restrict the territorial extension of slavery but also to exterminate slavery in the States where it had a legal existence, decided to destroy the Union.

Slavery and the South. The aggressive slaveholders were willing to destroy the Government to perpetuate an institution which not only was wicked and immoral, but, from an economic standpoint, was injurious to the South. A comparison of the Northern and the Southern states in 1860 showed that the former had far outdistanced the latter

in material and social development. The population of the Northern States was fifty per cent greater than that of the Southern States, and the value of Northern property was almost twice as great as the value of Southern property. The census of 1860 showed that the wealth produced in the United States in 1859 had a value of $3,736,000,000 of which only $818,000,000 came from Southern industry. The great natural resources of the South, with the exception of the soil, were virtually untouched. In such branches of industry as manufacturing, banking and transportation the South took little interest. The great merchant marine of the United States was owned almost entirely by Northern business men. The South was deficient in all the educational facilities which make for the improvement of civilized communities.

Slave labor was inefficient and wasteful. The system was injurious to the slaves and to the slaveholders. In the former there was no initiative, no foresight, no thrift, no ambition; in the latter there was contempt for manual labor and a desire to live solely by the industry of others. The effective labor supply of the South was small in proportion to the number of inhabitants. There were too many consumers and too few producers. And what was even worse there was little saving. Since the wealthy class of the South consisted almost wholly of the great cotton planters, the accumulation of capital, which makes industrial progress possible, depended upon the willingness of this class to save. Unfortunately the planters showed little desire to cultivate a spirit of thrift. Slavery always fosters a spirit of extravagance. The planters were prosperous, but their prosperity was of little benefit to their community. They invested their surplus in additional slaves or spent it to maintain a life of luxurious ease. The backwardness of the South was due to inefficient labor and to the failure to accumulate capital,

and these shortcomings were the direct results of negro slavery.

Economic Conditions During the War. The conditions in the North and in the South during the war brought out strongly the inherent strength of the one section and the weakness of the other. At first the war caused a sharp crisis in the North because of the great losses suffered by merchants who had sold goods on credit to Southern purchasers. The depression quickly passed however, and under the stimulation of the demand for food, clothing and munitions for the use of the large armies nearly all branches of industry became exceedingly active. The States north of the Ohio River and the Mason and Dixon Line had little physical contact with the war. The greatest battle of the struggle was fought in southern Pennsylvania, and Morgan's cavalry raided southern Indiana and Ohio, but on no occasion did hostile armies disturb the productive industries of the North to any appreciable extent. By greater use of farm machinery the Northern Central States increased their crops of cereals notwithstanding the diversion of a substantial portion of the labor force to the army. The loss of the Southern market was compensated for by the enlarged market abroad. Manufacturing industries were generally prosperous, with the exception of the cotton mills, which were handicapped by a shortage of raw materials. The production of woolens, clothing, boots and shoes, firearms, wagons, and agricultural machinery went on at a more rapid rate than before the war. There was some activity even in the construction of new railroads, large bodies of workmen being imported under contract from Europe and from Asia to supply the need for unskilled labor. In only one field of economic activity did the North lose strength. This was in shipping. Confederate cruisers, some of which were built in England, roamed the seas capturing and destroying

Northern merchant vessels. High rates of insurance made the operation of ships under the American flag unprofitable, and many owners sold their vessels to foreign shipping interests. The Government took over a large number of vessels to use for military purposes. When the war ended the American merchant marine was only half the size it had been when the war began.

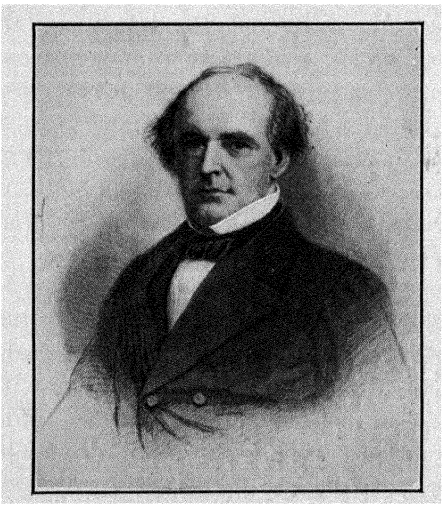
While the North prospered the South was ruined. The South had long been dependent upon foreign commerce and upon commerce with the Northern States for many articles of daily use, and it found its communication with the outside world almost completely cut off. One of the first military measures of the Federal authorities was to declare a blockade of the entire Southern coast. Within a short time the blockade was made effective by squadrons of armed vessels which intercepted any ship endeavoring to enter or leave a Southern port. Forced by the blockade to rely upon their own resources the Southern people established industries for the manufacture of arms, clothing, munitions and transportation equipment. The production which they were able to maintain was wholly inadequate to meet either military or civil needs. The few Southern railroads soon deteriorated and the problem of supplying the armies in the field became increasingly difficult. During the latter part of the war the few industrial centers and the most important agricultural districts of the South were devastated by Northern armies, the factories burned, railroads torn up, stocks of food seized, slaves liberated and live stock driven away or destroyed. When Lee's army finally surrendered the soldiers were scantily clad and were weak from hunger. The South was literally exhausted.

Civil War Finance. The methods which the Federal Government adopted to finance the great war belied the economic strength of the Northern States. Once again

the fatal mistake was made of relying upon credit unsupported by an adequate program of taxation. The Secretary of the Treasury, Salmon P. Chase, announced at the beginning of the war that his policy would be to pay only the ordinary expenses of government with money derived from taxation and to pay the cost of the war entirely with borrowed funds. His error was due in part to the belief that the war would last but a few months, but it was due chiefly to his ignorance of public finance, because even when it became evident that the war would be of long duration he made little effort to change his early policy. The first large loan of $150,000,000 was taken in the summer of 1861 by a group of bankers of New York, Philadelphia and Boston. The banks paid specie into the Federal Treasury in regular instalments, the money was disbursed by the Treasury Department, and for a time it was redeposited in the banks by those who received it. Before the end of 1861 the reverses suffered by Federal troops, the threatening attitude of Great Britain and the weak, ineffectual financial program announced by Chase awakened serious doubt of the ability of the Government to weather the storm. The Union was meeting its supreme test, and the outlook was anything but favorable. Instead of depositing with the banks the specie received from the Government individuals began to hoard it. Both the banks and the Government were then compelled to suspend specie payments. Loans were unobtainable except at exorbitant discounts. Instead of adopting a policy of rigorous taxation, which would have provided revenue and strengthened the credit of the Government, Congress, with Secretary Chase's assent, resorted to the old custom of issuing paper money redeemable at no definite date.

The first issue of non-interest bearing notes or "greenbacks," amounting to $150,000,000 was authorized in February, 1862. A second issue of $150,000,000 came in

June. Secretary Chase still found it impossible to sell bonds except at a great discount, and in January, 1863, a third issue of $100,000,000 in greenbacks was authorized to pay the large arrears due the soldiers in the field. A fourth and last issue of $50,000,000 was made in March. The greenbacks were made legal tender in payment of all debts except duties on imports and interest on the public debt. For a time the holders of the notes had the privi-



lege of exchanging them for long-term interest bearing bonds, but this privilege was taken away in 1863. The notes were merely promises of the Government, payable nobody could say when. In addition to the greenbacks the Treasury issued large quantities of interest-bearing notes of small denomination, which circulated as currency. In 1862 and 1863 Secretary Chase, with the help of Jay Cooke, a Philadelphia banker, succeeded in selling directly to the people long-term bonds to the amount of $400,-

000,000. Again in 1865, when William P. Fessenden was head of the Treasury Department, Cooke and his agents marketed several million dollars' worth of long-term bonds. But of the total loans placed by the Government during the four years of the war, sixty per cent consisted of short-time notes and greenbacks.

It was not until June, 1864, that Congress adopted a vigorous policy of taxation. Duties on imports were raised slightly in August, 1861, and an income tax law passed to take effect ten months later. In 1862 a large number of moderate internal taxes were levied and compensatory increases made in import duties. But in 1862–63 when the expenses of the Government reached the large total of $718,733,000 the receipts from taxation were but little more than $100,000,000. In 1864 the internal taxes were increased to such an extent that the receipts from these duties alone amounted to $209,464,000 in 1865 and to $309,366,000 in 1866. Taxes were laid on spirituous liquors, malt liquors, tobacco, manufactured products of all kinds, slaughtered live stock, railroads, steamboats, banking institutions and insurance companies. No industry and no occupation escaped taxation. The duties on imports were also greatly increased to give adequate protection to those industries which were subjected to heavy internal taxes.

Depreciation of the Paper Currency. The suspension of specie payments by the banks and by the Government and the subsequent issue of large quantities of irredeemable notes were followed by the usual result—the depreciation of the paper currency as compared with specie. Depreciation set in almost at once after the first legal tenders were issued and as the amount of paper currency outstanding increased in volume it depreciated more and more until in the summer of 1864 the promises of the Government were worth less than forty cents on the dollar.

Specie disappeared from circulation entirely except in California where the people refused to use paper money. Even the fractional coins were hoarded or exported. To supply the need for small change the Treasury issued several million dollars of fractional paper currency. Gold was used to pay duties on imports, to pay the interest on the public debt, and to settle international balances. A market for the purchase and sale of gold, that is, for the exchange of gold for circulating paper currency, was established in New York City in 1862 and maintained until the Government resumed specie payments in 1879. This "gold exchange" became one of the scandals of the war when unpatriotic speculators endeavored to manipulate the gold market for their private gain. With a depreciated currency some kind of gold market was indispensable, in order that those transactions, in which only gold could be used, might be carried out, but the public need was made to serve the dishonest purposes of unscrupulous gamblers.

The worst effect of the depreciated currency was the great rise in the prices of all commodities without a corresponding increase in wages and salaries. The Government paid its soldiers $13 a month until May, 1864, when the rate was increased to $16. But even after the increase was effected the monthly stipend of the soldier was exchangeable for less than one-half the commodities which an equal number of dollars would have purchased when the war began. All classes of labor in civil life saw their real wages steadily decline, while those who had goods to sell, and especially those who sold supplies to the Government, reaped great fortunes. It has been estimated that the money cost of the war was made twenty-five per cent greater by the depreciation of the currency and the collapse of the nation's credit. This did not mean that the war cost more in wealth and lives, except to the extent

that financial mismanagement prolonged the struggle. It meant that the cost was inequitably distributed, the heaviest burdens falling upon the soldiers, the wage earners and the salaried classes. Debts which the Government contracted when the currency was worth forty and fifty cents on the dollar were settled later with currency worth seventy-five to one hundred cents on the dollar, the fortunate creditor pocketing the difference. Untaxable bonds sold at a large discount were subsequently paid off at par or better, the tax-payer yielding forced tribute to the bondholder. Not only did the irredeemable paper money cause hardship and suffering while the war was in progress; it was retained as a permanent part of the national currency, and for more than a quarter of a century was a prolific source of financial disorder.

Important Results of the War; the End of Slavery. The Civil War was in some respects a turning point in the history of the United States because it brought about changes which were to have a profound influence upon the subsequent course of economic development. Many steps which the Government took to bring the war to a successful conclusion had results of much greater importance than their effect upon the military situation.

A wholly unexpected result of the war was abolition of slavery. There were few people who would have ventured to predict in 1861 that the Government would disturb this institution. Lincoln said in his second inaugural address, "Neither party anticipated that the cause of the conflict might cease before the conflict itself should cease. Each looked for an easier triumph, and a result less fundamental and astounding." In his first inaugural address he had quoted from one of his former speeches: "I have no purpose, directly or indirectly, to interfere with the institution of slavery in the States where it exists. I believe I have no lawful right to do so, and I have no inclination to

do so." He issued his emancipation proclamation by virtue of his war power as commander-in-chief of the military forces of the nation, only after he had given preliminary warning of his intention of setting free on January 1, 1863, all slaves in States "the people whereof shall then be in rebellion against the United States." Though the emancipation proclamation did not technically set all the negro slaves free, it liberated the majority of them and made complete abolition a certainty.

A New Tariff Policy. One of the most surprising results of the war was a complete change in the tariff policy of the United States. The decline of foreign imports after the panic of 1857 had caused a deficit in the Treasury, and in 1861, just before Buchanan's administration ended, a new tariff law, the Morrill Act, was passed. This measure was designed to increase the revenues of the Government, and it also gave moderate protection to manufactures, but it was in no sense a high protective tariff. While the war was in progress the duties on all imports were greatly increased. The purpose of the increased duties was partly to obtain added revenue and partly to give the protection necessary to offset the high direct taxes imposed on manufacturing industries. In the tariff act of 1864 the average rate of duties on imports was raised to 47 per cent. The bill was discussed but three days in the House of Representatives and but two days in the Senate. Nobody thought that it represented a fundamental change in the tariff policy of the country. After the war ended Congress removed nearly all the internal taxes which had been levied to pay the large expenses of the Government, but did not make any reduction in the tariff duties. The South had been strongly opposed to protection, but the South had no representation in Congress, when the taxation laws were revised. The Northern opponents of the protective policy could not muster sufficient

strength to defeat the demands of the beneficiaries of high tariffs. As an incident of war the nation reversed its tariff policy and became committed to a system of protection far in excess of any demands which had ever been made under normal conditions of peace. The new policy made manufacturing more profitable than it had ever been before and did much to hasten industrial development.

The National Banking System. Another incident of the war was the establishment of the national banking system. Secretary Chase, in his annual report of 1861, suggested that Congress undertake the regulation of the banking business. At that time there were more than 1600 banking institutions in existence which had power to issue notes under various State regulations. The abuse of the power to issue bank-notes had on more than one occasion caused serious financial disturbances. Secretary Chase renewed his recommendations in 1862. At that time there were more than 7,000 different kinds of bank-notes in circulation, not counting several thousand varieties of counterfeit and altered notes. Some of this currency had a small specie reserve back of it, some was secured by State bonds and other securities, but most of it was based upon assets of a questionable character or upon no assets whatever. Chase thought it was time for the country to have a safe and uniform bank-note currency. Under his plan the notes of the national banks were to be secured by Government bonds deposited in the Federal Treasury. The fact that the national banking system would create a market for bonds was a strong reason for establishing the system.

A law to establish a national banking system was enacted in February, 1863. The act provided for the formation of national banking associations. Each association was to buy Government bonds, and upon depositing the bonds with the treasurer of the United States would receive in exchange circulating notes to the amount of 90 per cent of the market

value of the bonds. The law was revised in 1864 and additional inducements offered for the organization of new national banking associations and for the transformation of State banks into national banks. The advantages of the new currency were at once apparent, and it was suggested that the State banks be required to withdraw all their notes from circulation. To accomplish this end Congress, in 1865, imposed an annual tax of 10 per cent upon the issues of all State banks, thereby giving the national banks a monopoly of the note issuing privilege. The national banks accomplished the results expected of them. They afforded a good market for Government bonds and they supplied the country with a uniform bank-note currency. The chief defect of the national banking system was that it did not furnish a currency which expanded and contracted in response to the needs of trade. But a safe currency, even if inelastic, was superior to a currency which was constantly in danger of undue inflation.

Land Grants to Railroads. When the Civil War began there was no railroad extending from the Eastern States to the Pacific coast. For a number of years the construction of a transcontinental railroad had been urged, and all political parties had advocated its construction, if need be, at Federal expense. The chief obstacle to building the road was the inability of Congress to decide the matter of location. The Southern members of Congress wanted it to extend from New Orleans through Texas and New Mexico, while Northern members wanted the line entirely in free territory. The war emphasized the need of a transcontinental railroad to unite California with the loyal States of the East, and in 1862 Congress took steps to have a line built. A Federal charter was given to the Union Pacific Railroad Company, which was authorized to construct a road westward from Omaha, Nebraska. The Central Pacific Railroad Company, a California corporation,

was authorized to build eastward from Sacramento. To both companies Congress gave large grants of Western lands and loaned large sums of money. Later, other corporations organized to build railroads west of the Mississippi River, also received liberal grants of land. The sparsely settled region through which the early transcontinental lines were constructed gave promise of little immediate traffic, and private capitalists could not afford to undertake the building of the roads at their own risk. By giving liberal subsidies the Government made early construction possible and thus opened up Western lands to settlement. The land grants resulted in a rapid development of the Far West.

The Homestead Act. Of equal importance with the legislation giving large tracts of public land to corporations undertaking the construction of transcontinental railroads was the Homestead Law, enacted in 1862, by which Congress offered a quarter-section of public land, free of cost, to any citizen who would occupy the land and maintain a residence for at least five years. Soldiers taking advantage of the law were permitted to count the time of their service in the army as part of the five years. This law marked the culmination of several years of effort to enact legislation for the free distribution of Western lands. As early as 1845 a homestead bill was introduced in Congress and on several occasions homestead bills passed the House of Representatives only to be defeated in the Senate. The South opposed the free distribution of land because most of the lands offered would be taken by free white settlers. In 1860 a bill, similar in nearly all respect to the law enacted in 1862, except that it required a cash payment of 25 cents an acre, was passed by both Houses of Congress, but it was vetoed by President Buchanan chiefly on the ground that a policy of free distribution of public land would stimulate emigration to the West and cause a fall in

land values in the East. He also thought it would be an unfair discrimination against the settlers who had paid $1.25 or more for their holdings.

Under the Homestead Law thousands of settlers took up farms in the West. When the great war ended the multitudes of discharged soldiers were absorbed into the civil population with little difficulty. Immigrants who declared their intention to become citizens were permitted to take homesteads under the law, and a large number of European peasants and artisans came to America to settle. Workmen in Eastern factories and stores gave up their occupations to "go out West" and earn a fortune from the soil. The new land policy caused the center of population and industry to shift westward. The value of Eastern lands declined somewhat for a time and the Government lost some revenue by giving the land away, but the net result was an enormous increase in the wealth and prosperity of the nation.

Conditions at the Close of the War. The war ended with conditions favorable for a rapid industrial expansion. The Union had survived a heroic test; and a spirit of unbounded confidence in the permanence and stability of the Government pervaded the entire country. Negro slavery, the institution which had divided the nation into sections having strongly antagonistic economic and social ideals, was destroyed. A great abundance of virgin land was opened for settlement. New facilities for transportation made available vast stores of natural resources the abundance and value of which the nation was only beginning to realize. The high tariff duties held visions of large profits for manufacturers. Finally the nation had learned to do things in a "big way." The Civil War itself was the greatest enterprise which had ever been conducted in the country, involving more men and more wealth than any undertaking ever before attempted. The accom-

plishment of the huge industrial tasks which the successful prosecution of the war had made necessary inspired a spirit of confidence in the ability of the nation to achieve tasks of still greater scope.

Questions and Topics

1. Why did not South Carolina's attempt to nullify the Tariff Act of 1832 prove as serious as its stand in 1860?
2. Make a list of some books and poems on the subject of slavery.
3. Write a sketch of the political life of Lincoln.
4. Did slavery have anything to do with the low standard of education in the South?
5. Compare the financing of the Civil War and of the War of 1812.
6. Compare the natural resources at the disposal of the South with those of the North.
7. Why was the Homestead Law superior to earlier legislation concerning public lands?
8. Why do you think it has been recently said that the slogan, "Go West, young man," might well be changed to "Go South, young man"?
9. Describe the effects of slavery on some other country where it existed or exists.

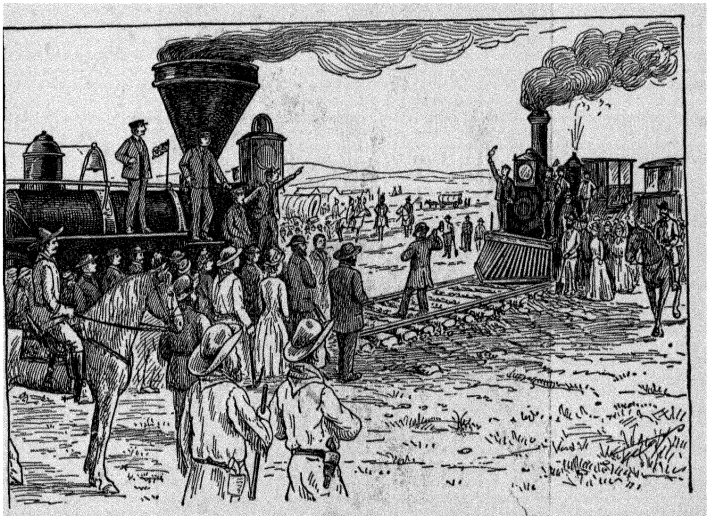
CHAPTER XX

EXPANSION; SPECULATION; CRISIS. 1865–1873

The Westward Movement. The Civil War impeded but did not entirely interrupt emigration to the West, and as soon as hostilities ended the westward movement set in with redoubled vigor. The number of foreign immigrants entering the United States in 1863 was greater than the number which came in any of the three years immediately preceding the war. After 1863 immigration rapidly increased until in 1873 the number of aliens landing on the shores of the United States reached 460,000. A large part of the incoming foreigners made their way to the free lands of the West, and as before the war, many inhabitants of the older States in the East sought new homes on the western plains. The number of people in Iowa, Kansas, Nebraska, Wisconsin and Minnesota doubled between 1860 and 1870, and the wave of migration began to spread across the Territory of Dakota. In 1869 the nation's wheat crop was 262,000,000 bushels, and in 1870 the corn crop for the first time exceeded a billion bushels. Better types of farm implements came into use to increase the effectiveness of farm labor. A reaper was devised which permitted men riding on the machine to bind wheat as it was cut, and experiments were made which foretold the coming of the automatic binder. A large part of the threshing was accomplished by steam power.

Railroad Construction. The chief factor in the rapid settlement of the West was the extension of the railway system. In the eight years following 1865 the railway net

of the United States was doubled, 35,000 miles of new lines being constructed, the larger part of which was built in the States and Territories west of the Mississippi. Among all the economic activities of the country none commanded more attention during these eight years than the construction of new railroads. The railroads absorbed more capital than any other single industry and they had the most influence upon the general trend of business activity.

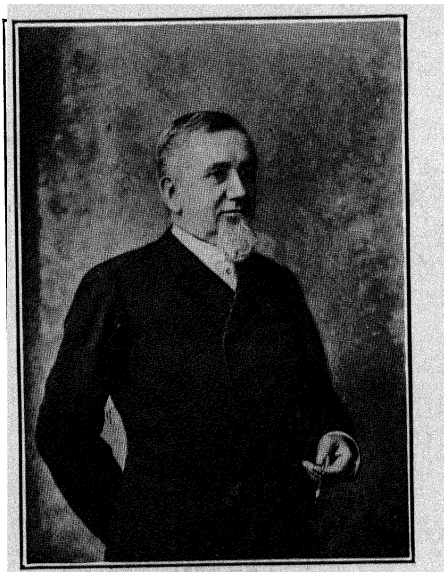


Completion of the Union Pacific Railroad

Throughout the war and for three or four years afterwards railway earnings were exceptionally large, and little difficulty was experienced in obtaining capital for new construction. European investors bought American railroad securities in large quantities.

The most significant feature of railroad history was the completion of the first transcontinental line in 1869, when the tracks of the Union Pacific and Central Pacific companies met at Promontory Point, a few miles west of Ogden,

Utah. For five years the construction of the Union Pacific had been going on, the line following the valley of the Platte River through Nebraska, and threading through the mountains of southern Wyoming. Large groups of Irish laborers were imported to do the work of grading and laying track. While the Union Pacific forces were pushing westward the Central Pacific organization, with hundreds



George M. Pullman

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of Chinese coolies, was laying rails over the Sierra Nevada Mountains and across Nevada. Since the amount of land received by each corporation depended upon the mileage of track constructed, both companies put forth efforts to lay as much track as humanly possible. At last on May 10, 1869, the two lines were joined. The last ties and rails were laid and the last spikes driven, a spike of gold from California, a spike of silver from Nevada, and one of

silver, gold and iron from Arizona. Leading officials of both railroad companies took part in the final celebration at Promontory Point, while distinguished guests invited for the occasion, groups of European and Oriental laborers, a detachment of soldiers from Fort Douglas, and groups of curious Indians and Mexicans looked on. Telegraphic messages informed the East and the West of the progress of the ceremonies which marked the completion of the great work, and the word that the final spike had been driven was a signal for a general celebration throughout the country.

The steady extension of other railroad systems bore witness to the fact that the occupation of the West was an accomplished fact. The Northern Pacific, the St. Paul, the Burlington, the Kansas Pacific, the Missouri Pacific, the Santa Fe, the Iron Mountain, and the Southern Pacific penetrated the unsettled region beyond the Mississippi and Missouri Rivers and opened the way for the oncoming host of farmers and cattle rangers.

Important Changes in the Railroad Service. While the railroad net was spreading across the continent a number of important changes in railroad operation and management were taking place to increase the efficiency of the transportation system. In 1864 George Pullman built his first sleeping car, the Pioneer A; and in 1868 George Westinghouse gave a successful demonstration of his air-brake on a passenger train of the Pennsylvania Railroad. This air-brake was not automatic in its operation, that is, it would not act if the train accidentally broke in two, but by 1872 the inventor devised an automatic brake which could be used on passenger trains. The early air-brakes were not adapted for use on freight trains because they were too slow in action. Another invention of this period was the Janney automatic safety coupler.

More important even than these new inventions were the

steps taken to secure better railroad service over long distances. In 1869, the Pennsylvania Railroad Company leased the Pittsburgh, Fort Wayne and Chicago road, thereby obtaining a direct line from Philadelphia to Chicago. A few years later the Pennsylvania also obtained control of the United Companies of New Jersey, securing a terminal in Jersey City. Commodore Vanderbilt, the president and chief stockholder of the Hudson River Railroad, brought about the consolidation of this line with the New York Central in 1869, and the same year he obtained control of the Lake Shore and Michigan Southern between Buffalo and Chicago. The Erie was consolidated with the Western and Atlantic Railroad, which was built from Salamanca, New York, to Cincinnati, during the Civil War. The Baltimore and Ohio, by construction of new lines and purchase of existing lines, extended its rails towards Cincinnati and Chicago.

In many instances where the consolidation of connecting lines under single ownership was not feasible the railway service was improved by the adoption of coöperative methods. Connecting lines were built between city terminals, and union passenger stations constructed in several cities. The great increase in the movement of freight over Eastern roads during the war had so emphasized the need for a "through freight service" that a number of fast freight lines were organized. These lines were companies which owned their own cars and freight-houses, solicited traffic, and collected charges. They had no railroads, but would pay connecting roads to haul their cars, thus doing away with the expensive necessity of transferring freight from car to car when it passed from one line to another. The consolidation of connecting lines tended to eliminate the need for fast freight lines, and in time they were dissolved and their equipment sold to the railroad companies.

Another effort to improve the railroad service was to be found in the movement for the adoption of a uniform gauge for all the railroads of the country. The gauge chosen for the Union Pacific was 4 feet 8½ inches, and this gauge was adopted by nearly all other Western lines. Some of the Eastern roads had been constructed with this gauge, and other lines began to adopt it in the interest of uniformity.

Manufacturing. Throughout the war large quantities of new capital were invested in Northern industries, and when the war ended virtually all the industries of the country continued to prosper. The Southern market for Northern factory products was in part restored, and the West made larger and larger demands for Eastern goods. Textiles, flour, meats and other provisions, farm implements, vehicles, boots and shoes, factory machinery and railroad equipment were produced in great quantities. The inventive genius of the American people was displayed in the large number of patents granted by the Patent Office. From 1867 to 1873 the number of patents taken out averaged more than 13,000 a year. Most of the new inventions were improvements of one kind or another upon existing devices. All machine processes in industry were being brought nearer to a state of perfection.

The most important event in the history of manufacturing in the United States during the period of war and reconstruction was the beginning of the manufacture of Bessemer steel. The manufacture of low-carbon steel had always been a slow and expensive process. Bessemer discovered a method which is comparatively simple. Molten cast iron is placed in a huge retort and a violent blast of air forced through the liquid metal. The oxygen of the air burns out all the carbon leaving wrought iron. This is quickly transformed into steel by the addition of the exact

amount of carbon necessary to bring about the proper physical and chemical changes. The molten mass is then poured into molds to cool.

Few inventions have had a more marked effect upon industry than the invention which made cheap steel a possibility. The wearing qualities of wrought iron were insufficient to meet the needs of the expanding manufacturing and transportation industries of 1865, and until the Bessemer process of making steel was introduced steel was much too expensive to be used in making ordinary tools and mechanical appliances. The railroads in particular illustrated the need for a more durable metal than wrought iron. Before 1850 the iron rails bore the weight of the light American locomotives and cars with little difficulty. But as traffic increased the railroads used larger cars and heavier, faster locomotives. Many of the locomotives used on American roads in 1860 weighed 25 tons and more, as compared with the eight or ten ton locomotives used a score of years previously. The best passenger cars of 1860 were 60 feet in length and weighed 18 tons empty. Though freight cars were still relatively small their weight loaded of 16 to 18 tons was three times the weight of the loaded cars of 1840. By 1870 locomotives of forty tons and passenger cars of nearly equal weight were in use on Eastern railroads. The heavy trains wore out the soft iron rails very rapidly. In passenger terminals where trains entered and left with considerable frequency it was necessary to lay new rails two and three times a year. In January, 1868, the Erie Railroad Company removed a thousand broken rails from its tracks between Jersey City and Salamanca, in addition to several thousand rails which were crushed or worn out. The weakness of the iron rails caused a number of distressing accidents which aroused much popular indignation against the railroads. There

was a general demand that a stronger and more durable material be used in railroad construction.

In 1862 Bessemer demonstrated that steel rails were twenty times as durable as the best iron rails then made. The following year the Pennsylvania Railroad imported 150 steel rails from England and made tests which indicated their great superiority. The president of the railroad company, in his annual report of 1864, commented most favorably upon the new rails but expressed the fear that the high cost would make their general use impossible. The obstacle of expense was soon removed however by improvements in the mechanical processes of steel manufacture. In 1865 the first American steel rails were rolled in the Chicago Rolling Mill from ingots made at an iron mill in Wyandotte, Michigan. The same year the Pennsylvania Steel Company erected a plant at Harrisburg expressly for the manufacture of Bessemer steel. In 1867 American mills made 19,643 tons of steel and turned out 2,275 tons of steel rails. The price of steel rails in currency was $166 a ton, more than twice the price of iron rails, but notwithstanding the high cost there was a rapid increase in demand. With larger production the cost of manufacture declined, until in 1871 the price dropped to $102.50 a ton.

Mining. The growth of the iron and steel industry and the general development of manufacturing and transportation were reflected in the increased production of iron ore, coal and other commercial minerals. In 1873 the amount of coal mined in the United States was 51,000,000 tons, nearly four times the quantity mined in 1860. An industry closely related to the iron industry was the production of coke, which gradually became the leading fuel used in blast furnaces. Coke-ovens were built in large numbers in the bituminous coal-fields of western Pennsyl-

vania to produce the fuel for the furnaces in which the iron ores brought from the ranges near Lake Superior were smelted. In the early days of coke manufacture no effort was made to save the gas, ammonia, tar and other products which were derived from the coal in the coking process. The "by-product coke-oven" was still to be invented.

The oil fields of Pennsylvania proved to be a wonderful source of wealth. By 1870 the annual production of petroleum was more than two hundred million gallons. Kerosene became the leading household illuminant in America, and petroleum products replaced many of the vegetable and animal oil lubricants used in former years. The whaling industry of America sank to insignificant proportions and the great fleet of whaling vessels dwindled away. American petroleum interests sent agents to Europe to demonstrate the advantages of kerosene, and oil products soon took an important place among the exports of the United States.

Reconstruction in the South. While the years immediately following the Civil War witnessed a marked expansion of all branches of industry in the North and West, the South for the most part presented a picture of economic and political distress. The abolition of negro slavery and the sudden enfranchisement of the freedmen created a grave problem. The negroes had for generations been driven to toil and they had acquired none of the incentives of the free laborer. To most of them the sweetest fruit of freedom was idleness. Labor was the sign of bondage. Early attempts to establish the wage relation between the planters and the freedmen were for the most part ineffectual, for after receiving a week's wages a negro would work no more until the money was spent. Many negroes disdained work and roamed about the country enjoying freedom from old restraints. Idleness and hunger led them to crime and disorder rather than to industry. The

reconstruction policy of Congress did not tend to hasten the process of industrial reorganization in the South. The Southern white leaders were deprived of all political power while the ignorant freedmen were enfranchised and given complete civil rights. Under the protection of armed forces the negroes and the unscrupulous "carpet-baggers" and "scalawags" dominated the Southern States. The relief extended to the destitute negroes by the Freedmen's Bureau not infrequently had the effect of encouraging idleness and thriftlessness. The excesses of the negroes aroused a spirit of retaliation among the whites, which found expression through the Ku Klux Klan and other secret terrorist organizations.

The appalling destruction of property and the loss of life during the four years of war would have made the reorganization of the South a highly difficult matter under the most favoring circumstances. Under the conditions which actually existed the case of the South was desperate. Without a supply of steady labor the old plantation system of agriculture could not survive. An entirely new system had to be devised. The large holdings were divided into small tracts and offered for sale or lease. The more reliable negroes became tenant farmers. Many of the poorer whites took advantage of the new state of affairs to become independent landowners. Bitter experience had a salutary influence upon both white men and negroes, and by slow degrees the system of tenant farming made progress throughout the cotton belt. It was several years however before the production of the great Southern staple reached the proportions attained before the war. The crop of 1861, amounting to 4,490,586 bales, had been the largest ever produced in the South. In the exceptionally good year of 1870 a crop of 4,024,527 bales was raised. There was a drop in production the following year and not until 1877 was the record of 1861 exceeded. It was many

years later when the production of rice and sugar reached the record of production attained before the war.

Speculative Tendencies. Though Northern industry expanded at a rate which gave the country the appearance of abounding prosperity, the expansion was unfortunately attended by much speculation, which caused a great inflation of credit, and led, as usual, to a disastrous crisis. Speculative activities were due in part to overconfidence in the productive capacity of the country. Farmers mortgaged their lands to obtain money for equipment and improvements, and then failed to earn enough to meet the interest and principal of their debts. Large amounts of capital were sunk in industrial enterprises which failed to yield an adequate return. Many of the new railroads, especially many of those built in the West, were destined to wait several years for the development of traffic sufficient to make them paying investments. Unfortunately much of the speculation consisted of unwise, and, too often, even fraudulent practices on the part of professional financiers and speculators.

Railroad construction and consolidation offered a fertile field for speculative endeavor. The Western railroads which obtained land grants and loans from the Federal Government were usually built in a reckless and wasteful manner. The chief object of the promoters was to make as much money as possible from the construction of railroads and not from their operation. It was a common practice for a small group of directors of a railroad company to organize a construction company, and then as directors of the railroad company they would pay themselves, as directors of the construction company, fabulous prices for building the railroad. In this way the stockholders and the bondholders of the railroad company were defrauded, and the subsidies received from the Government were dishonestly appropriated by a few greedy manipula-

tors. One of the most notorious of the construction companies of the time was the Credit Mobilier, a Pennsylvania corporation organized by some large stockholders of the Union Pacific Railroad Company. The head of the construction company was a member of Congress, and he distributed some shares of stock among prominent members of the Senate and the House of Representatives, presumably with the purpose of influencing votes on measures affecting the Union Pacific Railroad. A grave political scandal was created and while it was not found that the recipients of the stock were guilty of corruption, the entire affair reflected much discredit upon all who were connected with it. The fast freight lines were also frequently the means of diverting the earnings of the railroad companies to the pockets of a few directors, who organized the freight lines and made favorable contracts with themselves for the transportation of their cars.

Another undesirable feature of the railroad business was the excessive capitalization of many lines. When the New York Central and the Hudson River lines were consolidated in 1869 Commodore Vanderbilt issued new stock of a par value double the par value of the total stock of the consolidated companies. The Pennsylvania increased its capitalization by issuing stock dividends, and when it assumed control of the Pittsburgh, Fort Wayne and Chicago road in 1869, the latter company was permitted to make a large issue of new stock upon which the Pennsylvania guaranteed permanent dividends. In the struggle between Jay Gould and Commodore Vanderbilt for the control of the Erie the capitalization of that road was increased nearly threefold. Many of the new western lines, especially those receiving land grants, were greatly overcapitalized.

As long as the earnings of the railroads remained high railroad securities commanded a good price and were readily saleable in the United States and Europe. Banks

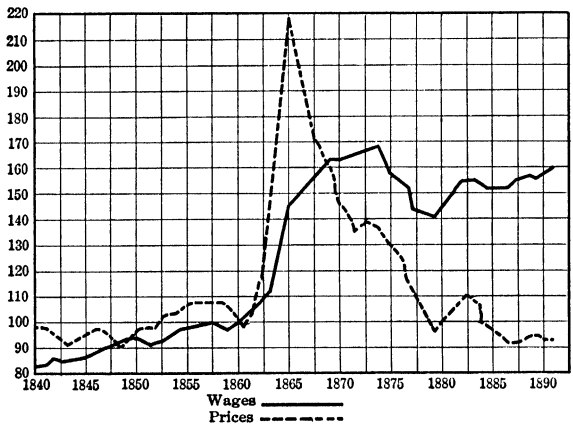
loaned freely on many of the railroad stocks and bonds, and speculators pledged them with the banks as security for funds which they borrowed to carry on their operations in the stock market. One element of danger lay in the fact that the railroad earnings of the Civil War period were abnormally high. If earnings should decline to normal they might not be sufficient to support the greatly increased capitalization, and a collapse of security values might ensue with disastrous results.

The speculation in railroad securities and the dishonest practices in connection with railroad construction and operation were not the only discreditable financial activities which came in the wake of the Civil War. The reaction which followed the war seemed to create a decidedly lower moral tone in business and in politics. No period in our history has been filled with so many disheartening scandals as the ten year period following the Civil War. The Credit Mobilier episode occurred almost simultaneously with an equally reprehensible affair in which several hundred thousand dollars were spent to induce Congress to enact a ship subsidy law. Congress passed the notorious "salary grab" measure. Great frauds were uncovered in connection with the payment of internal taxes on whiskey; the head of one of the executive departments of the Federal Government was found to be guilty of accepting bribes. The infamous Tweed ring brought disgrace upon New York City. The Erie Railroad speculation, in which Commodore Vanderbilt, Jay Gould and Daniel Drew were involved, was accomplished by the bribing of legislative and judicial officers of New York.

While local and national political life was demoralized and shamed by corrupt practices of many kinds the business community was demoralized by financial scandals. One of the most offensive acts of the time was the attempt of a group of speculators headed by Jay Gould and James

Fisk to "corner" the gold market in 1869. The paper currency of the country still circulated at a discount and the only monetary use of gold in private business was for the settlement of international trade accounts. The Government paid the principal and interest of the national debt in gold and also required that the duties on imports be paid in gold. The Treasury bought and sold gold on the gold exchange in New York just as individual exporters and importers bought and sold. Gould conceived the idea that if he could induce the Treasury to stay out of the gold market for a time he could corner the available supply desired for commercial purposes and make a huge profit by forcing up the price to those who had to have the metal to settle their foreign obligations. Gould endeavored to make President Grant believe that it would be a good thing for the country if the Treasury Department would refrain from selling gold during the crop moving season. Grant seemed to be convinced of the wisdom of Gould's arguments; at any rate early in September orders were given to the Treasury to limit its sales of gold. Here was Gould's opportunity. In coöperation with Fisk and others, he proceeded to buy all the gold offered on the exchange, and when later in September merchants and bankers desired to obtain gold they found the price rapidly mounting. Point by point the price was forced up until on "Black Friday," September 24, the price of the metal in currency reached 162. Dozens of importers who needed gold and hundreds of speculators who had sold "short" were ruined. There was a panic in Wall Street. Fisk boasted that he would send the price of gold to 200. But Gould, having become fearful that the Treasury would interfere and break the market, secretly gave orders to his brokers to sell. His fears with respect to the Treasury were confirmed, for the Secretary ordered four million dollars sold when the panic reached its height. Under the

weight of this sale and of Gould's offerings the price collapsed and quickly receded to 133, causing the ruin of many speculators who had helped bid up the price. Fisk escaped ruin by deliberately repudiating nearly all his contracts, obtaining protection in his dishonest conduct from judges whom he and Gould controlled. A Congressional committee which investigated the "gold conspiracy" did little more than describe the sordid surface details of the panic and report that "for many weeks the business of



Prices and Wages, 1840–1890
(Aldrich Report of 1893. 1860 = 100)

the whole country was paralyzed" and that the "foundations of business morality were rudely shaken."

Prices and Wages; Progress of the Labor Movement. One thing which rendered the excessive inflation of credit dangerous was the steady fall of prices after the war. The peak of the upward movement of prices was reached in 1865, and after the coming of peace there was a rapid and almost continuous drop in the prices of nearly all commodities. The chief reason for the decline was the general re-

sumption of productive industry throughout the United States. Thousands upon thousands of men whom the war had diverted from their usual pursuits returned to farm and factory. The blockade of the South was lifted, and though Southern industry was greatly disorganized, the relatively small production of cotton could not but have the effect of reducing prices in markets from which for four years nearly all the Southern cotton had been excluded. With a greatly increased use of labor saving machinery the per capita production of the country speedily advanced, and with the increased supply of goods there came a lowering of the price level.

While the price of commodities declined there was no corresponding decrease in the level of wages. It invariably happens that in time of transition from one price level to another the movement of wages lags behind the movement of commodity prices, advancing more slowly and again receding more slowly. Throughout the war wages advanced, though not nearly so rapidly as the cost of living. When prices began to fall, wages did not follow. In fact wages rose somewhat even after the downward trend of prices began, and by 1867 the relation between the level of prices and the level of money wages was virtually what it had been in 1860. Thereafter prices continued to fall, but wages maintained the high level of 1867 until after 1873. The decline in prices without a decrease in wages meant that in many industries invested capital received a lower rate of return. This was sure to have a depressing effect upon the inflated prices of many securities.

The stability of wages in the midst of falling commodity prices was due to the growing strength of labor organizations, to the abundance of free land, and to competition among employers of labor. Employers had been obtaining exorbitant profits while the war was in progress. When with increased production prices fell, they could

maintain their high rate of profit only by reducing wages. The free lands of the West tended to restrict the supply of wage laborers, and employers were compelled to forego the high profits to which they had become accustomed.

Labor was able successfully to resist attempts to reduce wages not only because of the free land in the West, but also because during the war many laborers had perfected organizations which gave them greater strength in bargaining with employers. The rising cost of living during the early years of the war had been a powerful inducement to laborers to coöperate in seeking increased pay and better working conditions. A number of strong trade-unions were formed while the war was going on, and when the conflict ended the process of organizing labor continued. In 1863 the Brotherhood of Locomotive Engineers was started, and the following year the Cigar-Makers' National Union was organized. The Bricklayers' and Masons' International Union was launched in 1865; the Order of Railway Conductors in 1867; the United States Wool Hat Finishers' Association and the Brotherhood of Locomotive Firemen in 1869. The Noble Order of the Knights of Labor, which represented an effort to organize all laborers into one great body, was founded in 1869. It later became an exceedingly powerful organization.

In 1866 a National Labor Union Convention was held at Baltimore, attended by delegates representing labor unions in a large number of States. The convention demanded an eight hour day, the abolition of child labor, and the general improvement of working conditions for all men and women in industry. A convention was held in 1867 and another in 1868, and a workingmen's party organized which for a time exhibited considerable political strength. The attempt of the unions to enter politics created factional quarrels however which soon brought to an end the political phase of the labor movement, but it did not check the

growth of trade-unionism. By 1870 there were about forty strong labor organizations in existence.

The Decline of Railroad Earnings. The most dangerous symptom of an approaching financial crisis was the decline in the earnings of the railroad corporations after 1867. The decline was due in part to the fraudulent practices of dishonest directors, but it was due chiefly to a sharp fall in freight rates brought about by the competition of rival railroad systems. In 1869 the Pennsylvania and the New York Central obtained control of direct routes between the seaboard and Chicago, and a short time later the Baltimore and Ohio and the Erie likewise gained an entrance to Chicago. Chicago was the center of the grain and provision trade. Wheat, flour and provisions were becoming highly important exports, and each railroad was anxious to obtain the lion's share of the freight destined for foreign shipment. The livestock traffic and the oil traffic were also prizes for which the rival lines contended. In the competitive struggle rates were cut in a desperate manner. An example of the character of the competition is shown in the violent decline in the rates on traffic from Chicago to New York. The first class rate between these two cities had been above two dollars a hundred pounds during the war and at the beginning of February 1869 it was $1.88 a hundred pounds. A rate war started, and by February 24 the first class rate dropped to 40 cents. Throughout the following year it seldom exceeded 50 cents.

The competition of the Eastern lines was duplicated among the rival lines of the West, which also made radical reductions in the rates on competitive traffic. The losses which all the railroads suffered from these rate wars they endeavored to make up in part by increasing the rates of those cities and districts which had no competing railroads. This policy resulted in extremely unfair and burdensome discriminations, and was a cause of much hostility to the

railroad companies, especially among the farmers of the Western States, who were the chief sufferers. The large production of grain had caused a fall in prices which decreased the farmers' earnings, and now the railroads were endeavoring to absorb what little remaining profit there was in the farming business.

The Granger Movement. The farmers were not slow to defend themselves against the unfair practices of the railroad companies. In 1867 a national farmers' organization known as the "Patrons of Husbandry" had been founded, with the purpose of improving the conditions of rural life. The local, State and National bodies of the organization were known as "Granges," and the entire organization movement among the farmers has been called the "Granger Movement." A large number of granges were established throughout the Central and Western States. Their chief activity at first was to foster a system of cooperative marketing among the members. It was no difficult matter for them to use their influence to correct the abuses of which the railroads were guilty. State legislatures, under pressure of the farmers' organizations, enacted laws for the regulation of railroad rates. These "Granger laws" served to reduce still further the earnings of the fighting and struggling railroads.

Excessive Imports. Another element of weakness in the economic situation was the excessive importation of foreign goods. Just as before the crisis of 1837, domestic speculation and false visions of great wealth bred a spirit of extravagance, which resulted in the purchase of large quantities of luxuries from foreign countries. During the five years following 1867 the foreign imports brought into the United States exceeded the exports of domestic merchandise and specie by more than $230,000,000. This large debt was settled in part by the heavy foreign purchases of American railroad and industrial securities. When these

securities began to decline in value foreign holders put them on the market demanding specie in exchange.

The Panic of 1873. In 1873 the bubble of inflated credit burst and the country experienced a disastrous financial panic. The crisis came in September. Throughout the year there had been signs of an ominous nature. The excess of merchandise imports in 1872 had been more than $100,000,000. The demand for specie was reflected in a sale of securities on domestic stock exchanges, and with these sales the prices of many stocks and bonds began to recede. Banks which had loaned heavily to speculators, accepting various railroad and industrial stocks and bonds as security, began to demand more collateral. A spirit of uneasiness pervaded the financial centers, and individuals began to hoard specie and currency. An abortive attempt to corner the gold market in August caused a sudden flurry. The rate of interest on loans advanced and the money market gradually "tightened."

The signal for the crash came when the banking house of Jay Cooke and Company in Philadelphia announced its failure on September 18. This firm had invested heavily in the bonds of the Northern Pacific Railroad. When the Northern Pacific, in common with many other Western railroads built far in advance of the actual need for them, failed to earn enough to pay the interest on its bonds, the bonds became virtually valueless, and Cooke and Company, whose assets consisted largely of these bonds, could not meet their obligations to their depositors and other creditors. The great mass of securities outstanding in 1873 had the same general relation to the business situation as the large volume of bank-notes in circulation in 1837. As long as there was confidence that the paper evidences of credit were supported by substantial values they were readily acceptable. But once it became apparent there was nothing behind them there was a general rush to liquidate.

On September 19 the news of the failure of Cooke and Company started a panic in Wall Street. Another Black Friday had come, even worse than the Black Friday of 1869. Securities were dumped on the market in huge amounts and prices tumbled downward. Several brokerage and banking houses, whose assets consisted largely of the securities of overcapitalized railroad corporations, closed their doors. There was a mad rush for money among speculators to prevent being "sold out" by their brokers at the ruinously low prices. The rate of interest advanced to one-half of one per cent a day. A run on the banks started and only by pooling their resources were the national banks of New York able to survive. The stock exchange was closed for ten days. The Treasury Department helped matters slightly by buying bonds and thereby liberating some needed currency. The demands made upon the banks by their depositors forced the banks to call in their loans. The process of liquidation thus started spread throughout the entire country. Prices fell, making it impossible for debtors to meet their obligations. When one group of debtors failed they dragged their creditors down with them. One business house after another went into bankruptcy until in a single year more than 5,000 failed, with losses of nearly $250,000,000. Productive industry was crippled. Factories closed down and thousands of workmen were thrown out of employment. Mortgages were foreclosed and farmers lost their homes. Railroad traffic dwindled away and several railroads went into the hands of receivers. A period of industrial and financial stagnation set in which lasted for half a decade.

Questions and Topics

1. Do you think it would have been better for the Government to build and own railroads rather than grant land to the private companies who built them? Give reasons.

2. Name what you consider to be the three greatest inventions or discoveries for each century from the discovery of America to present time.

3. Describe a visit to a mine, a steel mill or some manufacturing plant.

4. Compare the negro problem of to-day with that of the period directly after the war.

5. Can you name any industries not represented by trade unions?

6. With the various panics experienced by the United States in mind, list what you consider to be the principal causes of panics.

PART VI

LARGE SCALE PRODUCTION AND COMPETITION

CHAPTER XXI

LARGE SCALE PRODUCTION

Economic Development Since 1873. The record of material achievement in the United States before 1873 was remarkable, but it has been eclipsed in most respects by the amazing record of growth since that year. Economic progress is cumulative; it is subject, as it were, to the "law of acceleration." Each generation accomplishes greater things than the preceding generation because it can build upon the achievement of all previous generations. The great inventions perfected before 1873, the accumulation of capital, and the increased knowledge of industrial processes made it possible for virtually all the great industries in the United States after 1873 to enter upon the stage which we term "large scale production."

For a time after the stage of large scale production was reached, industry was in the main vigorously competitive. Excessive competition caused a sharp reduction of business profits, and this loss of profits resulted in a widespread movement toward industrial combination, the chief purpose of which was to control production and prices through the exercise of monopoly power. The unfair practices to which numerous monopolistic combinations resorted for the sake of enhanced profits led in turn to a movement for the regulation of private business by the government. Large scale production and competition—combination and monopoly—government regulation of business—these have been the most significant features of economic history since 1873. The period from 1874 to 1894 was in general

a period of rigorous competition, though the movement toward industrial combination had a substantial growth during these years, and a beginning was made in the regulation of business by the Federal Government. The years between 1894 and 1903 witnessed the full development of industrial combinations. Since 1903 there has been a marked development of the regulation of private business by Federal authority.

Large Scale Production in Agriculture. A greatly increased production of cereals, cotton, hay, live stock and other farm products was one of the most notable features of the economic progress of the United States during the two decades following 1873. Thousands of settlers took up lands in the South and in the West, and each year saw the United States taking a greater part in producing commodities to feed and clothe the world. Large scale production in agriculture did not consist so much in the operation of exceedingly large farms as in the application of machinery to planting, cultivating and harvesting, the use of mechanical devices in handling and transporting the products of the farms and in converting them into commodities for human consumption, and the adoption of factory methods in a number of farm activities. The average size of farms in the United States tended to decline after 1870, though there was a marked increase in the percentage of improved land in single farms. But, notwithstanding the smaller average holdings of rural landowners, the use of steam power and of improved machinery greatly increased per capita production in all branches of agriculture.

In the Northern states the chief commercial crop was wheat. The production of this important cereal advanced from 281,254,700 bushels in 1873 to 611,780,000 bushels in 1891. In only two intervening years did production fall below 300,000,000 bushels, and the average annual production was well above 400,000,000 bushels. Many farmers of

the Northwest cultivated great "bonanza farms" containing thousands of acres, all devoted to the production of wheat. In 1880, J. F. Appleby perfected the automatic knot-tying or self-binding reaper, which made it possible to dispense with the labor of binding sheaves by hand. In most sections of the United States the occurrence of rain during the harvest season makes it necessary that wheat and similar grains be cut and placed in shocks to dry for threshing. In some sections, however, particularly in the valley of the Columbia River and in the Dakotas, the harvest season is sufficiently devoid of rain to permit the grain to dry before cutting. In such places the grain is often cut with "headers." About 1885 a combined harvester and thresher was perfected. This machine, drawn by a steam traction engine or by 30 to 40 horses, cut the heads of wheat from the stalks and threshed, cleaned and bagged the grain. On many of the bonanza farms gang plows drawn by steam tractor engines and capable of turning a half-dozen furrows at once were used to break up the soil for planting.

The introduction of the "roller process" of making flour in 1878 had a highly stimulating effect upon wheat farming. Most of the wheat raised in the United States is "winter wheat," which is planted in the fall. In many parts of the United States lying near the Canadian boundary the winters are as a rule too cold for winter wheat, and another variety known as "spring wheat" is planted. Under the old method of flour manufacture, in which the grain was ground by buhrstones set close together, too much of the hard outer covering of the spring wheat kernels would remain in the flour, giving it a dark color and making it more susceptible to spoiling by dampness than flour from which all the bran was removed. By the use of the new process a finer grade of white flour could be made from spring wheat than from winter wheat. The spring wheat of

Wisconsin, Minnesota and the Dakotas took on an added value after the introduction of the roller process.

The great increase in the production of wheat and other cereals rendered necessary the development of equipment with which grain could be handled and transported in large quantities cheaply and rapidly. Throughout the grain raising districts elevators were erected in which grain was handled in bulk by steam driven machinery. Usually the grain was hauled to the elevators in bags, but in many districts this practice was dispensed with and the grain hauled in bulk direct from thresher to elevator. A system of grading and inspection was established, and prices of wheat varied with the grade. The different grades of grain were kept in separate bins, but it was not necessary to provide a special bin for the grain purchased from each farmer. From the country elevators the grain was shipped in bulk carloads to the storage elevators at the primary grain markets of the Central States; from these terminal elevators it was distributed to millers or shipped to the seaboard for export. The mechanical equipment of the terminal elevators made it possible to unload grain from cars and load it into cars or ships at a rate of 6,000 to 10,000 bushels an hour. Chicago became the greatest primary grain market in the world. In 1890 the receipts of grain at Chicago amounted to 219,052,518 bushels, and the shipments were 204,679,918 bushels. Minneapolis, with a splendid water power site, took the lead in the manufacture of flour.

Throughout this period the rate of increase in the production of wheat in the United States was greater than the rate of growth of the population, and consequently a large surplus of wheat and flour was available for export. More than one-fourth of the wheat raised between 1870 and 1890 was sold abroad, and of that raised between 1890 and 1895 one-third was consumed in foreign countries. Occasionally the exports of grain and flour exceeded in value the ex-

ports of cotton. Great Britain was the leading foreign market for American grain; Italy, Belgium and the West Indies were also important customers. The shipments of flour to Europe were usually considerably less in value than the shipments of wheat, because European nations gave tariff protection to their own milling industries.

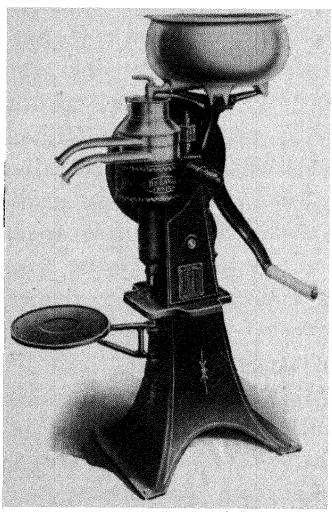
The production of corn in the United States increased as rapidly as the production of wheat. In 1889 the corn crop reached the large total of 2,112,892,000 bushels. Though of greater value than the wheat crop, the annual corn harvest was of less importance in the grain trade since the larger part of the corn was used to feed live stock on the farms. The number of swine and cattle in the United States doubled between 1870 and 1890, the increase being greater than in any other twenty year period. Meat packing took a leading place among American manufacturing industries.

In 1869 the refrigerator car was invented, a device which made it possible to ship fresh beef and pork from meat packing centers of the Central States to markets all over the country. The shipment of live cattle to Eastern cities steadily declined, giving way to a large traffic in fresh meat. Refrigeration in transit and cold-storage warehouses transformed meat-packing from an almost exclusively winter industry into an all-year industry. The installation of refrigeration plants in ocean steamships prepared the way for a large export trade in fresh meat.

Closely related to the cereal and live stock business was the dairy industry. The invention of the centrifugal cream separator in 1880 by C. G. De Laval of Sweden marked another advance in the substitution of machinery for manual labor in the work of the farm. The development of machine processes in the dairy business made it possible to undertake the manufacture of butter and cheese in factories. Cream separators, churns and butter mixers, oper-

ated by steam power, furnished an excellent illustration of the application of the principles of large scale production. Refrigerator cars and cold-storage warehouses had a powerful influence upon the growth of trade in dairy products. Dressed poultry and eggs assumed an added commercial importance because of the improvement of the process of refrigeration.

In the South cotton continued to be the crop of greatest importance, though one of the evidences of the advantages of free labor to the South was a steady progress in the diversification of agriculture, and in the diversification of industry in general. Once the system of tenant farming, which succeeded the plantation system in the cotton belt, was well established, it proved its merit. The cotton crop of 1877, amounting to 4,494,224 bales of 500 pounds each, was the largest raised in a single year up to that time. For the next sixteen years the average annual crop was in excess of 6,000,000 bales, and in 1894 there was a "bumper crop" of 10,025,534 bales.



Cream Separator
Courtesy of the De Laval Separator Company.

Tenant farming had some results which were undesirable. The negroes who leased small tracts of land were without capital to purchase live stock, seed and tools. The country merchants advanced the money necessary to enable the negroes to operate their small farms, taking a lien on the expected crops of cotton. The bargain between merchant and negro usually provided that the negro should sell his

cotton to the merchant and also buy from him all supplies of food, clothing and equipment. By charging excessive prices and exacting high rates of interest the merchants were able to keep the less responsible negroes constantly in debt. There was a disposition among the white people of the South to justify the conditions of peonage which this system of agricultural credit created, because most of the negroes, too improvident to save for the purpose of accumulation and unwilling to work when in possession of a temporary surplus, could be kept at work only by being subjected to constant pressure. A chronic state of debt supplied the means by which pressure could be exerted. When the negroes advanced sufficiently in their economic education to realize the necessity of thrift and accumulation, they could escape from the serfdom which the credit system imposed upon them. The increasing number of negroes who bought land and became economically independent was proof that many of them were learning the responsibilities and privileges of freedom.

Labor saving machinery helped the cotton growers increase the acreage of cotton and added to the yield per acre. Cottonseed planters, fertilizer drills and improved plows and harrows lightened the burden of manual labor. The uneven ripening of the cotton bolls on single plants made the invention of a practical cotton picking-machine impossible. Steam ginneries applied factory methods to the separation of the cotton seeds from the fiber, and improved means of compressing the bales of cotton facilitated the handling and transportation of the staple of the South. Perhaps the most remarkable feature of the cotton industry was the utilization of the seeds, which for a century had been discarded as a useless waste product. The seeds were rich in oil and protein. The oil was used to make oleomargarine, salad oils and soap, while the cake remaining after the oil was pressed out was converted into meal for

cattle feed. The successful use of by-products added many millions of dollars to the value of the annual cotton crop.

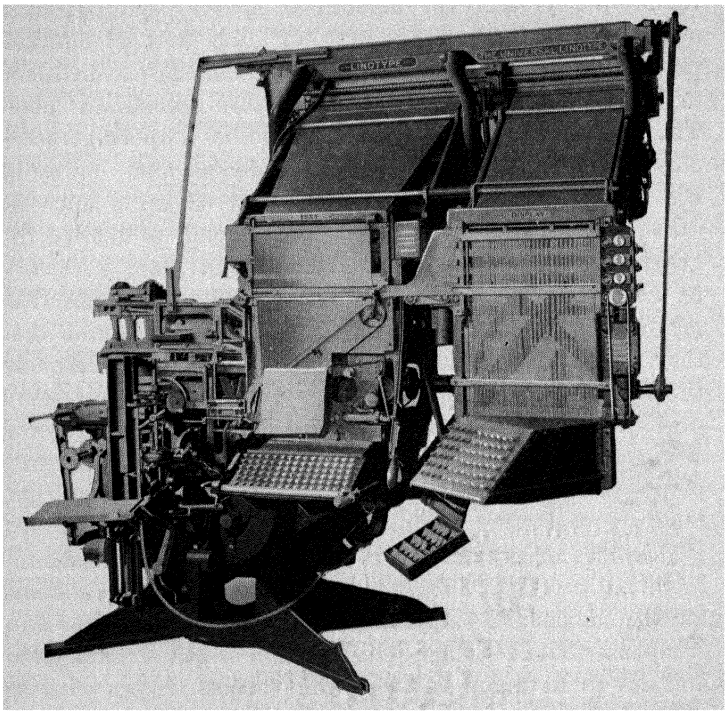
Cotton continued to hold first place among the export products of the United States except for a short time following 1875 when it was passed by cereals and flour. Though the cotton mills of the United States consumed larger and larger amounts of cotton each year, production increased at a more rapid rate than cotton manufacturing expanded, with the result that the exports of cotton grew constantly in volume. Approximately two-thirds of the cotton raised between 1873 and 1894 was sold abroad. Great Britain was by far the leading customer for American cotton; and many cotton manufacturers in continental European countries also looked to the United States as their chief source of raw materials.

Manufacturing. In no branch of industrial activity were the advantages of large scale production more pronounced than in manufacturing. After the worst effects of the panic of 1873 had passed away the manufacturing industries of the United States expanded at a rapid rate. The value of the manufactures produced in the census year of 1880 was $5,369,579,191. Ten years later, notwithstanding a steady decline of prices, the value of the products of American manufacturing industries was $9,372,378,843. This expansion of production was not brought about so much by the multiplication of manufacturing plants as by the increase in the size of manufacturing establishments. In the meat-packing and steel industries there was little or no increase in the number of establishments, and in cotton manufacturing, the leading textile industry, there was a decline in the number of plants. But in all of these industries there was a remarkable increase in the amount of capital invested, the number of laborers employed and the volume of commodities produced. The large establishment made possible a greater division of

labor and permitted the constant use of expensive machinery. Up to a certain point virtually all manufacturing industries operate under the law of increasing returns—the greater the amount of goods produced in a single plant, the less the cost of each unit of finished product. In large mills the fullest advantage can be taken of the use of machinery and of highly specialized labor. The utilization of by-products is another important economy of the large manufacturing establishments. Many of the "waste products" of small industrial units must be discarded because the quantity is too small to justify the expense of providing the machinery and labor necessary to work them up into usable articles. In large establishments these products are available in such amounts that they can be economically subjected to manufacturing processes. For example, in the slaughter-houses of small towns the bones, horns, hoofs, and entrails of slaughtered animals are often thrown away; in the large meat-packing plants these waste products are converted into soap, glue, fertilizer and other useful commodities.

Machines of greater power and complexity made manufacturing processes more rapid and more accurate, increasing the capacity of single mills and turning out better and cheaper articles. Steam driven machines rolled, hammered and cut great ingots of steel into various shapes with as much facility as the woodcarvers and shoemakers of former days had fashioned wood and leather. The amount of steel made in the United States increased from 68,750 tons in 1870 to 4,277,071 tons in 1890. By far the largest part of the steel produced was made by the Bessemer process. The open-hearth process was adopted in many mills, however, and though it was slightly more expensive than the Bessemer process, the superior quality of the metal produced caused it to grow steadily in favor. In the production of finished articles of iron and steel the manufacturers

of the United States made steady progress. The machinery used in American factories and on American farms was made largely of iron and steel. The immense mileage



A Modern Linotype

On the Model 24 Linotype, which is substantially a Model 9 four-magazine Linotype with the addition of a display unit carrying four unusually wide auxiliary magazines, it is possible for the operator to set (without leaving his seat, and in the same line if so desired) virtually any combination of type faces from 5-point to extended 36-point, caps and lower-case.

Courtesy of the Mergenthal Linotype Company.

of railroad constructed between 1880 and 1890 (see p. 431) was equipped with steel rails, virtually all of which were rolled in American rolling mills. Among the important new products of the iron and steel industry were barbed-

wire, a machine for making which was invented in 1875, and wire nails, the production of which began on an extensive scale about 1887.

In the textile industries better looms, knitting machines and printing processes improved the quality and added to the variety of American cotton, woolen and silken fabrics. The manufacture of clothing of all kinds was cheapened by the use of machines for making button-holes and for sewing on buttons. These devices saved countless thousands of hours of labor. The Goodyear welt machine and the chain-stitch shoe-sewing machine wrought important changes in the boot and shoe industry. The printing and publishing business was revolutionized by the invention of the Mergenthaler type-bar casting machine.

The New England and Middle Atlantic States continued to hold the lead in manufacturing, with the Central States following closely. In the West the smelting of copper, lead and other metals, flour milling, the canning of fruit, fish and vegetables, and the manufacture of wine were the most important manufacturing industries. In the South there was a notable advance of manufacturing. Negro slavery had committed the South almost exclusively to agriculture; with free labor there came a diversification of industry. The iron, coal and limestone deposits of Tennessee and Alabama furnished raw materials for a thriving iron and steel industry, the center of which was the city of Birmingham. Cotton mills were erected in numerous places throughout the South. In 1870 Southern cotton mills, with 328,000 spindles, consumed 69,000 bales of cotton; twenty years later 1,590,000 spindles converted 539,000 bales of cotton into yarn in Southern factories. The South, freed of the incubus which had retarded industrial development so long, entered the stage of economic development through which the North had passed during the first quarter of the nineteenth century.

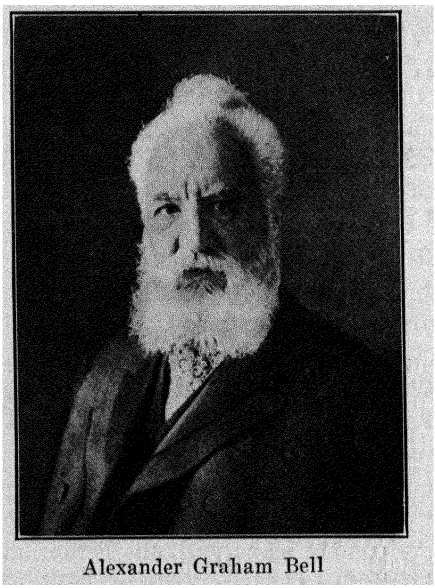
The Tariff. The continuation of the high tariff policy adopted during the Civil War served to stimulate the development of manufacturing in the United States. A large surplus in the Federal Treasury brought about a horizontal reduction of ten per cent in all tariff duties in 1872, but the war duties were restored the following year when a sharp decline in imports during the panic was followed by a Treasury deficit. The restoration of prosperity was accompanied by an increase in foreign trade, and by 1882 the Treasury was again encumbered with a large surplus revenue. A Tariff Commission, appointed in 1882, advised a radical reduction of tariff duties, but the friends of protection in Congress would not permit any substantial change in the tariff laws. In December, 1887, President Cleveland urged upon Congress a thorough revision of the tariff, asserting that the scale of duties then in force made the cost of living higher than it should be and enabled a small privileged class to exact enormous profits at the expense of the consuming public. In 1888 President Cleveland was defeated for reëlection, though he received a larger popular vote than his successful opponent. The Republican Congress, interpreting the results of the election as a mark of disapproval of Cleveland's stand on the tariff, enacted the McKinley Tariff Law in 1890, granting to American manufacturers a greater measure of protection than they had ever before enjoyed. The surplus in the Treasury was dissipated by the enactment of pension laws requiring the payment of millions of dollars to veterans of the Civil War. The McKinley Law met with much popular disapproval and in the November elections of 1890 the high tariff party met with overwhelming defeat. There were too few changes in the Senate, however, to make an immediate modification of the tariff law possible, and the McKinley Act remained in force until late in 1894.

The high tariff gave a virtual monopoly of the domestic market to such protected industries as were sufficiently developed to meet the needs of consumers. The advantageous position of domestic manufactures was reflected in the relative decline in the importation of finished manufactured products from foreign countries. Whereas in 1870 "manufactures ready for consumption" constituted 39.82 per cent of the merchandise imports of the United States, in 1892 they made up only 27.75 per cent of the imports. While the imports of manufactured goods was undergoing this decline, the proportion of crude raw materials in the merchandise imports of the country advanced from 12.76 per cent to 22.76 per cent, and the proportion of "manufactures for further use in manufacturing" from 12.75 per cent to 15.44 per cent. These changes in the character of the import trade indicated clearly that American manufacturers were supplanting their foreign rivals in the domestic market.

The Application of Electricity in Industry. The decade following 1880 witnessed the beginning of what has probably been the most significant development in industry since the Civil War, namely the use of electrical energy for illumination and as a source of motive power in industry. The earliest important commercial uses of electric current were in the electro-plating industry and in the telegraph. The next development came with the invention of the telephone by Alexander Graham Bell in 1876. In the same year, at the Centennial Exposition held in Philadelphia, a few experimental electric arc lamps were exhibited. These lamps had mechanical defects which prevented their adoption for commercial use, but they foretold the coming of a new era in artificial lighting. In 1879 Charles Francis Brush made an electric arc lamp which worked satisfactorily, and the following year Thomas A. Edison perfected the carbon filament incandescent electric lamp. Within

ten years after these inventions were announced there were 140,000 electric arc lights and 650,000 incandescent lamps illuminating streets and buildings in various cities of the United States.

Of equal importance with the employment of electric energy for lighting was its use as motive power. A number of remarkable inventions, which greatly enlarged the possibilities of the use of electricity in industry, were given

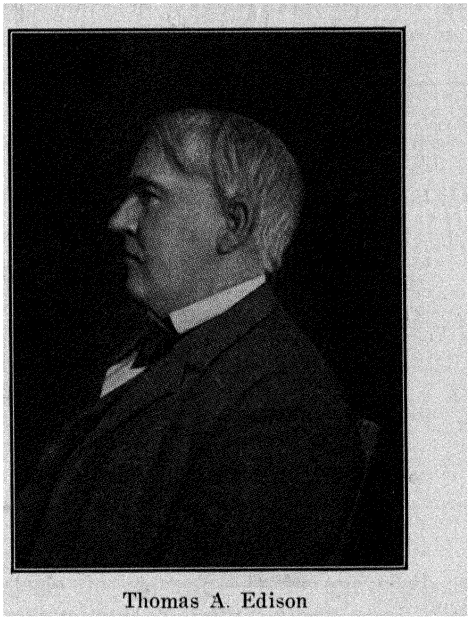


Alexander Graham Bell

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to the world during the seven years preceding 1890. Among these inventions were the transformer, the rotary converter and the split-phase induction motor. Improved types of generators and direct current motors were devised which opened the way for the use of electric power. Electric energy has many advantages over direct steam power in the propulsion of machinery. The transmission of the mechanical energy of the steam engine by belts and

shafting involves much loss of power, and the distance which the power may be carried is necessarily limited. Electric energy can be transmitted over long distances with relatively little waste, it is easily controlled, and it can be used in very small or in very large units as desired. The effectiveness of the electric motor as an aid in production was quickly perceived by many American business

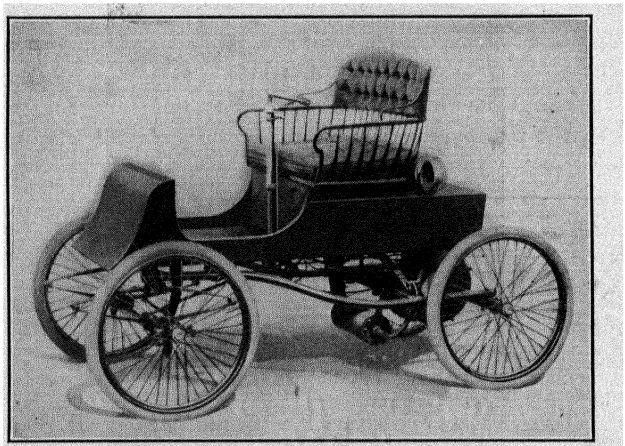


Thomas A. Edison

men, and there was a steady growth of its use in manufacturing establishments. One of the most notable of the early applications of the electric motor came in 1888 when Frank J. Sprague installed the first electric trolley car system on the Union Passenger Railway of Richmond, Virginia. Within a few years electric cars were in use on the street railways of dozens of American cities.

The use of electric power necessitated the development

of manufacturing industries to supply motors, generators, converters, storage batteries, copper wire, lighting fixtures, telephone equipment and many other kinds of electrical appliances. The manufacture of these articles soon took high rank among American industries. Experimentation and investigation constantly widened the field for the use of electricity. The electric reduction furnace, capable of generating heat intense enough to reduce the most refractory ores, was invented in 1885, and a few years later



The First Pierce-Arrow Motor Car

came the discovery of the process of electric welding. Enthusiastic inventors prophesied the coming of the day when electricity would be used to drive all the wheels of industry and to supply heat, light and power needed in household activities.

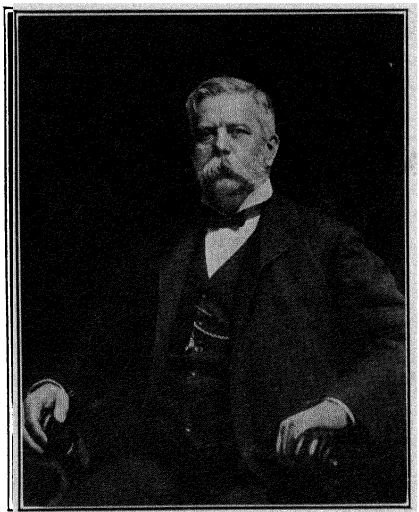
Other Mechanical Devices. The two decades following 1873 witnessed the invention of a large number of interesting and valuable mechanical devices which were destined to have an extensive use, partly for business purposes and partly for entertainment. The talking-machine

was invented by Edison in 1878. The same inventor had a large part in the development of the first successful motion picture machine. Safety bicycles with pneumatic tires were manufactured and sold in enormous numbers. The typewriter (1878), the cash register (1885), and the recording adding machine (1888), all of American origin, were among the inventions of this period. The most important foreign invention of the time was the four-cycle internal explosion gas engine invented by Dr. N. A. Otto, a German scientist, in 1877. The Otto engine was soon followed by the Daimler engine, in which, by the use of a "carburetor," gasoline or naphtha could be employed as a source of power. The invention of the internal explosion engine prepared the way for the invention of the motor car or automobile. The first public demonstration of the new kind of self-propelling vehicle occurred in France in 1893. Two years later the first public trial of motor cars in the United States was held in Chicago under the auspices of the Chicago *Times-Herald*. Six vehicles competed in a race to Evanston and return. Two cars, both driven by gasoline engines, completed the course. The winner was an American car, built by Charles Duryea of Springfield, Massachusetts. In less than two decades American motor cars were to be manufactured by the thousand.

Transportation. Along with the expansion of agriculture and manufacturing came a remarkable growth of railway transportation in the United States. The panic of 1873 caused a halt in railway building but the interruption was of comparatively short duration. By 1880 construction was going on more rapidly than ever before, and in the following ten years more than 70,000 miles of new railroad line were laid, a record that has never been equaled in any country. Four new "transcontinental lines" were completed between Pacific coast ports and

points on the Great Lakes and the Mississippi River; numerous branch lines were added to the railway systems of the Eastern States; and dozens of new lines were constructed in the South and West. In 1890 the railway net consisted of 167,191 miles of line, a greater mileage than all the countries of Europe possessed together.

The enormous quantities of agricultural products, manufactured goods and raw materials which had to be car-



George Westinghouse

Courtesy of the Westinghouse Electric and Manufacturing Company.

ried over long distances necessitated the adoption of large scale methods of production in transportation. Freight cars of larger size and capacity, and locomotives of fifty tons were put into use, while the railway tracks were equipped with heavy steel rails. An invention which greatly facilitated the development of large scale transportation was the quick-action air brake, which was perfected by Westinghouse in 1887. This type of brake made

it possible to operate extremely long and heavy trains. Large scale methods of production were observable in the practice of building specialized types of cars for various kinds of traffic—coal cars with dumping contrivances, tank cars for oils and acids, live stock, refrigerator and heater cars. The safety and comfort of travel were promoted by the invention of the vestibuled passenger car. Block signaling and interlocking switches and signals afforded a greater measure of protection against train accidents.

The development of railway transportation brought disaster to many interests engaged in transporting domestic traffic by water. During the first ten years following the Civil War the Erie Canal and the Mississippi River, the two most important interior water routes, managed to retain a fairly large traffic in the face of the keen competition of the railroads, but as time went on the struggle became a losing one for the water lines. The steamboat business in the Mississippi slowly dwindled away. In an effort to preserve the commerce of the Erie Canal the State of New York reduced the canal tolls, and in 1882 abolished them altogether. In spite of these measures the canal traffic shrank in volume until the once great waterway became a factor of little significance in the transportation system. The anthracite tide-water canals, the Chesapeake and Ohio Canal and the remaining canals of the Central States lost virtually all of their traffic. Many canals were abandoned. The competing railways made heavy inroads into the business of coastwise shipping interests which operated vessels between ports along the seacoast. Though the tonnage of coastwise shipping continued to grow, the rate of increase was far less than the rate of expansion of the industries of the nation, and coastwise commerce lost its commanding position in domestic trade. In one place only did water transportation maintain a successful struggle against competing rail lines.

This was on the Great Lakes, where the conditions were peculiarly favorable to the development of water transportation. At the western extremity of the lakes there was an enormous quantity of iron ore, grain and flour to be carried eastward; the vessels which carried this traffic had return cargoes of coal. All of these commodities could be shipped in bulk and carried much more cheaply by water than by rail. The possibility of full freights in both directions served to stimulate the operation of vessels on the lakes, and while the water-borne traffic on rivers and canals steadily declined, that on the lakes made a rapid increase. The tonnage of vessels passing through the Sault Ste. Marie Canal advanced from 690,826 tons in 1870 to 8,454,435 tons in 1890.

Mining and Lumbering. The rapid growth of manufacturing and transportation gave rise to a large demand for the raw materials supplied by mine and forest. The coal production of the United States, which amounted to 51,430,786 tons in 1873, reached 162,814,977 tons in 1893. Pennsylvania maintained a commanding lead in the coal mining and coke burning industries, though the coal fields of the Central States and of the South were drawn upon for greater and greater quantities of fuel for railroads and factories. The iron ranges of the Lake Superior district contributed more than half the annual supplies of iron ore. The increased demand for copper, which came with the growing use of electric power, was met by the mines of Michigan, Montana and Arizona. New sources of petroleum were found in Southern California and in the Lima field of Ohio and Indiana. A new variety of fuel came into use with the discovery of natural gas in Western Pennsylvania, Ohio and Indiana. The discovery of this cheap and clean fuel was followed by a remarkable growth of manufacturing in the "gas belts." Natural gas was also used extensively for household heating and lighting.

The demand for forest products was no less pressing than the demand for the mineral resources of the continent. Building operations in dozens of rapidly growing cities and in rural districts consumed vast supplies of lumber; furniture, vehicle and implement factories obtained a large part of their raw material from the forests; the millions of cross-ties used in railroad construction came chiefly from the hardwood forests of the Central States. By 1880 New England had lost precedence to the States around the Great Lakes in the production of pine lumber. Michigan was for a time the leading lumber State, but as the forests there were cut away the center of production moved westward toward the magnificent forests of Wisconsin and Minnesota. By 1890 the yellow pine belt of the South was being actively exploited, and lumbering was conducted on an extensive scale in the States of the Pacific coast.

Foreign Trade. The greatly increased production of American industry led to a prosperous trade with other nations. The merchandise exports of the United States grew in value from $505,033,439 in 1873 to $1,015,732,011 in 1892, while merchandise imports advanced in value from $642,136,210 to $827,402,462. The most important change in the character of the export trade as a whole was the increased proportion of foodstuffs. While there was a substantial gain in the quantity of manufactured goods exported, they made up about the same proportion of total exports in 1890 as in 1870. Agricultural products—cotton, grain, provisions—made up more than three-fourths of the total export traffic. The leading change in the character of the import trade, as was pointed out before, was the relative decline of the imports of finished manufactured goods and the increase in the imports of raw materials to be used in American manufacturing industries. Europe was the chief purchaser of American exports as well as

the leading source of American imports, though the increase in the imports of raw materials tended to improve the relative standing of South American and Asiatic countries in the import trade of the United States.

The Merchant Marine. Though the foreign commerce of the United States had an unprecedented growth during the two decades following 1873, most of the traffic was carried by foreign vessels. The American shipping industry failed to prosper, the merchant marine dwindled away, and the maritime greatness of the United States became only a tradition. There were many causes for the decline of the American shipping business, but the most important was the fact that internal industrial development offered greater opportunities for profitable investment than ocean shipping. In shipping and navigation American capitalists were forced to compete with foreign rivals who had many advantages over American shipowners. In manufacturing, mining and railroad transportation American capitalists had the field to themselves, and while competition in domestic industry was keen, the competitors at least struggled with one another on fairly equal terms.

The first disadvantage of the American shipowner came from the fact that only American built vessels could be registered under the American flag. In the days when the wooden sailing vessel was supreme on the ocean, the registry laws of the United States did not hinder the growth of the merchant marine, because American shipbuilders could build excellent wooden ships more cheaply than the shipbuilders of any other nation. But the wooden sailing ship was compelled to make way for the iron, and later the steel steamship. American shipbuilders could not compete successfully with foreigners in the construction of steel steamships. High wages, the high prices of American steel plates and the excessive cost of other shipbuilding ma-

terials made it much more expensive to build ships in American shipyards than in the shipyards of Europe. The American capitalist who might desire to enter the shipping business was placed under a severe handicap at the very outset, therefore, by the excessive cost of ships. He suffered an additional disadvantage in that it cost more to operate ships under the American flag than under foreign flags. Since the general level of wages was considerably higher in the United States than in foreign countries it was necessary for American shipowners to pay high wages to their sailors. Few capitalists had any desire to engage in the shipping business under such circumstances, and the merchant marine was permitted to languish. By 1893 the registered shipping under the American flag had declined to 899,803 tons, just about one-third the amount of registered tonnage in 1861.

There was much regret over the loss of the merchant marine. From early colonial times down to the beginning of the Civil War shipping and navigation had occupied a high place among American industries. At times American vessels had carried as much as ninety per cent of the exports and imports of the nation. In 1893 only 12.2 per cent of the country's foreign trade was carried in domestic vessels. Since foreign ships could carry freight more cheaply than American ships, it was useless to expect a revival of merchant shipping until an effort was made to remove the competitive disadvantages to which American shipowners were subjected. Congress refused to remove the high tariff duties imposed on materials used in building iron and steel ships. It was impossible for Congress to enact legislation which would satisfy all interests. Shipowners would have welcomed a policy of "free shipping" under which they could have purchased foreign ships for American registry; shipbuilders strenuously opposed the admission of foreign-built ships, though they

favored free trade in all shipbuilding materials; manufacturers of steel plates and other materials naturally resisted any effort to reduce or remove the protective duties on their products. A law enacted in 1890 providing for the free admission of shipbuilding materials contained a clause which stipulated that ships built of materials imported free of duty should not be permitted to engage in the coastwise trade for more than two months in a single year. This clause virtually deprived the law of any practical value it might otherwise have had in stimulating shipbuilding and ship operation.

It was urged frequently that Congress should grant subsidies to encourage the shipping industry. Perhaps a generous subsidy policy would have been followed during this period had it not been for the dishonorable practices discovered in connection with the enactment of a subsidy law in 1872. The exposure of corrupt lobbying not only led to the repeal of the Act of 1872 but it cast so much discredit upon the entire practice of giving subsidies to shipping interests that no more subsidy legislation could be passed for several years. Finally in 1891 a law was enacted authorizing the payment of certain sums to steamship interests as compensation for carrying mail on vessels of American construction and registry. The payments authorized were not large, however, and only a few lines took advantage of the provisions of the law.

It cannot be said that the lack of an American merchant marine was seriously detrimental to American industry. Foreign ships carried the exports and imports of the United States more cheaply than American ships could have carried them and the service was just as efficient as it would have been if performed by American vessels. The nation did not feel keenly a need of shipping lines to open up new markets for exports, because American exports consisted largely of raw materials and foodstuffs,

for the sale of which no complex organization of transportation and selling agencies was necessary. The United States had a large export trade, but the commodities sent abroad "sold themselves." American business interests needed little of the "technique" of foreign trade so necessary to a nation which exports articles that compete strongly with similar articles sold by other nations. The need for shipping was not so pronounced as it might have been had the export trade been of a different character. Later, during the early years of the twentieth century, when American manufacturers began to compete with European rivals in the markets of the world, the lack of an American merchant marine proved to be a serious handicap.

Another reason why the decline of the merchant marine caused little anxiety was that the period from 1874 to 1894 was in general a period of peace throughout the world. No business is more quickly or more acutely affected by war than the shipping business. A nation which has a large foreign commerce and a small merchant marine is invariably placed in an unfortunate condition when a war breaks out, and if the nation takes part in the war its lack of shipping may prove to be a source of serious danger. The possibility of war makes it highly advisable for great commercial nations to have their own merchant marine. The United States suffered considerable inconvenience during the Spanish-American War because of the scarcity of American ships. During the recent World War the lack of sufficient shipping to satisfy the military and commercial needs of the United States compelled the Government to adopt heroic measures to meet the deficiency.

Questions and Topics

1. Is it ever possible for the total value of a small corn or wheat crop to exceed the value of a large one?

2. What nations of the world are largely dependent upon the American wheat crop?

3. Make a list of imported food products that could be grown in the United States, and tell why they are not.

4. Make a list of all the principal electrical appliances now used.

5. On an outline map, show the principal railroad systems of the United States.

6. Which will be first exhausted, the mines, fisheries, or forests of the United States? Why?

7. What other countries besides the United States have great undeveloped resources?

CHAPTER XXII

PRICES AND WAGES; LABOR TROUBLES; EARLY INDUSTRIAL COMBINATIONS

The Decline of Prices. The quarter of a century following the panic of 1873 witnessed an increase in the production of useful commodities throughout the United States that was much greater than the increase in the number of people. The supply of goods tended to increase more rapidly than the demand for them. Since industry was in the main competitive the increased per capita production was accompanied by a reduction in the prices of nearly all domestic products. For the most part the fall of prices was continuous, though at times, under the stimulus of exceptional activity in certain fields of industry such as railroad construction, or because of an unusually heavy foreign demand for American farm products, prices would for a time take an upward trend. During the four years following 1875 there was a steady and somewhat rapid decline of prices. In 1879 and again in 1880 the United States had an exceedingly good wheat crop, while the European crop was a failure in both these years. American wheat brought a high price. The prosperity of the farmers was reflected in an enlarged demand for manufactured goods of all kinds. The general stimulation of business caused prices to advance for a brief period, but by 1882 supply had again overtaken demand and the decline of prices was resumed. The fluctuation of prices for the next twelve years was not great in either direction; in 1893 a general decline set in which lasted

until 1897. The trend of prices from 1873 to 1897 is indicated in the following table, which gives the prices of a few standard commodities:

Period	Corn [2] Cents Per Bushel	Wheat [2] Cents Per Bushel	Cotton [3] Cents Per Pound	Pig Iron [4] Dollars Per Ton	Steel Rails [5] Dollars Per Ton
1866–75 [1]	47.8	108.6	...	....	....
1876–85 [1]	40.1	92.6	11.5	22.01	46.93
1886–90 [1]	37.7	76.0	10.2	18.94	32.49
1891	40 6	83.9	8.60	17.52	29 92
1892	39 4	62.4	7.71	15.75	30.00
1893	36.5	53.8	8.56	14 52	28.12
1894	45 7	49.1	6.94	12.66	24.00
1895	25 3	50.9	7 44	13.10	24.33
1896	21.5	72.5	7.93	12 95	28.00
1897	26.3	80.8	7.00	12.10	18.75

[1] Average price per year for term of years
[2] Farm value.
[3] Net Prices at New York.
[4] At Philadelphia.
[5] At mills in Pennsylvania.

Influence of Changing Prices. With a constantly increasing production of goods of every description the real wealth of the United States grew at a rapid rate, but notwithstanding the great increase of goods many people in the country suffered hardships which made it appear that the additional wealth which was being created in such large quantities was a source of economic misery rather than of economic prosperity. These hardships were caused primarily by the fall of prices. The price system of the modern economic organization is a source of frequent trouble. Money and credit have been indispensable factors in the development of our complex economic system but we have not attained perfection in their use.

If all business were transacted on a cash basis and if the prices of all commodities and of labor changed at a uniform rate, a change in the level of prices would not have many ill effects. For instance a man might spend $100,000 on raw materials and labor to produce commodi-

ties which upon completion he expects to sell for $110,000. If the price of the article which he makes declines so that he receives but $90,000 he will have lost none of his prospective profit provided the prices of labor and of other commodities have declined at the same rate at which the price of his own product declined. His $90,000 will buy just as much as the $110,000 would have purchased had prices remained unchanged. On the other hand if the price of his product advances so that he receives $120,000 he will have gained nothing extra if the prices of other things have made a similar advance.

However the price system does not work out this way. In the first place a vast amount of the business of the world is done on a credit basis. Suppose the individual above had *borrowed* the $100,000 and the price of his product declined so that he received but $90,000. He would have to return $100,000 to his creditor, and even if the fall of prices had been uniform he could not have avoided loss. The creditor would of course make a substantial gain merely from the change in the price level. Creditors as a class derive benefit from falling prices, while the debtor class is always aided by an advancing price level.

Even if the element of credit did not enter into the problem of prices, individuals would suffer because of the lack of uniformity in price changes. The conditions of supply and demand are always different for different commodities. An unusually large wheat crop may cause the price of wheat to fall to an extremely low level. If there is no corresponding reduction in the price of other commodities the farmers whose wheat crops are not large enough to offset the reduced price are bound to sustain a loss. Too many competing manufacturers may temporarily engage in the production of some single commodity with disastrous results to all of them. It has previously

been pointed out that commodity prices and wages do not advance and recede uniformly, the movement of wages invariably lagging behind the movement of prices. When commodity prices decline employers endeavor to reduce the wages of their workmen; the laborers naturally oppose such efforts. When prices advance workingmen try to obtain higher wages, and they are usually resisted by their employers. During times of declining prices the profits of the employers are likely to shrink because of the difficulty they meet in efforts to depress wages; when prices are advancing profits are usually large. A general advance or a general decline of prices is always accompanied by labor disturbances, and the more rapid the rise or the fall of prices the more serious the labor disturbances are likely to be.

Effects of Competition. The chief reason for the downward trend of prices following 1873 was the fact that business was in the main intensely competitive. The wonderfully rich and varied natural resources in the United States afforded almost unlimited opportunity for industrial development. Though competition kept prices down there was usually in each field of industry a number of producers who, by using novel methods, improved processes and superior organization, were able to obtain handsome profits, while their less capable or less favorably situated rivals produced at a loss. New venturers were attracted by the good fortune of the strong and successful instead of being repelled by the mishaps of the weak, and the number of competitors in many industries tended to increase. As the number grew the quantity of goods produced mounted, prices fell, and the struggle for survival became more intense.

In agriculture a good crop year at a time when the foreign demand was unusually strong would stimulate activity in planting for the following year. If the season proved to be favorable the market would be glutted and

prices would fall to a ruinous level. The farmers who lived at some distance from a central market would see their expected profits entirely absorbed by transportation costs. It sometimes happened that Western farmers would make no effort to market their surplus grain, letting the wheat rot in the field and using their corn for fuel. Under such conditions many farmers who had borrowed money to purchase their lands lost their homes through the foreclosure of mortgages. The holders of mortgages would often lose part of their investment because the price of land would fall so low that forced sales would not yield enough to cover the loans. Many Eastern investors lost large sums of money through the purchase of Western farm mortgages. The difficulties of the farmers were often aggravated by unduly high and discriminatory railroad rates, and the population of many Western rural districts attributed all their woes to the grasping policy of the railroad corporations. Since the railroads were controlled largely by Wall Street financiers the farmers came to have a deep antipathy to "Wall Street" and its "money barons," an antipathy that has never been eradicated.

The railroad corporations were in many instances no better off than the farmers. Many new roads were constructed and the excessive competition of rival lines, which had produced such disastrous results previous to the panic of 1873, continued to create confusion in the railroad business. Railway transportation, when conducted on a competitive basis, is likely to invite keener rivalry than any other kind of business. In its earlier stages railway transportation is a business of increasing returns. A very substantial increase in traffic will bring in large additional revenue, but cause a comparatively small increase in expense. The "fixed" or "overhead" charges in railway transportation usually constitute about two-thirds of the total expenses. These expenses are the same from year to

year whether traffic is great or small. For this reason a railroad is under the strongest pressure to increase its traffic by all possible means. A large quantity of freight carried at comparatively low rates produces a greater net return than a small quantity of traffic carried at high rates. Rival railroads endeavor to attract traffic from one another by offering service at reduced rates. Unfortunately when competition in rates once begins it is usually carried too far. One line cannot afford to charge higher rates for a particular service than is charged by a rival line. "Cutthroat competition" often carries rates considerably below the actual cost of transportation, but even when this occurs the railroads do not go out of business. A road that is earning its "fixed charges" and ever so small a portion of its other expenses is temporarily better off than a road which is idle and not even earning its "fixed charges." Throughout the seventies competing rail lines in various sections of the United States engaged in bitter struggles for competitive traffic, with the result that many companies met with large losses. An evil result of the excessive reduction of rates on competitive traffic was the attempt of the fighting railroads to recoup their losses in part by charging unreasonably high rates on the traffic for which there was no competition.

In nearly all branches of manufacturing, in nearly all the mineral industries and in lumbering, the same vigorous competition took place. Great factories operated on a large scale have heavy overhead charges, just as railroads, and the competitive struggle of large plants is often of the "cutthroat" kind. In face of the decline of prices the output of manufactured goods in the United States continued to grow. The economies of large scale production enabled many of the larger establishments to earn fair profits. When competition became especially vigorous the smaller plants would shut down until market con-

ditions became more favorable. Little effort was made to export American manufactures when the domestic market declined, because even with the vigorously competitive conditions in this country, the cost of production of virtually all manufactured goods was higher than in Europe, because of the higher level of American wages. American manufacturers could sell their products in their home market because they were protected by a high tariff, but, with a few exceptions, they were not able to compete in the markets of the world. In a few industries large scale methods of production enabled the American manufacturer to overcome the disadvantage of high labor costs, and produce for the foreign market, and in a few industries the excellence of the American product enabled the manufacturers to meet the competition of foreign products, which were cheaper but poorer in quality. American sewing-machines and agricultural implements in particular began to have an extensive sale abroad.

Wage Reductions and Labor Disturbances, 1877–1886. In many industries employers tried to meet the losses due to declining prices by reducing the wages of their workmen. The upward movement of wages which began with the rise of prices in the Civil War period reached its apex about 1873 and for a time thereafter the level of wages declined. The laborers strenuously opposed wage reductions. The years between 1873 and 1896 witnessed a large number of labor disturbances, some of the most notable strikes in the history of the United States occurring during this period.

During the year 1877 there were several great railroad strikes, the first of which was on the Baltimore and Ohio Railroad. The primary cause of this strike was a ten per cent reduction in wages, but irregular employment, irregular payment of wages and unsatisfactory methods of computing wages were contributing causes. The strike

began at Martinsburgh, West Virginia, on July 16. Rioting strikers at that point tried to prevent the operation of trains by destroying the property of the railroad company. The state militia was called out to suppress the disorder, but instead of attacking the strikers the guardsmen fraternized with them. Upon the appeal of the Governor of West Virginia President Hayes sent a detachment of Federal troops to the scene of the riot and order was soon restored. Another outbreak occurred at Cumberland, Maryland. Upon orders from the Governor of Maryland two regiments of Baltimore militia mobilized and prepared to depart for Cumberland. While marching to the passenger station in Baltimore they were attacked by a mob of strikers and strike sympathizers, and in the fighting which followed several people were killed and the railroad station partially destroyed by fire. The militia proving unequal to the task of subduing the angry populace, Federal troops were again used to quell the uprising.

Even more serious than the Baltimore and Ohio strike was the strike of the employees of the Pennsylvania Railroad at Pittsburgh, which began on July 19. This strike was likewise due primarily to wage reductions, though the actual outbreak was precipitated by an order given by the railroad management with respect to the method of operating trains between Pittsburgh and Altoona. Rioting began soon after the men stopped work and the city became a scene of wild disorder. Neither the municipal nor the county authorities were disposed to protect the railroad company's property, and the militia which went to Pittsburgh at the orders of the State officials did not succeed in conquering the mob. Before Federal troops could reach the city some 1,600 freight and passenger cars, 125 locomotives, and the railroad shops were destroyed by fire. About twenty-five people lost their lives in the course of this strike; the property damage was more

than three and a half million dollars. The Pennsylvania Railroad Company brought suit against Allegheny County because of the refusal of the county officials to provide adequate police protection, and obtained a judgment for the amount of damage sustained.

Several other railroad strikes occurred in both the Eastern and the Central States during 1877. There were also many strikes among mine and factory workers. In a number of places there was rioting and loss of life, though no other city witnessed such disorder as occurred in Pittsburgh.

While labor unions were involved in the major labor disturbances of 1877, for the most part the strikes represented the spontaneous action of discontented laborers in single localities. Neither the Baltimore and Ohio strike nor the Pennsylvania strike was called by a labor organization, though on the Pennsylvania Railroad there had been an abortive effort to call a strike about three weeks before the Pittsburgh trouble took place. The lack of cohesive organization among the striking workmen placed them at a disadvantage in conducting the strikes, and the disorder which accompanied nearly all the walkouts tended to deprive the laborers of whatever public sympathy they might otherwise have had. Nearly all the strikes of 1877 were lost by the workmen, but their failure only tended to create a demand for more effective labor organization.

The next "historic strike," which occurred in 1883, was that of the commercial telegraph operators. This strike was an aggressive move on the part of the Brotherhood of Telegraphers to obtain higher wages, the abolition of Sunday work without extra pay, and the reduction of the day's work to eight hours. The men were out for more than a month, and they succeeded in getting some railroad telegraphers to join them in the strike. Though the strike was unsuccessful it represented a much more formidable

attempt on the part of labor than the unsuccessful walk-outs of 1877.

In March, 1885, the employees of the Gould system of railways in the Southwest went out in a strike in protest against a reduction of wages made in spite of the fact that the earnings of the railroads were at the time not showing a decline. The operation of the Missouri Pacific Railroad and of the Missouri, Kansas and Texas had to be almost completely suspended on account of the walk-out. Though the people of the Southwest suffered severely by reason of the interruption of the railroad service their sympathies were almost entirely with the striking workmen. The strike lasted but ten days, ending in a complete victory for the strikers. The railroad officials agreed to restore the wage scale of 1884 and to take all the strikers back in their old positions without prejudice. Emboldened by their victory the men became overconfident of their strength and adopted a dictatorial attitude toward their employers. In March, 1886, a foreman of the Texas and Pacific Railroad was discharged for incompetence. He was an influential member of the Knights of Labor, and succeeded in having a second strike called by this organization, the claim being made that the action of the railroad company in arbitrarily discharging the foreman was a violation of the agreement which ended the strike of the preceding year. The railroad officials flatly declined to treat with the representatives of the Knights of Labor, and this time the strikers received but little public sympathy. After freight traffic had been suspended for nearly a month the strike was called off. The result of this ill-advised strike was the virtual disintegration of the Knights of Labor, which up to this time had been steadily increasing in strength.

Labor Organization; The American Federation of Labor. The disintegration of the Knights of Labor

marked the failure of the first effort in America to organize wage earners as a class without regard to the vocation of the individual. But the failure of this organization did not mean the ending of the labor organization movement. In fact the organization of trade-unions, each made up of workers employed in single vocations, made more rapid progress as the prestige of the Knights of Labor declined. The trades in which unions had been established were more thoroughly organized and many new unions were established in additional industries.

While the diversity of interests of wage earners in separate vocational fields seemed too great to permit of the creation of a single great labor union, the laboring classes as a whole possessed sufficient common interests to render attractive some form of organization through which these common interests could be served. In 1881 a labor convention held at Terre Haute, Indiana, adopted tentative plans for the combination of the various labor organizations of the country into a "federation of trades and labor unions." At a convention held in Pittsburgh later in the same year these plans took definite shape in the formation of an organization known as the "Federation of Organized Trades and Labor Unions of the United States and Canada." Five years later this body was reorganized at a convention held in Columbus, Ohio, the new organization taking the name of the American Federation of Labor. This organization, which still exists as the most powerful labor body of America, is, as the name implies, a combination of other labor organizations. The Federation exercises little direct control over its affiliated societies, each of which has a constitution and government distinctly its own. The purpose of the Federation from the beginning has been to encourage the formation of labor unions, and to bring about the coöperation of local branches of various unions through the establishment of State and local Fed-

erations. The great majority, though not all, of the labor unions of the United States have become affiliated with the American Federation of Labor, and through the aid of this organization they have been able to promote the welfare of labor by seeking the enactment of favorable legislation, by fostering the organization of new unions, and by extending to one another financial and moral support during controversies with employers. The Federation, as such, has never had the authority to call a strike, but it has often rendered effective assistance to its constituent unions when strikes and lockouts have taken place.

With more effective organization labor was able to offer successful resistance to the attempts to depress the level of wages after 1877. Statistics show that after a rapid drop from 1873 to 1879 the average daily wages of labor began to rise and continued to advance slowly but in the main steadily till 1893. However, the increased average wages were of comparatively little benefit to the workers because of the frequent recurrence of seasons of unemployment in nearly all industries. Wage earners as a whole are improvident, the great majority of them living up to their income as fast as it is received. For this reason they get along much better with a relatively low wage and steady work than with high wages and irregular employment. A comparison of the curves of wages and the cost of living for the periods between 1873 and 1896 and between 1897 and 1916 would seem to indicate that labor was much more prosperous during the former period than in the latter. Yet the reverse is true, because during the later years wage earners had more steady employment.

The Haymarket Square Riot. The year 1886, which witnessed the disastrous strike on the Gould railroads, was a year of many notable labor disturbances. Commercial and financial depression caused many industries to close down, creating a large army of unemployed workmen. In

many industries that were not entirely suspended the discharge of workmen and the reduction of wages caused much unrest and discontent. Labor organizations, increasing in number and in strength, not only firmly opposed the reduction of wages, but they began to take a more aggressive stand in favor of higher wages, shorter hours, the "closed shop," and better working conditions. Foreign labor agitators and radicals of various types became active in American industrial centers, spreading the revolutionary propaganda which had served to foment industrial and political disturbances in a number of European countries. One result of the unsettled conditions in American industries was the famous Haymarket Square riot in Chicago.

On May 1, 1886, an attempt was made to call a general strike in all Chicago industries for the purpose of establishing an eight-hour day. A large number of men quit work and several local disturbances took place, the most serious being near the large McCormick Reaper Works, which at the time was being operated by non-union men. Some anarchists, taking advantage of the general unrest, called a meeting of workingmen for the evening of May 4, to protest against the activities of the police in suppressing the riotous disturbances of the three previous days. A large crowd assembled in Haymarket Square to listen to the inflammatory speeches of the anarchists. When one of the speakers began to urge the use of violence a detachment of police from a nearby station marched into the Square to disperse the meeting. One of the anarchists hurled a dynamite bomb into the midst of the advancing policemen, killing one instantly and mortally wounding seven others. This shocking tragedy created a profound sensation throughout the country. It called attention to the lack of adequate methods for the amicable adjustment of disputes between wage earners and their employers, and showed the need of taking steps to curb the activities of

dangerous foreign radicals who were endeavoring, by exhortation and by example, to incite deeds of violence and terror.

The Homestead Strike. The next famous strike of this period was that of the employees of the Carnegie Steel Company at Homestead, Pennsylvania, in July 1892. Late in June the Company announced a new wage scale which provided for a reduction of the wages of a small number of its workmen. The Amalgamated Association of Iron and Steel Workers opposed the reduction of wages; the officials of the Company, refusing to deal with representatives of the union, closed the plant and declared their intention of operating the mills with non-union men. The workmen prepared to resist with violence the employment of strike breakers, took possession of the steel works, and defied the sheriff and his deputies who tried without success to dislodge them. The Company engaged some three hundred Pinkerton detectives to recapture the mill property. Armed with repeating rifles the detectives manned two barges and attacked the workmen from the river. A two days' battle resulted in the complete defeat of the Pinkerton men, who were forced to surrender, give up their arms and leave the scene of the battle under guard. On July 12 the entire force of militia of Pennsylvania, some 8,000 in number, entered Homestead, and under the protection of these troops the Company regained control of its property, ejected the strikers and resumed operation with non-union workmen. The strike was a complete failure for the union, though it was not officially declared at an end until late in November.

The Pullman Strike. Perhaps the most notable of all labor disturbances which have occurred in the United States was the great Pullman strike of 1894. This strike began in a small way in June when the employees of the Pullman Palace Car Company quit work in protest against a reduc-

tion in wages. Many of the men were members of the American Railway Union, a comparatively new organization, which differed from the older railroad labor unions in that it accepted into membership railroad workmen of all ranks and not only those of a particular branch of the service. The American Railway Union championed the cause of the Pullman employees and tried to force the Pullman Company to grant the demands of its striking workmen by ordering a "boycott" of Pullman cars; that is, the members of the union were directed not to assist in switching or transporting Pullman cars on the railroads. When members of the union were discharged for attempting to put the boycott into effect the officers of the organization promptly called a strike. The chief center of the strike was Chicago, where the union was strongest. Rioting started soon after the strike began, a number of people were killed and injured, and a large quantity of railroad property was destroyed. The service of the Chicago railroads was soon almost entirely suspended. The municipal authorities were unable to give the protection needed to make a restoratin of service possible, and the Governor of Illinois refused to make effective use of the power of the State, or to appeal to the President for Federal aid. The Federal authorities soon intervened however without the action of the Governor. On July 2 a Federal judge issued a sweeping injunction ordering the strikers and their leaders to desist from obstructing the movement of the mails. The order of the court was disobeyed and President Cleveland promptly ordered 2,000 Federal troops to Chicago. In a few days order was restored, the president and other officers of the American Railway Union were arrested, and the strike soon collapsed.

Evils of Industrial Warfare. The recurring struggles between employers and wage earners caused great economic loss. Some strikes were won and some were lost,

but whatever the outcome of a particular strike the net result was invariably a loss to the nation as a whole. The interruption of work curtailed the production of wealth, the workers lost heavily because of unemployment, employers were forced to forego their profits, and the public suffered greatly from the lack of goods and services the production of which was suspended. The conflicts bred a spirit of bitter animosity between employers and employees, creating the conviction that the two groups were enemies without any common interest. Laborers came to regard capitalists as being merely agents of exploitation, while capitalists came to view labor organizations with distrust and hatred. The growth of class antagonism tended to increase the difficulty of finding means to promote industrial peace.

The methods employed in waging industrial warfare were such as to further the development of class hatred. The strike and the lockout were not the only weapons of the opposing groups. The boycott became a favorite instrument of warfare of striking workmen, while employers collaborated in establishing "blacklists" of the employees who were inclined to take a prominent part in labor disturbances. Workers whose names appeared in a "blacklist" found it impossible to obtain employment.

The worst feature of the great labor disturbances of this period was that they were almost invariably accompanied by criminal violence. The strikers were often misguided by bad leaders or they were not led at all. The "scabs," who refused to strike with the union laborers or who tried to take the jobs of the strikers, were hated intensely, and when they refused to yield to peaceful persuasion they were subjected to intimidation and violence. Once disorder was started it seldom ended without the commission of arson, burglary and murder. The stern suppression of disorderly outbreaks by agents of the law tended to create

a spirit of discontent of which professional agitators were quick to take advantage to preach the doctrine of violent resistance to the forces of law and order. Industrial warfare thus threatened to undermine not only the economic welfare of the nation but also its social and political institutions.

Labor Legislation; Restriction of Immigration. One beneficial result of labor disturbances was to make people realize that the problem of the relation of capital and labor should be subjected to careful scientific study. In several States special bureaus were created to gather and publish information concerning the conditions of labor, and on many occasions special investigations of labor questions were made by State and by Federal agencies. It was but a short step from investigation to legislation. Laws were passed to protect the health of workers, to provide for a greater degree of safety in employment, to limit the hours of work of women and of minor children, to establish rules with respect to the liability of employers for injuries suffered by workers. A number of States enacted measures to promote the settlement of labor disputes by conciliation and arbitration, and in 1888, following an investigation of the railroad strikes of the two previous years, Congress enacted a law which was intended to encourage the voluntary arbitration of labor troubles on railroads engaged in interstate commerce. Several States passed laws forbidding the use "with malicious intent" of the boycott and the blacklist.

One feature of the legal phase of labor controversies which was a cause of much discontent was the use of the injunction. Acts of violence on the part of strikers were properly punishable under the law, though the offenders had to be arrested and formally tried after the objectionable acts were committed. Through the use of the injunction employers often found it possible to prevent a threat-

ened destruction of property. Judges would issue restraining orders, the violation of which made the offender guilty of contempt of court, for which a judge could order imprisonment without the formality of a jury trial. Unfortunately the injunction was often made the means of grave abuse of the constitutional rights of striking workmen. Judges would issue "blanket injunctions" directed against certain specific persons "and all other persons" forbidding them to commit certain specified acts or "any other act" which might result in the destruction of property or the disturbance of the peace. Under cover of such injunctions, officers of the law, controlled and directed by employers, often made wholesale arrests of strikers where there was no legitimate reason for such action. The occurrence of such acts of injustice aroused bitter antagonism among labor leaders to so-called "government by injunction." On one occasion a Federal judge issued an injunction forbidding a threatened strike by the employees of a railroad which was being operated under a receivership, on the grounds that the strike would prevent the receiver, who was an officer of the court, from carrying out his duties. This injunction was set aside by a higher court. In general, courts sustained the right of labor to strike, holding that workingmen had the right to use any peaceful means of improving their condition.

One method which employers of labor used to obtain low-paid, unorganized workmen was to import them from abroad, paying for their passage and making contracts for their services for specified periods. Such "contract laborers" and thousands of immigrants who came to the United States at their own expense gravitated to manufacturing and mining centers, constituting a supply of cheap labor which employers drew upon to supplant their dissatisfied workmen. For many years there was no restriction of immigration whatever, and in the course of

time the large numbers of incoming foreigners, who usually had much lower standards of living than the American workmen, came to be a positive menace to the welfare of labor. On the Pacific coast in particular the Chinese immigrants tended to destroy the standards of American living. The leaders of organized labor waged an energetic campaign for the restriction of immigration. In 1882 Congress enacted a law forbidding for ten years the admission of Chinese laborers, and in 1892 the policy of exclusion was extended for another ten-year period. The Alien Contract Labor Law, passed in 1888, provided that no employer should encourage the immigration of foreign laborers by prepaying their passage or by making contracts for employment.

Suggested Remedies for Economic Ills. What created the most unfavorable impression upon students of economics during the troublous times from 1873 to 1897 was the fact that in spite of the great increase in the wealth of the nation there was so much hardship, particularly among the laboring classes and the farmers. Why in the midst of such plenty was there so much misery and discontent? The peculiar state of affairs brought about the suggestion of innumerable economic "cure-alls." The authors of these panaceas each thought that his particular remedy would correct the economic ills of the United States and of the world. While none of the cure-alls was adopted they all indicated a lively desire on the part of the people for a change in the old order of things, and they unquestionably acted as an educative influence which prepared the way for substantial reforms in subsequent years.

The theories of Karl Marx, the German socialist, who published his famous work "Capital" in 1867, found wide acceptance in many industrial centers of Europe and America. Marx taught that capitalists were merely exploiters of labor and that the workers would obtain a just

reward for their labor only through the abolition of private ownership of all instruments of production. In the United States Henry George created a profound impression with his book "Progress and Poverty," published in 1880. George ascribed the increase of poverty in the midst of plenty to private control of the land, and favored the "single tax," or the confiscation of the rent of land, as the means by which the ill-balanced production and distribution of wealth could be corrected. In 1888 Edward Bellamy published his romance, "Looking Backward," in which he depicted a Utopian socialistic State. This work was widely read and did much to promote the study and discussion of socialism.

Many people in the United States thought that the lack of proper economic adjustment was due to the want of sufficient circulating currency. The production of goods was outstripping the production of money, with a consequent fall of prices. The Western grain farmers in particular, who suffered frequent losses from low prices, were prone to ascribe their troubles to the currency system and they took the lead in an agitation for a plentiful supply of "cheap money." For a time the agitation took the form of a campaign for inflation through the extensive issue of legal tender paper currency; later the cheap money advocates sought to bring about the free coinage of silver. In the late eighties a political party, known as the People's Party or the Populist Party, was founded, having for the chief feature of its program the free and unlimited coinage of silver. It also demanded government ownership of railroads, an income tax and postal savings banks. This party acquired considerable strength in the West, its candidate for president receiving a popular vote of more than a million in 1892 and obtaining 22 electoral votes from six different States.

One of the most interesting manifestations of unrest was

"Coxey's Army" of 1894. Like Wat Tyler of old, Coxey organized a body of dissatisfied workmen—the army was increased by the addition of not a few professional tramps or "hoboes"—to march to the seat of government and present a statement of their wrongs. It was a petition on foot. Coxey's chief demand was that the government should issue a half-billion dollars in paper money which should be used in hiring the unemployed to work on highways and other public works. The army dwindled to less than three hundred before it arrived in Washington. On reaching the grounds of the Capitol, Coxey and some of his followers were arrested for walking on the grass, and the episode came to a farcical end.

The Beginning of Industrial Combination. While the agricultural and laboring classes made little progress in securing the adoption of extravagant economic theories, the producing capitalists began to find a way to protect themselves against the losses brought about by excessive competition. The cause for loss lay in the temporary production of too great a supply of commodities or services by independent, competing establishments. The obvious way to prevent such loss was to adopt methods by which supply, and consequently price, could be controlled. Control could be exercised by the combination of rival interests into some form of monopolistic organization. With the elimination of competition, production could be arbitrarily limited and price cutting brought to an end.

While it was evident that the price of a commodity could be satisfactorily regulated through the exercise of monopoly power, it was no simple matter to devise the organization through which competing interests could be brought together. Single producers were usually desirous of maintaining their identity, and when the number of producers in one field was large it was extremely difficult to secure common action. It has never been practicable, for instance,

for farmers to work out agreements with respect to the limitation of production and the control of prices, though efforts in this direction have been made many times. Combination can be accomplished most easily and effectively when the number of competitors is small, and it was in those lines of business in which competition was limited to a relatively small group of interests that the first effective industrial combinations were organized. The most important early combinations were those in the oil, anthracite coal, whiskey and sugar refining industries and in railroad transportation.

The first attempts at business combination among rival producers did not meet with a large measure of success because of the use of faulty methods. At first the members of the combinations attempted to control prices merely by making price agreements with one another. It was soon found that this method did not work well. Promises to maintain prices were readily made but they were easily broken. On several occasions, during the late sixties and the early seventies, competing interests in the railroad business, in the oil business, and in the anthracite coal business entered into agreements to maintain certain minimum prices, but these early agreements were, almost without exception, broken, because one or more parties would see an opportunity to secure much greater profits by making large sales at slightly reduced prices. When one party to a price agreement failed to keep his word the others were driven to renew the competitive struggle. Since price agreements could not be enforced at law, combinations based on such agreements always failed. It was not long, however, until methods were found by which price agreements could be maintained. One of the most effective devices for the accomplishment of this purpose was the pool.

Pools. The most common form of pool was an agreement among rival producers in which each was allotted a

certain percentage of the total business to be transacted. Some pooling organizations provided for a division of selling territory, while others provided for a division of profits. Whatever the actual form of a particular pooling agreement the purpose of all of them was to maintain prices. In manufacturing the competing interests decided what the total production for a season should be, and each one was given a certain share of the total. With limitation of supply minimum prices for the entire output of an industry could easily be maintained and the temptation to cut prices was thereby removed. In the railroad business rates were established and traffic divided among competing lines on a percentage basis. Should one line carry more than its allotted share of traffic it would give the profit on the excess business to the line or lines which did not obtain a proper percentage of the total. Pooling agreements could not be enforced at law, because under the common law they were contracts "in restraint of trade" and therefore contrary to public interest. But while not enforceable at law, for a time they were not in violation of law. The parties to a pooling agreement usually adopted some method of exacting penalties from a member who would not abide by the rules of the organization.

The formation of pools by competing interests seems to have started in the early sixties with the organization of the manufacturers of cordage and of the Michigan salt producers. It was not until during the seventies and eighties however that pooling was practiced on an extensive scale. One of the strongest of the earlier pools was that of the anthracite coal interests, organized about 1872. The anthracite coal fields were controlled for the most part by seven concerns: the Pennsylvania Coal Company, and six railroads, the Philadelphia and Reading, the Lehigh Valley, the Central of New Jersey, the Delaware, Lackawanna and Western, the Delaware and Hudson, and the

Pennsylvania. During the Civil War the price of anthracite was high and the profits of the business large. After the war ended production was expanded, competition was active, and the anthracite interests derived little or no profit from their business. In 1872 the competing interests organized a combination, fixing the total amount of coal to be mined annually and allotting a certain percentage to each competitor. This powerful organization succeeded in carrying out its purpose, limiting the production of coal and establishing prices which yielded enormous profits. By establishing exorbitant rates for transportation, the coal carrying roads, which also controlled the major portion of the mining business, were able to dictate terms to the independent mining interests outside the organization. The anthracite combination has continued to exist in one form or another to the present day, and few monopolies have ever exacted larger profits from the consuming public.

One of the earliest pools in manufacturing was that of the manufacturers of gunpowder formed in 1872. In 1881 the whiskey distillers in the region north of the Ohio River founded a pool known as the Western Export Association, and a few years later the Kentucky distillers entered into a pooling agreement. The result of the whiskey pools was a marked stabilization in the price of whiskey. The more important steel companies organized a great steel rail pool in 1887 to control the price and production of steel rails, and in 1894 the famous Addyston Pipe pool was organized. Pools existed in the wall paper and envelope industries and in a number of other manufacturing industries.

The pool reached its highest state of development and attained its largest measure of success in railroad transportation. The railroads and steamship lines operating in the territory south of the Ohio and Potomac Rivers and east

of the Mississippi River formed the Southern Railway and Steamship Association in 1875. The primary object of this organization was to eliminate rate wars among rival carriers by the division among them of competitive traffic. So successful was the association that its founder and chief executive, Albert Fink, was invited North in 1877 to organize a similar association among the trunk line railroads. Fink was instrumental in establishing pooling associations which brought to a close the bitter rate wars of the great eastern railroads. Railway pools were also organized in the territory west of the Mississippi River. The pooling carriers usually maintained the agreed division of competitive traffic by the use of "eveners." Since shippers had the right to choose the line by which they desired to ship their freight it was not possible for the railroad companies to make an accurate division of traffic without the use of some special device. Certain shippers controlling large amounts of traffic were induced to permit their traffic to be routed by the carriers. By a proper distribution of this freight business the carrier would maintain the allotted percentages of the pooling agreement. The shippers who permitted their traffic to be thus divided were known as "eveners," and for their coöperation with the carriers they received special favors in the way of preferred service, lower rates and rebates.

The Standard Oil Company; Trusts. Though the pool was a much more effective device for restraining competition than the simple price agreement it was not always satisfactory. It was necessary to readjust the allotments of business from time to time, and if the members of the organization did not always receive as much as they felt themselves entitled to, there was no certain way of preventing a dissatisfied member from violating the agreement. Moreover, the pool was not adapted to all kinds of business. In the oil business, for instance, it was impossi-

ble to foretell what production would be. The highly speculative character of the business constantly attracted new investors and promoters, making it impossible for an effective combination to be established. During the late sixties several voluntary associations of refiners and producers attempted to restrict the output of oil and control prices, but they were unable to accomplish results of a substantial nature. The business became an exceedingly precarious one in which large fortunes were gained in a few weeks only to be lost as quickly as won. When conditions were at their worst John D. Rockefeller, a Cleveland refiner, conceived the plan of combining the leading refiners of Ohio into an organization which would be wealthy and powerful enough to dominate the oil industry. Shortly before 1870 he took into partnership his brother, William Rockefeller, Stephen V. Harkness, and Henry M. Flagler. In 1870 he induced Oliver H. Payne, the head of the Clark-Payne interests of Cleveland, and a few other of his competitors to join forces with him, and the Standard Oil Company of Ohio was organized with an initial capitalization of one million dollars. Whatever has been the later history of the Standard Oil combination it originally obtained the lead in the oil industry through the ability, skill and foresight of its managers in organizing their forces and in adopting a progressive policy in the development of their business. The Standard built pipe lines for the cheaper transportation of oil, constructed tanks in which temporary excess supplies could be stored, employed expert scientists to conduct investigations which led to the development of cheaper methods of refining and to the discovery of uses for by-products, manufactured its own barrels and cans on a large scale, adopted the plan of selling oil directly to consumers, and sold American lamps and lamp-wicks in Europe to promote the export of oil. The success of the Standard was even greater than its founders had expected.

More producing and refining companies were absorbed by the organization, and by 1880 Rockefeller and his associates had control of considerably more than half the refined oil output of the United States.

To obviate the danger of a disruption of the affiliated companies and to form a more compact organization the Standard Oil interests in 1879 adopted a plan of combination known as a "trust." The shareholders of the affiliated companies turned their stocks over to a board of trustees, receiving "trust certificates" entitling them to a share in the profits of the combination. The management of the properties and the direction of all the affairs of the combination were vested in the board of trustees, who held the stock and had authority to vote it. This style of organization concentrated the management of the business and assured the complete elimination of all competition among the companies in the "trust."

The Standard now was in a position to wage a more energetic warfare against its competitors than before. Acting as an "evener" for railroad combinations the Standard received rebates which greatly reduced its transportation charges. It cut prices in the localities where competitors endeavored to do business, and with its great resources was able to outlast any rival in a competitive struggle. One by one competing concerns were forced to sell out to the Rockefeller interests or quit the oil business altogether. The oil trust became one of the most powerful monopolies the United States has ever known.

The "trust" at once commended itself as a form of organization admirably adapted to the purpose of those business interests which desired to eliminate competition through combination. Trusts were organized to replace many of the previously formed pools. Competing producers who had not found the pool a suitable device for suppressing competition found that they could accomplish

their purpose by organizing "trusts." The Western Export Association was succeeded by the Cattle Feeders' and Distillers' Trust in 1887; the Sugar Trust and the National Lead Trust were formed the same year. With the development of the trust the movement toward industrial combination was well under way.

The Holding Company. The trust, as a form of business combination, had but a brief existence. A number of States enacted laws specifically forbidding the organization of trusts, and it was necessary for the producers who desired to maintain their combinations to find another means of consolidating their interests. The form of organization most widely employed after the trust became generally illegal was the "holding company." A holding company was merely a corporation which held shares in other corporations. When it was desired to combine competing corporations it was only necessary to organize a holding company, the shares of which were given in exchange for the shares of the corporations entering the combination. A great many State courts and the Federal courts took the attitude that one corporation had no right to hold the stock of another corporation unless it had expressly received such power in its charter. However, the State of New Jersey amended its corporation laws in 1889 so as to permit the organization of holding companies, and most of the great holding companies took out their charters in that State.

When in 1892 the Supreme Court of Ohio held the Standard Oil Trust to be an illegal combination, the Rockefeller interests promptly organized the Standard Oil Company of New Jersey, to which were transferred the stocks formerly held by the Standard trustees. The combination was thereby continued in an even more effective form than before. Other trusts adopted the same method of procedure, so that legislation against the trust form of organ-

ization did little to check the progress of industrial combination.

Government Regulation of Business. The development of great business combinations with power to control the supply and the prices of many articles of universal use gave rise to a feeling of profound public uneasiness. The combinations frequently were guilty of grave abuses of their power. They employed the most ruthless methods to destroy small competitors, and once their control of a field of industry was established they frequently charged extortionate prices. The railroads generally succeeded in suppressing destructive competition among themselves, but they failed to put an end to the practice of granting discriminating rates and service to favored shippers and favored localities. The prosperity of the great combinations made them the object of distrust, envy and suspicion, and in many quarters they were held responsible for the misfortunes which overtook laborers and farmers and the business men who were forced to meet strenuous competition. An aroused public demanded that legislation be framed for the purpose of putting a stop to the combination movement. The problem of business regulation became known as the "trust problem," the name "trust" being applied to all great combinations of capital, regardless of the fact that the trust, in the strict sense of the word, had but a short-lived career.

In general it may be said that a government may deal with the problem of private monopoly in one of two ways. It may recognize the existence of partial or complete monopoly, permit it to continue, and proceed to control the monopolized industry by regulating prices and supervising services. Or it may endeavor to counteract any tendency toward monopoly in business by enacting laws framed to insure free and fair competition. In the United States both these methods were tried. In the regulation

of the railroad business the Government undertook to do both things, regulate prices and enforce competition; in the regulation of other kinds of business the Government merely endeavored to preserve freedom of competition. Railroad corporations were subjected to more stringent regulation than industrial corporations because the railroad business, to a greater degree than any other business enterprise, came into close touch with all the varied economic activities of the people. In railroad legislation the public was willing to go to the length of regulating the prices which the carriers might charge, but in the regulation of other kinds of business the people were not yet ready to go so far as to fix prices.

State governments took the lead in enacting laws for the regulation of private business. The "Granger" railroad legislation of the early seventies was copied in a number of States, and in addition many States enacted laws prohibiting the organization of industrial combinations. Since the Constitution authorized Congress to regulate commerce among the States, the State legislatures could not effectively regulate either the railroads or the large industrial combinations, much of whose business was of an interstate character. An urgent demand arose that Congress take steps to do what State legislation could not accomplish. In response to these demands Congress somewhat hesitantly began to pass laws for the regulation of private business. The enactment of such measures marked a new departure in the political and economic history of the nation. In 1887 and in 1890 two highly important laws were passed, important not so much for what they accomplished as for the fact that they were the beginning of a new phase of governmental activity. The first of these laws was the "Act to Regulate Commerce," usually called the Interstate Commerce Act. It applied specifically to the railroad business. The second act was the Sherman

Antitrust Law, which applied to all business interstate in character, including railroads.

The Interstate Commerce Act. This law had two chief purposes: the establishment of reasonable rates for railroad transportation and the elimination of discrimination in railroad rates and services. It also declared railroad pools illegal. The most important feature of the law was that it created an administrative board, the Interstate Commerce Commission, whose duty it was to see that the terms of the act were observed. The Commission was given wide investigational powers and was authorized to pass judgment upon the reasonableness of rates and to order carriers to cease any unfair discrimination. Shippers who thought they were paying unreasonable or discriminating rates were to lay their complaints before the Commission. Unfortunately the law did not provide that the orders of the Commission should be binding upon the railroads. It stipulated that if a railroad failed to obey the Commission's orders the Commission could resort to action in the Federal courts to secure compliance.

The Sherman Antitrust Law. This act declared illegal "any contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations," and provided a penalty of fine and imprisonment for any person who should "monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations." No administrative commission was provided to enforce this law, its enforcement being left to the Federal Department of Justice and the courts.

The Working of the New Laws. Both these early laws for the regulation of private business were based upon the principle that free competition should prevail in all busi-

ness activity, but neither of the laws did much to promote the return of free competition. The anti-pooling clause of the Interstate Commerce Act was observed, and railroad pools passed out of existence, but competition among the railroads was restored for only a brief period. The losses from rate wars made coöperation necessary if the railroads were to avoid bankruptcy. The process of consolidation of competing lines, which had been going steadily along for two decades, continued at a more rapid rate, and in most of the regions where consolidation was not possible, the carriers organized traffic associations, the officers of which were authorized to establish rates on competitive traffic. Several penalties, the payment of which was guaranteed by deposits, were imposed upon any carrier which failed to observe established rates.

What was much more serious than the failure of the Interstate Commerce Act to put an end to rate agreements among railroads was its failure as an effective means of putting an end to unjustly discriminating and unreasonably high railroad rates. The failure of the statute to accomplish these ends was due to faulty wording, rather than to lack of purpose on the part of Congress. It was apparently thought by the framers of the law that the Interstate Commerce Commission, when it found particular rates to be unreasonable, could name reasonable rates which the carriers should observe. The Supreme Court declared that the Commission had no authority to name reasonable rates because the statute did not expressly give it such power. The interpretation which the Court placed upon the language of the law was such that the Commission also found itself virtually powerless to correct discriminations between persons, places and commodities. As a corrective measure the act proved to be a total failure, and the railroad corporations wilfully persisted in the improper practices which had caused the law to be enacted. About

the only benefit derived from the law was educational; its weaknesses showed the way to effective regulation. The complete revision of the statute was delayed, however, until 1906.

The interpretation which the Supreme Court first placed upon the Sherman Antitrust Act was likewise such as to indicate that it would prove to be of little use in putting an end to combination in restraint of trade. The first important case to reach the Supreme Court under the law was the Sugar Trust case, or the E. C. Knight case, as it is usually called. The American Sugar Refining Company, in pursuance of its policy of obtaining a monopoly of the sugar refining business, bought up four Philadelphia refineries, which were its leading competitors, thereby securing control of about 98 per cent of the sugar refining business of the United States. The Government, through the Department of Justice, attacked the purchase of the competing refineries on the ground that it was a contract in restraint of trade and therefore a violation of the Sherman law. The Court held that since the purchase of the refineries was not an act of interstate commerce the Sherman Law could not be applied to the transaction. The Court said: "Contracts . . . to control domestic enterprise in manufacturing, agriculture, mining, production in all its forms, or to raise or lower prices or wages, might unquestionably tend to restrain external as well as domestic trade, but the restraint would be the indirect result, however inevitable, and whatever its extent, and such result would not necessarily determine the object of the contract." Encouraged by this decision, which was rendered in 1894, financiers interested in promoting industrial combination pursued their course with redoubled vigor, and the combination movement proceeded with great rapidity. The story of the development of this movement will be given in Chapter XXIV.

The Panic of 1893. The unsettled conditions of business, due in part to intensive competition and in part to unwise speculation, finally culminated in 1893 in an industrial and financial crisis of unusual severity. While general economic conditions were in the main responsible for the crisis, the difficulties of the business world were aggravated by the state of the national currency. The panic and its effects will therefore be dealt with in the following chapter, in which the currency problem will be considered.

Questions and Topics

1. Analyze some phase of railroad or industrial competition in your own State showing whether the effects were beneficial or otherwise.
2. Account for the fact that the wages of European laborers are usually lower than the wages of American laborers.
3. Give all the arguments you can discover for and against the closed shop.
4. What bearing has immigration on the wage scale?
5. Do you think the losses in wages and production from strikes are offset by the benefits derived by the laborers? Give examples.
6. Why is it easy for the immigrant to succeed in America?
7. Is there any relation between illiteracy and labor unrest?
8. Do you approve of trade unions? Give reasons.
9. If the consumer received a product at a lower price under the monopolistic régime than under the competitive, would that fact justify monopolies?
10. Show in what sense monopolies tend toward governmental control?

CHAPTER XXIII

CURRENCY DISORDER AND THE PANIC OF 1893

The Greenback Problem. The difficulties which the people of the United States experienced with their currency between 1865 and 1900 had their start with a controversy over what should be done with the legal-tender notes or "greenbacks" issued by the Government during the Civil War. When the war ended $400,000,000 of these notes were in circulation, their value in gold being about 67 cents on the dollar. The notes represented merely a non-interest-bearing loan contracted by the Government to meet the exigencies of war, and it was thought by most people that with the return of peace the notes would be redeemed with coin or interest-bearing bonds, and gradually retired from circulation. In 1865 Hugh McCulloch, the Secretary of the Treasury, recommended that the notes be retired as quickly as possible so that specie payments might be resumed in both public and private business. Concurring in this recommendation Congress passed a bill in April, 1866, authorizing the Secretary of the Treasury to sell bonds for the purpose of retiring the greenbacks, stipulating however that not more than ten million dollars should be retired within the six months following the passage of the act and not more than four million dollars a month thereafter.

The policy of retiring the legal-tenders, thus begun so quickly and so easily, soon met with intense opposition. There had been virtually no metallic money in circulation

in the United States since 1862, and the "dollars" in which nearly all prices were quoted and in which debts had been contracted were the depreciated paper dollars. If the Government should continue its policy of redemption the greenbacks would rise in value until they became the equivalent of gold. The rise in the value of the dollars would be reflected in the decrease of prices. The redemption policy would bear with peculiar hardship upon all debtors because they would be compelled to pay their debts with dollars of much greater purchasing power than "dollars" possessed when the debts were contracted. A lively agitation was begun to stop the retirement of the legal-tenders, with the result that Congress enacted a law in February 1868 prohibiting any further redemption. During the panic of 1873, in order to relieve the acute currency stringency in New York and elsewhere, the Secretary of the Treasury reissued $26,000,000 of the notes that had been redeemed.

The hard times which came with the panic of 1873 were attributed in many quarters to a shortage of money. People had seen prices rise with an inflation of the currency and had seen them fall when the currency was contracted. Consequently there was a widespread belief that the contraction of the currency was the sole cause of price fluctuations. The way to keep prices up was for the government to issue more money. Most of the "inflationists" believed that the Government could convert a piece of paper into money merely by declaring it a legal-tender. Notwithstanding the lesson of the experiences of the American people during colonial times and during the Revolutionary War, to say nothing of the more recent experience with the greenbacks, they did not understand that the value of government paper money depends solely upon the ability and willingness of the issuing government to redeem it in metallic money. They urged that since the greenbacks were

money no effort should be made to redeem them, and they also thought that the Government should pay off its interest-bearing bonds with further issues of legal-tender notes. The sentiment for enlarging the quantity of irredeemable paper currency became so strong that in February 1874, the Republican Congress passed an "inflation bill" which provided that the amount of greenbacks outstanding should be increased to a maximum of $400,000,000. The bill contained no provision whatever for the redemption of the notes. Fortunately President Grant vetoed the bill, and all that the inflationists succeeded in accomplishing for the time being was to enact a law fixing the maximum amount of legal-tenders at $382,000,000, which was the amount then in circulation.

Resumption Legislation. The elections in the fall of 1874 went strongly against the Republicans. The Congress which had passed the "inflation bill," having still a few months to serve after the election, executed a somewhat surprising about-face movement and enacted a measure in January, 1875, for the resumption of specie payments. This law, though faulty, was a step in the right direction. It removed certain restrictions upon the power of national banks to issue bank-notes, and in view of a probable increase of bank-note currency, directed the Secretary of the Treasury to redeem greenbacks to the amount of 80 per cent of whatever new bank-notes might be issued until the total amount of greenbacks outstanding declined to $300,000,000. It provided further that on and after January 1, 1879, the Secretary of the Treasury should "redeem in coin the United States legal-tender notes then outstanding, on their presentation for redemption at the office of the assistant treasurer of the United States in the City of New York, in sums of not less than fifty dollars." The law did not specify whether the notes redeemed "on and after January 1, 1879," should be canceled and re-

tired, or reissued. The Secretary of the Treasury was authorized to sell bonds to obtain the coin necessary for redemption purposes.

The Resumption Act met with a great deal of disapproval. The advocates of a legal-tender paper currency were numerous enough to organize a National Greenback Party which polled more than a million votes in the election of 1878. The Democratic Party was opposed to the Resumption Act, though it was not committed to the extreme inflation urged by the "greenbackers." In November, 1877, the Democratic House of Representatives passed a bill for the repeal of the Resumption Act, but the measure was rejected by the Senate, which was Republican by a narrow majority. The following April the House passed a bill forbidding the cancellation of any more legal-tenders which might be redeemed, and providing that they should be reissued and made a permanent part of the national currency. This bill, which became a law May 31, 1878, cleared up whatever doubt existed as to what should be done with the greenbacks redeemed under the provisions of the Resumption Act. At the time the amount of legal-tenders in circulation was $346,681,616. These notes still remain a part of the circulating medium of the country.

Defects of the Resumption Legislation. The chief defect of the resumption legislation was that it did not contain any provision which assured beyond doubt that the Treasury would always redeem the legal tender notes on demand. Should the Treasury at any time fail to give coin in exchange for its paper obligations they would at once depreciate in value and the currency would lapse into a disordered state similar to that which existed from 1862 to 1879. If the Resumption Act had directed the Secretary of the Treasury to accumulate a special redemption fund equal in amount to the total quantity of greenbacks outstanding and had provided that redeemed legal tenders

should be reissued only upon the restoration to the redemption fund of amount of coin equal to the reissued notes the Treasury would have been safe at all times. The adoption of such a plan however would have been equivalent to the retirement and cancellation of the greenbacks, and this the inflationists would not permit.

The resumption legislation did not provide for any special redemption fund. It merely authorized the Secretary of the Treasury to sell bonds to obtain the coin needed for redemption purposes. John Sherman, who was the Secretary of the Treasury at the time specie payments were resumed, thought that the Treasury should have a surplus of at least forty per cent of the amount of greenbacks in circulation, and he accordingly sold bonds sufficient to obtain $95,500,000 in gold, in addition to which the Treasury held some $20,000,000 in gold derived from customs receipts. An act passed by Congress in 1882 directed the Secretary of the Treasury to suspend the issue of gold certificates "whenever the amount of gold coin and gold bullion in the Treasury reserved for the redemption of United States notes falls below one hundred millions of dollars." This act recognized the existence of a reserve though no positive provision for one had been made. This law also recognized the obligation of the Treasury to redeem the legal-tenders in gold, though the Resumption Act merely stipulated that they should be redeemed "in coin." The reserve was not a special fund to be used only for redeeming the notes. It was a part of the total Treasury funds, and could be used, when necessary, to defray the ordinary expenses of the Government. Thus a deficiency of Government revenues might endanger the integrity of the "reserve" just as much as heavy demands for gold from holders of the legal-tender notes.

Though the retention of the greenbacks undoubtedly weakened the currency, a Treasury crisis might never have

occurred had the greenbacks been the only disturbing factor with which the Treasury was forced to contend. Unfortunately however, Congress complicated the problem and made the burden of the Treasury much greater by the enactment of legislation which greatly increased the supply of "cheap money." This legislation had to do with the coinage of silver, and it will be necessary to make a brief study of the "silver question" in order to understand how the Treasury was finally overtaken by the financial crisis of 1893.

The Adoption of the Gold Standard. Until 1873 the United States had legally a bimetallic monetary system. The Government offered to coin freely and in unlimited quantities both gold and silver at a ratio established by law. It has been explained in a previous chapter how the laws of 1834 and 1837, which established a ratio of approximately 16 to 1 between silver and gold, slightly undervalued silver, thereby preventing the circulation of silver dollars and even driving the subsidiary silver coins from circulation until their debasement in 1853. Though several million silver dollars were coined between 1837 and 1873 none of them passed into domestic circulation. Each dollar would pass only for a dollar in domestic commerce while its bullion value was about $1.02. Whoever came into possession of silver dollars melted them and exported the bullion or sent them to countries where they were accepted at their bullion value. For many years therefore, the United States, though nominally possessing a double monetary standard, had in fact a single gold standard. Even during the years from 1862 to 1879 when the paper dollar was the standard of domestic exchange the value of the paper dollar was measured in gold. The premium on gold merely represented the depreciation of the chief circulating medium below the metal which was the accepted monetary standard.

The fluctuations of the ratio between silver and gold have always made it impracticable for a country to maintain permanently a bimetallic standard. The money metal which is overvalued becomes the standard in domestic exchange, while the metal which is worth more in bullion than the face value of the coins made from it is exported. In April 1870 a bill was introduced in the Senate providing for the revision of the coinage laws. The author of the bill recognized that the ratio between silver and gold adopted in 1837 made the circulation of silver dollars impossible, but instead of altering the coinage ratio to conform with the bullion ratio of the two metals he merely omitted the silver dollar from the list of coins to be minted under the terms of the bill. In other words the bill provided that silver should be demonetized and that the monetary system of the United States should be based upon the gold standard in law as well as in fact. After being debated through five sessions of Congress the bill became a law in February 1873. It was frequently charged in subsequent years that the passage of the bill was secured by underhanded methods, and the law has often been referred to as the "crime of '73." There is no foundation in fact for the charge that the bill was passed through the use of fraudulent methods. The law merely recognized a condition which had existed for many years. Very little interest was displayed in the matter at the time the law was passed, and no controversy would have arisen had there not been a change in the relation between gold and silver bullion.

The Decline of the Value of Silver. The act for the demonetization of silver had scarcely been passed when the value of silver bullion began to decline. The chief reason for the decline was a large increase in the production of silver from newly discovered lodes in Nevada. Another reason was the demonetization of the metal by Germany in

1871 and the limitation of its coinage by other European countries. By 1876 the value of 371.25 grains of pure silver—the amount formerly contained in the American silver dollar—was only 90 cents in gold. Had free coinage of silver still existed it would have been possible for the owners of silver bullion to have it converted into coin having the same legal tender value as gold coin of considerably greater bullion value. Under such circumstances gold would have left the country just as silver had left in former years and the domestic metallic currency would have consisted entirely of silver.

The Silver Coinage Act of 1878. As soon as the price of silver bullion declined to the point where free coinage would have been profitable for the owners of silver the Western silver mining interests began to demand that the bimetallic standard be restored. They were backed in their demand by the currency inflationists, who, just defeated in their plan for increasing the supply of currency through the issue of a large quantity of greenbacks, gladly seized upon the silver issue as a means of accomplishing their ends. In July, 1876, a bill was introduced in the House of Representatives to remonetize silver. To pass it at that time in the session required a suspension of the rules of the House, for which a two-thirds vote was required. Though the motion to suspend the rules received a majority vote it did not receive the necessary two-thirds and the bill failed. The following year an unlimited coinage bill was again introduced and passed the House by a vote of 164 to 34. In the Senate the inflationist sentiment was not so strong and the bill was amended to provide for the coinage of a limited amount of silver. As the bill finally passed both branches of Congress it provided that the Secretary of the Treasury should purchase each month not less than $2,000,000 and not more than $4,000,000 worth of silver, which should be coined into silver dollars, each

containing 371.25 grains of pure silver. One section of the law permitted the holders of silver dollars to deposit them in the Treasury and receive in exchange silver certificates in denominations of not less than $10. The silver dollars were to be legal tender. President Hayes vetoed the bill on the ground that the legal-tender silver dollars would enable debtors to pay their obligations entered into since 1873 with dollars of less value than the dollars contracted for in the obligations, but the bill was passed over his veto and became a law February 28, 1878. The minimum amount of silver was purchased under the law each month for 12 years and out of the metal 378,166,000 dollars were coined and paid out by the Treasury. In 1886 the Secretary of the Treasury was authorized to issue silver certificates of the denominations of $1.00, $2.00 and $5.00. The certificates of small denomination were much more acceptable to people than the heavy silver dollars.

Weakness of the Currency. The silver dollars coined under the law of 1878 added to the burden placed upon the Treasury by the greenbacks. Though not legally bound to maintain the gold standard by redeeming the legal-tender notes in gold and by accepting silver and silver certificates for gold the Treasury was forced to follow such a course if a renewed confusion of the monetary system was to be avoided. The paper and silver dollars circulated as the equivalent of gold only because the Treasury stood ready to give gold in exchange for them or accept them in payment of taxes on a parity with gold. Had the free and unlimited coinage of silver been adopted the Treasury could not have maintained the parity of silver and gold while the bullion ratio between them was different from the coinage ratio, and with an overvaluation of silver gold would soon have ceased to circulate. But with a limited coinage of silver, gold was not driven from circulation so long as the Treasury preserved

the gold standard. But would it be possible for the Treasury always to maintain the gold standard, without resort to extraordinary measures, in view of the fact that the number of silver dollars in the currency was steadily being increased?

Foreign Trade and the Currency, 1878–1890. The ability of the Treasury to maintain gold payments depended primarily upon the amount of gold in the country. As long as the supply of gold was stationary or increasing there would be no occasion for a demand upon the Treasury to give gold in exchange for paper or silver. But if anything occurred to cause the exportation of gold the Treasury would certainly be asked to redeem its demand obligations. Silver and greenbacks passed at their face value readily enough in domestic commerce while redemption in gold was possible, but they could not be used at their face value in the settlement of foreign commercial accounts. When individuals in the United States desired to make payments of coin to foreign creditors they used gold. The exportation or importation of gold was purely a commercial matter depending upon the ebb and flow of international trade. Just after the war of 1812 and just before the panic of 1837 the American people had become involved in commercial and financial difficulties because the condition of international trade had caused a heavy drain on the supply of specie. The recurrence of such a drain, after the weakening of the currency by the greenback and silver legislation, was bound not only to create a disturbance in private business but to involve the Federal Treasury in serious difficulty.

To understand the development of the currency problem of the United States to the final crisis in 1893 one must follow closely the changes in the foreign trade of the nation after 1879 and understand the influence of the changing conditions of this trade. To maintain an adequate gold

supply the United States needed a fairly large favorable balance of merchandise trade, because of being a "debtor nation." Foreign capitalists invested large sums of money in American enterprises, particularly in railroads, and a normal excess of merchandise exports was necessary in order that the payment of interest on these investments might be met without the exportation of gold. Moreover, the United States having no merchant marine of importance, it was necessary for American merchants to hire foreign shipowners to perform their carrying service. The excess of merchandise exports in part represented payments for ocean transportation. The purchase or sale of American securities by foreigners also affected the international movement of gold. The purchase of large quantities of American securities during years of a comparatively small American export trade counteracted the tendency for gold to leave the country. In other words a temporary excess of imports might merely represent foreign investments in American enterprises. On the other hand if foreign investors sold American securities the sales tended to cause an exportation of gold, and if the sales were large enough they might cause gold to be exported even in years when the balance in the merchandise trade was highly favorable.

Perhaps the most important factor in the situation, however, was the condition of the American export trade. The import trade tended to increase at a normal rate, falling off in a decided manner only in years of extreme business depression such as 1884 and 1893. On the other hand the export trade was somewhat unstable. During the entire period from 1879 to 1898 the character of the balance of trade depended largely upon the foreign sales of American agricultural products, and particularly upon the sales of wheat, flour and cotton. The foreign demand for American cotton was fairly regular, but production did

not always come up to expectations. In the case of wheat and flour the foreign demand was highly elastic. When crops were good in Europe American grain exports declined abruptly; when there was a partial or total failure of European crops American grain exports were larger. The movement of gold in the main depended upon the movement of American agricultural exports. If these exports were large gold was imported; if relatively small, gold was exported. The action of foreign capitalists who had large investments in American enterprises occasionally counteracted the influence of large or small agricultural exports.

In the following table may be found some selected statistics of the foreign commerce of the United States for the 20 years following 1878. A study of these statistics in connection with the text which follows will make clear the close relation between the condition of foreign trade and the development of the currency problem.

STATISTICS OF FOREIGN TRADE OF UNITED STATES, 1879–1898.
(IN MILLIONS OF DOLLARS)

	Total Merchandise Exports	Total Merchandise Imports	Domestic Agricultural Exports	Exports of Wheat	Exports of Flour	Exports of Gold	Imports of Gold
1879	710	445	557	130	29	4	5
1880	835	667	694	190	35	3	80
1881	902	642	738	167	45	2	100
1882	750	724	557	112	36	32	34
1883	823	723	626	119	54	11	17
1884	740	667	547	75	51	41	22
1885	742	577	554	72	52	8	26
1886	679	635	501	50	38	42	20
1887	716	692	536	90	51	9	42
1888	695	723	505	56	54	18	43
1889	742	745	536	41	45	59	10
1890	857	789	634	45	57	17	12
1891	884	844	652	51	54	86	18
1892	1,030	827	803	161	75	50	49
1893	847	866	621	93	75	108	21
1894	892	654	636	59	69	76	72
1895	807	731	558	43	51	66	36
1896	882	779	574	39	52	112	33
1897	1,050	764	689	59	55	40	58
1898	1,231	616	859	145	69	15	120

At the time of a resumption of specie payments the state of foreign trade happened to be such as to make resumption a complete, though an unexpected, success. It has already been stated that the Treasury held more than $100,000,000 in gold, most of which had been obtained by the sale of bonds. The grain crops of the United States both in 1879 and in 1880 were unusually good, while the European crops in both years were far below normal. Heavy exports of grain to Europe created a balance of trade greatly in favor of the United States. So great was the excess of merchandise exports over imports during the two years ending with June 30, 1881, that $175,000,000 in gold was imported into this country. With a plentiful gold supply there was no need for a call upon the Treasury to redeem the greenbacks with gold.

It wanted only a change in the trade balance, however, to create a demand upon the Treasury for gold. The change began in 1882. The highly prosperous fiscal year of 1881 stimulated the purchase of foreign goods to such an extent that the fiscal year of 1882 witnessed a new high record in the American import trade. Unfortunately the export trade suffered a marked decline. The American grain crops of 1881 were much below normal, and while the price of wheat was high the quantity available for export was relatively small. The cotton crop too was a partial failure in 1881, production for that year falling more than a million bales below the crop of the previous year. Exports for the fiscal year of 1882 were a quarter of a billion dollars less than the exports of 1881, and with a favorable trade balance of only $26,000,000 the importation of gold was checked. Foreign investments in American railroads maintained an equilibrium of gold movements, and for the fiscal year of 1883 there was a partial recovery of the export trade which led to a small net gain in the gold supply.

In 1883 the American crops of wheat and cotton were again a partial failure, and the exports of these two staples were much smaller during the fiscal year of 1884 than they had been for some years. During the latter part of 1883 a number of foreign capitalists sold American securities in large amounts. The prosperous years, 1879–1881, had led to much speculative activity which carried the prices of railroad and industrial securities to higher levels than earnings really justified. Foreigners sold their holdings at high prices, taking a large profit on their investment. The reaction which usually follows undue speculative activity began in the latter part of 1883, and the following year witnessed a crisis in the stock market. Though excessive speculation was the underlying cause of the crisis, panic conditions were created by the sudden revelations of enormous thefts by the officials of two supposedly strong financial institutions of New York. Notwithstanding the fact that there was a favorable trade balance of nearly $75,000,000 for the fiscal year of 1884, liquidation by foreign investors caused a net loss of gold amounting to nearly $20,000,000. Gold was withdrawn from the Treasury in large amounts during the commercial crisis, and by June, 1885, the Government's gold supply was reduced to $115,000,000, which was dangerously near the reserve limit. The industrial depression which came with the crisis of 1884 caused a substantial decline in imports, and while exports were but slightly greater in 1885 than in 1884 there was nevertheless a favorable trade balance of $165,000,000, which prevented the exportation of gold. During the next year the United States lost gold to the amount of $22,000,000.

By the end of the fiscal year of 1886, the depression had passed. Business activity was renewed and large amounts of foreign capital again flowed into American industry. Though the favorable trade balance of 1887 was compara-

tively small, and the balance in 1888 even against the United States to the extent of $28,000,000 the imports of gold in both these years were considerably in excess of the exports. The day of reckoning was, however, only postponed. In 1889 the trade balance again ran against the United States and the net loss of gold amounted to $49,000,000.

The Treasury was favored during the four years following 1885 by enormous revenues, which not only served to pay the expenses of the Government but enabled the Treasury to buy up and cancel a large part of the bonds which represented the indebtedness incurred during the Civil War. Had these bonds not been purchased the Treasury would have had an excessive surplus in currency, which would have been an invitation to extravagance. Fortunately the purchase of the bonds did not lead to an excess of the currency in circulation. Most of the bonds were used by national banks as security for bank-notes, and as the bonds were retired the bank-notes which they had secured were canceled. Had there been a large increase in the circulation as a result of the bond purchases speculation and extravagance would have been encouraged, foreign imports would probably have been greater and the outward movement of gold more pronounced.

The Sherman Silver Purchase Act of 1890. In spite of the warning contained in a net loss of $49,000,000 in gold in 1889 the advocates of a greater supply of currency persisted in urging the free and unlimited coinage of silver. In 1890 a majority in the Senate was in favor of free coinage. While it was not possible for the inflationists to secure the adoption of free coinage they were able to get a bill through Congress providing for greater purchases of silver bullion by the Treasury. This bill, which became a law July 14, 1890, was known as the Sherman Silver Purchase Act. It provided that the Treasury should buy

4,500,000 ounces of silver each month, paying for it with legal-tender notes. These notes, like the greenbacks, were redeemable "in coin," either gold or silver, but the law declared it to be the policy of the United States "to maintain the two metals on a parity with each other upon the present legal ratio or such ratio as may be established by law." During the next three years nearly $156,000,000 of these notes were issued. This increased to $502,000,000 the amount of legal-tender notes which the Treasury was bound to redeem in gold if the gold standard was to be preserved. In addition to these notes there were $378,000,000 in silver dollars or silver certificates, issued under the act of 1878, which the Treasury was likewise obligated to accept in exchange for gold.

The Treasury Crisis. For the fiscal year of 1890 the merchandise exports of the United States exceeded imports by $68,000,000, and in 1891 the excess was $39,000,000. The favorable trade balance did not serve, however, to prevent an outflow of gold. A stock market crisis in London in 1890 brought about a general liquidation by English capitalists, and many who had purchased American securities during the four previous years now threw them on the market. The result was a net loss of $68,000,000 in gold by the United States during the two years ending with June 30, 1891. Only another fortunate accident of nature intervened to save the Treasury from an immediate crisis. The American wheat crop of 1891 was the largest ever harvested up to that time, while the European crops, as in 1879, were far below normal. Heavy exports of wheat created a favorable trade balance of $202,000,000 for the fiscal year of 1892, and the outward flow of gold was for the time being checked. The unexpected prosperity was followed by a heavy purchase of foreign goods, and in 1893 there was an adverse balance

of trade of $18,000,000. The same year witnessed a net loss of gold amounting to $87,000,000.

Meanwhile the situation with respect to the revenues and expenses of the Government had been reversed. The McKinley Tariff of 1890, by admitting sugar free of duty and by imposing prohibitory duties on many imports which had formerly yielded considerable revenue, brought about a radical decrease in the income of the Government, while pension legislation and appropriations for public works caused a marked advance in expenditures. In 1890 there was a surplus revenue of $105,000,000. During the following three years income did little more than meet expenses, and early in 1893, with the expenses of the Government still rising, it was evident that a Treasury deficit was impending. The combination of circumstances which could put the monetary system of the United States to the test was at hand—a Treasury deficit and an adverse movement of gold in international trade.

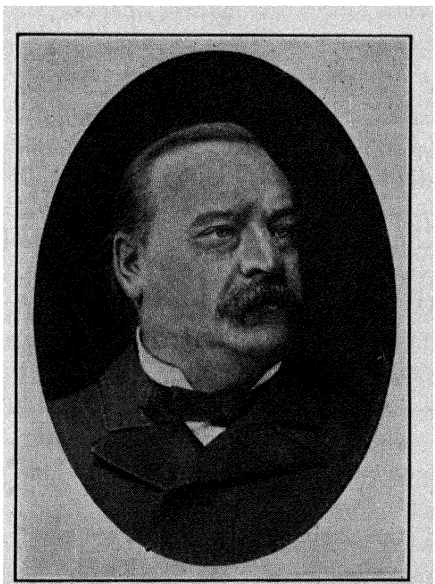
When President Harrison's administration ended March 4, 1893, the Treasury had barely the $100,000,000 gold reserve fund with which to meet public expenses and redeem the outstanding legal-tender notes which might be presented. With the outflow of gold already in progress it was a foregone conclusion that the Treasury would be called upon to give up gold for greenbacks. The gold reserve must either be maintained or specie payments suspended. Even before President Harrison left office Secretary of the Treasury Foster ordered the Bureau of Printing and Engraving to prepare plates for an issue of bonds which he intended selling to maintain the gold reserve. By making a direct appeal to some New York bankers the Secretary obtained enough gold in exchange for notes to hold the reserve fund intact until his term of office expired. The problem of protecting the gold standard from the

effects of the mischievous financial legislation of the preceding twenty years was left to the incoming Cleveland administration.

By the middle of April the gold supply of the Treasury had declined below $100,000,000. This ominous event caused a wave of distrust to sweep over the holders of American securities both at home and abroad. The Treasury was not legally bound to redeem the paper currency in gold because the law provided for redemption in either gold or silver. There was some doubt as to whether the Treasury could legally use any part of the $100,000,000 reserve to redeem the notes issued under the Sherman Silver Purchase Act, inasmuch as the reserve was supposedly to be used only to redeem the Civil War greenbacks. Suppose the Treasury should elect to redeem its demand paper obligations in silver? Debtors could already settle their obligations in paper or silver because they were legal-tender. If the Treasury did not maintain the parity of silver with gold any creditor would be forced to take in settlement of debts due him "dollars" which were at the time worth about sixty cents each in gold. The fear that the Treasury either would not or could not maintain the gold standard caused an immediate sale of American securities by investors both at home and abroad in order that gold could be obtained while yet available.

The Commercial Crisis. At this juncture matters were made worse by a severe industrial and commercial crisis. This crisis was due in part to the lack of confidence in public credit, but its chief cause was unwise speculation in railroad and industrial enterprises. There had been much railroad speculation throughout the eighties, and many of the consolidations effected for the purpose of destroying competition had been accompanied by the issuance of securities in extravagant quantities. The Rock Island road and the Louisville and Nashville had doubled

their capitalization in 1880 by the issue of stock dividends. The Gould roads in the Southwest had been loaded down with liabilities just as the Erie had been years before. The managers of the Philadelphia and Reading Railroad were engaged in a bold speculative venture to build up the fortunes of that road. Many of the corporate reports of supposedly strong railroad systems had been deliberately falsified to give the impression that earnings were larger



Grover Cleveland

than they really were. Some of the new industrial combinations were made the vehicle of extravagant financing. The National Cordage Company declared a dividend of 100 per cent on its common stock in January, 1893, and on the first of February paid its regular quarterly dividends on both preferred and common stock. In May the insolvency of the company was announced and a receiver ap-

pointed. Its shares, which in January sold at 147, dropped to 10. The Philadelphia and Reading, with capital stock of $40,000,000 and a bonded indebtedness of $125,000,000, had failed in February. By paying dividends out of capital and by giving misleading reports certain financiers had been able to give a semblance of extraordinary value to securities which were in fact worthless. Stock speculation had been active and as usual the banks had supplied speculators with credit for market operations. The failure of the Reading and of the National Cordage Company revealed the unstable nature of a portion of the business structure of the country and precipitated a panic among creditors of all classes. The inevitable liquidation set in. There was insufficient money to make all the payments demanded, and currency soon commanded a premium. Over four hundred banks and trust companies failed during the summer of 1893 and 74 railroad corporations owning 30,000 miles of line declared insolvency, while the number of commercial failures for the year reached the unprecedented total of 15,242, with liabilities of nearly $350,000,000. The commercial and industrial crisis increased the demand for Treasury gold, and by checking business enterprise, caused a further reduction in the already deficient Federal revenues.

Repeal of the Sherman Silver Purchase Act. President Cleveland courageously decided that the gold standard should be preserved whatever the cost. Convinced that the monetary crisis was due in part at least to the weakening of the currency by the purchase of silver bullion with legal-tender notes he issued a call for a special session of Congress to meet on August 7, 1893, for the purpose of repealing the Sherman Silver Purchase Law. After a long and bitter debate the law was repealed on October 30, and the compulsory purchase of silver came to an end.

The repeal of the Sherman Act could not of itself save

the Treasury from bankruptcy. The outflow of gold was bound to continue as long as the balance of international payments ran against the United States. And even if conditions of trade and investment should be reversed so as to bring about the importation of gold the Treasury could not maintain a gold surplus for redemption purposes without an increase in the income of the Government. The repeal of the Sherman Act did not cause any change in the course of foreign trade and did not bring any additional funds into the Treasury. The payment of public expenses in part from the gold reserve had to continue, and by January, 1894, the reserve had declined to $65,000,000. The deficit was rising at the rate of $6,000,000 a month, foretelling the complete exhaustion of the Treasury.

The Sale of Bonds. Under the Resumption Law of 1875 the Secretary of the Treasury was authorized to sell bonds to obtain funds necessary to redeem legal-tender notes. Availing himself of the authority granted in this law Secretary Carlisle, in January, 1894, sold $50,000,000 of 5 per cent ten year bonds, the proceeds of which brought the reserve fund above the $100,000,000 mark. It did not remain there long. During the acute stages of the panic of 1893 the premium on currency had caused an importation of gold in face of what was normally an adverse rate of foreign exchange. The business crisis checked the purchase of foreign goods, while exports advanced slightly. The favorable trade balance of $237,000,000 tended to restore the balance of international payments, and a large number of European investors, attracted by low panic prices, bought considerable quantities of American securities. All these influences operated to keep the net loss of gold down to $4,000,000 for the fiscal year of 1894. These favorable conditions, however, did not last long. Securities having risen in price under the stimulus of European

buying, the foreign purchasers sold their holdings in order to make a quick profit, the trade balance declined, and the export movement of gold again became strong. By August, 1894, the gold reserve of the Treasury had receded to $52,000,000, and in November Secretary Carlisle found it necessary to make an additional sale of $50,000,000 in bonds. Only for a short time was the reserve above $100,000,000. The deficit in revenue continued and large numbers of legal-tenders were presented for redemption. By February, 1895, the reserve had fallen to $41,000,000, and it was dropping at a daily rate of $2,000,000.

The assistant treasurer in New York warned Secretary Carlisle that his office could continue the redemption of legal-tender notes but a few days. There was not even time enough left to give the two weeks public notice required for the sale of bonds by advertisement. To save the Treasury from repudiation of the legal-tenders President Cleveland entered into an arrangement with a syndicate of New York and London bankers to obtain $65,000,000 in gold. The reserve was again built up, but the withdrawal of gold was not stopped. The Wilson Tariff Act of 1894, after its income tax feature was declared unconstitutional by the Supreme Court, proved to be but little better as a revenue producer than the McKinley Law. The favorable merchandise trade balance of $102,000,000 for the fiscal year of 1896 was insufficient to offset foreign liquidation, and the net loss of gold for the year amounted to $78,000,000. In January, 1896, the Secretary of the Treasury advertised another sale of bonds to obtain gold, the amount this time being $100,000,000. The virtual repudiation of President Cleveland by the Democratic Party and its adoption of a platform advocating the free and unlimited coinage of silver at a ratio of 16 to 1 weakened confidence in the public credit still further, and the

exportation of gold continued until August, 1896, when the Treasury's reserve again fell below $100,000,000.

By this time, however, liquidation had run its course, and the heavy drain on the Treasury ceased. Business began to return to a normal state and the export trade became larger. The election of McKinley to the presidency in November, assuring the maintenance of the gold standard, did much to restore confidence. Though the Treasury deficit continued, a favorable balance of trade for the fiscal year of 1897, amounting to $286,000,000, led to a net gain of $44,000,000 in the nation's gold supply. The next year exports were still larger, while the high duties imposed by the new Dingley Tariff law caused a radical reduction of imports. An unprecedented trade balance of $615,000,000, which resulted in a net gain of $104,000,000 in gold, signified that the crisis had been safely passed.

Currency Legislation. On June 14, 1898, a law was enacted directing the coinage of the silver bullion purchased under the Sherman Law and ordering the retirement of the legal-tender notes which had been issued to pay for the bullion. By this law the legal-tender notes of 1890 were gradually retired and their place taken by silver dollars and silver certificates. On March 14, 1900, a law was passed to aid the Treasury in the maintenance of the gold standard. This act directed that all the legal-tender greenbacks should be redeemed in gold coin on demand, and provided that a special reserve fund of $150,000,000 should be set aside in the Treasury to be used solely for redemption purposes. None of the money in this fund can be used to meet the expenses of the Government, and notes redeemed out of the fund are to be reissued only in exchange for gold. Should the fund at any time fall below $100,000,000 the Secretary of the Treasury must sell bonds to bring it up to $150,000,000. A Treasury

deficit can no longer endanger the redemption fund.

The law of March 14, 1900, declared that it should be the policy of the Secretary of the Treasury to maintain at a parity of value with the gold standard all forms of money issued by the United States, but it did not provide any means by which the parity of silver dollars and silver certificates with gold could be maintained. The failure of the law in this respect left the silver an element of weakness in the national currency. However, the elimination of the greenbacks as a possible source of disturbance greatly lessened the danger of another Treasury crisis such as that of 1893.

Questions and Topics

1. If our trade connections with other countries were severed, would our whole economic system be crippled?
2. Can you suggest any method by which the law of 1900 might have made silver an element of strength instead of weakness in our national currency?
3. Give a brief biography of Cleveland with emphasis upon his political career?
4. Describe the organization of a bank with which you are familiar, and show how a panic might ruin it.
5. Show the fallacies in the "16 to 1" arguments in favor of silver.
6. Describe previous events in the economic history of the United States to show that a government cannot convert a piece of paper into money merely by declaring it legal tender.

PART VII

INDUSTRIAL COMBINATION AND GOVERNMENT REGULATION

CHAPTER XXIV

INDUSTRIAL COMBINATION

The Dingley Tariff. The great business interests of the country, with the exception of the silver miners and the farming interests of certain regions, rightly fearing the consequence of the adoption of the monetary system proposed in the Democratic Party platform of 1896, rallied to the support of the Republican ticket. When President McKinley was inaugurated in March, 1897, he at once called a special session of Congress. The session was not called, however, to amend the currency laws nor to deal with the currency problem at all, but to undertake a revision of the tariff. Notwithstanding the fact that for several years the policy of excessive protection had been repudiated in national political contests having the tariff as the chief issue, the Republican Congress proceeded to frame a law which will probably long stand as the high-water mark of protective tariff legislation in the United States. Representatives of many business interests, intent upon securing a reward for their support in the recent political campaign, flocked to Washington, demanding high duties on virtually all imported articles which might compete with the products of American industries. In most instances they obtained all they demanded, and while it was often difficult for Congress to reconcile the differences of producers of finished goods and producers of raw materials, the tariff bill, as it finally passed, was highly satisfactory to all protected interests. High duties were placed upon manufactures of cotton, wool, silk, linen and leather,

upon iron and steel products and upon refined sugar. Imported raw materials, such as hides, raw sugar and lumber, and the leading farm products of the United States also received substantial protection, though in nearly all cases proportionately higher rates on finished products gave the manufacturer a decided advantage over the producer of raw materials. The average of duties in the new law was 57 per cent.

The Revival of the Combination Movement. Secured by the Dingley Tariff Act from all danger of effective foreign competition in the domestic market, American capitalists and business leaders attacked with renewed vigor the problem of eliminating competition among themselves. Considerable progress had been made in organizing industrial combinations before the depression of 1893, but during the hard times from 1893 to 1896 many of the voluntary agreements among competing establishments for the maintenance of prices had broken down. The steel rail pool, for example, had disintegrated, and the price of steel rails had fallen from $30 a ton in 1892 to $18.75 a ton in 1897. The wire nail pool had likewise been broken. Railroad competition had been renewed in many regions with the result that rate systems had become demoralized, earnings of the carriers had declined, and receiverships had been more numerous than they probably would have been had the maintenance of rate agreements been possible.

The movement toward combination which set in after 1896 produced amazing results. In one industry after another the stronger competing interests were brought together and weaker competitors were absorbed or crushed, or if permitted to continue in business, subjected to the dictation of the combination. The pool and the trust were no longer extensively employed as agencies of consolidation. The holding company was the most widely used instrumentality for combining rival concerns under unified

management, but outright mergers of competing corporations into single companies were not uncommon, and in many instances where combination by merger or through the organization of holding companies was impracticable, harmonious action of competitors was secured through the formation of "communities of interest." A community of interest was established by means of interlocking directorates. Rival corporations in the same field had a number of directors in common, so that each concern had representation in the managing and directing forces of its rivals.

By 1903 gigantic corporations had obtained a dominating position in a number of important industries. The American Tobacco Company gained control of more than three-fourths of the manufactured tobacco business. In the meat packing industry, though the large independent establishments did not combine under a single management, they perfected a combination, popularly known as the Beef Trust, which eliminated virtually all competition in the purchase of live stock and in the sale of meat. The Standard Oil Company gathered in more of its smaller competitors and extended its control over the oil business; the anthracite coal combination waxed stronger and more prosperous. The International Harvester Company, organized in 1902, was a consolidation of the leading manufacturers of agricultural implements. The greatest of all the industrial combinations, the United States Steel Corporation, was launched in 1901. Some of the companies which were constituent parts of this mammoth corporation were themselves combinations previously organized in certain departments of the iron and steel business. Other "trusts" were organized for the production of flour, starch, copper, ships, chewing gum, candy, ice, matches, tin cans and leather. Great corporations were formed to control the public utilities—gas, electric lighting and street railways—of large sections of the country.

Railroad Combinations. The combination movement was as strong in the railroad business as in manufacturing and mining. An event which tended to foster the development of railroad consolidation was the decision by the Supreme Court in the Trans-Missouri Freight Association case in 1897. The Court declared all formal rate agreements among railroads, in so far as applicable to interstate traffic, to be violations of the Sherman Antitrust Law. Another decision of the same character was rendered in 1898 in the Joint Traffic Association case, the Court ordering the railroad companies in eastern trunk line territory to cease their practice of making agreements with respect to rates on competitive interstate traffic. Fearing that these decisions would bring about a renewal of disastrous rate wars, railroad managers throughout the country turned to combination as the only feasible means by which destructive competition could be prevented. Mergers, holding companies and communities of interest became common in railroad finance. It seemed for a time that a territorial consolidation of railroads would eventually be perfected, with all the lines in each of the great traffic territories joined into a single railroad system.

The New York, New Haven and Hartford Railroad Company, under the guidance of J. P. Morgan, absorbed nearly all the transportation lines of New England, including steam railroads, electric railways and steamships. The Pennsylvania Railroad Company purchased large blocks of stock in two rival lines, the Baltimore and Ohio and the Chesapeake and Ohio. The Baltimore and Ohio invested heavily in the stock of the Reading Company, a holding company which owned all the stock of the Philadelphia and Reading Railroad, the leading carrier of anthracite coal. The Lake Shore and Michigan Southern Railroad, nearly all of the stock of which was owned by the New York Central, obtained shares in the Reading Company equal

in amount to the shares held by the Baltimore and Ohio. In this way a community of interest was established between the Pennsylvania Railroad interests and the Vanderbilt (New York Central) interests. Other investments of a similar nature were made by the great trunk line railroads, guaranteeing immunity from destructive competitive struggles. In the South the J. P. Morgan banking interests secured control of the major portion of the transportation agencies east of the Mississippi River, the Southern Railway being the central factor of the system. In the Northwest James J. Hill built up a great system of which the most important components were the Great Northern, the Northern Pacific, and the Chicago, Burlington and Quincy. In the Southwest the Gould interests expanded their holdings, and at the same time embarked on an ambitious venture for the establishment of a transcontinental railway system extending from Baltimore to San Francisco.

Of all the promoters of railroad combinations Edward H. Harriman was the most daring and probably the most successful. Starting in 1897 with the acquisition of the Union Pacific Railroad, which he purchased at a foreclosure sale, he increased his railway holdings until at the time of his death in 1909 he was in undisputed control of almost 23,000 miles of railroad and had an extensive financial interest in 30,000 miles more. It was Harriman's ambition for a time to establish a complete transportation monopoly in the region west of the Mississippi River. In 1901 he caused the Union Pacific to purchase what was virtually a controlling interest in the Southern Pacific, and at the same time he endeavored to secure control of the Northern Pacific, which, jointly with the Great Northern, a Hill property, controlled the Chicago, Burlington and Quincy. The Hill interests, backed by the Morgan banking house, strenuously opposed Harriman's

effort to dominate the Northern Pacific, with the result that Harriman tried to achieve his end by the purchase of Northern Pacific stock in the open market. A few speculators, unaware of the fact that the bids for Northern Pacific stock represented the beginning of a struggle between two strong groups of financiers, sold the stock short. A "corner" was established, and the unfortunate short interests quickly bid the stock up to $1,000 a share. Wall Street witnessed a brief panic. After the flurry had subsided Harriman was in possession of a clear majority of the preferred stock of the coveted railroad, while the Hill-Morgan group held slightly more than one-half the common stock. At the time the preferred and the common stock could be voted on an equal basis, but the preferred stock could be retired on any January 1 previous to 1917. This situation made it advisable for the opposing forces to compromise, and Harriman reluctantly abandoned his project of obtaining control of the northern transcontinental lines. The immediate outcome of the contest was the organization of a holding company known as the Northern Securities Company, the shares of which were exchanged for stocks of the Great Northern and the Northern Pacific roads. The Hill-Morgan group had a controlling interest in the new corporation by virtue of their large holdings of Great Northern stocks. In 1904 the Supreme Court condemned the Northern Securities Company as an illegal device for establishing a monopoly. When its assets were distributed the Harriman interests received Great Northern and Northern Pacific stock, which they were able to sell for $83,000,000 more than they had originally spent in the endeavor to purchase control of the Northern Pacific. The proceeds of the sale were invested in the stocks of a number of strong railroads in both the East and the West.

So rapidly did the consolidation of railroad lines pro-

ceed that by 1903 a half dozen great New York financial interests controlled nearly all the important transportation lines of the country and considerably more than one-half the total railway mileage. The chief transportation agency of the country was monopolized.

Influence of Combinations. Few economic phenomena have given cause for greater public concern than the development of great business combinations during the closing years of the nineteenth and the early years of the twentieth century. No other phase of the economic history of the United States has been marked by the rise of more trying political and economic problems. The primary purpose of the successful combinations was to obtain monopoly power in the production and sale of important commodities of commerce. The attempts to establish monopoly control in an industry were frequently attended with serious abuses, and in virtually all cases where monopoly power was partly or completely attained, the monopolists took advantage of their position to inflict grave wrongs upon the public. Unfair methods of competition, political corruption and fraudulent financial operations marked the promotion and organization of monopolistic combinations, while some established monopolies increased their profits by charging extortionate prices and by selling goods of inferior quality. They aroused a bitter spirit in the ranks of labor by the frequent oppression of employees, and by wanton disregard of public welfare and brazen violation of the law they created a menacing feeling of dissatisfaction and unrest.

Unfair Methods of Competition. In but few instances did large industrial corporations attain a dominating position in their fields through superior management and exceptional efficiency. The business of small competitors was deliberately ruined by local price cutting, or by the use of "fighting brands" of goods which were put on the

market and sold at a loss merely to stifle competition. Wholesale dealers were compelled to refuse to deal in products made by competitors of the combinations; employees of rival concerns were bribed to give information concerning the business affairs of their employers. Illegal rebates from railroads gave the large combinations an unfair advantage over smaller rivals. Prosecutions and investigations occurring during the first decade of the twentieth century revealed the fact that most of the great business combinations attained their position of strength through the use of unfair tactics. The Keystone Watch Case Company was found guilty of forcing wholesale dealers to abstain from selling watch cases made by competitors of the Keystone Company. The National Cash Register Company pursued an avowedly "knock-out" policy, in which nearly every known variety of unfair business dealing was employed to strangle competition. In the earlier stages of its history the International Harvester Company maintained bogus "independent" concerns in order to create the impression that competition was active in the manufacture of agricultural machinery. The American Tobacco Company adopted a similar practice during the course of its monopolization of the tobacco business. In 1907 a jury in the Federal Court of the Northern District of Illinois found the Standard Oil Company of Indiana, a subsidiary of the Standard Oil Company of New Jersey, guilty of accepting rebates from railroads, in direct violation of Federal law. Judge Kenesaw M. Landis, who presided at the trial, imposed a fine of $29,240,000 on the offending corporation, but his judgment was reversed by the Circuit Court of Appeals and the defendant company acquitted on technical grounds at a subsequent trial. In other cases the subsidiaries of the "Oil Trust" did not escape punishment however, and several railroad companies

were likewise fined heavily for granting undue favors to the oil monopoly.

Political Corruption. Agents of "big business" often contrived to secure valuable rights and privileges, as well as immunity from disturbance by legal processes, by the corrupt use of money. There is scarcely a large city in the United States the pages of whose history is not stained with a record of notoriously corrupt bargains between municipal authorities and agents of public utility corporations, bargains in which valuable franchises and other privileges were obtained by shameless bribery and fraud. Contracts for street cleaning, for the construction of sewers, highways and public buildings, and for the performance of other kinds of public work have been secured in many municipalities by corrupt methods. It was for many years a common practice for railroad companies to provide legislative, judicial and executive officers—national, State and local—with free passes, and unfortunately it was an all too common custom for public officials to seek and accept these favors. A number of members of Congress, as well as officials of State and local governments, were driven from public life because of the exposure of their relations with privilege seeking corporations. Many corporations followed the practice of contributing to the campaign funds of both the leading political parties, though usually corporation contributions went to that party which at the time of the campaign gave promise of being the more generous in bestowing special privileges. In many investigations of business enterprises evidence of corrupt political activity was discovered. The famous legislative investigation of the insurance companies of New York, conducted by Charles Evans Hughes in 1905, revealed that the directors of the insurance companies spent huge sums of money, which did not belong to them, in "attempts to control leg-

islation." The Interstate Commerce Commission in its report concerning the New Haven railroad monopoly said, "To achieve such monopoly meant the reckless and scandalous expenditure of money; it meant the attempt to control public opinion; corruption of government; the attempt to pervert the political and economical instincts of the people in insolent defiance of law."

Financial Manipulation. Among the most reprehensible practices of big business interests during the days when combination activity was greatest were the payment of excessive commissions to promotion agencies, the deception of investors with false statements of assets and earnings, the manipulation of securities and the management of business operations in such a way as to enrich a few "insiders" at the expense of other stockholders, and excessive capitalization. Many newly organized combinations paid heavy tribute in securities and in cash to banking institutions which acted as promoters and underwriters. The underwriters of the United States Steel Corporation, for example, received preferred and common stock of a par value of $120,000,000. The cash profit of the underwriters, after all expenses were paid, was estimated by the Federal Commissioner of Corporations to be $62,500,000, a most exorbitant commission in view of the services performed and the risk assumed. The promotion of the United States Shipbuilding Company was one of the most striking examples of the use of deception to attract investors. The report of the receiver of this combination, made in 1903—so extravagant was the financial mismanagement of this trust that it lasted scarcely a year—showed that the prospectus issued by the promoters contained downright falsehoods with respect to the assets and earnings of the companies entering the combination. The directors of the corporation, in acquiring the properties of the subsidiary concerns, "deliberately gave away many million dollars in

the stocks and bonds of the Company," and likewise presented large blocks of securities to individuals who participated in the work of organization. On numerous occasions the organization or reorganization of railroad and industrial corporations was made the means of augmenting the private fortunes of a few directors. The devious methods of "high finance" employed in the reorganization of the Chicago and Alton Railroad in 1898, a reorganization by which the capitalization of the road was increased from $33,950,000 to $114,600,000 with an addition of about $18,000,000 to the assets of the company, yielded a profit of $24,000,000 to E. H. Harriman and his associates. The investigation of the New Haven combination revealed methods of corporate financiering, the purpose of which was the enrichment of a few individuals who were on intimate terms with the management. The directors of the St. Louis and San Francisco Railroad brought their company to bankruptcy by building branch lines independently and selling them at enormous profits to the railroad. The Hughes insurance investigation disclosed the fact that officials of the great New York insurance companies added to their private fortunes by voting themselves enormous salaries and gratuities and by carrying out successful speculations on their own account with the surplus funds of the companies which they managed.

One of the most persistent abuses of the combination movement was the practice of capitalizing newly organized or reorganized corporations for an amount far in excess of the actual sums invested. While there may be no direct relation between capitalization and prices there can be little doubt that heavily overcapitalized organizations, with a monopoly control of markets, endeavor to justify exorbitant charges on the ground of having extensive capital obligations. Once the securities of such organizations are widely distributed among "innocent investors" the insis-

tence on the need for high prices is likely to have considerable influence with the public. In the past few years many public utility corporations have succeeded in obtaining increased rates in the face of the fact that they are known to be paying dividends on huge quantities of watered stock, and in some cases the only apparent justification for permitting increased rates has been that long ago the stock was purchased by innocent investors.

Regardless, however, of the relation between capitalization and prices, the custom of overcapitalizing business enterprises is likely to have an evil effect. It invariably invites speculation, and it often serves to conceal the real earnings of a monopoly, to a knowledge of which the public is reasonably entitled. Perhaps the most pernicious effect of the overcapitalization of great business enterprises was the encouragement of speculation. A distinctive feature of the organization of the earlier successful combinations was the large profits derived by the organizers from the marketing of speculative securities. The mere process of combination proved to be a source of large gains, the earnings from promotion and organization activities often being as large as or larger than the profits derived through the elimination of competition. The result was that combinations were promoted for no other purpose than that of speculation in new securities. Many unwary investors, enticed by stories of the large profits of successful combinations,were deceived by false statements of prospective earnings and deluded into speculation which caused them to suffer heavy losses. The United States Shipbuilding Company and the Asphalt Company of America were examples of the most flagrant form of misdoing in the organization of industrial combinations.

Combinations, Prices and Profits. Inasmuch as the primary purpose of the combination movement, in its early stages at least, was the suppression of competition, it was to

be expected that the successful combinations should make use of their monopoly power to raise the prices of the commodities which they sold. The petroleum, anthracite coal, beef, sugar and tobacco monopolies exacted prices which yielded enormous profits. Not only did the combinations maintain higher prices on finished products, but they kept down the prices which they paid for raw materials, adding to their profits by widening the margin between cost of production and sale price. The Beef Trust in particular, by suppressing competition in the purchase of live stock, forced the prices of hogs and cattle considerably below what they would have been had the market been free from monopoly influence. Though the trusts exacted large profits there were but few cases in which they charged extortionate prices. For the most part the practice of monopolists was to stabilize market conditions rather than to push prices to exorbitant levels. They curtailed production and kept prices up when demand slackened, and they did not advance prices unduly when the demand was unusually active. For example the price of steel rails was maintained at a constant level of $28 a ton from 1902 to 1915, chiefly through the influence of the officials of the United States Steel Corporation, though there was considerable fluctuation in the price of pig iron and coke, as well as variations in wages and other factors entering into the cost of production of steel rails. The International Harvester Company, with a degree of monopoly power much greater than that of the United States Steel Corporation, exercised extreme moderation in establishing prices upon farm machinery.

Insatiable greed occasionally led some of the great business interests, as well as many producers of minor importance, into practices much more repugnant than financial manipulation and price maintenance. In 1907 it was discovered that employees of the Sugar Trust, for a period

extending over at least four years, had been systematically robbing the Government of thousands of dollars in customs revenue by tampering with the scales upon which incoming raw sugar was weighed. One of the most shameful abuses brought to light was the preparation and sale of adulterated and otherwise unwholesome food products. During the Spanish American War the meat packers sold diseased and tainted meat to the Government for the use of the soldiers and sailors. A subsequent investigation of the Western packing houses showed that in virtually all of them the most revolting unsanitary conditions prevailed. Diseased hogs and cattle were slaughtered, the meat mixed with strong condiments and deleterious preservatives, and sold to the public. Investigations of other industries engaged in the manufacture of food and drug products revealed that adulteration, misbranding, and the use of poisonous preservatives were all too common. The revelations concerning the deceptions and frauds practised in the food and drug business constituted a national scandal.

Combinations and the Labor Movement. A pronounced effect of the combination movement in industry was a greater cleavage between capital and labor. The concentration of large quantities of capital under the mastery of a few great interests meant that the ultimate control of many industries passed to a relatively small number of individuals who could not come into contact with the workmen who served them. The personal relation between employer and employee disappeared, and the wage-earner became the servant of an abstract property interest rather than the hired laborer of an individual capitalist. With competition checked, the strategic position of the employing interests in negotiation with the working-classes became much stronger. There was a disposition among many "absentee" managers of industry to hold aloof from

labor, assuming an attitude of autocratic paternalism or regarding their workmen in the same light as they regarded their machinery. During the anthracite coal strike of 1902 the head of the Reading Company gave an exposition of benevolent despotism when he wrote, "The rights and interests of the laboring man will be protected and cared for—not by the labor agitator, but by the Christian men and women to whom God in His infinite wisdom has given the control of the property interests of this country, and upon the successful management of which so much depends."

The concentration of the interests of capital was naturally met by a greater concentration of interest in the ranks of labor. The trade-union movement became stronger, and the attitude of the unions became in many respects equally as despotic as that of the employing class. As industrial enterprises became greater in scope and size, labor unions likewise became larger and more powerful. This meant that a strike or a lockout in an industry affected not a small segment of the labor and capital employed in that industry but virtually the entire industry. Thus it was that an industrial dispute, instead of involving primarily a relatively small group of workmen and a few employers, came to be a matter in which the public at large was as deeply concerned as the immediate parties to the dispute. A protracted coal strike or steel strike or railroad strike had a paralyzing effect upon the economic organization of the whole country.

The accumulation of "swollen fortunes" which resulted from the combination movement served to strengthen the belief of many people, particularly of large numbers of workers, that labor was getting much less than a fair share of the product of industry. The inequality of distribution subjected the economic system which permitted such inequality to severe attacks. The chief manifestation of the

demand for altering the economic organization was the growth of socialism, especially in the great industrial centers of the country. In the ranks of labor an increasing number came to believe that the working class and the employing class had no interests whatever in common, and that workers could hope to obtain their just deserts only by the complete overthrow of the capitalistic system. Many workers who believed in this policy of revolution deserted the trade-union movement as being an ineffective method of promoting the interests of labor. Some of the revolutionary leaders started in 1905 an organization known as the Industrial Workers of the World. Like the Knights of Labor of former years, the Industrial Workers of the World admitted workmen of all varieties of employment. Their plan was to form "one big union" and their object was to initiate a "class struggle" for the abolition of the wage-system. To accomplish their purpose the members of this body favored the use of "direct action"—the practice of "sabotage" and the use of violence. The growth of this organization and the spread of its unwholesome influence were ominous signs of an unhealthy condition of the industrial system.

Big Business and the Public. While the great mass of the public did not indorse the revolutionary programs of the socialists or the Industrial Workers of the World, there was nevertheless a widespread disatisfaction over the abuses of "big business." Most people quite correctly realized that the entire business system was not permeated with corruption and dishonesty but at the same time they saw that it was infected to a degree that betokened danger if steps were not taken to check the activities of those individuals in whom all considerations of an ethical nature had been suppressed by inordinate greed and lust for power. There was not lacking a class of conservatives who thought,or at least pretended to think, that there were

no abuses in business which called for corrective measures of any description. Though numerically a small minority, this group wielded an influence utterly disproportionate to its numbers. It took a virile and resourceful leader, backed by an overwhelming public sentiment, to set in motion a wave of reform.

Questions and Topics

1. Why is it said that there is no direct relation between the capitalization of business corporations and prices?
2. What influence might induce the managers of a trust to charge lower prices than they might obtain?
3. Does exceptional merit of individual employees gain quicker and more adequate recognition in a large business establishment than in a small one?
4. Do you know of any agreements among rival producers to control prices?
5. How might a high protective tariff make industrial combination easier?
6. What has been the effect of the progress of industrial combination upon the development of the labor problem?

CHAPTER XXV

GOVERNMENT REGULATION OF BUSINESS

The Industrial Commission. The McKinley administration seemed disposed to adopt a somewhat complacent attitude toward the problems arising in connection with the growth of "big business." The return of general prosperity and the wonderful growth of business tended to blind the nation to the fact that the industrial system had faults which needed correction. Then, too, there was a belief in many quarters that the "trusts," whatever their abuses, had on the whole a beneficent influence on public welfare. Engrossed with the problems connected with the prosecution of the war with Spain, Congress gave little heed to the rising demand that private business be subjected to more stringent regulation. Its only concession of importance was the enactment of a law in June, 1898, creating an Industrial Commission, consisting of five Senators, five Representatives and nine other members, which was directed to investigate "questions pertaining to immigration, to labor, to agriculture, to manufacturing and to business" and to suggest in its report to Congress whatever legislative measures it might deem appropriate.

The Industrial Commission conducted its work of investigation for a period of four years. It employed a large number of individuals who had expert knowledge of the various fields in which the Commission pursued its inquiries. With the aid of this body of experts the Commission collected a fund of highly valuable information. Its reports, published between 1900 and 1902, constitute a rich storehouse of material concerning the more important

features of the economic development of the nation during the latter part of the nineteenth century. A great deal of the report was devoted to the problem of business combination. The Commission recommended the enactment of State and Federal laws which would tend to prevent individuals from embarking on fraudulent schemes of corporate promotion; it condemned in vigorous language all unfair means of competition, including local price-cutting and the "vicious practice of discriminating between customers," and urged that steps be taken to put an end to the excessive overcapitalization of business corporations. It pointed out that the Interstate Commerce Act of 1887 had been wholly ineffective in correcting transportation abuses, presenting a formidable mass of testimony to show that the railroad corporations still made a practice of discriminating in a grossly unfair manner between shippers and communities, and advised that a law be speedily passed to prevent the carriers from following unfair and unscrupulous methods. It took an advanced stand on the question of labor legislation, suggesting the enactment of laws to put an end to child labor, to regulate the hours of employment of minors and women, and to improve generally the working conditions of all wage earners.

President Roosevelt and the Trust Problem. The report of the Industrial Commission strengthened the demand that Congress undertake in a serious manner the regulation of business. When Theodore Roosevelt assumed the presidency in September,1901, the trust problem was beyond question the most important economic and political problem in the United States. No one realized the pressing nature of this problem more keenly than President Roosevelt himself. No feature of his seven and a half years in the presidency stands out more strongly than his resolute efforts to solve this problem. The apostle of the "square deal," he waged relentless war on corruption and dis-

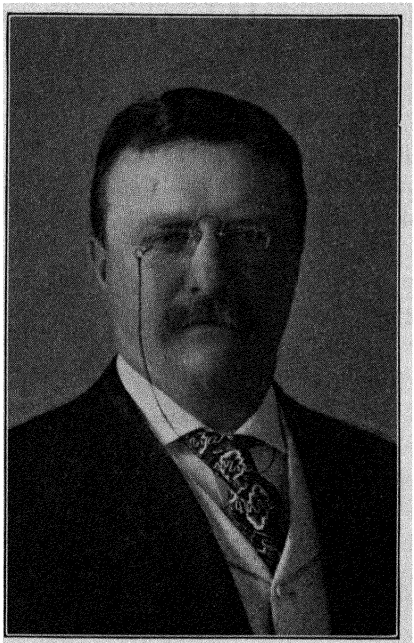
honesty in private business and in public business, striving not only to secure progressive legislation, but what was more important, stirring the conscience of the people to a realization of the economic and social ills which endangered national welfare. Speaking at Harrisburg, Pennsylvania in October, 1906, he said, "We need to check the forces of greed, to insure just treatment alike of capital and of labor and of the general public, to prevent any man, rich or poor, from doing or receiving wrong, whether this wrong be one of cunning or of violence. Much can be done by wise legislation and by resolute enforcement of the law. But still more must be done by steady training of the individual citizen in conscience and character until he grows to abhor corruption and greed and tyranny and brutality and to prize justice and fair dealing."

A large part of President Roosevelt's first message to Congress was devoted to a discussion of the corporation problem. Stating frankly that there were "real and grave evils" in the business system, "one of the chief being overcapitalization because of its many baleful consequences," he also observed that "the mechanism of the modern business world is so delicate that extreme care must be taken not to interfere with it in a spirit of rashness or ignorance."

"The first essential in determining how to deal with the great industrial combinations," he wrote, "is knowledge of the facts—publicity. In the interest of the public the Government should have the right to inspect and examine the workings of the great corporations engaged in interstate business. Publicity is the only sure remedy which we can now invoke. . . . Artificial bodies, such as corporations and joint stock or other associations, depending upon any statutory law for their existence or privileges, should be subject to proper governmental supervision, and full and accurate information as to their operations

should be made public regularly at reasonable intervals."

For the purpose of obtaining publicity concerning the affairs of great business corporations President Roosevelt urged the creation of an executive department of "Commerce and Industries," suggesting that the law establishing such a department include "among other things whatever



Theodore Roosevelt

concerns labor and all matters affecting the great business corporations and our merchant marine." It was not until February, 1903, that final action on this recommendation was taken. At that time a law was passed creating a Department of Commerce and Labor. As a part of the new branch of the executive system there was established a Bureau of Corporations which was authorized to make

investigations of the business affairs of corporations, other than transportation companies, doing an interstate or foreign business.

The Roosevelt Railroad Legislation. The report of the Industrial Commission and numerous investigations by the Interstate Commerce Commission had revealed the exact nature of the abuses of railroad corporations, and President Roosevelt needed no further "publicity" upon which to base recommendations as to railroad legislation. It was to the problem of obtaining this legislation that he first bent his energies in his campaign for public regulation of business. In 1903 the Elkins law was passed, defining more clearly what constituted unfair discrimination between shippers and providing more appropriate methods for the suppression of such discrimination. To the enactment of this law there was little or no opposition. The carriers themselves were opposed to a policy of general discrimination because it often caused a depletion of their revenues, and they were quite willing to support legislation which might bring about a curtailment of the practice of giving rebates and special rates to large numbers of shippers. The Elkins Law, however, did not provide a solution of the railroad problem. In the first place the penalties which the law imposed were insufficient to put an end to all discrimination, and many large shippers continued to receive discriminating favors from railroad corporations. In the second place the law was lacking in two important particulars; it did not apply to any form of discrimination except discrimination between persons, and it afforded no way of compelling railroads to reduce rates which, while not discriminating, were unreasonably high.

In his annual message to Congress in December, 1904, President Roosevelt singled out the railroad question as the most important subject for remedial legislation, and recommended that the Interstate Commerce Act be

amended so as to make it possible to prevent all forms of discrimination and so as to give the Interstate Commerce Commission power to establish reasonable rates. Failing to secure final action during the session of Congress ending in March, 1905, the President renewed his recommendations in his annual message of December of that year. In this message he carefully analyzed the railroad problem and urged in the strongest terms that appropriate legislation be promptly enacted. Though asserting the belief that "on the whole the railroads have done well and not ill," he pointed out that the long continued misconduct of a part of the railroad interests had created an unwholesome condition in the entire transportation business. "We desire," he said, "to set up a moral standard. . . . Business success, whether for the individual or for the Nation, is a good thing only so far as it is accompanied by and develops a high standard of conduct—honor, integrity, civic courage."

The attempt to pass a new railroad law met with the most strenuous opposition from the powerful railroad and financial interests which had taken the most conspicuous part in the evasion and violation of previous laws. These interests concentrated their efforts at obstruction on the Senate, where their influence seemed to be greatest, and exhausted every means at their command to secure the defeat or amendment of the proposed law. Only the insistent determination of the President caused the bill to pass.

The new law, called the Hepburn Act, embodied virtually all the recommendations of President Roosevelt. The Interstate Commerce Commission was enlarged by the addition of two more members, and its powers were greatly increased. It was not only authorized to declare rates unreasonable but was given the power to name rates which the carriers should observe as maximum charges in place of rates declared to be unreasonable. It was given authority

to prescribe an accounting system for the railroads and to order the carriers to desist from undue discrimination in rates and services. What was most important, the orders of the Commission were to have binding effect unless set aside by a Federal court. Thus the burden of initiating litigation to test the validity of the Commission's orders fell upon the railroads, and not upon the Commission, as had previously been the case.

The Pure Food Law. Another notable piece of legislation which President Roosevelt procured in 1906 was the so-called Pure Food Law. For more than a score of years attempts had been made to put an end to the notorious traffic in adulterated and poisonous food products which masqueraded in the markets of the country under false and misleading labels, but the greedy interests which derived profit from the trade had successfully smothered all reform measures. The bill which became a law in 1906 was fought even in a more determined manner than the railroad bill was opposed. While the struggle over the bill was at its height in the Senate, President Roosevelt transmitted to Congress a report on conditions in the slaughter-houses of the Chicago meat-packers. This report, which was made by an unofficial investigating commission appointed by the President, cut the earth from under the feet of those members of Congress who seemed to believe that there was no necessity for enacting legislation to protect the public against impure and unwholesome food products. An overwhelming public sentiment backed up the President and the bill which he supported was speedily passed. The law forbade, so far as the power of Congress to regulate interstate commerce made possible, the sale of any misbranded, adulterated or impure article of food and drugs. It also provided that food and drug products containing alcohol or other narcotic should be labeled to indicate the fact and the quantity of alcohol

or other narcotic stated. At the time of the passage of the Pure Food Law the meat inspection laws were modified so as to permit a more thorough governmental supervision of the meat-packing industry.

Prosecutions Under the Sherman Antitrust Law. The facts disclosed in investigations of industrial corporations by the Bureau of Corporations convinced President Roosevelt that the great monopolistic combinations of the country should be subjected to further regulation just as the railroads had been. Once sure of the facts he urged Congress to undertake the enactment of legislation by which these combinations could be controlled by the Government. He also directed the Attorney-General to proceed against a number of industrial combinations for violation of the Sherman Antitrust Law.

After the decision of the Supreme Court in the E. C. Knight case it had been commonly thought that the Sherman Law would be of but little use in putting an end to the abuses of "big business." It turned out that the decision in this case was to have little influence upon the outcome of other prosecutions under the antitrust act. In the Knight case the Government had attacked the sale of the Philadelphia refineries to the Sugar Trust and asked that the contract of sale be set aside. This action the Court refused to take on the grounds that the sale of the refineries had been an act of intrastate trade which no Federal law could affect. The Department of Justice had not directly attacked the monopoly resulting from the sale of the refineries, but had attacked the sale of the refineries out of which the monopoly grew. There was a distinction without a great difference, but nevertheless a distinction which the Court, with careful precision, had felt bound to observe. When later the Department of Justice directed its efforts toward combating the monopolies established by industrial combinations, it was found that

the Sherman Law was a much more effective weapon than it had been supposed to be. Previous to the Roosevelt prosecutions the only important instance in which the Supreme Court had employed the Sherman Act to extinguish an industrial monopoly was in the Addyston Pipe case, decided in 1899. In this case the Court dissolved a combination among a number of pipe manufacturers who conspired to eliminate all competition by organizing a pool, fixing prices, and dividing the marketing territory among the various members of the pool. In 1904 there was another notable decision under the Sherman Law, in which the Supreme Court ordered the virtual dissolution of the Northern Securities Company, a railroad combination organized by the Hill and the Harriman interests. These two decisions had fully demonstrated the possibilities of the antitrust legislation of 1890. In 1905 the Court sustained an injunction which had been issued against the meat-packers, ordering them to cease their unfair methods of buying live stock and selling meat.

In 1906 the Department of Justice, acting under the orders of President Roosevelt, instituted suit against the Standard Oil Company of New Jersey, one of the oldest and perhaps the most notorious of all the great business combinations. The following year suits were begun against the American Tobacco Company and the anthracite coal combination. The President's fight for a new moral standard was under way.

The Opposition of "Big Business." Opposition to President Roosevelt's policies of reform was not long in gathering strength. Neither expense nor effort was spared to discredit his policy and attack his purposes. Vicious assaults were launched against the Department of Justice, the Bureau of Corporations and the Interstate Commerce Commission, and great moneyed interests published "huge

advertisements attacking with envenomed bitterness the administration's policy of warring against successful dishonesty." The attacks only strengthened President Roosevelt's resolution. His characterization of the opposition was summed up in a special message transmitted to Congress January 31, 1908, when he said, "The keynote of all these attacks upon the effort to secure honesty in business and in politics is expressed in brazen protests against any effort for the moral regeneration of the business world, on the ground that it is unnatural, unwarranted and injurious, and that business panic is the necessary penalty for such effort to secure business honesty. The morality of such a plea is precisely as great as if made on behalf of the men caught in a gambling establishment when that gambling establishment is raided by the police." Roundly denouncing the "malefactors of great wealth" who sought to stay his hand, he urged Congress to carry out a program of constructive legislation. He wanted the Sherman Law strengthened "to secure more effective control over the business use of vast masses of individual, and especially of corporate wealth which at the present time monopolizes most of the interstate business of the country." "There is," he argued, "grave danger to our free institutions in the corrupting influence exercised by great wealth suddenly concentrated in the hands of the few. We should in some manner try to remedy this danger, in spite of the sullen opposition of these few very powerful men, and with the full purpose to protect them in all their rights at the very time that we require them to deal rightfully with others." In addition to the regulation of corporations he advocated Federal income and inheritance taxes, the prevention of the abuse of the injunction in labor disturbances, and the enactment of more advanced labor laws.

The Failure of Congress. Notwithstanding President

Roosevelt's repeated requests, Congress refused to act. For nearly three years he worked for definite reforms, but after the passage of the Hepburn Act and the Pure Food Law the only industrial and social legislation of any importance which he was able to obtain from a reluctant and dilatory Congress was an employer's liability act, applicable chiefly to interstate carriers, passed in 1908. The most urgent special message which he sent to Congress in the spring of 1908 asking for remedial measures suffered the unusual fate of not being read before that body. But, however barren of effective legislation his endeavors proved to be after 1906, his fight against greed and corruption had far reaching effects. He revealed to the people the true nature of the social and industrial ills of the nation, and by arousing the public conscience he prepared the way for reforms which he could not himself achieve.

The Tariff and the Election of 1908. The regulation of business was still the leading economic and political question before the country when President Roosevelt's administration drew to a close, though in the political campaign of 1908 the chief issue was the modification of the Dingley Tariff Act which had been passed in 1897. A large number of people believed that the abuses of big business had been made possible chiefly by the high duties carried in the Dingley Law. While evidence of a direct causal relation between the tariff and the "trusts" was not conclusive, it was nevertheless plain that the enormous profits of many monopolistic organizations had been procured the more easily because of the complete exclusion of foreign competition. For several years previous to 1908 there had been a steady growth of dissatisfaction with the high tariff duties, and this dissatisfaction finally culminated in an almost universal demand that the tariff law be revised. Both the leading political parties were pledged to tariff revision in their platforms of 1908,

though the Republican Party adopted a conservative attitude on the question, urging that the work of revision be entrusted to the "friends" of the tariff in order that there should be no abandonment of the principle of protection. It was generally understood, however, that even if the Republicans were successful in the election there would be a substantial "downward revision" of the tariff.

The Payne-Aldrich Act. The Republican Party won a notable success at the polls, and President Taft, immediately after his inauguration, called a special session of Congress to deal with the tariff question. Those who expected a substantial reduction of import duties were disappointed. The Payne-Aldrich Act, which became a law August 5, 1909, while reducing the rates of duty on some articles, on the whole made few changes of any importance. The high duties on woolens with which the Woolen Trust was favored were particularly obnoxious to the public at large. The law was generally condemned, and in the Congressional elections of 1910 popular indignation expressed itself in a sweeping victory for the Democratic party, the first since 1892. The Republicans retained a majority of the Senate, however, making any thorough revision of the Payne-Aldrich Act impossible during the remainder of President Taft's administration. Enough Republican support was available in the Senate to secure the passage of bills providing for the modification of some of the more excessive duties, but all these bills were defeated by Presidential veto.

Further Regulation of Business. The only important Federal legislation for the regulation of business enacted during President Taft's term of office was the Mann-Elkins Act, passed in 1910, for the further regulation of railroad corporations. The most notable feature of this law was that it gave the Interstate Commerce Commission the power to suspend proposed changes in railroad rates

pending an investigation of their reasonableness. Under the Hepburn Law the Commission could order the reduction of unreasonably high rates, but the process of securing compliance with orders for rate reduction was frequently slow because the courts, on the appeal of the railroads, could prevent the orders from having immediate effect. The railroad companies could increase rates to an unreasonably high level, and it would take a long time to have charges reduced. Under the Mann-Elkins Act the carriers were deprived of the power arbitrarily to increase their charges. This law also provided that express, telegraph and telephone companies should be included within the scope of the Interstate Commerce Act. Another feature of the law was the creation of a Commerce Court, which was authorized to hear all appeals from decisions of the Interstate Commerce Commission. This court, though a highly commendable addition to the machinery for railroad regulation, failed to meet the expectations of those who urged its creation, and it was legislated out of existence three years later.

Little was accomplished during the Taft administration in the way of enacting legislation for the control of corporations other than railroads, though several bills on the subject of business regulation were introduced in Congress. There was a marked division of opinion as to what should be the character of further legislative enactments. Some people thought that the trust problem would "solve itself" if the Government would see that competition became fair and free, while others thought that great combinations, being a natural product of economic evolution, should be permitted to continue in operation, but under the closest government supervision. President Taft was a thorough believer in the efficacy of the Sherman Antitrust Law as a corrective of the evils growing out of the combination movement, though he thought that a law should be passed

defining specifically what constituted unfair and illegal methods of competition. He advised that the great business corporations of the country be permitted to take out Federal charters, and recommended the creation of a Federal Corporation Commission whose duty it should be to advise with the officers of industrial corporations concerning the nature of their business methods. While he approved of the policy of price regulation in connection with railroads, he did not think it best to follow such a policy with respect to industrial corporations.

The Industrial Relations Commission Law. The labor problem came in for considerable discussion in Congress during the latter part of President Taft's administration. One of the most serious phases of the economic situation of the United States was the growth of animosity between organized labor and organized capital. In August, 1912, Congress passed an act creating an Industrial Relations Commission which was directed to "inquire into the general condition of labor in the principal industries of the United States." The Commission was to consist of nine members, three representing the public, three representing employers and three representing labor. In December President Taft sent to the Senate his nominations of members of the Commission. His selections did not meet with much public approval, and the Senate refused to confirm the nominations, leaving the appointment of the Commission to the next administration.

The Trust Decisions of the Supreme Court. In 1911 the Supreme Court rendered final decisions in the suits which the Department of Justice had instituted during President Roosevelt's administration against the Standard Oil Company of New Jersey and the American Tobacco Company. The Court declared that both these corporations were illegal combinations in restraint of trade and ordered their dissolution. The Standard Oil Company was directed

to divide the stock of its subsidiary companies *pro rata* among its stockholders, while the tobacco combination was broken up into several distinct organizations. In 1912 the Court ordered the dissolution of the Union Pacific-Southern Pacific railroad combination. The New Haven railroad combination was also broken up by the Federal courts.

While the vigorous enforcement of the Sherman Law resulted in the dissolution of some of the huge industrial and railroad combinations it did not restore perfect freedom of competition. The component parts of the dissolved oil and tobacco trusts, for instance, were controlled by individuals who realized that unrestricted rivalry would result only in loss, and as a result the decisions of the Court were not followed by any pronounced competitive activity in the oil and the tobacco business. The Sherman Law was an effective instrument only for contending against mere bigness in corporate organization, and mere bigness was not itself the fundamental evil of the combination movement. What was needed was a law directed at unfair and dishonest business conduct whether practised by large or by small corporations.

Another defect of the Sherman Law was its vagueness. In the oil and tobacco decisions the Supreme Court took the position that it was justified in ordering the dissolution of a business combination only when the combination was guilty of "unreasonable" restraint of trade. Since there was no definite test of the "unreasonableness" of any form of restraint of trade, the business world became pervaded with a spirit of uncertainty which did much to unsettle business conditions. There was a general demand for legislation which would clarify the Sherman Law, but no such legislation could be obtained during the Taft administration.

State Regulation of Business. While the Federal Government was pursuing a vigorous policy with respect to

railroad regulation and wrestling with the problems arising in connection with the enforcement of the Sherman Law, the States were making great advances in the field of regulatory legislation. Public utilities in particular—railroads, gas, electric, and water companies, and telegraph and telephone companies—were subjected to strict regulation in nearly every State. In most instances State public service or public utility commissions were established and given authority to regulate and supervise the charges, the services and the capitalization of public utility corporations. The great railroad systems thus came in for a great deal of regulation and for regulation of many varieties, being subjected both to the laws of the States through which they passed and to the laws of the Federal Government. In many States pure food laws were enacted similar to the Federal law passed in 1906; throughout the North and in some Southern States child labor was abolished and education made compulsory; and the enactment of workmen's compensation laws in a number of States was evidence of the growing sense of social responsibility for the welfare of the individual.

The Election of 1912. Ex-President Roosevelt was keenly disappointed because of the failure of his successor's administration energetically to press for the measures of industrial and social reform which he had so urgently advocated. A large section of the Republican Party, believing with Roosevelt that the Taft administration was lacking in energy and purpose, demanded that Roosevelt be given the Republican nomination for the presidency in 1912. When the party convention renominated President Taft, Roosevelt and his followers, charging that the convention had not been honestly conducted, "bolted" the party, and organizing a new "Progressive Party" carried their appeal for social and industrial justice directly to the people. As a result of the dissension among

the Republicans the Democratic Party scored an easy victory, electing Woodrow Wilson to the presidency and obtaining control of both branches of Congress.

President Wilson's Policies. In his inaugural address in 1913 President Wilson briefly outlined a program of constructive legislation which he desired to have Congress follow. Some of the things which he thought should be altered were, "A tariff which cuts us off from our proper part in the commerce of the world, violates the just principles of taxation and makes the Government a facile instrument in the hands of private interests; a banking and currency system based upon the necessity of the Government to sell its bonds fifty years ago . . . ; an industrial system, which take it on all sides, financial as well as administrative, holds capital in leading strings, restricts the liberties and limits the opportunities of labor, and exploits without renewing or conserving the natural resources of the country. . . ."

The first eighteen months of the Wilson administration set a record for the enactment of progressive legislation which has seldom if ever been equalled in the history of the country. Of outstanding importance were the laws revising the tariff, creating the Federal Reserve banking system, clarifying the Sherman Law, and creating the Federal Trade Commission. The Federal Reserve Act was not so much for the regulation of business as for the aid of the nation's production and trade, and an account of it will therefore be included in that portion of the following chapter dealing with changes in banking and currency.

The Underwood Tariff. Accepting the results of the elections of 1910 and 1912 as an expression of popular disapproval of the Republican tariff legislation of 1909 the Democratic administration undertook as its first task a complete revision of the tariff. Substantial reductions

were made in many of the higher duties, and the list of commodities admitted free of duty was enlarged, the object of the new law being, as the President expressed it, to "abolish everything that bears even the semblance of privilege or of any kind of artificial advantage, and put our business men and producers under the stimulation of a constant necessity to be efficient, economical and enterprising, masters of competitive supremacy, better workers and merchants than any in the world." Though the new tariff act prescribed considerably lower duties than those of the Payne-Aldrich Act, it was by no means a free trade measure, the average rate of duty being almost thirty per cent as compared with forty per cent under the previous law. One feature of the law was provision for a tax on incomes, Congress having received power to levy such a tax by a constitutional amendment which took effect in February, 1913.

The Federal Trade Commission Established. Appearing before Congress on January 20, 1914, President Wilson urged the enactment of legislation with regard to trusts and monopolies. "The business of the country," he said, "awaits also, has long awaited and has suffered because it could not obtain further and more explicit legislative definition of the policy and meaning of the existing antitrust law. Nothing hampers business like uncertainty. Nothing daunts or discourages it like the necessity to take chances, to run the risk of falling under the condemnation of the law before it can make sure just what the law is."

Congress proceeded to pass two bills dealing with the problem of industrial and financial combination. The first of these, approved September 26, 1914, declared "unfair methods of competition in commerce" to be unlawful, and created a Federal Trade Commission of five members, to which was given the power and duty of preventing the use

of unfair competitive methods. The act terminated the existence of the Bureau of Corporations and transferred all the Bureau's investigational powers to the new Commission. The Commission has power, whenever it has reason to believe that unfair methods of competition in commerce are being employed, to serve a complaint upon the offender and then hold a hearing to sift the charges. If after the hearing the Commission is of the opinion that the method of competition in question is unfair, it makes a report of its findings and directs the offender to cease using "such method of competition." Should the order be disobeyed or ignored the Commission may appeal to the Federal Circuit Court of Appeals to have the order enforced. The purpose of the law creating the Federal Trade Commission is to promote upright and honorable methods in business and to bring about the elimination of practices which tend to make financial strength rather than productive efficiency the test of competitive fitness.

The Clayton Act. Shortly after the enactment of the Federal Trade Commission Law the Clayton Anti-trust Act was passed. While the chief purpose of Congress in enacting this measure was to define specifically certain unfair practices which had been used to suppress competition, the law is an "omnibus" measure dealing with a variety of subjects. It prohibits discrimination in prices between different purchasers when the "effect of such discrimination may be to substantially lessen competition or tend to create a monopoly in any line of commerce"; it declares unlawful all exclusive or tying contracts made upon the condition that the purchaser of goods shall not deal in the goods of a competitor of the seller. It declares that "the labor of a human being is not a commodity or article of commerce," provides that "labor, agricultural or horticultural organizations, instituted for the purpose of mutual help, and not having capital stock or conducted for profit" shall not

be held to be illegal combinations under the anti-trust laws, and imposes certain restrictions on the use of the injunction in labor disputes. It prohibits any corporation engaged in interstate commerce from owning the shares of another corporation where the effect of the ownership would be "to substantially lessen competition" between the companies or "tend to create a monopoly in any line of commerce," and imposes restrictions on the creation of communities of interest through the establishment of interlocking directorates.

The Webb Act. The program of the Wilson administration for trust legislation included a plan to exempt export trade combinations from the restrictions imposed by the anti-trust laws. Other countries, particularly the manufacturing countries of Europe which sold goods abroad in competition with the United States, permitted the fullest cooperation among merchants engaged in developing foreign markets. The exporters of the United States were thus placed at a disadvantage. The administration did not succeed in enacting a law permitting combinations in export trade until April, 1918, when the Webb Act was passed. This law provides that American exporters may organize associations for conducting export trade without violation of the anti-trust laws. The Federal Trade Commission has power to supervise the activities of such associations in order to prevent their being made the vehicle of unlawful combinations in domestic commerce.

The Railroad Problem. While the new administration was endeavoring to establish new and better methods of dealing with the problem of industrial monopoly the railroad legislation of 1906 and 1910 began to produce results of an unexpected character. The legislation of these years was directed primarily, if not wholly, to the creation of machinery for the reduction of railroad rates. Nearly all the State laws for railroad regulation were passed with

the same object in view. It did not seem to occur to the members of Congress and of State legislatures that a time might come when it would be necessary for the level of railroad rates to be quickly and easily raised. Such a time did come during the four years following 1911, and the faults of the governmental railroad policy were exposed. With the general advance of prices which began in the late nineties the costs of railroad operation steadily mounted. A higher cost of living necessitated higher wages for railroad employees, and rising costs of coal, lumber and equipment were reflected in greatly increased expenditures by the railroads for all the raw materials and supplies needed for maintenance and operation. As the cost of railroad operation advanced the net income of the carriers declined, and with declining net income it became harder for the carriers to obtain the capital funds needed to finance new construction and the purchase of new equipment. In 1910 the railroads endeavored to make a general increase of rates, but the Interstate Commerce Commission refused to permit it. In 1913 the eastern roads tried to get a five per cent increase in freight rates, and once more the Interstate Commerce Commission refused the companies all they demanded. While there was much difference of opinion as to the merits of the Commission's decisions in these rate cases there was a feeling throughout most of the business community that the Commission should have been more generous to the roads.

At any rate the railroad problem again became serious. Partly because of depleted revenues, but chiefly because of poor management and improper financial manipulation, a large number of roads became bankrupt during the three years following 1911, the mileage of line in the hands of receivers reaching a total of 42,000 in 1915. Investors became alarmed about the future of the railroad business, and railway securities declined steadily in value. To make

the lot of the carriers more difficult the railway labor organizations demanded a large increase in wages. When the European war broke out in 1914 the railroads were at a low level of prosperity, and when the great increase in traffic caused by a heavy war trade set in they were unable to meet the demands of the shipping public.

In an address to Congress in December, 1915, President Wilson advised that a commission be appointed to undertake a thorough investigation of the entire railroad problem. The following June a joint committee of Congress consisting of five members of each house was appointed to conduct the investigation. Before the committee could formulate a plan for constructive legislation the railroad problem reached a stage which necessitated summary action. To avert an impending general railroad strike a law was passed in September, 1916, providing that the wages of railroad trainmen should be based upon an eight-hour day with *pro rata* pay for overtime. For the fiscal year ending June 30, 1916, the railroads had the largest net income they had ever received up to that time, but with a rapid rise of operating expenses during the ensuing year net revenues showed a steady and rapid decline. The winter of 1916 brought a congestion of traffic with which the carriers were unable to cope. The entrance of the United States into the war was followed soon by an acute crisis in the railroad situation, which resulted in the operation of the roads by the Government. The rewriting of the Federal railroad laws was necessarily postponed until after the war.

Results of the Wilson Antitrust Legislation. The coming of the World War caused such a complete readjustment of the economic organization of the United States that the antitrust legislation of the first Wilson administration has not been subjected to an adequate test. The war changed the character of foreign trade to such an extent that no estimate even can be made of the influence of the Under-

wood Tariff Law. The Federal Trade Commission has done some excellent work, preparing illuminating reports upon certain subjects of economic importance, and employing its administrative powers on numerous occasions to put an end to unfair methods of competition. However, it is too early to pass final judgment on the efficacy of the Federal Trade Commission as an agency for business regulation. Unquestionably both the Trade Commission Act and the Clayton Law mark a distinct advance in the methods of government regulation of business, but the operation of these laws must be observed during normal times of peace before it will be possible to determine whether it will be wise to adopt a different policy of corporation control.

Questions and Topics

1. Write a brief account of the public services of Theodore Roosevelt.
2. In what way did the laws for the regulation of industrial corporations, passed during the first Wilson administration, resemble the laws previously enacted for the regulation of railroads?
3. Do you think it would be wise to regulate large industrial corporations as railroads are regulated?
4. In what ways does your own State regulate public utilities?

CHAPTER XXVI

ECONOMIC PROGRESS, 1897–1914

Industrial America. In the closing years of the nineteenth century, after recovering from the worst effects of the depression of 1893-94, the United States entered upon a period of remarkable industrial development, which soon gave the country a leading place among the industrial nations of the world. Manufacturing became more and more the economic activity of primary importance, and agriculture, though continuing to flourish, expanded at a slower rate than in previous years. The change from a nation primarily agricultural to a great industrial nation was marked by the steady increase of the urban population as compared with the rural population. In 1890 slightly more than 36 per cent of the people of the United States lived in towns and cities having a population of 2500 or more. The census of 1910 showed that the percentage of urban population had increased to 46.3 and the early figures of the census of 1920 indicate that more than one-half the population now lives in urban centers. The factory, the store, the office have attracted each year a greater number of people than the farms.

Immigration. The development of manufacturing and mining drew large numbers of aliens to the United States, but the immigration to industrial America was quite different from the immigration to agricultural America. As the acreage of unoccupied tillable land declined immigrants came in smaller numbers from the British Isles, Germany and other countries of western Europe. The working

forces of mines and mills were recruited largely from the peasants and unskilled laborers of Italy, Austria-Hungary, Russia and the Balkan countries. Following the depression of 1893-94 immigration reached its lowest level in 1898 when 229,299 aliens arrived. After that year immigration increased rapidly until 1907, when 1,285,549 foreigners landed in the United States. This year marked the high tide of foreign immigration, though during the next seven years the number of arrivals annually did not fall below 750,000, and in three years was above a million. Of the six million immigrants who landed between 1901 and 1907 more than one-half came from southern and eastern Europe. Nearly all the aliens from these sections settled in the great industrial centers, the Italians and Hebrews tending to stay at the ports which they entered—chiefly New York and Boston—where most of them found employment in the clothing trades; the Hungarians, Austrians and Poles making their way to the coal mines, steel mills and slaughter houses of the Eastern and Central States. The problem of Chinese immigration on the Pacific coast was succeeded by the problem of Japanese immigration.

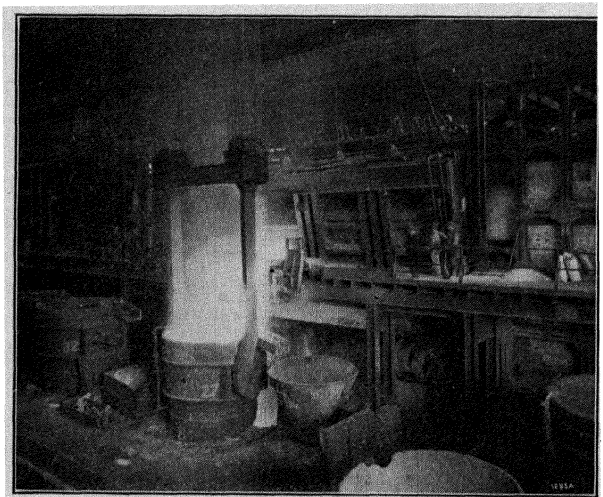
The alien invasion tended to lower the American standard of living, and there were urgent demands from labor organizations and other groups of citizens that legislation be enacted for a greater restriction of foreign immigration. The Chinese exclusion laws were made permanent in 1904 and a "gentlemen's agreement" with Japan concluded in 1907, brought to an end the immigration of Japanese laborers to the United States. Bills were introduced in Congress to provide stricter tests for the admission of aliens. There was much difficulty in selecting suitable tests which would have the effect of keeping down the quantity of immigration without affecting adversely the quality. The opponents to immigration finally centered their efforts on the literacy test. A bill embodying a literacy test passed

Congress in 1896 and was vetoed by President Cleveland. President Taft vetoed a similar bill in 1913 and President Wilson took similar action in 1915 and again in 1917. In 1917 however Congress succeeded in passing the immigration act over the presidential veto. The law excludes "all aliens over sixteen years of age, physically capable of reading, who can not read the English language or some other written language or dialect including Hebrew and Yiddish."

Manufacturing. The capital invested in the manufacturing industries of the United States grew from $6,525,050,000 in 1890 to $22,790,980,000 in 1914. During the same period the number of wage earners in manufacturing increased from 4,251,535 to 7,036,337 and the value of articles produced advanced from $9,372,378,843 to $24,246,434,724. Even more suggestive than the statistics just given are the statistics showing the increases in the production of coal, iron and copper, the three basic materials of modern industrialism. In 1890 the output of coal in the United States was 140,866,931 tons; in 1913 it was 508,893,052 tons. The production of iron ore increased from 16,036,043 tons to 59,643,098 tons, while that of copper advanced from 115,966 tons to 546,645 tons.

The modern industrial period is frequently called the "age of steel" because there is no productive activity of importance in which steel is not a necessity. In agriculture, in mining, in transportation, and in all the varied manufacturing industries the tools, machines and equipment are made partly or wholly of steel. In the construction of buildings steel is an almost indispensable material. The great skyscrapers which house the banks, stores, offices and workshops of the large cities are built of a framework of steel. So closely related is the iron and steel industry to all other kinds of industry that it is regarded as a

"barometer of business", the trend in the iron and steel trade being looked upon as a sure indication of the trend in all business. Between 1890 and 1913 the production of steel in the United States increased from 4,277,071 tons to 31,300,844 tons. Early in the twentieth century the United States passed all other nations in the production of iron and steel. There were few changes in the methods of steel production except that operations in all parts of



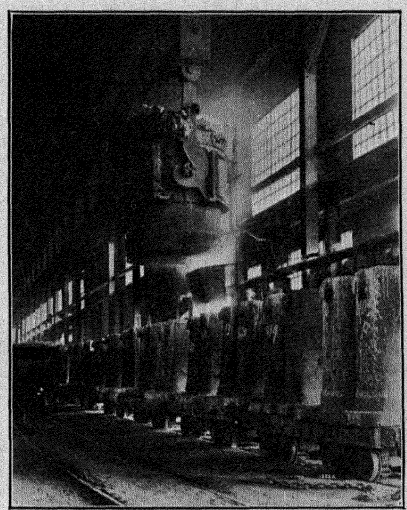
Tapping an Open Hearth Furnace

Courtesy of Bethlehem Steel Company

the industry were conducted on a larger scale. Both the open-hearth and the Bessemer process of converting pig iron into steel continued in use, though the open-hearth method gradually gained in favor until by 1908 it established a lead over the older process.

In other manufacturing industries the United States showed progress as great as in the production of iron and steel. The conversion of raw food materials into commodi-

ties for human consumption remained the leading manufacturing industry. In the manufacture of textiles of cotton, wool and silk, and in the production of paper, glass, leather and lumber there was rapid expansion, while in the production of finished goods from these materials, such as clothing, boots and shoes, books, newspapers, and furniture, the same remarkable development took place as in the production of finished articles of iron and steel.

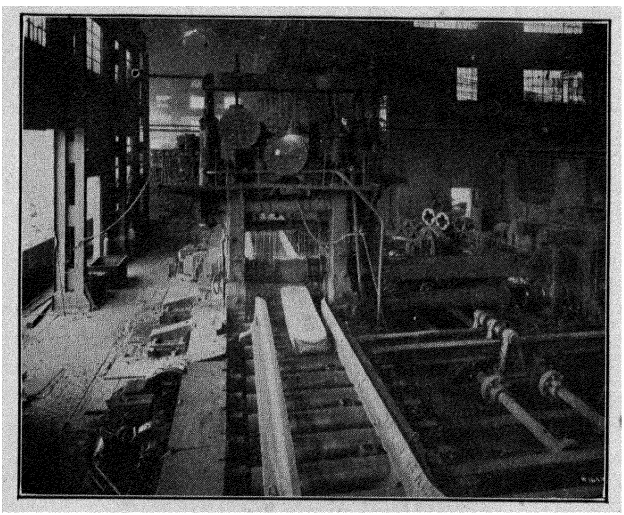


Pouring Steel into Ingot Moulds

Courtesy of Bethlehem Steel Company.

Of the new manufacturing industries which developed between 1897 and 1914 the automobile industry was easily the most important. Starting in a modest way almost at the beginning of the twentieth century this remarkable industry grew at such a rate that in 1914 it was holding promise of becoming the leading manufacturing industry of America. Having the advantage of an early start in this industry, Detroit and Cleveland took the lead as pro-

ducing centers, though in many cities of both the Eastern and the Central States, where the manufacture of vehicles had long been a prominent industry, a thriving automobile business was developed. Closely connected with the growth of the automobile manufacturing was the manufacture of rubber tires, of which Akron, Ohio, became the chief center. The manufacture of automobile accessories, such as storage batteries, magnetos, lighting systems and wind-shields, the



Hot Ingot Passing Through Rolls

Courtesy of Bethlehem Steel Company

manufacture of automobile parts for use in the production of "assembled cars," and the maintenance and repair of automobiles opened new lines of employment to thousands of workmen and gave opportunity for the investment of millions of dollars.

Another virtually new industry which assumed a place of high rank during the opening years of the twentieth century was the manufacture of electrical equipment. The

electric motor and the insulated copper wire displaced the flying belt and whirling shafting in hundreds upon hundreds of manufacturing plants. There was not a single manufacturing industry of importance in the country which did not employ electricity as a source of light or of power, and in many industries the electric motor, fed with current from a central power plant built to serve many customers, completely displaced the steam engine.

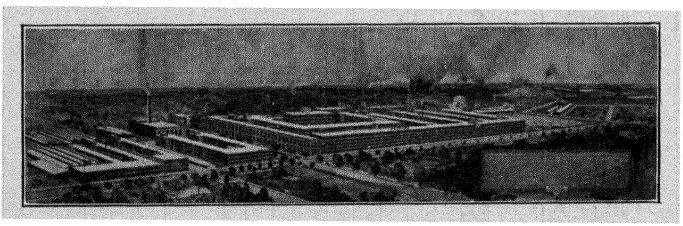


A Modern Motor Truck

Courtesy of the Packard Motor Car Company

The automobile could not have attained its high state of perfection without the service of electricity. The use of electric power in transportation on city and interurban railways, and the partial substitution of electric power for steam on a few railroads created a large demand for electrical equipment. The introduction of wireless telegraphy in 1900 also led to an increased demand for many electrical devices. Just as interesting as the growing

use of electrical appliances in manufacturing and transportation was the increased application of electric power to household tasks which for ages had been little but monotonous drudgery. Electric washing machines, mangles and flat-irons did the family laundry, the vacuum cleaner replaced brush and broom, electric fans brought cooling breezes in summer, small motors took the place of the sewing machine treadle, electric refrigerators kept foods cool and sweet, and single electrical cooking appliances such as toasters, grills and coffee percolators, or complete electric stoves and ranges made the burden of kitchen labor easier. The labor of the farmers was lightened by the introduction



The Packard Motor Car Factory at Detroit
Courtesy of the Packard Motor Car Company

of electric power plants. Current generated by dynamos driven with small gasoline engines provided energy to saw wood, grind grain, separate cream from milk, churn butter, milk cows, and give illumination in houses, barns and other farm buildings.

American Manufactures in Foreign Markets. With a home market fully protected against foreign competition and an organization that prevented excessive domestic competition American manufacturers disposed of their goods at prices which brought them handsome profits. Under the stimulation of large earnings business expanded rapidly, and it was not long until a productive capacity was attained considerably beyond the needs of the home

trade. It became necessary for American producers of manufactured goods to turn to foreign fields to dispose of their surplus stocks. It was not unusual for American manufactured goods to be sold abroad at prices much lower than the prices charged the home consumer, the manufacturers justifying this practice on the ground that it was better to keep their factories running than to try to limit production to the home demand. Lower prices to foreign purchasers were the exception however rather than the rule. The skill of American labor, the efficiency of American organization, and the extensive use of machinery enabled the American manufacturers to compete on favorable terms with foreign rivals in the face of the high wages prevailing in the United States. Manufactures came to constitute an important part of American exports. Agricultural implements, structural steel, railway equipment, drugs and chemicals, automobiles, boots and shoes, textiles, and wood manufactures went to foreign markets in increasing quantities. In 1890 "manufactures for further use in manufacturing" made up 5.5 per cent of the total merchandise exports of the United States, and "manufactures ready for consumption" (excluding all foodstuffs) made up 15.68 per cent. In 1913 these two classes of merchandise made up respectively 16.83 per cent and 31.97 per cent of the total value of goods sold abroad.

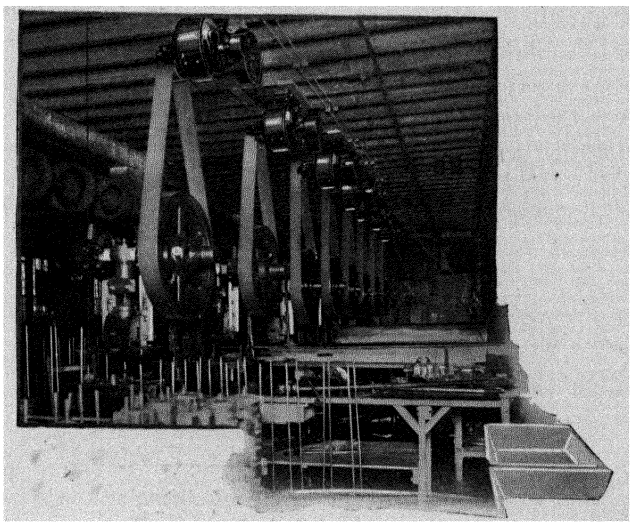
Mining and Lumbering. The growth of manufacturing caused heavy inroads to be made upon the mineral and forest resources of the United States. The increase in the production of coal, iron and copper has already been mentioned. There was a similar increase in the production of lead and zinc. The discovery of new gold-fields in Alaska and the development of processes which made it possible to work economically the poorer gold-bearing rocks and gravels of the Western States brought about an increase in the production of gold from an annual average

of about $35,000,000 in the decade preceding 1895 to an annual average exceeding $80,000,000 during the following 15 years. The production of petroleum, which reached two billion barrels a year in 1890, grew to more than eleven billion barrels yearly by 1914. The automobile created an enormous market for gasoline and lubricating oils; crude oil was used in great quantities for making artificial gas and as fuel for oil-burning steamships and locomotives. The oil fields of California, Texas, Louisiana and Oklahoma supplied most of the petroleum produced in the United States after 1900. Crude oil was imported from Mexico to be converted into refined products for domestic use and for export.

The industrial development of America was accompanied by building operations which created a demand for huge supplies of lumber. By 1910 the annual output of lumber in the United States was forty billion feet, this not including firewood, which in 1914 amounted to about eight billion feet. With the depletion of the white pine forests of the region about the Great Lakes the chief center of the lumber industry shifted to the yellow pine forests of the South, and heavier drains were made upon the pine and fir resources of the Pacific coast. Oregon lumber and shingles were shipped across the continent to Maine, which had once been the leading lumber-producing State of the union.

Agriculture. It was pointed out above that one of the most noteworthy features of the growth of industrialism in America was the drift of population from rural to urban communities. There were many reasons for this drift. The factory or office worker had shorter work days as a rule than the farm laborer and he was not constantly "tied down" to his employment week days and Sundays, month in and month out. While the real wages of the farm laborer differed but little from the real wages of the

industrial laborer, the latter worker received his pay wholly in the form of money, and consequently he had a wider range of choice and a greater freedom in determining what should be the nature of his real income. The city dweller had greater variety than the country dweller. The city offered advantages in the way of many opportunities for amusement, recreation and education; and the city worker

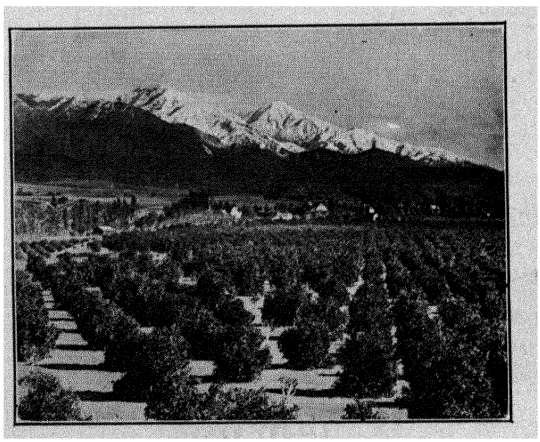


Machines Equipped with Individual Electric Motors
Courtesy of Robbins and Myers Co.

had a certain amount of free time at his disposal in which he could indulge an inclination to have a "good time." Then it is a well-known fact that many workingmen look upon farm labor as compared with factory and office work in about the same way that working girls and women regard the work of a household servant as compared with the work of a clerk or stenographer. A sort of contempt for farm work and for the conditions of rural life unquestion-

ably caused many country boys to abandon the calling of their fathers and seek their fortunes in the city.

Whatever the reasons for the migration of labor from farm to city the migration occurred to such an extent that the production of many American farm staples failed to keep pace with the growth of population. The acreage of wheat planted and the annual production of wheat rose but slowly from 1900 to 1914, and there was a decline in the quantity raised *per capita*. In the production of

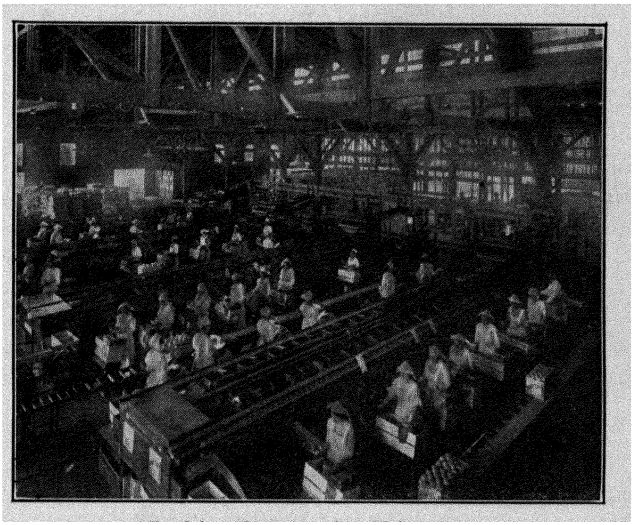


Orange Grove in Southern California

Courtesy of California Fruit Growers' Exchange.

corn and cotton the rate of increase was less than the rate of increase in the number of people in the country. There was no substantial increase in the quantity of live stock raised on American farms. The decline in the production of wheat was particularly noticeable in the diminution of the exports of wheat and flour. Whereas the average annual exports of wheat and flour from 1896 to 1900 inclusive amounted to 179,518,025 bushels of wheat, the annual average from 1909 to 1913 inclusive was 118,702,695 bushels. It was freely predicted that within a short time

the United States would become a food importing instead of a food exporting nation. Had the relative decline in farm labor not been offset in a measure by the increased use of machinery and by more scientific methods of agriculture the total product of the farms of the United States would have been much smaller. A few entirely new machines were introduced such as the corn harvester and the corn shredder; and improved types of plows and culti-



Courtesy of California Fruit Growers' Exchange.

vators enabled single laborers working with teams often to do twice as much work as they had been able to accomplish with older types of machinery. However there was no such revolution in the methods of farm production as that inaugurated by the introduction of the reaper, thresher and portable steam engine during the two decades preceding the Civil War.

Improved Conditions of Rural Life. The drift of popu-

lation from country to city was retarded to some extent by various improvements in the conditions of rural living. The establishment of rural free delivery of mail in 1902 brought country districts into closer touch with urban centers, and the general installation of telephone service in the more densely settled farming regions had a similar effect. The telephone also decreased measurably the isolation of rural life. The parcel post service, begun in 1913, wrought a great improvement in the commercial life of country districts. A progressive educational policy in many States resulted in the consolidation of rural schools, giving to country children the advantage of educational facilities equal to those possessed by inhabitants of many cities. The construction of interurban electric railways in many sections of the United States gave rural dwellers ready means of access to nearby cities and seemed to promote a back-to-the-land movement under the influence of which some people moved from city to country. Among all the agencies which acted to bring country and city into closer connection the automobile was the most powerful. One of the most interesting developments of the social and economic life of the nation was the extensive purchase of automobiles by farmers. All of these innovations—the rural telephone, rural free delivery of mail, parcel post, better schools, and the automobile—relieved rural life of some of its monotony and made farm dwellers more contented and prosperous.

Destruction of Natural Resources. During the early years of the twentieth century the American people came to realize that the enormous increase of production in manufacturing, mining and lumbering industries was being purchased at the cost of an extremely rapid destruction of the natural resources of the United States. When in 1870 coal production amounted to only thirty million tons a year the coal resources of the United States appeared

to be virtually inexhaustible, but when thirty years later production reached three hundred million tons a year, with each succeeding year showing a larger and larger output, it became obvious that the time would eventually come, and at no distant date, when all the coal of the nation would be gone. The virtual exhaustion of several petroleum and natural gas districts in the Central and Eastern States showed that some of the natural resources which had been considered inexhaustible, were so limited in quantity that, unless the rate of consumption should be diminished, they would disappear in less than a half century. To the settler who landed on the forbidding shores of New England in the seventeenth century the huge pine forests appeared to be impenetrable. At the beginning of the twentieth century New England's chief forest resources were gone, a large part of the white pine belt of the lakes had been cut over, and the exploitation of other timber resources was proceeding with a rapidity which indicated that if no precautionary measures were taken the complete disappearance of the great forest resources of America was a matter of a comparatively few years. What was even more significant than the disappearance of forest and mineral resources was the fact that the amount of agricultural land in the United States available for settlement was rapidly decreasing, and moreover much of the land which had long been occupied was losing its productivity.

Wasteful Methods of Production. The most disturbing feature of the exploitation of natural resources in the United States was the sinful waste with which it was accomplished. In the race for wealth and power there had been no effort to economize and few attempts to replace what had been destroyed. The prevailing methods of converting bituminous coal into coke were such as to cause the loss of more than one-half the substance of the coal. Piles of refuse accumulated near the anthracite collieries

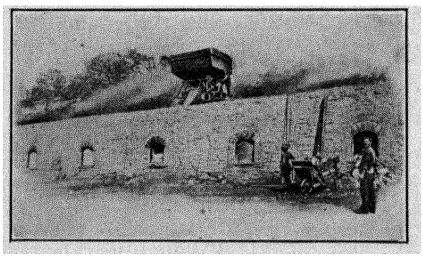
of Pennsylvania contained thousands of tons of coal discarded as worthless. In newly developed oil fields it frequently happened that millions of gallons of petroleum were lost because of the lack of storage facilities. Natural gas, the cheapest and cleanest of nature's fuels, was wasted in a wantonly reckless manner. Flowing wells were ignited and permitted to burn for days, and the methods employed in burning gas in many factories and homes were such that as much fuel was wasted as utilized. Forests were cut down and half the timber wasted. Millions of cubic feet of fertile soil were washed into rivers to clog the channels or be swept out to sea because no effort was made to prevent the erosion which came as a result of deforestation or because of a lack of artificial drainage. In many agricultural regions farming was conducted like mining. The land was cropped again and again until its fertility was destroyed and then it was abandoned. It seemed that no thought whatever was given to the needs of future generations.

The Conservation Movement. During the latter part of the nineteenth century various government agencies and a number of public-spirited individuals called attention to the lavish use of the nation's resources, and a few attempts were made to secure greater economy. The Bureau of the Census in 1870 warned the nation that the forests were being depleted with no provision for replacement. A law was passed in 1873 providing for grants of land to individuals who would undertake reforestation work, but the law was of little benefit. It was repealed in 1891, and another law enacted empowering the President to establish national forest reserves in the public domain. Presidents Harrison and Cleveland established a few reservations, the total area set aside by their orders amounting to about 18,000,000 acres. In 1897 a law was enacted providing for the administration of the forest reserves. The fol-

lowing year the Division of Forestry of the Department of Agriculture assumed the duty of supervision of the national forest reserves, protecting the timber lands against fire, selling timber, reforesting, and leasing grazing privileges. Laws were passed in 1877 and 1894 to encourage the reclamation of arid lands in the West by private and State enterprise. In 1889 the Department of Agriculture was raised to the rank of an executive department, after which larger sums were appropriated each year to carry on the scientific study of agricultural problems.

None of the legislation enacted in the nineteenth century had much immediate effect in checking the destruction of natural resources. It was not until President Roosevelt championed the conservation movement that the people really began to understand what would happen if the reckless and lavish use of the nation's wealth was not ended. Among the many services which President Roosevelt rendered his country none was of greater value than his taking an aggressive stand for the conservation of natural resources. He did not originate the conservation movement, but he gave it vitality and strength. Credit for starting the movement belongs chiefly to Gifford Pinchot, who was head of the Forest Service during President Roosevelt's administration. It was he who first called President Roosevelt's attention to the imperative need of taking steps to prevent the total destruction of the resources of the country. In response to Mr. Pinchot's suggestion President Roosevelt appointed a Public Lands Commission in 1903 to undertake a study of the conditions of the public domain. In 1907 he appointed an Inland Waterways Commission, and the following year he called the famous "Conference of Governors" at the White House, to which he invited the governors of all the States, the members of Congress, the justices of the Supreme Court, the Cabinet and the Inland Waterways Commission. In a speech to

this Conference he outlined fully the problem of conservation and urged the coöperation of State and Federal agencies in carrying out a program to protect the vanishing resources of America. "Any right-thinking father," he said, "earnestly desires and strives to leave his son both an untarnished name and a reasonable equipment for the struggle of life. So this nation as a whole should earnestly desire and strive to leave the next generation the national honor unstained and the national resources unexhausted." He divided the natural resources into two classes, those not capable of renewal and those which could be renewed.



Old-Fashioned Coke Ovens

Courtesy of the Barrett Company.

"In dealing with the coal, the oil, the gas, the iron, the metals generally," he said, "all that we can do is to try to see that they are wisely used. The exhaustion is certain to come in time. The second class of resources consists of those which can not only be used in such a manner as to leave them undiminished, but can actually be improved by wise use. The soil, the forests, the waterways, come in this category." As a result of this Conference of Governors conservation commissions were appointed in forty States. President Roosevelt named a National Conservation Commission which in 1909 submitted to Congress an instructive report, which described the natural resources of the United

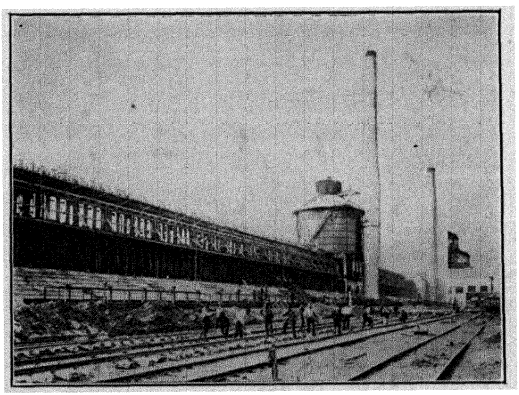
States, showed how they were being wasted, and outlined a policy of conservation.

During his term of office President Roosevelt added 150,000,000 acres to the national forest reserves. On his recommendation Congress enlarged the duties and powers of the Forest Service in 1905. As Chief Forester, Gifford Pinchot performed invaluable service in organizing and executing the work of forest preservation. President Roosevelt thwarted the efforts of certain greedy private interests to monopolize the water-power sites in the public domain, holding that such sites should be leased for a definite term of years and not be alienated from the public to which they of right belonged. He was instrumental in securing the passage of the Reclamation Act of 1902 under which the Federal Government assumed the task of constructing irrigation works for the reclamation of large areas of arid land. Under this law a number of great irrigation projects were undertaken in the West, among the more important being the Salt River project in Arizona and the Truckee-Carson project in Nevada. To awaken an interest in the problem of agricultural development President Roosevelt appointed the Country Life Commission in 1908. This commission made a report the following year, dealing with the social aspects of rural life and pointing out ways in which rural living conditions could be improved.

While President Roosevelt's successor did not abandon the national conservation work his policy was not so energetic as many people desired. Chief Forester Pinchot attacked the public land policy of the Secretary of Interior and precipitated a controversy which resulted in a Congressional inquiry. Mr. Pinchot was forced to resign for insubordination, but his actions were generally sustained by public opinion. One of the leading causes of the repudiation of President Taft's leadership by a large section of

the Republican Party in 1912 was his failure to carry out the Roosevelt conservation policies.

The conservation movement had far reaching effects. Laws for the protection of natural resources were passed in many States. Congress began to consider the question of what methods should be adopted to bring about the wise use of the great stores of natural wealth in the public domain, though no legislation of importance on this subject was enacted until the passage of the act for leasing water-power sites in 1920. The conservation movement stim-



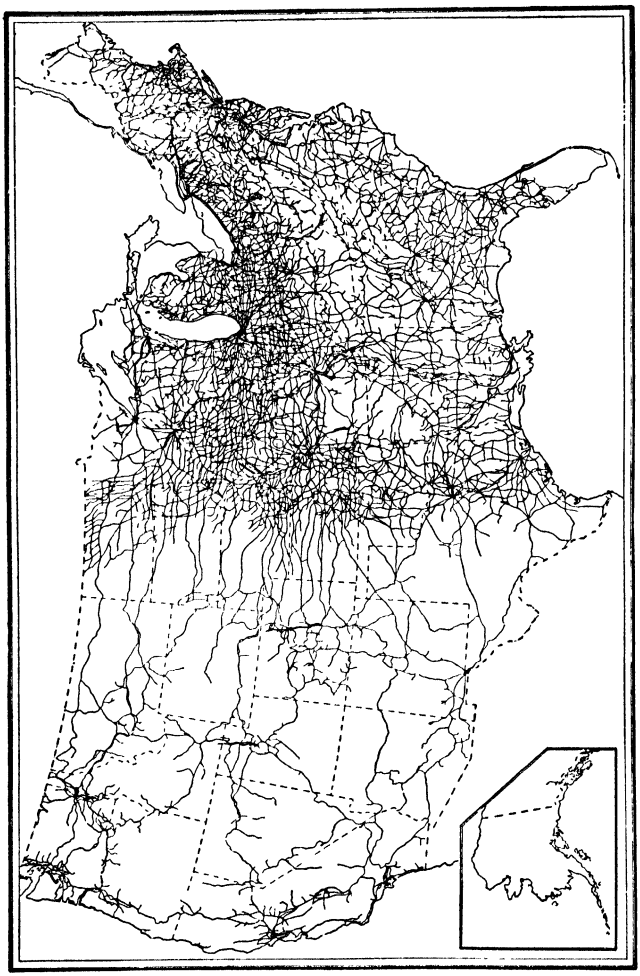
By-Product Coke Ovens at Joliet, Ill.
Courtesy of the Barrett Company.

ulated the study by both private and public agencies of how best to utilize the resources the consumption of which was necessary. More economical methods of coal mining were introduced; the bee-hive coke ovens gave way in many places to by-product ovens, making it possible to save the ammonia, acids and coal tar with their many derivatives, which previously had been wasted; more efficient methods of refining petroleum increased the variety, quantity and quality of petroleum products. The possibility of the complete disappearance of coal and petroleum stimu-

lated a greater use of water-power as a source of industrial energy. A halt was called upon the extravagantly wasteful methods of lumbering, and the reforestation of denuded areas was undertaken by private and public agencies. The ruthless destruction of all forms of wild animal life was checked. Not only were additional steps taken to protect existing fishing resources, but there was a greater activity in replenishing and increasing the stocks of useful salt-water and fresh-water fish.

In no field was the effect of the conservation movement more striking than in agriculture. Federal and State experiment stations increased in number, agricultural schools broadened the scope of their work, and the scientific study of agricultural problems was generally encouraged, with the result that many important discoveries were made which increased the productivity of the soil. Proper rotation of crops, improved methods of fertilizing and cultivating the soil, selection of seed, live-stock breeding, the introduction of new farm products, dry-farming on semi-arid lands, ways of exterminating harmful insects and vermin—all these subjects received intensive study.

Closely connected with the movement for the conservation of natural resources was the movement for protecting human health and life. The report of the National Conservation Commission contained a section dealing with the problem of conserving the life and vitality of the people. Human efficiency is far more important than machine efficiency. Legislation for the abolition of child labor and for the protection of adult workers was an integral part of the conservation movement. Improved sanitation and better housing in urban and rural communities, the prolongation of life through the cure and the prevention of disease, the reduction of infant mortality, the improvement of diet both by the wiser selection and by the better preparation of food—problems such as these challanged public in-



Railroads in the United States, 1920

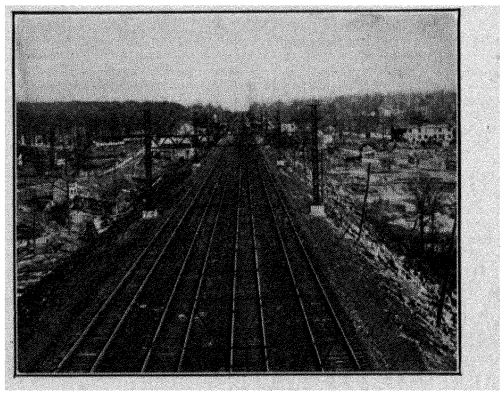
terest, and a wider realization of their significance was proof of a marked change for the better in the economic and moral life of the nation.

Steam Railroad Transportation. The depression of

1893-94 brought to an end the great period of railway construction which began about 1880. When the depression ended construction was resumed, but not with the feverish activity which characterized railroad building in former years. By 1893 the country was fairly well supplied with trunk line railroads, and after that time railroad financiers were interested chiefly in the creation of great "systems" by the consolidation of existing lines and by the construction of connecting lines, branch lines and feeders. From 1897 to 1914 an annual average addition of about 4,000 miles was made to the railroad net of the country, the most active year of construction being 1904, when 6,690 miles of new line were built. In 1914 the mileage of the railway net of the United States was 263,547.

These years witnessed great improvements in the equipment of railroads. An important step in the promotion of the safety of passenger travel came with the substitution of steel for wood in the construction of passenger cars, while the comfort of travel was increased by the use of electric car lighting systems and better methods of car heating. Freight carrying equipment was likewise greatly improved. Box cars, built with steel underframes or built entirely of steel with a capicity of 40 to 50 tons became common, and steel gondola cars capable of carrying 60 to 75 tons of coal or ore were built in large numbers. The standard equipment of both freight and passenger cars included automatic safety couplers and air brakes. Heavier, faster and more powerful locomotives were designed to haul the growing traffic of the railroads; and to sustain the weight of the heavy equipment steel rails of greater weight and durability were employed. Many railroads installed automatic block signals on their main line tracks and interlocking plants at crossings and in terminals to insure a greater degree of safety in train operation.

Electric Railways. The construction of the first successful electric street railway in Richmond in 1888 was followed by the adoption of electric traction on street railways in virtually all the cities of the country. In the large cities where elevated railways had been built to provide a means of local transportation of greater rapidity than could be given on surface lines steam was generally replaced by electric power. In a few large cities, particularly in New York and Boston, the elevated and surface



Electrification on the New York, New Haven and Hartford Railroad. Overhead Transmission.

Courtesy of the Westinghouse Electric and Manufacturing Company

lines together failing to afford sufficient transit facilities to meet the needs of a growing population, extensive programs of subway construction were planned and executed. In New York the subway system extended under the East River to the borough of Brooklyn. Jersey City, Hoboken and Newark were connected with Manhattan Island by electric railways passing through great tubes bored beneath the bed of the Hudson River.

Electric traction was employed not only on city rapid transit lines but on railways extending between cities. In

the Eastern States many of the interurban electric lines were merely continuations of city surface lines, built along the side of public highways, but in the Central States, in the Pacific States and in some Eastern States electric interurban railways were constructed just as steam railroads are constructed, with private rights of way and heavily ballasted tracks, carrying cars which move as rapidly as the passenger trains of steam roads.

Electrification of Steam Railroads. Electricity is generally conceded to be much superior to steam as a source



Pennsylvania Railroad Train Emerging on Manhattan Island from Tunnel under the Hudson River

Courtesy of the Westinghouse Electric and Manufacturing Company.

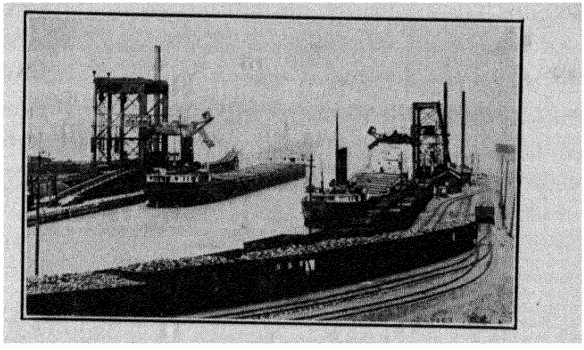
of motive power in railroad transportation, not only from the standpoint of cleanliness and flexibility, but because it offers certain operating advantages. Electric locomotives, having no fires to clean or boilers to fill, are ready for service a greater part of the time than steam locomotives; they are economical in that they consume no fuel while standing still (some electric locomotives even generate power on descending grades); they can exert their maximum tractive effort at all times, while it is virtually impossible to prevent the steam pressure of a steam locomo-

tive from decreasing during a pull up a long hill. The chief obstacle to the general replacement of steam by electric power has been the great cost which it would involve to build power houses, to construct electric locomotives and to install equipment for the generation and transmission of current. But while the general adoption of electric power in railroad transportation has not been feasible its advantages in certain branches of the service are so great that its substitution for steam in several places has been a matter of necessity.

The greater cleanliness of electric trains and the greater flexibility of electric power as compared with steam make the use of electric traction particularly desirable on roads which carry large numbers of suburban dwellers to and from their work in large cities. In the freight and passenger terminals of cities, where traffic is dense and trains numerous, electric power is vastly superior to steam power. Electricity is also better than steam for transportation through long tunnels and subways. On heavy mountain grades, particularly in regions where coal is scarce and dear and sources of hydro-electric power fairly abundant the use of electric power is desirable. In all these branches of steam railroad service, tunnel and terminal work, suburban service, and mountain service, electric traction began to be extensively used during the early years of the twentieth century.

To both the great New York passenger stations, the Grand Central and the Pennsylvania, underground electrified tracks were constructed, the Pennsylvania tracks lying in a great double tunnel built from New Jersey beneath the Hudson River, Manhattan Island and East River to Long Island. Electric suburban service was installed by steam roads of New York, Philadelphia and a number of other eastern cities. The most notable project of electrification of the mountain divisions of steam roads was that

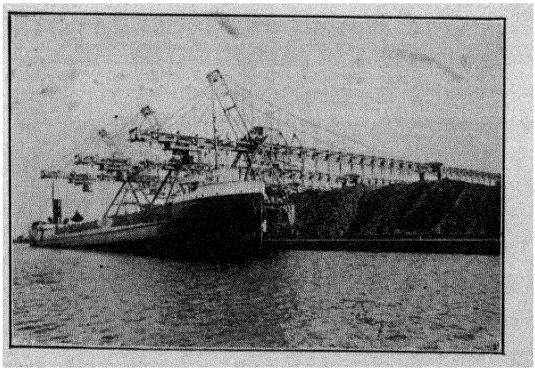
undertaken by the Chicago, Milwaukee and St. Paul in Montana and Idaho. The electrification of the Elkhorn



Loading Coal at Cleveland

Courtesy of Cleveland Chamber of Commerce.

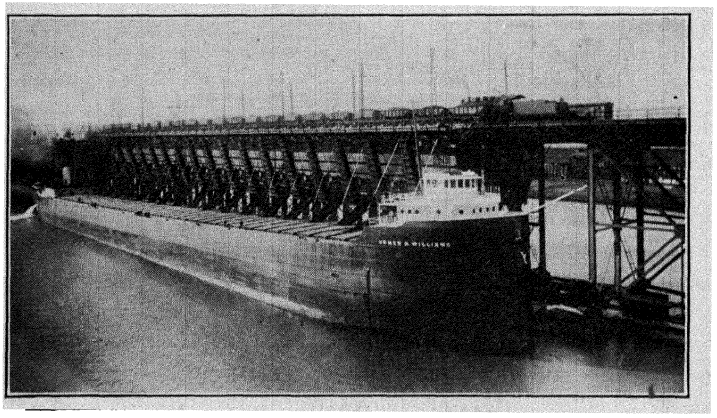
grade of the Norfolk and Western Railroad was carried out to secure greater economy in the transportation of a heavy coal traffic.



Courtesy of Commercial Club of Duluth.

Highway Improvement. Throughout the nineteenth century the people of the United States were backward in

the development of their highways. Private turnpike companies and local and State Governments did much to improve roads, but it cannot be said that highway construction kept pace with the development of industry in general. In 1890 a "Good Roads Movement" was launched by a National Good Roads Association organized in Chicago to promote greater activity in highway improvement, with the result that a great deal more interest was taken in the highway problem. In a number of States the enactment



Loading Ore at Duluth

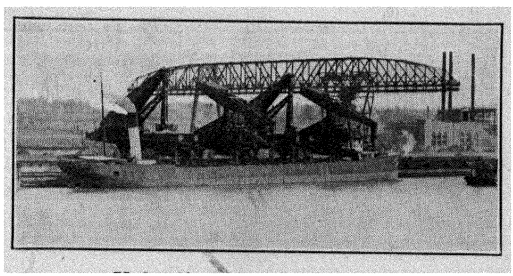
Courtesy of Commercial Club of Duluth.

of progressive highway legislation was obtained despite the deep aversion to taxation which has always been characteristic of the American people.

The coming of the automobile into general use did more than anything else however to emphasize the need for better roads, and as the automobile was employed more and more in the transportation of persons and commodities there was greater and greater activity in building new and better highways. Direct expenditures of State governments for highway construction and maintenance in 1913

reached the respectable total of $37,000,000 while the amount expended by county and township governments was $137,000,000. The Federal Government responded to the need for better roads in 1916 by appropriating $75,000,000 to be distributed among the States for highway construction. Only those States which agreed to spend a sum equal to that allotted by the Federal Government were entitled to share in the appropriation.

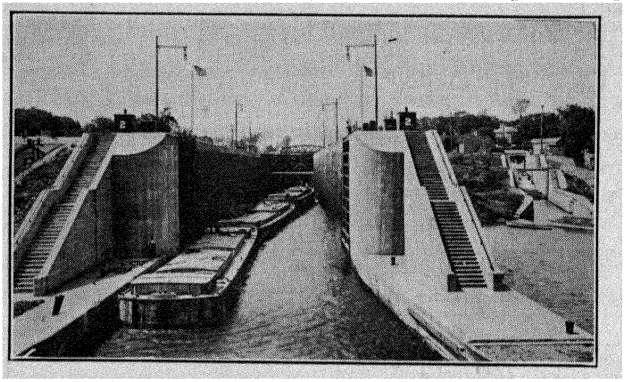
Waterways. The decline of inland water transportation, which began after the Civil War, continued unabated throughout the remainder of the nineteenth century. Rivers and canals were unable to compete successfully



Unloading Ore at Cleveland
Courtesy of Cleveland Chamber of Commerce

with railroads. Even the ocean coastwise trade, which during the first half of the century had been by far the most important part of the nation's domestic commerce, failed to develop at a rate commensurate with the general expansion of trade and industry. Only on the Great Lakes did water transportation show a substantial growth. The decay of water transportation was due in part to the unfair competitive methods of rail carriers. River and canal transportation was frequently destroyed by unfair competition. The coastwise trade was checked because railroad interests bought up the leading coastwise steamship lines, then failed to develop the business themselves and

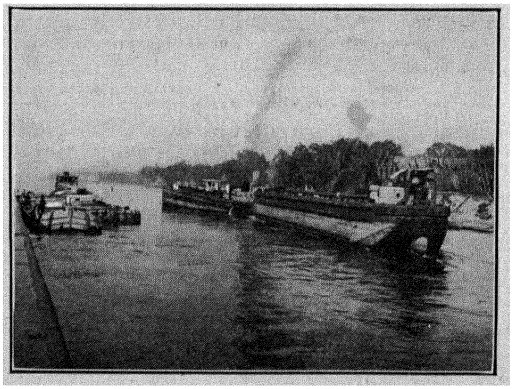
frustrated any attempts that were made to establish competitive service. Even the important steamship lines oper-



Old and New Locks of the New York Canal System
State Engineer and Surveyor's Department

ating on the Great Lakes were absorbed by rail carriers.

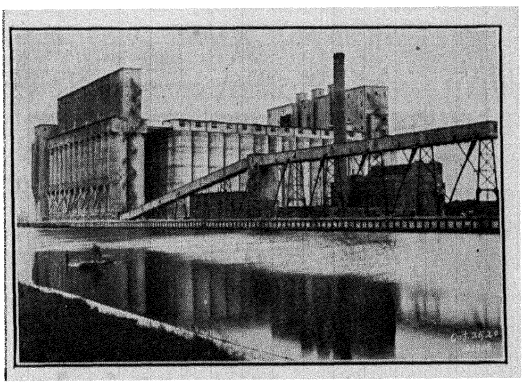
Railway traffic grew so rapidly that car shortages and railroad congestion came with unwelcome frequency. It



Modern Barge on the New York Barge Canal
State Engineer and Surveyor's Department

became apparent to many people that the time was coming when the density of freight traffic in the United States

would be so great that it might be a matter of economy to utilize the long neglected waterways for carrying a part of the nation's commerce rather than to try to construct additional railroad facilities. There was a widespread renewal of interest in the possibilities of water transportation. The Federal Government appropriated large sums for the improvement of rivers and harbors. The appropriation for river improvement were spent in deepening the channels of certain streams and in constructing dams, locks and jetties. The Ohio, the Mississippi, the Hudson and the



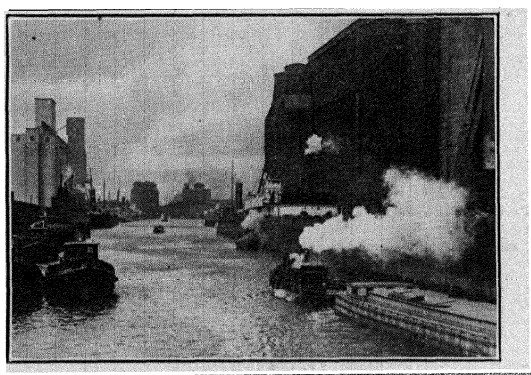
A Modern Grain Elevator, Buffalo

Courtesy of Buffalo Chamber of Commerce.

Columbia rivers were among the more important streams to receive the benefit of Federal appropriations. Two new locks were built in the St. Mary's River at the entrance to Lake Superior, and a number of intracoastal waterways were constructed along the Gulf and Atlantic coasts.

Of projects of waterway improvement undertaken by agencies other than the Federal Government the Cape Cod Canal and the New York Barge Canal were the most important. The Cape Cod Canal, which was opened in July, 1914, was constructed between Buzzard's Bay and Cape Cod Bay by a private corporation. It shortened

the all-water distance between Boston and New York by 70 miles and afforded a route for vessels that was much safer than the frequently dangerous passage around Cape Cod. In 1903 the people of the State of New York authorized the construction of a barge canal from the Hudson River at Waterford to Lake Erie at Buffalo to take the place of the famous old Erie Canal which had long ceased to have much value as a commercial highway. The new canal, which was opened to traffic throughout its length in 1918, was constructed to accommodate barges of a thousand



Grain Elevators at Buffalo

Courtesy of Buffalo Chamber of Commerce.

tons capacity. The tow path and mule-power gave way to steam tugs. The construction of this waterway, with its electrically operated locks, its dams and gates to control the water level, its terminal facilities at important shipping points from New York City to Buffalo, was an engineering feat of great magnitude. The canal was built not only to afford a transportation route across the State but to make available for use various sources of hydroelectric power.

In an effort to prevent the suppression of water transportation by selfish railroad interests Congress provided in

the Panama Canal Act of 1912 that no railroad corporation should be permitted to operate competing vessels through the Panama Canal, nor to operate competing vessels on any other water route except with the consent of the Interstate Commerce Commission. The Commission was authorized to determine whether competition existed and to decide whether a continuance of railroad ownership would be in the public interest. Under this law the Commission ordered the railroads to surrender their control of competing vessels on the Great Lakes and on a few other water routes.

The Panama Canal. On August 15, 1914, the Panama Canal was opened to traffic. This important waterway was constructed by the Federal Government, the work beginning in 1904. From the time of the Mexican War, when the United States secured possession of California, the construction of a canal across the isthmus connecting the two American continents was an object of deep interest to the people of the United States, not only because such a waterway promised commercial advantages of exceptional value, but because it promised to be an important addition to the military and naval strength of the nation. Though the United States negotiated treaties and conventions with New Granada (Colombia) and Great Britain before 1850, with a view to making arrangements for the construction of an isthmian waterway, no decisive step in the matter was taken for many years. In 1879 a French corporation was organized by Ferdinand de Lesseps, who had planned and carried out the building of the Suez Canal, to undertake the construction of a canal across the Isthmus of Panama. The company began excavation in 1883 and carried on the work until 1889, when it became bankrupt and dissolved. A new company was organized to go on with the project but it failed to make any material progress. In 1895 President Cleveland appointed a Nicaragua Canal Board to investigate and report upon the cost of construc-

ting a canal across Nicaragua. This board was succeeded in 1897 by the Nicaragua Canal Commission which in turn was replaced two years later by the Isthmian Canal Commission. The new Commission was directed to investigate all practicable routes for an inter-oceanic canal, and particularly the routes known as the Nicaragua and the Panama routes. In 1901 the Commission recommended that the Nicaragua route be chosen, but when the following year the Government reached an agreement with the French canal company for the acquisition of its property and franchises, the Commission filed a supplementary report recommending the Panama route as the most "practicable and feasible route."

The United States Government negotiated a treaty with Colombia to secure rights to a canal zone across the isthmus. The treaty was ratified by the United States Senate in 1903, but the Colombian Government rejected it. The people of the state of Panama, indignant at the action of the Colombian Government, revolted and established a republic. President Roosevelt promptly recognized the new republic, and a treaty was soon negotiated under which the United States obtained the rights deemed necessary for the construction of the canal.

A problem which had to be solved before work could be conducted on a large scale was the sanitation of the canal zone. Dr. William C. Gorgas, a colonel in the regular army, was appointed sanitary officer, and under his capable administration yellow fever in Panama was stamped out and the isthmus made one of the most healthful regions in the tropics.

For three years the work on the canal proceeded slowly, chiefly because of administrative difficulties. In 1907 the Commission in charge of construction was reorganized, with army officers in the majority. Col. George W. Goethals was appointed chairmen of the Commission and

Chief Engineer, and given charge of the entire project. Under his able management and direction an organization was formed which carried the work to rapid completion. The cost of the canal was approximately $400,000,000.

It is too early yet to tell exactly what the economic and commercial influence of the canal is to be. It unquestionably affords a cheaper and more efficient transportation route between the east and west coasts of the United States and should promote the growth of a large intercoastal domestic trade. It shortens greatly the sailing time between the east coast of the United States and the west coast of South America, gives to the Atlantic ports of the United States a shorter and more direct route to many parts of the Orient, and brings the west coast of the United States closer to western Europe. While the World War was in progress the canal was used but little by commercial vessels, all possible effort being made to divert shipping to service between America and Europe. Since the return of peace traffic through the canal has been steadily growing, and there seems little doubt that the waterway will become an important factor in American trade.

The Panama Canal Tolls Controversy. The Hay-Pauncefote treaty, negotiated between the United States and Great Britain in 1901, stipulated that if the United States should build an isthmian canal, the waterway should, when completed, be open to the vessels of all nations without discrimination in charges. Notwithstanding this treaty, Congress, acting upon the theory that the treaty did not apply to the shipping of the United States, included in the Panama Canal Act of 1912 a clause exempting the coastwise shipping of this country from the payment of canal tolls. The British Government protested that the exemption was a violation of the treaty. Accepting the British interpretation of the treaty—an interpretation which the leading authorities on international law in the

United States and in Europe asserted to be correct—President Wilson appeared before Congress on March 5, 1914, and asked for the repeal of the exemption. Though the Democratic Party platform of 1912 had indorsed the exemption feature of the Panama Canal Act the President secured the support of a sufficient number of his party to bring about the repeal which he requested. The repealing act contained a proviso however which reserved any right which the United States might have under the treaty to exempt American vessels from the payment of tolls, thus making it possible for a future Congress to insist upon a different interpretation of the treaty.

Foreign Trade and Shipping. The foreign commerce of the United States had a wonderful growth between 1897 and 1914, exports of domestic merchandise rising in value from $1,032,007,603 to $2,329,684,025, and imports from $616,049,654 to $1,893,925,657. The most significant change in the character of the export trade has already been pointed out, namely the continual increase in the proportion of manufactured goods and the decline in the proportion of foodstuffs. Cotton continued to be the leading single export. With the growth of domestic manufacturing industries the relative position of raw materials in the import trade tended to improve and the percentage of manufactured goods in the total imports declined. Increased exports of finished manufactures and increased imports of raw material signified a steady development of commerce with the non-industrial portions of the world in North America, South America, Asia and Africa.

Notwithstanding the expansion of foreign trade between 1897 and 1914 the American merchant marine made little progress. In 1898 the tonnage of American vessels registered in foreign trade was 726,213, the lowest it had fallen since 1840. The same causes which began to act immediately after the Civil War to discourage the shipping indus-

try in the United States—high cost of ship construction, high operating costs, and the investment of capital in internal enterprises—continued to prevent the revival of the merchant marine. With the rise of a large export trade in manufactured goods the lack of a merchant marine was keenly felt by American business interests. The service from American ports to those parts of the world which sought foreign manufactures in large quantities was not so good as the service from European countries whose exports competed with those of America. It was not an uncommon occurrence for travelers who desired to go from the United States to Brazil, for instance, to make the journey by way of England. Without adequate shipping service American exporters were at a disadvantage in the competitive struggle with foreign rivals.

Efforts were made in Congress from time to time to secure the enactment of measures to encourage the shipping business. Several attempts were made to pass subsidy laws, the most notable effort coming in 1901 when a general subsidy to virtually all branches of the shipping business was proposed. The bill failed to pass however, and the recommendations made by the Merchant Marine Commission a few years later, that a subsidy policy be adopted, likewise failed to produce effective action. In 1912 Congress modified the shipping policy of the country to the extent of permitting the registry under the American flag of foreign vessels not more than five years old. The following year Congress made a further effort to encourage the shipping industry by including in the Underwood Tariff Law a section stipulating that "a discount of 5 per cent on all duties imposed by this act shall be allowed on such goods, wares, and merchandise as shall be imported in vessels admitted to registration under the laws of the United States." There was a proviso however that nothing in the section should be construed as abrogating or

impairing any commercial treaty to which the United States was a party. The courts declared that the proposed discrimination violated the many reciprocity treaties which the American Government had negotiated with foreign Governments, and the discount was not permitted.

Under the provision of the shipping legislation of 1912 a few foreign built vessels were registered under the American flag, but even with these additions the total tonnage of American vessels engaged in foreign trade was only a little more than a million tons. The coming of the European war in 1914 brought the shipping problem to a crisis. How the problem was dealt with will be considered in the following chapter.

The Banking and Currency Problem. It was told in a previous chapter that little was done at the close of the free-silver agitation to improve the condition of the nation's currency. It took another panic to stimulate activity. It was a well known fact that the financial crises from which the American people had suffered were of much greater severity than might have been the case had the country possessed a better currency system. The chief defect of the currency was its "inelasticity." The amount of currency in existence could not be readily increased or reduced when the need for expansion or reduction came. This inelasticity was the underlying cause of "panic" during an industrial or commercial crisis. As has been explained before a commercial crisis comes at the end of a period of credit expansion; it is due to the fact that many people have gone into debt and at the time of maturity of their obligations they are unable to pay. When a commercial reaction sets in creditors press their debtors for immediate settlement. The amount of debts—or of credits—in the business world at any time is vastly in excess of the quantity of money in circulation, and with everybody seeking money to settle his obligations, unless there is some method by which the

quantity of currency can be temporarily increased, debtors find themselves in a precarious situation. Banks can not pay their depositors because the banks themselves can not collect all their loans. The inability of debtors to obtain money and the pressing need for it tend to create a panic, just as a panic may occur on a sinking ship when the time in which to reach the life-rafts is too short for all to be accommodated in an orderly manner.

Under such conditions the business men who are actually solvent may suffer just as severely as those who have made unwise investments or have indulged in excessive speculation. With everybody trying to meet their obligations property and securities are dumped on the market indiscriminately and prices come tumbling down. The interest rate shoots upward. Bank depositors who are unable to get funds from their banks try to buy currency at a premium with certified checks. The wheels of business refuse to turn.

When conditions arise that point to the approach of a panic an elastic currency system will save many solvent business interests. They can deposit their notes, drafts, and other bills receivable with the currency issuing agency and get the cash necessary to meet their obligations. When the crisis subsides and business becomes normal the obligations back of the extra currency may be redeemed and the quantity of currency reduced to the amount necessary for normal business operations.

The currency of the United States, previous to 1914, did not have this element of elasticity. The quantity of gold in the country changed according to the character of international dealings; the amount of greenbacks and silver certificates remained virtually stationary; the amount of national bank notes outstanding fluctuated but little. The bank notes were the only part of the currency which could possibly have elasticity, but inasmuch as the notes were

issued upon the security of Government bonds the quantity in circulation at any time was limited to the amount of bonds in existence which had the "circulation privilege." The process of retiring the bank-notes or of issuing them was not a process that responded to commercial needs. The currency system was therefore not only of such a nature that it could afford little relief when financial crises developed, but it did not respond to the needs of the nation's business under normal conditions. In the ordinary course of trade the demand for currency in different parts of the country fluctuates from season to season. During the crop moving season the wheat belt needs a large supply of currency; during other seasons the needs of the wheat belt for currency are not so great. Under former conditions its demand during the crop moving season could not be met by a temporary increase in the supply of currency, and it was necessary for the banks in the wheat belt to call back whatever deposits they had made in eastern cities. This often made it necessary for the eastern banks to contract their loans, and money became "tight" until the crop movement was over and deposits again flowed from the interior to the eastern cities.

The banking system was of such a character as to cause the curtailment of credit when panic conditions approached, when the most necessary thing to save the situation was the free extension of credit. The "country banks" kept their idle funds on deposit in the large cities, particularly in New York. When these deposits piled up the "easy money" served to encourage speculative activity in the stock market, thus producing the conditions which often caused financial crises. When a crisis began to develop and individual bank depositors clamored for funds, the country banks hurriedly sought to withdraw their deposits from New York and other cities. This only made a bad

situation much worse by hurrying the process of liquidation and causing a greater contraction of credit.

The McKinley administration, which went into office on a sound money platform, did little with the currency problem except maintain the gold standard and enact legislation to extend the life of the national bank-note currency. The bonds which secured the bank-notes outstanding at the close of the nineteenth century nearly all were issued to reach maturity before 1909, and if the Government redeemed them as they fell due it meant that the bank-note currency must be retired. In order to prevent this from happening, Congress enacted a measure on March 14, 1900, providing that the bonds maturing in 1904, 1907 and 1908 should be refunded into thirty year bonds, bearing interest at the rate of 2 per cent and having the circulation privilege. This act reversed the policy which the Government had always followed, of paying its interest-bearing debt as soon as possible. It seemed to be a confession that the Government had to be in debt in order for the country to have a sufficient quantity of money. Though the rate of interest on the new bonds was very low, the postponement of the payment of the debt made the burden of the taxpayers actually greater.

The Panic of 1907. The defects of the banking and currency system were once more brought to the attention of the public in a forcible manner in 1907, when a sharp financial crisis overtook the country. Speculation had been exceedingly active for several years; the combination movement and its resulting overcapitalization of business enterprises had brought about the sale of many securities at prices much in excess of their real value. The day of reckoning had to come, and when it came the banking and currency system functioned as it had done before in 1873 and 1894. On October 24 it was impossible to borrow

money in New York. Interior banks tried to withdraw their funds from the New York banks. Depositors began a run on several financial institutions, and one, the Knickerbocker Trust Company, was forced to close its doors. Currency went to a premium early in November. The weaker banks of New York were saved only through the aid of the strong banks which held exceptionally large cash reserves. To enable the strong banks to help the weaker ones and at the same time protect themselves against danger of loss "clearing-house certificates" were issued, a device that had been tried successfully in two previous panics. Any bank could deposit bills receivable or other securities with the clearing house and receive in exchange "certificates" for 75 per cent of the par value of the securities deposited. It was agreed that all banks would accept these certificates in place of cash in the settlement of balances at the Clearing House. Thus if Bank A cashed checks drawn upon Bank B, it would accept from Bank B these certificates instead of currency. Thus the reserves of all the banks were pooled as it were, and the weaker banks were able to weather the storm. These clearing-house certificates were in the nature of currency. Had there been an elastic currency system their use would have been unnecessary.

In other large cities clearing-house certificates were used to help banks through the crisis; many banks placed an arbitrary limit upon the amount of currency which they would permit their depositors to withdraw each week; in some places manufacturers who were unable to get currency for their payrolls issued small certificates which local storekeepers agreed to accept in place of cash. Industry and trade were crippled for several weeks solely because of a defective currency system.

The Emergency Currency Law. The difficulties of 1907 stirred Congress to action, and in 1908 the Aldrich-Vreeland Emergency Currency Law was passed. This act

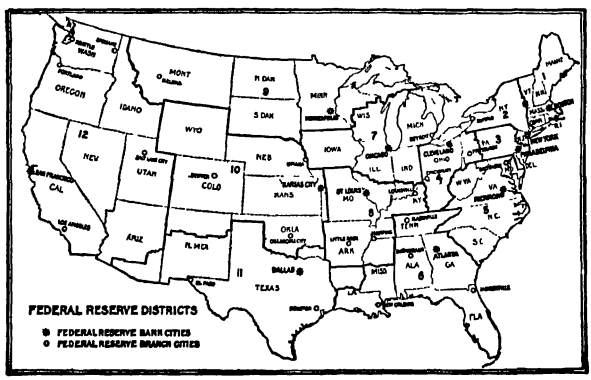
provided that national banks might secure additional circulating currency in time of emergency by the deposit of commercial paper and securities with a "national currency association," to be held in trust for the United States. The emergency currency thus provided for was similar in most respects to the clearing-house certificates except that it was issued by the Government.

This law was only an emergency measure, and it did nothing to give to the country a currency which would fluctuate in volume from season to season according to commercial needs. As a step in the direction of revising completely the currency system the law provided for the appointment of a National Monetary Commission to be composed of members of the two branches of Congress. The Commission was directed to investigate the currency problem and report to Congress what changes were thought to be desirable in the currency and banking system of the United States. The Commission's work was completed in 1912. Its report contained an exhaustive description and history of the currency and banking systems of the leading countries of the world. It recommended the establishment under a Federal charter of a great central reserve bank with 15 district branches, to be owned and controlled by subscribing banks. It recommended the adoption of an elastic asset currency. The chief popular objection to the plan was that it gave private banking interests instead of the Government control of the currency system. The report came too late for legislative action during President Taft's administration, and currency legislation was therefore postponed until after President Wilson and the Democratic Party came into power.

The Federal Reserve System. On June 23, 1913, while the House of Representives was waiting for the Senate to finish its consideration of the tariff bill President Wilson appeared before Congress and urged the enactment of

currency legislation. "One of the chief things business needs now and will need increasingly as it grows in scope and vigor in the years immediately ahead of us," he said, "is the proper means by which readily to vitalize its credits, corporate and individual, and its originative brains. . . .

"The principles on which we should act are also clear. . . . We must have a currency, not rigid as now, but readily, elastically responsive to sound credit, the expanding and contracting credits of everyday transactions, the normal ebb and flow of personal and corporate dealings. Our banking laws must mobilize reserves, must not permit



the concentration anywhere in a few banks of the monetary resources of the country, or their use for speculative purposes in such volume as to hinder or impede or stand in the way of other more legitimate and fruitful uses. And the control of the new system of banking and issue which our new laws are to set up must be public, not private, must be vested in the Government itself. . . ."

The Federal Reserve Act, which was approved December 23, 1913, embodied all the principles outlined by President Wilson. It is by far the most important financial measure ever passed by Congress and it takes high rank among all

the constructive measures ever formulated at Washington. It has given to the United States a currency system which an extremely difficult test has proved to be perhaps the most admirable currency system possessed by any country in the world. Though the majority of the bankers of the country waged bitter warfare against the bill when in the course of passage, they have now come to give the act their unqualified approval.

The law created first of all a Federal Reserve Board consisting of five appointed members and two *ex-officio* members, the Secretary of the Treasury and the Comptroller of the Currency. This board is charged with the general administration of the Federal Reserve System. Under the terms of the act the country has been divided into 12 districts or regions, and a city has been selected in each region for the location of a regional Federal Reserve Bank. The cities having the regional banks are Boston, New York, Philadelphia, Richmond, Atlanta, Cleveland, Chicago, Minneapolis, St. Louis, Kansas City, Dallas and San Francisco. Each regional bank is the central bank of its district; all the national banks in the district are "member banks," and state banks too are permitted under certain conditions to become members of the system. Each member bank subscribes to the capital stock of the regional bank of its district and is required to keep a part of its reserves in the regional bank. The regional banks do no business with the public aside from the purchase and sale of gold, Government bonds, and certain forms of bills of exchange. They are the banks of the member banks. Each regional bank has nine directors, six elected by the member banks and three named by the Federal Reserve Board.

Each regional bank may rediscount the notes, bills and other commercial paper of its member banks. In this way the banking resources of a district may be mobilized so that surplus funds in one part of the district may be used to

finance the business operations of another part of the district. At the direction of the Federal Reserve Board one regional bank may rediscount the commercial paper of another regional bank, so that the resources of the entire system may be mobilized where needed. The regional banks are the fiscal agents of the Government.

Provision is made for currency elasticity through the issue of Federal Reserve notes. Should the demand for currency in any district exceed the available supply the Federal Reserve Bank may exchange some of its rediscounted paper for these notes. One of the three directors of a Federal Reserve Bank appointed by the Federal Reserve Board is designated as a Federal Reserve Agent. Should the regional bank desire currency it places some of its commercial paper in the hands of its Federal Reserve Agent and sets aside a sum of gold equal to 40 per cent of the amount of Federal Reserve notes requested. The Federal Reserve Agent then gives the notes to the bank and holds in trust for the Government the commercial paper against which the notes are issued. The notes are obligations of the Government and are redeemable in gold at the Treasury in Washington. When business slackens and borrowers settle their accounts the notes come back to the regional banks and may be withdrawn from circulation. The Federal Reserve Board may suspend the reserve requirements of the law, but should the gold reserve behind the notes of a regional bank at any time fall below 40 per cent, a tax is imposed upon the bank, which the bank adds to its rediscount rate. The purpose of the tax is to check undue inflation of credit and prevent excessive currency expansion. The Federal Reserve Board has the power to determine in a general way the character of the commercial paper which may be used as a basis for currency issue. The paper must consist of bills, notes and drafts arising out of actual commercial transactions, and it must not include notes drawn

for the purpose of carrying on trading in stocks, bonds, or other investment securities except the bonds and notes of the Government.

Though the Federal Reserve System can not prevent the occurrence of industrial and commerical depressions—no currency and banking system can do that—it can save the conservative business interests from those losses which they have heretofore been compelled to suffer because of "panics." It can adjust the volume of currency to the changing needs of the country throughout the year, and it can in times of emergency supply the currency necessary to prevent wholesale financial disaster to the business interests of the nation.

The Federal Farm Land Bank System. The program of banking legislation of the Wilson administration was rounded out in 1916 by the enactment of the Federal Farm Land Bank Act. Before the passage of this law there was no machinery to provide agricultural interests with adequate long-term credits. The farmer needs long-time credit, and he is unable to secure it at the ordinary commercial bank. A bank must keep its assets in a form that can be converted into cash on short notice. Farm mortgages are often difficult to sell and a bank which has its funds tied up largely in farm mortgages might find it difficult to meet the demands of its depositors.

The Federal Farm Land Bank System is patterned after the Federal Reserve System. It is supervised by a Federal Farm Loan Board. The country is divided into twelve districts, each district containing a Federal Farm Land Bank. Farm Loan Associations are organized in each district. These associations are made up of farmers who desire to borrow money on the security of farm mortgages. A farmer desiring to make a loan gives a mortgage to the association. The association turns the mortgages received over to its Farm Land Bank, accepting in exchange money

to be advanced to the farmers who execute the mortgages. A Farm Land Bank may deposit its mortgages with an agent designated by the Farm Loan Board, and it may then issue bonds to an amount equivalent to the mortgages. It sells the bonds to the public. The money obtained from the sale of bonds may be used to buy more mortgages from Farm Loan Associations, and the process repeated until the outstanding bonds of the Farm Land Bank amount to twenty times its capital. Under this system the loanable funds of the public become readily available for the use of the farmers. The rate of interest which the farmers pay is lower than the rate they would have to pay when borrowing from an ordinary commercial bank, and the conditions for the redemption of mortgages are exceedingly liberal. The Federal Farm Land Bank System is designed to give the farming interests credit facilities equal to those afforded by the Federal Reserve System to manufacturers and merchants.

The Industrial Relations Commission. In June, 1913, President Wilson sent to the Senate his nominations for the Industrial Relations Commission which had been created by an act of Congress the previous August. The nominations were confirmed in September, and the Commission organized and began its inquiry into the labor problem. Its work was completed in 1915. The representatives of labor and capital were unable to reach an agreement either as to the causes of industrial unrest or as to recommendations for legislative action. The report of the labor group, outlining certain causes of industrial discontent, created much comment, adverse or favorable as a rule according to the prejudices of the commentators. The Commission's work did not result in the adoption of any program of Federal labor legislation. The war in Europe for the time being forced into the background the question of formulating a new industrial policy.

Questions and Topics

1. What effect has the World War had upon immigration to the United States?
2. Do you know of any factories in which electric motors have displaced the steam engine?
3. Are you familiar with any recently adopted practical projects of conservation?
4. What has been the effect of the automobile upon the passenger business of interurban electric railways?
5. Congress is now considering the advisability of the construction, in coöperation with Canada, of a waterway through which ocean vessels may enter and leave the Great Lakes by way of the St. Lawrence River. Do you think such a waterway should be constructed? Why?
6. What are the chief features of the highway laws of your own State?
7. How do Federal Reserve notes differ from the national bank notes? from the greenbacks?

CHAPTER XXVII

ECONOMIC ASPECTS OF THE WORLD WAR

The European War. On July 28, 1914, Austria declared war on the little kingdom of Serbia because the Serbian Government refused to accede to humiliating terms of an ultimatum which the Austrian Government delivered as a result of the murder of the heir of the Austrian throne by a Serbian fanatic. Russia made ready to prevent the annihilation of Serbia, and on August 1 the Imperial Government of Germany jarred the world by declaring war on Russia. France and England were drawn into the struggle almost immediately, France by virtue of her alliance with Russia, and England because of Germany's wanton invasion of peaceful Belgium. The mighty struggle, in preparation for which Europe had for a generation been taking on more and more the appearance of a vast armed camp, had begun.

The war brought a complete transformation in the economic outlook. It meant the diversion of millions of men from peaceful pursuits to military service and other war activities; it meant the sudden termination of trade relations between the belligerent countries. The necessity for complete economic readjustment in the countries taking an active part in the great conflict caused an abrupt disturbance of commercial relations with all neutral countries. The first effect of the war was a sharp financial crisis over the entire commercial world. Creditors hurried to seek cover, demanding immediate settlement of all current obligations; investors, fearful of the ruin and devastation of

war, tried to turn their securities into gold. The credit structure which supported the commercial operations of the world began to totter. Only heroic measures averted unprecedented disaster. In virtually all European countries *moratoria* were declared, relieving debtors for the time being from the necessity of meeting their obligations. In the United States the New York Stock Exchange and all other stock exchanges of any importance were closed for several weeks, bringing trade in securities to an end. European business interests, particularly the business interests of England, that had funds due from the United States, demanded gold, and foreign exchange in New York rose to a high level. The demands upon banks throughout the country became unusually heavy. The Federal Reserve System not having yet been put into operation, it became necessary for banking interests to resort to the issue of emergency currency under the terms of the Aldrich-Vreeland Act of 1908. Almost $400,000,000 of emergency currency was issued, and the crisis passed without the development of a "panic." Gradually there was a transition from peace conditions to war conditions, and the credit structure adjusted itself to the new economic situation created by the fundamental changes in the production, sale and consumption of economic goods.

Effects of the European War upon American Commerce. Though the United States did not become an active participant in the war until 1917, the conflict nevertheless had a pronounced effect upon American industry and trade. The struggle caused immediate changes in the character of American foreign commerce, and out of these changes came important modifications of domestic economic conditions. British naval supremacy became instantly manifest in the disappearance of German merchant shipping from the high seas. The British Government declared a blockade of the German coast, and direct trade

between Germany and the United States soon came to an end. Moreover England took steps to prevent Germany's carrying on external commerce through the ports of adjoining neutral European countries. The sale of American goods to Germany was stopped and likewise the sale of German merchandise to the United States. The loss of German markets for American exports was offset however by an immediate increase in exports to other European markets. All the nations of Western Europe had been accustomed to derive a large part of their food supplies from Russia. The entrance of Turkey into the war shut off the Russian grain trade, with the result that there was a greatly increased European demand for American foodstuffs. Moreover the transfer of a large portion of the working population of the countries allied against Germany to military service made it necessary for those countries to buy in the United States and elsewhere a part of the foodstuffs which they ordinarily would have produced themselves. In addition to purchasing foodstuffs in the United States the allied nations bought in this country large quantities of horses, vehicles, metal products and raw materials, which could be used for military purposes, and they also entered into contracts with American manufacturers for the production of munitions—explosives, projectiles, cannon, and small arms.

American Export Trade, 1915–1917. The exports of the United States for the fiscal year of 1915 were larger than those for the previous year, notwithstanding the fact that trade with Germany came to a virtual end shortly after the war started. The exports of munitions during this year were comparatively small because it took some time for production to be established on a large scale. There was a notable increase however in the exports of foodstuffs, of war supplies for which facilities for production already existed, such as automobiles, barbed-wire, surgical ap-

paratus, hospital supplies, leather goods, and horseshoes, and of raw materials for munition factories, such as zinc, brass, steel rods and billets and metal-working machinery. Exports of cotton declined as well as exports of agricultural implements, fertilizer and lumber. By the end of 1915 American munition factories—dozens of which were built after the war began—were turning out their wares in large quantities. The exports of munitions for the fiscal year of 1916 were valued at $481,000,000, more than nine times the value of munitions exported in 1915. The exports of raw materials for the production of munitions in foreign factories were also large, and there was an increase in the exports of foodstuffs, iron and steel products, leather, and other war supplies. The total value of American exports for 1916 was $4,272,397,774. The following year it was some two billion dollars more. Shipments of munitions and materials for munitions in 1917 were twice the value of the shipments of 1916, and there was a large increase in the value of foodstuffs exported. A substantial rise in prices accounted in part for the great increase in the value of exports, but the increase in the quantity of goods sold was by no means a negligible factor.

Import Trade. The value of the merchandise imports of the United States in 1915 was some two hundred million dollars less than the value of imports for the preceding year, but in 1916 and in 1917 there was a large increase in the value of imports, the total for 1917 amounting to $2,659,355,185. Here too the increase was due in part to the rise of prices. The actual quantity of goods purchased from Great Britain declined, while the imports from nearly all other European countries tended to fall off both in quantity and value. The most important change in the character of the import trade was the large increase in the quantity of raw materials purchased from South America and the Orient. Finished manufactures occupied a

place of lessening importance in the import trade. The factories and the factory workers of Europe were turned to other uses than producing for the markets of the United States, and this country not only produced a larger proportion of the manufactured goods consumed at home but took a large part in supplying those markets which had formerly depended chiefly upon European mills.

A Creditor Nation. The increase in the value of American imports was much less than the increase in the value of exports, and each year of the war showed a rapidly mounting balance of trade in favor of this country. For many years before the war the United States had been a debtor nation. A large excess of exports over imports had been necessary to meet the interest charges on foreign investments in America and to pay other foreign obligations such as transportation charges and tourists' expenses. It has been noted before that as soon as the war broke out there was a heavy export movement of gold from the United States to settle current foreign indebtedness. With the rapid rise of the export trade the outward movement of gold was soon checked, and by January, 1915, the importation of gold was under way. For the fiscal year of 1915 the net gain of gold by the United States amounted to $25,344,607. In 1916 it was $403,759,753, and in 1917 it was $685,254,801. These imports of gold, large as they were, were far too small to pay off the obligations contracted in this country by the nations warring against Germany. American securities held by foreign investors were returned to this country in large quantities, but even the absorption of these securities did not serve to balance the account. Both Great Britain and France placed large loans in the United States, thereby establishing the credits necessary to finance their purchases of American goods, and other European countries followed a similar policy. By the beginning of 1917 the United States had paid off all

obligations to the rest of the world, had obtained a large part of the gold supply of the world, and was in possession of foreign securities and other "bills receivable" amounting to many millions of dollars. The United States had become a creditor nation.

The Shipping Problem. The lack of a merchant marine was a serious handicap to the commerce of the United States. For many years before the war American merchants had depended chiefly upon British and German shipping for ocean transportation service. With German shipping swept from the seas and a large part of Great Britain's merchant tonnage devoted to military use the United States was confronted with a great shortage of shipping facilities. Great Britain, by careful allocation of her tonnage, was able to furnish a large number of vessels to carry goods from the United States to England, but it was extremely difficult for American merchants to obtain shipping service to other parts of the world.

Various expedients were adopted to meet the immediate emergency. Coastwise and lake shipping was diverted to ocean routes, old vessels, many of which had long since been abandoned and sent to the "boneyard" to rot and rust away, were repaired, refitted and put into service, and orders for new tonnage were placed with the few ship yards in the country. Vessels in service were driven at top speed and every effort made to reduce the time spent in port. The shortage of service was reflected in a spectacular advance in ocean freight rates. Anybody who owned a vessel or had a vessel under charter was able to make a profit equal to the price of the vessel in one or two successful voyages.

Shipping Legislation. The first step which the Government took to relieve the shipping shortage was to enact a law extending the policy of free shipping adopted in 1912. By a law approved August 18, 1914, the requirement that

foreign built ships need be not more than five years old to be admitted to American registry was repealed, and American registry thrown open to all foreign shipping. This law could not provide an increased supply of shipping. It could at best only serve to divert to American registry the merchant vessels of other neutral nations. To the extent that it made possible a restoration of the services which the war had curtailed or brought to an end it did however afford some aid to American commerce. But what was needed was the construction of new tonnage.

In September a bill was introduced into Congress providing for the development of the American merchant marine through the agency of the Government. In effect the bill proposed the creation of a corporation, controlled by the Government, which should own and operate vessels in the foreign trade of the United States. The bill authorized the Government to purchase or construct the vessels which should be operated by the corporation. The bill met with bitter opposition in Congress, particularly among those Senators who favored giving large subsidies to private shipping interests. It finally passed the House of Representatives in amended form but was killed in the Senate by the obstructive tactics of its chief opponents.

It soon became apparent that Congress had acted unwisely in refusing to pass the ship purchase bill. General ship subsidy legislation had long been out of the question in the United States, and private capitalists displayed no eagerness to spend large sums in the construction of new shipyards and ships. Late in February, 1915, Germany began her campaign of unrestricted submarine warfare against enemy merchant vessels, and in the course of a few months the shortage of shipping became more acute than ever. A number of individuals, both in and out of Congress, who had opposed the ship purchase bill, openly

expressed regret at their action in helping to bring about the defeat of the measure.

The next session of Congress witnessed a renewal of the attempt to enact shipping legislation and after much delay and fruitless debate the Shipping Act was finally passed and signed by President Wilson on September 7, 1916. The new law created a Shipping Board, to which was given important regulatory powers over shipping engaged in foreign and domestic trade. The Board was authorized to acquire merchant vessels by construction, lease or purchase, and to sell or charter such vessels to citizens of the United States. It was also authorized to form one or more corporations with a capital not to exceed $50,000,000, of which the Board should control at least 51 per cent. The corporation was to have power to purchase, lease and operate such vessels as the Shipping Board might acquire. To guard against complications with the belligerent nations of Europe it was stipulated that the Board should not acquire vessels registered in a country then at war. It was also provided that government operation of ships should be only temporary, the corporation or corporations organized by the Board being required to cease the operation of vessels within five years after the end of the European War.

The law did not come soon enough to give any relief during the winter of 1916. The sinking of British vessels by German submarines continued, and the precautions which the British Admiralty took for the protection of merchant shipping tended to render the shipping service between the United States and England irregular. One effect of inadequate ocean shipping was an unprecedented railroad congestion in the United States. Thousands of carloads of foodstuffs, machinery, and military supplies, intended for export, accumulated at the eastern seaports

of the United States, choking the freight terminals and making the operation of the railroads extremely difficult. The failure to unload export traffic from freight cars caused a car shortage the country over, but especially in the Central and Western States. Industry and commerce were seriously hindered because of the railroad congestion, which was due primarily to insufficient ocean transportation facilities.

Effect of the European War upon American Industry. It was but natural that the heightened demand for American products in Europe should have a stimulating effect upon nearly all branches of American industry. The demand for foodstuffs caused exceptional activity in the agricultural States. In 1915 the wheat crop was more than a billion bushels. Additional acreage was planted for the following year, but an unfavorable season resulted in the shortest crop harvested in six years, 636;000,000 bushels. The wheat crop for 1917 was likewise a partial failure, being only a few thousand bushels greater than the crop of 1916. In the production of corn the farmers were more fortunate. The crop of 1915 was just below three billion bushels, that of 1916 a little more than two and a half billion bushels, and the crop of 1917 broke all records, amounting to 3,065,283,000 bushels.

The largest cotton crop ever gathered in the South came in 1914, the year in which the war started. With the sudden decline of the foreign demand for cotton the planters were fearful that they would be ruined. "Buy a bale" became a watchword for a time, everybody being urged to come to the rescue of the cotton growing industry. The price of middling cotton fell from an average of 7.68 cents a pound in 1914 to 6.74 cents a pound in 1915, a much smaller decline than many had expected. There was a short crop in 1916, and a greatly increased demand from

American textile mills and from munition plants both in America and Europe carried the price to 9.18 cents a pound. The cotton planters entered upon a period of great prosperity.

In nearly all manufacturing and mining industries the war caused extraordinary activity. The production of coal, which in 1914 amounted to 458,504,890 tons, reached 581,609,263 tons in 1917, while the production of iron ore reached the unprecedented figure of 77,870,553 tons in 1916. Zinc and copper, needed in large quantities for the manufacture of munitions, were produced in larger quantities than ever before. New high records of production were attained in the iron and steel mills of the country, as well as in the textile, leather and automobile industries. A most interesting feature of manufacturing development due to the war was the rise of industries to supply commodities which the United States had for years purchased almost exclusively from Germany. The manufacture of dyestuffs and dyes was the most important of these new industries. Other articles which were produced in large quantities because of the interruption of trade with Germany were potash, chemicals of various kinds, scientific instruments, toys and optical goods.

Prices and Wages. The rise of prices since the beginning of the war in 1914 has been the most significant as well as the most disturbing feature of the economic transformation which the great conflict produced. The years 1913 and 1914 had been in the main years of depression. The market had been sluggish, prices had tended to recede, and there was a great deal of unemployment throughout the United States. The war demand did not have a pronounced effect upon prices during the first eight months of 1915 because the forces of production were able to keep up with increased needs merely by taking up the slack

which two years of depression had created. But with the great curtailment of production in Europe and a constantly growing need for American goods of every description, demand outstripped supply and prices began to climb. The average of wholesale commodity prices was 24 per cent higher for 1916 than for 1914. With the rise in the cost of living, laborers demanded higher wages, and with employers beginning to compete eagerly against one another for workmen, it was but natural that wages should rise. Manufacturing plants holding contracts for war supplies tried to draw labor from the farms with tempting offers of higher pay. One of the interesting industrial changes caused by the war was the migration of large numbers of negro workers from Southern plantations to Northern mills. Farmers, in order to hold their workers, were forced to share with them the increasing sums derived from the sale of agricultural products. An upward spiral movement of prices and wages began which was not to end until both reached dizzy heights.

America Enters the War. The European conflict which began in 1914 was similar in many respects to the struggle which had taken place a century before between Napoleon and England. It was a struggle for survival. A German victory meant the virtual annihilation of France, the disruption of the great British Empire, and the domination of Europe and a large part of Asia by the Prussian military autocracy. With the stakes of war what they were it was inevitable, just as during the Napoleonic Wars, that the rights of neutrals should receive little consideration. Both Germany and England refused to permit any recognized rights of neutral nations to imperil their chances of victory. Germany's first act of war was the violation of the neutrality of Belgium. From the beginning of the conflict both Germany and England adopted an attitude that indicated little respect for the commercial rights of neutral

nations. Since the United States was the leading neutral commercial nation it was only a question of time until this country should become involved in controversies with both groups of belligerents.

England's invasion of neutral rights of the United States consisted chiefly in the interruption of commerce with Germany through the neutral ports of Western Europe. At the most her action involved only a violation of the property rights of American citizens and was properly considered in this country not to be a sufficient cause for war. Germany did not stop with a mere violation of property rights. To carry out the design of reducing England to impotence German submarines began to sink without warning all classes of English ships, including passenger vessels carrying scores of non-combatant men, women and children, many of whom were citizens of neutral nations. It was Germany's persistence in this brutal practice, after having once agreed to stop it, that finally caused a declaration of war on the part of the United States, though the declaration came only after President Wilson had exhibited a patience which was felt by many of his countrymen to be anything but a virtue.

A War of Resources. The declaration of Congress that a state of war existed between the United States and Germany was signed by President Wilson on April 6, 1917. The nation made ready to take part in the great conflict. The man power of populous America was to be thrown into the scales against Germany, but what was more important than man power was the great material resources which the United States could contribute to the cause. It was a war in which men counted for little without machines and materials. In an address to the country issued on April 16, 1917, President Wilson set forth in convincing language the duty of the nation:

"We must supply abundant food for ourselves and for our armies and our seamen not only, but also for a large part of the nations with whom we have now made common cause, in whose support and by whose sides we shall be fighting.

"We must supply ships by the hundreds out of our shipyards to carry to the other side of the sea, submarines or no submarines, what will every day be needed there, and abundant materials out of our fields and our mines and our factories with which not only to clothe and equip our own forces on land and sea but also to clothe and support our people for whom the gallant fellows under arms can no longer work, to help clothe and equip the armies with which we are coöperating in Europe, and to keep the looms and manufactories there in raw material; coal to keep the fires going in ships at sea and in the furnaces of hundreds of factories across the sea; steel out of which to make arms and ammunition both here and there; rails for worn-out railways back of the fighting fronts; locomotives and rolling stock to take the place of those every day going to pieces; mules, horses, cattle for labor and for military service; everything with which the people of England and France and Italy and Russia have usually supplied themselves but can not now afford the men, the materials, or the machinery to make."

The Government War Organization. The problem of mobilizing the people and resources of America for the war was mainly a problem of organization. The Government was not organized, at the beginning of the war, for the great task which confronted it. The ten executive departments, with the exception of the War and Navy Departments, were not designed to cope with the problems of the great war. Even the army and navy organizations had to be modified to meet the new conditions. The organization which was to direct and control the material resources and the industrial population of the country, with the exception of the

Council of National Defense, had to be constructed after the war began.

The Council of National Defense had been created by law on August 29, 1916, as a part of a belated "preparedness" program. The Council consisted of six members of the President's Cabinet, the Secretaries of War, Navy, Interior, Agriculture, Commerce and Labor. Its duty was to outline a program for the efficient utilization of the economic resources of the country in case of war. The law creating the Council also authorized the appointment of an Advisory Commission of seven members whose duty it was to give the Council expert advice on the problems of economic organization. The Advisory Commission, which was appointed in October, 1916, did much of the preliminary work of preparing the nation for war. The Committees on raw materials, supplies, munitions and transportation rendered exceptionally valuable service during the early stages of the conflict.

As the war activities of the Government increased and it became more clear what the country would have to do to exert its full strength, an executive organization was built up to deal with the problems of an economic nature. As finally developed this organization consisted chiefly of the following boards and government corporations:

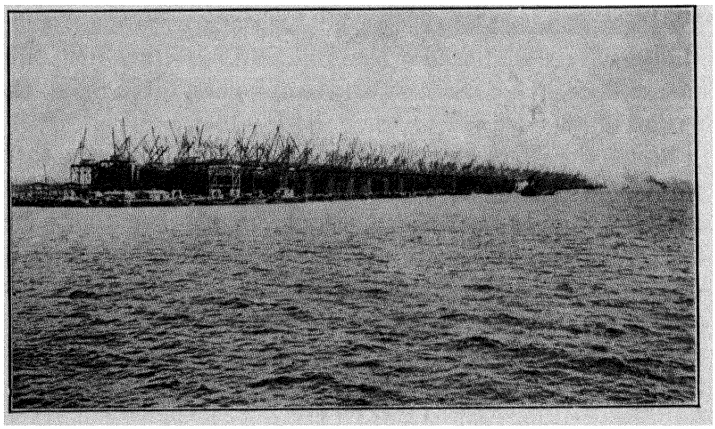
1. Shipping Board.
    a. Emergency Fleet Corporation.
2. War Trade Board.
3. Food Administration.
    a. United States Grain Corporation.
    b. Sugar Equalization Board.
4. Fuel Administration.
5. Railroad Administration.
6. War Industries Board.
7. War Finance Corporation.
8. War Labor Board.

Only one of these agencies, the Shipping Board, was in existence when the war began. The Emergency Fleet Corporation, through which the Shipping Board carried out its program of ship building and ship operation, was incorporated on April 16, 1917. The Fuel and the Food Administrations were created under the terms of the Lever Food and Fuel Control Act of August 10, 1917, though previous to the enactment of this law a volunteer organization under the direction of Herbert Hoover had done much to encourage the production and conservation of food. The Espionage Act, passed June 15, 1917, authorized the President to control the export trade of the country. To carry out his functions under this law President Wilson created an Exports Council, under which an Exports Administrative Board was organized. When, under the provisions of the Trading With the Enemy Act of October 6, 1917, the President was authorized to control the import trade, the Exports Administrative Board became the War Trade Board, controlling both the export and the import trade. The Railroad Administration came into existence on December 26, 1917, when in pursuance of authority granted in the Army Appropriation Act of August 29, 1916, President Wilson assumed control of all the leading railroad systems of the United States. The War Industries Board, which became an independent board in May, 1918, was the final successor of a series of boards and committees which had been organized under the Council of National Defense to direct the industries of the nation so that the requirements of the military and civilian agencies could be met in order of their importance. The War Finance Corporation was created by an act of Congress passed on April 5, 1918. It received a fund of $500,000,000 to be used in financing essential industries. Its work was closely related with the work of the Capital Issues Committee of the Federal Reserve Board, which was first organized by the Board

on its own initiative, and later sanctioned by an act of Congress. The Committee advised the banks on their loan policies, it being the purpose to give the more essential industries priority over the less essential industries in the matter of obtaining credit from the banks. The War Labor Board was a supreme court for the trial of controversies between laborers and their employers. It was formed at the suggestion of representatives of the American Federation of Labor and of an organization representing employers. Though the War Labor Board had no statutory authority for its existence and though its decisions were not legally binding, its recommendations and findings were generally accepted both by workers and employers throughout the period of the war.

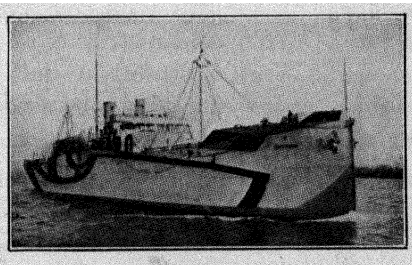
What the War Organization Did. The gigantic tasks performed by the Government during the war should put at rest any fear that a democracy can not function effectively in times of emergency. The war organization built shipyards and ships; it unified the railroads into a single great system; it brought about a marked increase in the production of food, controlling the distribution and regulating the prices of several leading articles of food; it controlled the distribution and price of fuel; it directed the whole course of the country's foreign trade; it established relations between the organized industrial forces of the nation on one side and the military and naval authorities on the other that made it possible for the Government to obtain an enormous mass of materials and equipment with a minimum of disturbance of the ordinary industrial life of the people. When the armistice with Germany was signed on November 11, 1918, the United States had an army of approximately 2,000,000 men in France, equipped as well as or better than any European army. The United States was producing food supplies, clothing, military equipment, munitions, ships, and all the multifarious supplies which war calls for

at a more rapid rate than any of the European countries which had been at war for four years and had the advantage of a better war organization to start with. The Government made mistakes, it is true, many of which were costly, but considering the enormous work which it accomplished in such a short time, with conditions such as they were when the war started, it is surprising that the mistakes were so few and the accomplishment so great. The nation can justly take pride in its record of achievement.



War Production and Conservation. During previous great wars there had been more or less fortuitous changes in productive agencies which served to offset the losses occasioned by the waste of war. For example the productive capacity of England increased during the Napoleonic Wars because of the increased use of mechanical devices in manufacturing. During the American Civil War the production of wealth in the Northern States became greater because of the increased use of agricultural machinery. During the World War there were no great inventions to revolutionize the methods of production in any industry.

The losses sustained by the diversion of man power to war activities could be made up for only by increasing the efficiency of the productive agencies already known and by the more economical consumption of what was produced. There were a few instances of the increased use of comparatively new mechanical devices. On the farms the gasoline tractor enabled a single man to tend a greater acreage of land than he had been able to cultivate with a team of horses. In transportation the motor truck came to the relief of congested railroads. Even the airplane was used to some extent for commercial purposes, though it was of much greater importance as an instrument of warfare.



The *Quistconck*, Built at Hog Island

Additional labor for the more essential industries was obtained by the suspension of activity in less essential industries. For example, building operations in cities were greatly curtailed, and there was little highway and railroad construction undertaken. There was a large increase in the employment of women, and unfortunately a laxity in the enforcement of child labor laws.

The conservation program was carried out chiefly in connection with the use of fuel, food and clothing. Electric advertising was discouraged, and the operation of less essential industries was restricted by diminishing their supply of coal. People voluntarily economized on clothing; patches and "shininess" becoming badges of respectability

and patriotism. A system of licensing and rationing cut down the wasteful consumption of foodstuffs. A great saving came from the voluntary sacrifices which people made in response to the "save food" campaign of the Food Administration. Perhaps the most important legislative measures for the conservation of food were the laws restricting and finally prohibiting the manufacture and sale of intoxicating liquors. Before the liquor legislation of the war expired, national prohibition became permanent through the ratification of the eighteenth amendment to the Constitution.

Financing the War. The Treasury administration of the Government during the war with Germany contrasted strongly with the Treasury administration of previous important wars of the United States, in that it embodied from the beginning a program of rigorous taxation. The disbursements of the Federal Government between April 6, 1917 and October 31, 1919, amounted to $35,413,111, 000. During this time $11,280,264,000 was raised by taxation, and approximately $24,000,000,000 by loans. Of the total disbursements some $9,000,000,000 represented advances to foreign countries with which the United States was associated in the war. Of the actual expenditures which the Government made for its own use nearly 40 per cent was raised by taxation. It was highly fortunate that before the war began the Constitution had been amended to permit the levying of Federal income taxes. Taxes on individual and corporate incomes and taxes on profits accounted for more than one-half the revenues collected by the Treasury during the war, while customs duties, which had so long been the chief source of the Government's receipts, contributed less than five per cent.

Prices During the War. The upward spiral movement of prices and wages, which began before the United States entered the war, gained momentum during 1917 and 1918.

By November 1918, the level of wholesale prices was 106 per cent higher than it had been in 1914. There is a wide difference of opinion among economists as to the fundamental cause of the rapid rise of prices. Those who adhere to the "quantity theory of money" regard the fluctuations of the volume of currency and credit as the primary cause of price changes, while those who do not accept the quantity theory lay emphasis upon the relation between the demand for and the supply of goods, regarding the fluctuations of the volume of currency and credit as a manifestation of changing tendencies in the movement of prices. Whatever the fundamental cause of changing prices the fact remains that there was a spectacular increase of prices during the war. At the same time there was an enormous expansion of currency and credit. The shortage of goods in the face of a constantly enlarging demand was unquestionably reflected in rising prices. When the Government entered the market with enormous orders for food, clothing and equipment, it came into competition with private business interests which were demanding the same things. As prices rose banks found it possible to give larger credits against the security of marketable commodities. The Government had unlimited purchasing power. It did not adopt a financial program which tended to restrict the giving of credit to private business. As the demands of the Government grew, competitive bidding for labor and for goods was encouraged instead of checked. Each price advance made possible a greater inflation of credit, and the greater the inflation of credit the greater the possibility of paying higher prices. Inasmuch as the demand for goods kept steadily increasing in relation to the supply there was nothing to stop the inflation of prices.

Problems of Reconstruction. When hostilities came to an end the people of the United States were confronted with a host of perplexing problems of "reconstruction." How

should the millions of men and women engaged in war activities be restored to the pursuits of peace? What disposition should be made of the stores of goods accumulated by the Government in anticipation of a longer war? How should those industries transformed in character for the purpose of supplying war needs be returned to their former status? What steps should be taken to give the railroads back to their owners? What should be done with the fleet of merchant vessels built, owned and operated by the Shipping Board? These were some of the questions which demanded almost immediate answers. In addition to these problems of the disposal of men and materials there were many serious problems of a less concrete nature. Among such problems were those connected with the inflation of prices, the adjustment of differences between labor and capital and the revision of the tax laws. The war had diverted attention from the subject of government regulation of business, but the problem was by no means permanently solved. What industrial adjustments should be made because of the fact that the United States had become a creditor nation? What part should the United States take in restoring the shattered world to order and sanity? And above all, could anything be done to prevent the occurrence of another terrible world war?

Some of these questions demanded specific legislation; others could be left to the play of economic forces without the interference of the Government. The restoration of the military forces to civilian life was accomplished with surprising ease. The soldiers were discharged from service and returned to industrial activities from which war had called them, many going back to their former occupations. The lack of friction with which the transformation took place spoke well for the mental elasticity of the men and for the fundamental stability of economic conditions in the United States.

The Transportation Act. One of the first subjects which Congress took up was the railroad question. There were many suggestions as to what Congress ought to do. A small minority of the public wanted the United States to adopt the policy of government ownership of railroads. Another small group suggested that no attempt be made at once to formulate a new railroad policy and that government operation be continued for a period of at least five years. The great majority of the people favored the early resumption of private operation with Federal regulation, though there was a wide divergence of views as to what ought to be the scope and method of regulation. Congress refused to entertain seriously any plan looking to the ownership of railroads by the Government, but did make some radical changes in the policy of railroad regulation. These changes were embodied in the Transportation Act, which was approved by President Wilson on February 28, 1920.

In framing the new law Congress recognized at last that the railroads should not be compelled, even in theory, to compete with one another in the matter of making rates. To this extent the former railroad policy was reversed. Railroad pools were legalized, the Interstate Commerce Commission being authorized to supervise such pools as might be formed. Moreover the Commission received the power to name not only maximum railroad rates but also minimum rates. It was also given power to regulate car service and to prescribe the division of joint rates. The Commission was directed to work out a plan for the consolidation of the railroads of the country into a limited number of competitive systems, though the combinations proposed by the Commission were not to be compulsory. The Commission was also impowered to regulate railroad capitalization.

The most notable features of the Transportation Act are the provisions with respect to rates and to railroad labor.

The Commission is directed to divide the country into districts and then to establish rates sufficiently high to yield a net operating income equal to a fair return on the value of the property devoted to transportation in each district. The law stipulates that for two years beginning March 1, 1920 the Commission shall regard as a fair return a sum equal to 5½ per cent of the value of the railroad property (to which one-half of one per cent may be added in the discretion of the Commission). After the expiration of the two year period the Commission may decide what rate of return is to be considered "fair." If under the rates named by the Commission any single railroad corporation should receive an income in excess of 6 per cent of the value of its property, it is provided that the excess amount shall be divided equally between the railroad and the Commission. The funds received by the Commission under this provision of the law are to constitute a railroad contingent fund to be loaned to the carriers or to be used in the purchase of equipment which shall be leased to the railroads. The law is designed to insure the carriers as a whole a fair return and to prevent any one of them from receiving substantially in excess of a fair return. Such a system of price regulation represents an entirely new departure in the regulation of business by the American Government.

One feature of the railroad problem which presented a difficulty of obstinate nature was the fact that the States had long exercised their power to regulate rates on intrastate traffic. Should the States in any rate district decline to permit the establishment of rates equivalent to those named by the Interstate Commerce Commission it might follow that the interstate business of a carrier would have to provide a disproportionate share of the "fair return." To meet this situation the Transportation Act provides that whenever the Interstate Commerce Commission finds that

State rates are such as to cause an unjust discrimination as between intrastate and interstate commerce, it may prescribe such State rates as will remove the discrimination. Whether Congress has the power to undertake such sweeping regulation of intrastate commerce is yet to be decided by the courts.

On the question of legislation concerning railroad labor there was much difference of opinion in Congress. Some members wanted an antistrike and compulsory arbitration law. The Transportation Act does not forbid strikes and it does not provide for compulsory arbitration in railroad labor disputes, but it does declare it to be the duty of all carriers and their employees to exert every reasonable effort to avoid the interruption of transportation because of disputes of any kind, and creates the machinery through which railroad labor disputes may be settled without resort to extreme methods. The law authorizes the creation of Railroad Boards of Labor Adjustment composed of representatives of employers and employees. These Boards may endeavor to settle disputes, other than those involving rates of wages, which cannot be settled by direct conference. The Act also creates a salaried Railroad Labor Board consisting of three members representing labor, three representing employers and three representing the public, all to be appointed by the President with the advice and consent of the Senate. This Board is authorized to adjudicate disputes concerning rates of wages and to hear on appeal disputes not settled by or capable of being settled by the Adjustment Boards. In arriving at decisions with respect to wages the Board is instructed to take into consideration the cost of living, the scales of wages in similar kinds of work, the hazard of employment, and other recognized economic factors.

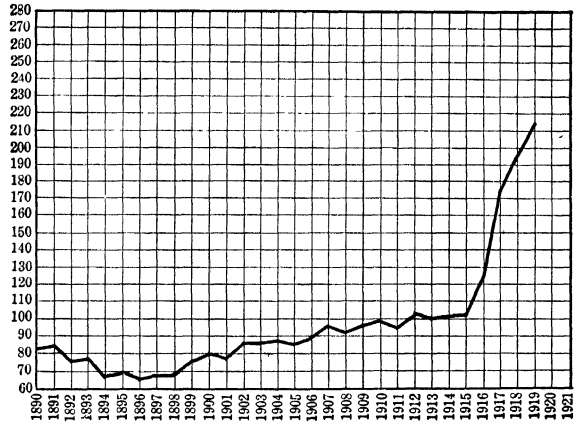
The Merchant Marine Act. The United States came out of the war with a merchant marine of some 14,000,000

tons, consisting largely of newly constructed ships and confiscated enemy vessels. Most of this shipping is the property of the Government. The Shipping Act, passed in 1916, provides that the Government shall discontinue the operation of ships within five years after the end of the European War. On June 5, 1920, a law was enacted providing for the sale or lease of the Government's merchant vessels on reasonable terms to private shipping agencies. The law also contains provisions designed to encourage the development of an American merchant marine. One feature of the act which has caused much controversy is a clause authorizing and directing the President to abrogate all treaty provisions which restrict the right of the United States to impose discriminating tonnage and tariff duties. Though President Wilson signed the Merchant Marine Act he declined to carry out this provision of the law, justifying his refusal on the ground that the law was an infringement of the treaty making powers of the executive and that he was not bound by the Constitution to take the action which Congress desired. It is regretted by many people that Congress passed any legislation contemplating the restoration of shipping discrimination. Such discrimination was a part of the mercantile system of the seventeenth and eighteenth centuries. The United States, by laws enacted between 1815 and 1830, took the lead in bringing shipping discrimination to an end. If the United States now adopts such a policy it will probably be, what it was before, a fruitful source of international contention and ill-will. There are other and better means of aiding the merchant marine.

Prices. It was generally thought when hostilities ended in Europe that there would be a rapid decline in the level of prices in the United States, and it was a matter of some surprise that the expected development in the price situation did not occur. There was no advance in prices in December, 1918, and during the following two months there

was a slight recession. Then prices began to rise again and climbed upward almost without wavering until well into the year 1920. In May, 1920, the level of wholesale commodity prices was 172 per cent higher than it had been in 1913 and 1914. Prices had almost tripled in the short space of six years.

There were several causes for the continued rise of living costs. In the first place the end of the war brought no decrease in the demand for American goods abroad. During



Trend of Wholesale Prices, 1890–1920
(Bureau of Labor Statistics. 1913 = 100)

the four years of warfare a large part of the fixed capital of Europe had been destroyed and worn out without being replaced, and it was impossible for the people to establish productive activities on a pre-war basis in a short period of time. The merchandise exports of the United States for the fiscal year of 1919 were greater in value than the exports of the previous year, and there was a further increase during the fiscal year of 1920.

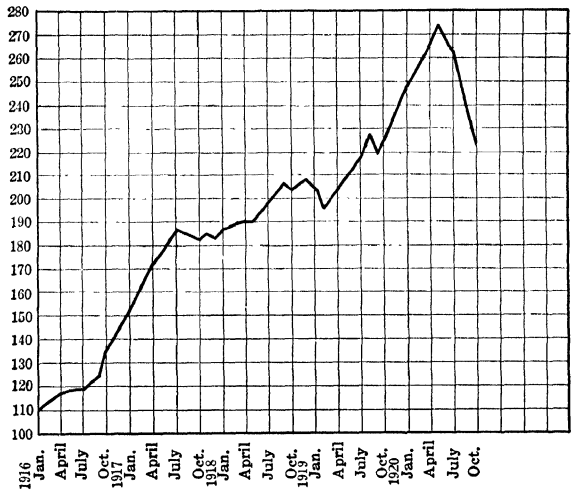
Another element in the price situation was an increased

consumption of goods in the United States. The measures of economy voluntarily adopted during the war had led many persons to believe that the American people had laid aside for all time their proverbially extravagant and wasteful habits. That this belief had little foundation soon became evident. It is probable that there has never been in the history of the United States such an orgy of extravagant spending as that during the 18 months following the World War. Hundreds of newly rich individuals who had made large profits from war contracts and thousands of highly paid workers showed the way in expenditure for luxuries and amusement. Many who had practised thrift during the war, swept away by the general feeling of reaction, sold their Liberty bonds and thrift stamps, and indulged in a revel of extravagant living. Stores were crowded with purchasers of silks, furs, jewelry and luxurious clothing; baseball parks, theaters, and other places of amusement were crowded; more automobiles were sold than ever before; the "high cost of living" and the "cost of high living" became synonymous terms.

Another factor which tended to cause an increase of prices was the activities of speculators, who by hoarding large quantities of food products and raw materials, created an artificial shortage of many commodities. Bankers gave their assistance to the practice of hoarding by lending freely on the stored supplies. Secret price agreements among supposedly competing producers and merchants tended to keep prices up. The recent evidence of collusive practices among labor organizations, builders, and producers of lime, stone, lumber, and cement, brought to light by an investigating committee of the New York legislature, indicates how easy it was to maintain prices at a level which the natural conditions of supply and demand did not warrant.

It was impossible for the upward movement of prices to continue indefinitely. The reaction set in during the early

months of 1920. The foreign market for American goods began to decline, partly because a beginning was made in the restoration of European industry but chiefly because the European nations weakened their credit in the United States to such an extent as to cause a decided check in their buying activity. The domestic situation also changed. The public recovered its mental equilibrium, and people looked at their dollars more thoughtfully before parting



The Movement of Prices During the World War
(Bureau of Labor Statistics. Wholesale Prices. 1913 = 100)

with them. Extravagance declined and demand gradually decreased. With production tending to increase prices began to drop. The effects of a falling price level soon became manifest. Retailers who had loaded their shelves with goods purchased at high prices in anticipation of a continued active demand found themselves in possession of large stocks which would not move. Manufacturers with abundant supplies of high priced raw materials or with large

stocks of finished goods on hand found themselves in a precarious position. Speculators were caught in a net of their own contriving. The "bottom dropped out" of the silk market, the automobile trade suffered a disastrous reverse, the demand for textiles went steadily downward, the prices of hides and rubber dropped to pre-war levels, the farm prices of grain, cotton and live-stock came tumbling down. The banking interests found it necessary to contract their loans and refuse credit to speculators. This resulted in forced sales of goods, which tended to depress prices even more rapidly. Retailers, obstinately resisting the necessity of taking a loss on accumulated stocks, canceled orders already placed and refused to buy more goods. This action was reflected in a general slackening of industry.

The process of readjustment is not yet (December, 1920) completed. The economic situation is filled with unwelcome possibilities of general industrial and financial depression. There is a large volume of current indebtedness for which there is little prospect of payment in the near future. Whether the process of liquidation can be drawn out long enough to permit a transition to a lower price level without a general business collapse remains to be seen. There is a flood of propaganda in favor of economic fallacies which have been urged as panaceas in former times of business reaction. The greenback and the free silver movements are reappearing in the guise of a demand for credit and currency inflation through the expansion of Federal Reserve loans. Numbers of heavily indebted manufacturers, holding goods for which there is no market at prices which will cover costs, are joining with cotton planters and grain farmers in declaring that only further inflation will save the country from ruin. Inflation may serve to postpone a crisis, but the crisis will only be worse when it finally arrives.

Labor Troubles. No domestic problem of the United States promises to be a source of greater trouble in the near future than the labor problem. During the war the labor organization movement gained much strength. The strategic position of labor is always stronger during a period of rising prices. Employers, actively competing with one another in the labor market, are disposed to grant concessions to their working forces which under ordinary conditions they would not give. The agencies of the Government freely recognized the principle of collective bargaining during the war and set up machinery for adjudicating disputes between employers and labor organizations. When the war ended labor unions felt themselves to be stronger than ever before, and they were not unwilling to put their new found power to the test. There were a number of conditions which tended to make organized labor restive throughout the year 1919. Several unions had fallen under the domination of radical leaders who were dissatisfied with the conservative policies of the American Federation of Labor. The new leaders were apostles of "class consciousness," many of them were frankly opposed to the capitalistic organization of industry, all of them believed with sincerity that labor had never been fairly treated, and they were more than willing to attempt the use of extreme measures to enforce what they considered to be the rights of the working classes. For the most part wages had not risen during the war as rapidly as the cost of living had risen, and there was much dissatisfaction in the rank and file of labor, of which the radical leaders were quick to take advantage. As the cost of living mounted in 1919 there were abundant opportunities to call strikes with much show of justification.

During the early months of 1919 there were strikes among textile workers in Patterson and Passaic, New Jersey, Cohoes, New York, and Lawrence, Massachusetts, in

most of which the workmen were able to win higher wages and shorter working days. A number of strikes in the clothing trades of New York were likewise successful. Striking street railway employees in Boston, Chicago and New York also succeeded in obtaining advances in wages. Throughout the year there was a succession of strikes among the longshoremen and other harbor workers of New York. In midsummer rumors began to spread of approaching strikes in the steel and coal industries. On August 2, there were strikes among railway shopmen in several large cities, called by local union leaders in defiance of the instructions of the national officers of the shopmen's organization. These strikes came to an end three weeks later when President Wilson urged that demands for increased wages among railroad employees be halted pending the results of the Government's efforts to bring about a reduction in the cost of living. To add variety to the industrial turmoil the Boston police force went out on a strike on September 9 because the police authorities denied the right of the policemen's organization to affiliate with the American Federation of Labor, and an actors' organization called a strike which temporarily closed the leading theaters of New York, Chicago and Boston.

Throughout the spring and summer of 1919 the 24 labor unions in the steel industry carried on an energetic campaign for organizing the employees of the United States Steel Corporation. The central committee of the unions asked for a conference with the officers of the corporation to present certain demands, which included a recognition of the principle of collective bargaining, the abolition of the twelve-hour day in the steel industry and the reinstatement of a number of workers who had been discharged for activity in behalf of the unions. President Gary of the Steel Corporation refused to deal with the unions' representatives on the ground that they were not employees of the Steel

Corporation. He also took the stand that a conference would be tantamount to a recognition of the "closed shop," and as a firm believer in the "open shop" he could not consent to a meeting with the union leaders. President Wilson tried to secure a postponement of a strike at least until after the meeting of a general industrial conference which he had called to convene in October, but his appeals were without effect. The strike began September 22 and lasted about three months, ending in the complete defeat of the unions. The Steel Corporation, whatever its shortcomings in the treatment of labor, had been extremely generous in advancing wages, and had established a record for great liberality during the war. Its hold on the great mass of its workers was stronger than that of the labor unions. The steel strike served to call public attention to the apparently irreconcilable differences between organized labor and organized capital and to the lack of regard of both parties for the public interest. A Senate committee which investigated the strike condemned the union officials for refusing to postpone the strike at President Wilson's request and also found that President Gary was not justified in his refusal to deal with the union leaders.

The expected strike of the bituminous coal miners was called for November 1, following the failure of the miners and their employers to reach an agreement with regard to wages and hours of labor. President Wilson earnestly requested that this strike be given up because of the grave injury which it might inflict upon the public. When the officials of the miners' union refused to withdraw the strike order Attorney-General Palmer asked for and obtained an order from the Federal District Court at Indianapolis enjoining the officers of the union from sending out further strike orders and forbidding the payment of strike benefits from the union treasury. On November 8 the Court issued another injunction directing the officials of the union to

recall the strike order. The Court's action was based upon the terms of the Lever Fuel and Food Control Act of 1917, which prohibited conspiracies to prevent the production of food and fuel during the war. The union officials obeyed the order of the court to call off the strike, but the men refused to go back to work. The Secretary of Labor summoned a conference of miners and mine operators at Washington, and after considerable negotiation it was agreed that the miners should accept an immediate increase in wages of 14 per cent and leave further consideration of the dispute to a commission appointed by the President. In June 1920, a strike of the anthracite coal miners was averted by an agreement to submit the differences between employers and workers to a commission.

The Industrial Conference. Early in September, 1919, President Wilson announced that he would call a National Industrial Conference, consisting of three groups, representing respectively labor, capital and the public, to discuss methods of "bettering the whole relationship of labor and capital." The Conference met at Washington on October 6. This Conference experienced the same trouble that had done so much to render ineffective the work of the Industrial Relations Commission. The groups could not agree with one another on fundamentals. The group representing capital refused to indorse a resolution, accepted by the other two groups, in favor of the principle of collective bargaining and in favor of the right of laborers to deal with employers through agents of their own choosing, and the Conference dissolved without accomplishing anything. President Wilson then called another Conference to meet December 1. This gathering was not divided into "groups" but represented industry as a whole. On March 6, 1920, it issued its final report. It was the opinion of the Conference that many labor disturbances could be prevented by the organization in single industrial establishments of

"shop committees" or "shop councils" in which both employers and workmen would be represented. For the adjustment of disputes not capable of being settled by shop councils it recommended the creation by law of a system of councils for industrial conciliation, consisting of a National Industrial Board, local Regional Conferences and Boards of Inquiry. The Conference gave its approval of the principle of collective bargaining. As yet no legislation has been passed to carry out any recommendations of the Conference.

The Labor Problem Becoming More Serious. The downward movement of prices has tended to make the labor problem more serious than before. With industry slackening employers are able to assume the offensive again, and they are inclined to push ruthlessly the advantage which they possess. Efforts on the part of employers to reduce wages, which inevitably come with declining prices, and the campaign for the "open shop" will meet with the stubborn resistance of all labor organizations. The outlook for industrial peace is not bright.

The labor controversies of the past few years have brought out more clearly than ever the fact that after all the interest of the public is the paramount interest at stake in all labor troubles, though it receives little consideration from either of the opposing forces in the industrial world. It is becoming apparent that we can not depend upon capital and labor to work out a satisfactory method of establishing harmony. Each looks only to its own selfish interest and neither can be expected voluntarily to adopt any other attitude. There are a few exceptions. In a few instances employers and employees have finally realized that it is to their mutual interest to settle their differences by amicable coöperation, without the interruption of production. Some employees have realized the wisdom of agreeing to certain standards of production by which it will be possible to es-

tablish a fair estimate of their earning capacity, and some employers have acknowledged the necessity of giving their workmen the right to coöperate in the administration of all matters affecting the interests of labor. But as a whole the employing class is inclined to be "feudalistic" in spirit and arbitrary in conduct, while labor organizations are becoming more selfish and more intolerant. If any marked improvement is to come in the general situation it will probably have to come through the action of those who represent the interest of the public at large. The Kansas legislature broke new ground in January, 1920, when it passed a law prohibiting strikes in industries engaged in producing food, fuel, wearing apparel and transportation, creating a Court of Industrial Relations to investigate labor controversies in such industries and issue orders with respect to wages, hours of work and working conditions, and authorizing the State to take over and operate any industry in which operations are suspended in violation of the law. The Transportation Act is a new departure in Federal labor legislation as well as in legislation for the control of monopolistic combinations of capital. It may be found advisable to extend to other great monopolistic industries the principle of confiscation of all profits in excess of a fair return. The adoption of such a policy has been talked of in connection with the coal industry, in which flagrant profiteering has existed for many years, and in connection with the meat packing industry which it has been impossible for the Government effectively to control and regulate by any legislation so far devised. Once the Government undertakes the control of the process of distribution of the national income, as it has already done in the railroad business, representatives of capital and labor may find it easier to promote industrial peace by voluntary coöperation.

The Waste of War. Transcending in importance the economic problems of purely domestic significance is the

problem of preventing war. War is the most wasteful of all human activities. The material welfare of the people of a single country and of the world depends primarily upon the production of wealth. War checks the processes of production, wipes out the accumulation of the past, and destroys the productive forces upon which the future depends. Ten million men were killed in the World War, and many times that number of men, women and children have died or are dying from starvation and disease of which the war was the cause. The war debts of the nations taking part in the conflict, amounting to some two hundred billion dollars, represent only a part of the incalculable waste of material resources which must be paid for with human suffering and privation.

When the Peace Conference assembled at Paris in January, 1919, hope ran high that out of its deliberations would come an international agreement of some kind by which it would be possible to avert disastrous wars in the future. When the treaty was signed it provided for the creation of the League of Nations, the chief purpose of which is to bring about the settlement of international differences without recourse to armed force. In the United States the treaty failed of ratification. Some people think it would be unwise for the United States to enter into any agreement containing an obligation, express or implied, under which the country would be expected to take part in the settlement of disputes between foreign nations. Others are anxious to see this country do its share in the promotion of world peace but object to certain provisions of the Covenant of the League of Nations; while still others think the United States should accept the Covenant as it now stands, as many great and small nations have already done. Whatever the merits of the arguments of those who take different positions on the subject, the obstinate refusal of the political leaders of the country to reach a compromise of some kind has

caused the United States thus far to take a somewhat ignoble part in the attempt to solve the world's greatest political and economic problem.

The disturbing economic conditions in the United States and in other countries are the aftermath of war. Conditions now are similar in many respects to the conditions which have followed other wars, only worse, because the recent war was more destructive of life and property than any other war known to history. They are perhaps better than the conditions which would follow another great war because it is reasonable to suppose that another war would set a new record for destructiveness. It would seem, in view of the enormous loss which the World War has caused, that unless some permanent, tangible gain for humanity can be obtained as a result of the conflict, the cost of the war has been many times greater than the value of any temporary economic or political advantage which this or that nation has derived from the struggle. An effective organization of the world for the maintenance of peace would be the war's greatest justification.

Questions and Topics.

1. How does a nation pay for its imports?
2. Is a favorable "balance of trade" a sign of greater prosperity than an unfavorable balance?
3. Have the losses of the World War affected adversely the prosperity of nations which took no part in the war?
4. When the United States entered the war a great many people adopted the slogan "business as usual." Was a policy of business as usual a wise policy to follow?
5. What are some of the arguments for and against government ownership of railroads?
6. Should the United States adopt the policy of compulsory arbitration of labor disputes?
7. Should the United States abandon its traditional policy of non-participation in the disputes of European nations?

STATISTICAL APPENDIX

The following statistics are from the Statistical Abstract of the United States for 1920. They should be of value as a basis for exercises in making graphs and charts to depict certain phases of the economic progress of the United States.

Year.	Farms.		Farm animals.			
	Number of farms.	Persons engaged in agriculture.	Cattle.	Horses.	Sheep.	Swine.
		Number.	*Number.*	*Number.*	*Number.*	*Number.*
1800	.....	.....	.....	.....	.....	.....
1810	.....	.....	.....	.....	.....	.....
1820	.....	.....	.....	.....	.....	.....
1830	.....	.....	.....	.....	.....	.....
1840	.....	.....	14,971,586	4,335,669	19,311,374	26,301,293
1850	1,449,073	.....	17,778,907	4,336,719	21,773,220	30,354,213
1855	.....	.....	.....	.....	.....	.....
1860	2,044,077	.....	25,616,019	6,249,174	22,471,275	33,512,867
1861	.....	.....	.....	.....	.....	.....
1862	.....	.....	.....	.....	.....	.....
1863	.....	.....	.....	.....	.....	.....
1864	.....	.....	.....	.....	.....	.....
1865	.....	.....	.....	.....	.....	.....
1866	.....	.....	.....	.....	.....	.....
1867	.....	.....	20,079,725	5,401,263	39,385,386	24,693,534
1868	.....	.....	20,634,052	5,756,940	38,991,912	24,317,258
1869	.....	.....	21,433,099	6,332,793	37,724,279	23,316,476
1870	2,659,985	5,922,471	25,484,100	8,249,000	40,853,000	26,751,400
1871	.....	.....	26,235,200	8,702,000	31,851,000	29,457,500
1872	.....	.....	26,603,300	8,990,900	31,679,000	31,796,300
1873	.....	.....	26,989,700	9,222,470	33,002,400	32,632,050
1874	.....	.....	26,923,400	9,333,800	33,938,200	30,860,900
1875	.....	.....	27,220,200	9,501,200	33,783,600	28,062,200
1876	.....	.....	27,870,700	9,735,300	35,935,300	25,726,800
1877	.....	.....	29,216,900	10,155,400	35,801,200	28,077,100
1878	.....	.....	30,523,400	10,329,700	35,740,500	32,262,500
1879	.....	.....	33,234,500	10,938,700	38,123,800	34,766,100
1880	4,008,907	7,713,875	33,258,000	11,202,000	40,766,000	34,034,100
1881	.....	.....	33,307,363	11,429,626	43,569,869	36,247,683
1882	.....	.....	35,891,870	10,521,554	45,016,224	44,122,200
1883	.....	.....	41,171,762	10,838,110	49,237,291	43,270,086
1884	.....	.....	42,547,307	11,169,683	50,626,626	44,200,893
1885	.....	.....	43,771,295	11,564,572	50,360,243	45,142,657
1886	.....	.....	45,510,630	12,077,657	48,322,331	46,092,043
1887	.....	.....	48,033,833	12,496,744	44,759,314	44,612,836
1888	.....	.....	49,234,777	13,172,936	43,544,755	44,346,525
1889	.....	.....	50,331,142	13,663,294	42,599,079	50,301,592
1890	4,564,641	8,565,926	52,801,907	14,214,000	44,336,000	51,603,000
1891	.....	.....	52,895,239	14,056,750	43,431,136	50,625,106
1892	.....	.....	54,067,590	15,498,140	44,938,365	52,398,019
1893	.....	.....	52,378,283	16,206,802	47,273,553	46,094,807
1894	.....	.....	53,095,568	16,081,139	45,048,017	45,206,498
1895	.....	.....	50,868,845	15,893,318	42,294,064	44,165,716
1896	.....	.....	48,222,995	15,124,057	38,298,783	42,842,759
1897	.....	.....	46,450,135	14,364,667	36,818,643	40,600,276
1898	.....	.....	45,105,083	13,960,911	37,656,960	39,759,993
1899	.....	.....	43,984,340	13,665,307	39,114,453	38,651,631
1900	5,737,372	10,381,765	43,902,414	13,538,000	41,883,000	37,079,000
1901	.....	.....	62,333,870	16,744,723	59,756,718	56,982,142
1902	.....	.....	61,424,599	16,531,224	62,039,091	48,698,890
1903	.....	.....	61,764,433	16,557,373	63,964,876	46,922,624
1904	.....	.....	61,049,315	16,736,059	51,630,144	47,009,367
1905	.....	.....	61,241,907	17,057,702	45,170,423	47,320,511
1906	.....	.....	66,861,522	18,718,578	50,631,619	52,102,847
1907	.....	.....	72,533,996	19,746,583	53,240,282	54,794,439
1908	.....	.....	71,267,000	19,992,000	54,631,000	56,084,000
1909	.....	.....	71,099,000	20,640,000	56,084,000	54,147,000
1910	6,361,502	12,659,203	61,803,000	19,833,000	52,448,000	58,186,000
1911	.....	.....	60,502,000	20,277,000	53,633,000	65,620,000
1912	.....	.....	57,959,000	20,509,000	52,362,000	65,410,000
1913	.....	.....	56,527,000	20,567,000	51,482,000	61,178,000
1914	.....	.....	56,592,000	20,962,000	49,719,000	58,933,000
1915	.....	.....	58,329,000	21,195,000	49,956,000	64,618,000
1916	.....	.....	61,920,000	21,159,000	48,625,000	67,766,000
1917	.....	.....	64,583,000	21,210,000	47,616,000	67,503,000
1918	.....	.....	67,422,000	21,555,000	48,603,000	70,978,000
1919	.....	.....	68,560,000	21,482,000	48,866,000	74,584,000

Year.	Manufacturing industries.						
	No. of establishments.	Salaried officials, clerks, etc.		Wage earners.		Cost of materials used.	Value of products.
		Number.	Salaries.	Average number.	Wages.		
			Dollars.		*Dollars.*	*Dollars.*	*Dollars.*
1800	.....	.....	.....	.....	.....	.....	.....
1810	.....	.....	.....	.....	.....	.....	.....
1820	.....	.....	.....	.....	.....	.....	.....
1830	.....	.....	.....	.....	.....	.....	.....
1840	.....	.....	.....	.....	.....	.....	.....
1850	123,025	.....	.....	957,059	236,755,464	555,123,822	1,019,106,616
1855	.....	.....	.....	.....	.....	.....	.....
1860	140 433	.....	.....	1,311,246	378,878,966	1,031,605,092	1,885.861,676
1861	.....	.....	.....	.....	.....	.....	.....
1862	.....	.....	.....	.....	.....	.....	.....
1863	.....	.....	.....	.....	.....	.....	.....
1864	.....	.....	.....	.....	.....	.....	.....
1865	.....	.....	.....	.....	.....	.....	.....
1866	.....	.....	.....	.....	.....	.....	.....
1867	.....	.....	.....	.....	.....	.....	.....
1868	.....	.....	.....	.....	.....	.....	.....
1869	252,148	.....	.....	2.053,996	775,584,343	2,488,427,242	4,232,325,442
1870	.....	.....	.....	.....	.....	.....	.....
1871	.....	.....	.....	.....	.....	.....	.....
1872	.....	.....	.....	.....	.....	.....	.....
1873	.....	.....	.....	.....	.....	.....	.....
1874	.....	.....	.....	.....	.....	.....	.....
1875	.....	.....	.....	.....	.....	.....	.....
1876	.....	.....	.....	.....	.....	.....	.....
1877	.....	.....	.....	.....	.....	.....	.....
1878	.....	.....	.....	.....	.....	.....	.....
1879	253,852	.....	.....	2,732,595	947,953,795	3,396,823,549	5,369,579,191
1880	.....	.....	.....	.....	.....	.....	.....
1881	.....	.....	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....	.....
1883	.....	.....	.....	.....	.....	.....	.....
1884	.....	.....	.....	.....	.....	.....	.....
1885	.....	.....	.....	.....	.....	.....	.....
1886	.....	.....	.....	.....	.....	.....	.....
1887	.....	.....	.....	.....	.....	.....	.....
1888	.....	.....	.....	.....	.....	.....	.....
1889	355,405	461,001	391.984,660	4.251,535	1,891,209,696	5,102,013,878	9,372,378,843
1890	.....	.....	.....	.....	.....	.....	.....
1891	.....	.....	.....	.....	.....	.....	.....
1892	.....	.....	.....	.....	.....	.....	.....
1893	.....	.....	.....	.....	.....	.....	.....
1894	.....	.....	.....	.....	.....	.....	.....
1895	.....	.....	.....	.....	.....	.....	.....
1896	.....	.....	.....	.....	.....	.....	.....
1897	.....	.....	.....	.....	.....	.....	.....
1898	.....	.....	.....	.....	.....	.....	.....
1899	207,514	364,120	380,771,321	4.712,763	2,008,361,119	6,575,851,491	11,406,926,701
1900	.....	.....	.....	.....	.....	.....	.....
1901	.....	.....	.....	.....	.....	.....	.....
1902	.....	.....	.....	.....	.....	.....	.....
1903	.....	.....	.....	.....	.....	.....	.....
1904	216,180	519,556	574,439,322	5.468,383	2,610,444,953	8,500,207,810	14,793,902,563
1905	.....	.....	.....	.....	.....	.....	.....
1906	.....	.....	.....	.....	.....	.....	.....
1907	.....	.....	.....	.....	.....	.....	.....
1908	.....	.....	.....	.....	.....	.....	.....
1909	268,491	790,267	938,574,967	6,615,046	3,427,037,884	12,142,790,878	20,672,051,870
1910	.....	.....	.....	.....	.....	.....	.....
1911	.....	.....	.....	.....	.....	.....	.....
1912	.....	.....	.....	.....	.....	.....	.....
1913	.....	.....	.....	.....	.....	.....	.....
1914	275,791	964,217	1 287,916,951	7,036,337	4,079,332,433	14,368,088,831	24,246,434,724
1915	.....	.....	.....	.....	.....	.....	.....
1916	.....	.....	.....	.....	.....	.....	.....
1917	.....	.....	.....	.....	.....	.....	.....
1918	.....	.....	.....	.....	.....	.....	.....
1919	.....	.....	.....	.....	.....	.....	.....

Year.	Production of principal commodities.						
			Cotton.			Sugar.	
	Wheat.	Corn.	Running bales, counting round as half bales.	Equivalent 500-pound bales, gross weight.	Rice.	Beet.	Cane.
	Bushels.	*Bushels*	*Number.*	*Number.*	*Pounds.*	*Pounds.*	*Pounds.*
1800	....	.....	153,509	73,222	67,233,600	.. .. .	.....
1810	....	.... . .	286,195	177,824	78,804,600	... .. .	.....
1820	... ..	..	575,540	334,728	53,292,000	.....	.....
1830	.. ..	...	1,026,393	732,218	81,351,600	... . .	.....
1840	84,823,272	377,531,875	1,634,954	1,347,640	84,252,600	....	120,851,074
1850	100,485,943	592,071,104	2,454,442	2,136,083	102,775,800	.. .. .	247,577,000
1855	....	...	3,665,557	3,220,782	103,606,200	.....	414,725,000
1860	173,104,921	838,792,740	3,849,469	3,841,416	106,279,200	..... .	230,982,000
1861	... .	..... .	4,500,000	4,490,586	2,051,830	... .. .	274,724,000
1862	.....	... ...	1,600,000	1,596,653	2,086,280	... ..	539,830,500
1863	. .....	.. ....	450,000	449,059	1,580,790	.. ..	103,040,000
1864	.....	. . ..	300,000	299,372	4,740,580		85,060,000
1865			2,269,316	2,093,658	10,246,490		11,200,000
1866	151,999,906	867,946,295	2,097,254	1,948,077	25,154,720		20,680,000
1867	212,441,400	768,320,000	2,519,554	2,345,610	27,813,790		50,400,000
1868	224,036,600	906,527,000	2,366,467	2,198,141	43,651,910	896,000	51,520,000
1869	260,146,900	874,320,000	3,011,996	2,409,597	53,970,880		100,801,225
1870	235,884,700	1,094,255,000	4,352,317	4,024,527	54,888,880		87,043,000
1871	230,722,400	991,898,000	2,974,351	2,756,564	39,325,990		178,304,592
1872	249,997,100	1,092,719,000	3,930,508	3,650,932	52,275,780		156,352,125
1873	281,254,700	932,274,000	4,170,388	3,873,750	62,400,380	1,120,000	134,832,493
1874	308,102,700	850,148,500	3,832,991	3,528,276	67,813,400	1,568,000	108,640,119
1875	292,136,000	1,321,069,000	4,632,313	4,302,818	83,860,800		142,240,691
1876	289,356,500	1,283,827,500	4,474,069	4,118,390	86,628,200	224,000	172,480,070
1877	364,194,146	1,342,558,000	4,773,865	4,494,221	77,732,400		199,360,570
1878	420,122,400	1,388,218,750	5,074,155	4,745,078	81,513,800		159,041,941
1879	448,756,630	1,547,902,009	5,755,359	5,466,387	85,596,800	448,000	250,880,753
1880	498,549,868	1,717,434,543	6,605,750	6,356,998	111,868,990	2,688,000	178,872,000
1881	383,280,090	1,194,916,000	5,456,048	5,136,447	102,604,810		285,302,899
1882	504,185,470	1,617,025,000	6,949,756	6,833,442	99,985,000	1,120,000	171,074,950
1883	421,086,160	1,551,066,895	5,713,200	5,521,963	110,700,000		318,746,258
1884	512,765,000	1,795,528,000	5,682,000	5,477,448	109,561,600	1,198,400	302,944,230
1885	357,112,000	1,936,176,000	6,575,691	6,369,341	150,195,000	2,134,720	225,962,963
1886	457,218,000	1,665,441,000	6,505,087	6,314,561	155,669,500	1,344,000	302,754,486
1887	456,329,000	1,456,161,000	7,046,833	6,884,667	113,630,700	1,792,000	191,282,272
1888	415,868,000	1,987,790,000	6,938,290	6,923,775	124,733,200	4,603,200	375,904,197
1889	490,560,000	2,112,892,000	7,472,511	7,472,511	131,722,000	4,168,640	344,756,221
1890	399,262,000	1,489,970,000	8,652,597	8,562,089	136,800,000	4,934,720	301,284,395
1891	611,780,000	2,060,154,000	9,035,379	8,940,867	155,665,600	7,748,160	497,169,856
1892	515,949,000	1,628,464,000	6,700,365	6,658,313	237,546,900	11,997,440	370,579,307
1893	396,131,725	1,619,496,131	7,493,000	7,433,056	122,865,160	26,920,320	498,455,926
1894	460,267,416	1,212,770,052	9,901,251	10,025,534	109,820,800	44,688,000	610,825,618
1895	467,102,947	2,151,138,580	7,161,094	7,146,772	168,665,440	45,006,080	729,392,561
1896	427,684,346	2,283,875,165	8,532,705	8,515,640	96,886,400	65,452,800	543,633,726
1897	530,149,168	1,902,967,933	10,897,857	10,985,040	116,301,760	84,080,640	644,175,323
1898	675,148,705	1,924,184,660	11,189,205	11,435,368	136,990,720	90,491,520	708,251,878
1899	547,303,846	2,078,111,000	9,393,212	9,315,391	219,278,200	72,735,040	568,789,795
1900	522,229,505	2,105,102,516	10,102,102	10,123,027	253,139,200	163,458,075	322,549,011
1901	748,160,2..8	1,522,519,801	9,582,520	9,509,715	388,035,200	172,164,160	623,774,123
1902	670,063,008	2,523,648,312	10,588,250	10,630,913	319,292,960	369,211,733	728,650,448
1903	637,821,845	2,244,176,625	9,819,989	9,851,129	560,750,000	436,811,685	745,805,875
1904	552,399,517	2,467,480,931	13,151,837	13,148,012	586,001,056	481,209,087	525,952,000
1905	692,979,189	2,707,993,540	10,195,195	10,575,017	377,971,917	484,266,430	784,000,000
1906	735,260,970	2,927,416,091	12,983,201	13,273,809	495,972,222	625,841,128	766,080,000
1907	634,087,000	2,592,320,000	11,057,822	11,107,179	520,500,000	967,224,000	544,320,000
1908	664,602,000	2,668,651,000	13,086,005	13,241,799	608,045,000	927,256,430	788,480,000
1909	737,189,000	2,772,376,000	10,072,731	10,004,949	606,638,889	851,768,000	828,800,000
1910	635,121,000	2,886,260,000	11,568,334	11,608,616	680,833,334	1,024,938,000	750,400,000
1911	621,338,000	2,531,488,000	15,553,073	15,692,701	637,055,556	1,020,344,000	710,080,000
1912	730,267,000	3,124,746,000	13,488,539	13,703,421	695,944,444	1,199,000,000	721,748,160
1913	763,380,000	2,446,988,000	13,982,811	14,156,486	715,111,111	1,385,112,000	325,147,200
1914	891,017,000	2,672,804,000	15,905,840	16,134,930	656,916,667	1,466,802,000	601,074,880
1915	1,025,801,000	2,994,793,000	11,068,173	11,191,820	804,083,333	1,444,108,000	493,239,040
1916	636,318,000	2,566,927,000	11,363,915	11,449,930	1,135,027,778	1,748,440,000	277,240,320
1917	636,655,000	3,065,233,000	11,248,242	11,302,375	964,972,222	1,641,314,000	621,799,360
1918	921,438,000	2,502,665,000	11,906,480	12,040,532	1,072,388,889	1,530,414,000	491,697,920
1919	940,987,000	2,917,450,000	. . . .	11,030,000	1,140,527,778	1,521,900,000	568,796,480

Year.	Production of principal commodities—Continued.						
	Wool.	Coal.	Copper.	Iron ore.	Pig iron.	Steel.	Petroleum.
	Pounds.	*Long tons.*	*Long tons.*	*Long tons.*	*Long tons.*	*Long tons.*	*Gallons.*
1800..	.....	.....	.....	.....	.....	.....	.....
1810..	.....	20	.....	.....	53,908	.....	.....
1820..	.....	3,080	.....	.....	20,000	.....	.....
1830..	.....	285,779	.....	.....	165,000	.....	.....
1840..	35,802,114	1,848,249	100	.....	286,903	.....	.....
1850..	52,516,959	6,266,233	650	.....	563,755	.....	.....
1855..	.....	11,541,672	3,000	.....	700,159	.....	.....
1860..	60,264,913	13,044,680	7,200	.....	821,223	.....	21,000,000
1861..	75,000,000	14,721,439	7,500	.....	653,164	.....	88,771,578
1862..	90,000,000	15,612,353	9,000	.....	703,270	.....	128,380,980
1863..	106,000,000	19,034,877	8,500	.....	846,075	.....	109,674,978
1864..	123,000,000	21,076,003	8,000	.....	1,014,282	.....	88,876,578
1865..	142,000,000	21,243,012	8,500	.....	831,770	.....	104,903,400
1866..	155,000,000	25,896,056	8,900	.....	1,205,663	.....	151,103,400
1867..	160,000,000	27,432,520	10,000	.....	1,305,023	19,643	140,586,600
1868..	168,000,000	29,341,036	11,600	.....	1,431,250	26,786	153,136,914
1869..	100,102,387	29,378,893	12,500	.....	1,711,287	31,250	177,030,000
1870..	162,000,000	29,496,054	12,600	3,031,891	1,665,179	68,750	220,951,290
1871..	160,000,000	41,861,679	13,000	.....	1,706,793	73,214	218,619,828
1872..	150,000,000	45,940,535	12,500	.....	2,548,713	142,954	264,314,148
1873..	158,000,000	51,450,786	15,500	.....	2,560,963	198,796	415,539,012
1874..	170,000,000	46,969,571	17,500	.....	2,401,262	215,727	458,931,690
1875..	181,000,000	46,739,571	18,000	.....	2,023,735	389,799	510,825,588
1876..	192,000,000	47,571,429	19,000	.....	1,868,961	533,191	383,572,098
1877..	200,000,000	54,019,429	21,000	.....	2,066,594	569,618	560,715,246
1878..	208,250,000	51,728,214	21,500	.....	2,301,215	731,977	646,668,456
1879..	155,681,751	60,808,749	23,000	.....	2,741,853	935,273	836,394,132
1880..	232,500,000	63,822,830	27,000	7,120,362	3,835,191	1,247,335	1,104,017,166
1881..	240,000,000	76,679,491	32,000	.....	4,144,254	1,588,314	1,161,771,996
1882..	272,000,000	92,456,419	40,467	.....	4,623,323	1,736,692	1,281,454,860
1883..	290,000,000	103,310,290	51,574	.....	4,595,510	1,673,535	984,884,586
1884..	300,000,000	107,281,742	64,708	.....	4,097,868	1,550,879	1,017,174,396
1885..	308,000,000	99,250,263	74,052	.....	4,044,526	1,711,920	918,068,970
1886..	302,000,000	101,500,381	70,430	.....	5,683,329	2,562,503	1,178,723,322
1887..	285,000,000	116,652,242	81,017	.....	6,417,148	3,339,071	1,187,906,286
1888..	269,000,000	132,731,857	101,054	.....	6,489,738	2,899,440	1,159,705,050
1889..	191,278,084	126,097,779	101,239	14,518,041	7,603,642	3,385,732	1,476,867,546
1890..	276,000,000	140,866,031	115,966	16,036,043	9,202,703	4,277,071	1,924,590,024
1891..	285,000,000	150,505,954	126,839	14,591,178	8,279,870	3,904,240	2,280,291,510
1892..	294,000,000	160,115,242	154,018	16,296,666	9,157,000	4,927,581	2 121,405,594
1893..	303,153,000	162,814,977	147,033	11,587,629	7,124,502	4,019,995	2,034,104,772
1894..	298,057,384	152,447,791	158,120	11,879,679	6,657,888	4,412,032	2,072,469,672
1895..	294,296,726	172,426,366	169,917	15,957,614	9,446,308	6,114,834	2,221,475,592
1896..	272,474,708	171,416,390	205,384	16,005,449	8,623,127	5,281,689	2,560,335,162
1897..	259,153,251	178,776,070	220,571	17,518,046	9,652,680	7,156,957	2,539,971,672
1898..	266,720,684	196,407,381	235,050	19,433,716	11,773,934	8,932,857	2,325,297,786
1899..	272,191,330	226,554,636	253,870	24,683,175	13,620,703	10,639,857	2,396,975,700
1900..	288,636,621	240,789,310	270,588	27,553,161	13,789,242	10,188,329	2,672,062,218
1901..	302,502,328	261,874,836	268,782	28,887,479	15,878,354	13,473,595	2,914,346,148
1902..	316,341,032	269,277,178	294,423	35,554,135	17,821,307	14,947,250	3,728,210,472
1903..	287,450,000	319,068,229	311,627	35,019,308	18,009,252	14,534,978	4,219,376,154
1904..	291,783,032	314,121,784	362,739	27,644,330	16,497,033	13,859,887	4,917,400,320
1905..	295,488,438	350,645,210	402,637	42,526,133	22,992,380	20,023,947	5,658,138,360
1906..	298,915,130	369,783,284	409,735	47,749,728	25,307,191	23,398,136	5,312,745,312
1907..	298,294,750	428,895,914	387,945	51,720,619	25,781,361	23,362,594	6,976,004,070
1908..	311,138,321	371,288,123	420,791	35,983,336	15,936,018	14,023,247	7,498,148,910
1909..	328,110,716	411,411,621	487,925	51,155,137	25,795,171	23,955,021	7,693,176,708
1910..	321,362,756	417,853,906	482,214	56,889,731	27,303,567	26,094,919	8,801,404,416
1911..	318,547,900	443,188,505	489,836	41,092,447	23,649,547	23,676,106	9,258,874,422
1912..	304,043,400	477,202,303	555,031	57,017,614	29,726,937	31,251,303	9,363,271,848
1913..	296,175,300	508,893,052	546,645	59,643,098	30,966,152	31,300,874	10,434,741,660
1914..	290,192,000	458,504,890	513,454	39,714,280	23,332,244	23,513,030	11,162,026,470
1915..	285,726,000	474,660,256	619,647	55,493,100	29,916,213	32,151,036	11,806,372,368
1916..	288,490,000	526,873,371	860,648	77,870,553	39,434,797	42,773,680	12,632,220,636
1917..	281,892,000	581,609,263	842,018	75,573,207	38,621,216	45,060,607	14,083,255,242
1918..	298,870,000	605,546,343	852,024	72,021,202	39,054,644	44,462,432	14,948,964,072
1919..	307,459,000	.....	.....	.....	31,015,864	.....	.....

Year.	Exported domestic merchandise, classified by great groups.					
	Crude materials for use in manufacturing.		Foodstuffs in crude condition, and food animals.		Foodstuffs partly or wholly manufactured.	
	Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.
	Dollars.		*Dollars.*		*Dollars.*	
1800.....	.....	.....	.....	.....	.....	.....
1810.....	.....	.....	.....	.....	.....	.....
1820.....	31,246,382	60.46	2,474,822	4.79	10.085.366	19.51
1830.....	36.482.266	62.34	2,724,181	4.65	9.556.992	16.32
1840.....	75.488,421	67.61	4,564.532	4.09	15.936.108	14.27
1850.....	83.984.707	62.26	7.535,764	5.59	20.017.162	14.84
1855.....	108,476.851	56 28	10.919,803	5.67	33.009.127	17.12
1860.....	216,009.648	68.31	12,166,447	3.85	38.624.949	12.21
1861.....	57.014.269	27.82	48,795.865	23 81	53.736.172	26.23
1862.....	17.814.659	9.92	55.893.100	31.11	70.249.524	39.10
1863.....	27.893.453	15.00	45,166.008	24.28	66.047.610	35.51
1864.....	28,282,245	19.70	24,519,105	17.09	54.909.077	38.26
1865.....	33.852.720	24.71	13.974.576	10.20	47.981.472	35.04
1866.....	227,625.800	67 42	16,819.200	4.98	40.684.464	12.05
1867.....	166,120,000	59.38	20.609.366	7.37	34.058.150	12.17
1868.....	132.450.676	49.17	34.578.301	12 83	42.190.718	15.66
1869.....	144.891,886	52.66	25.428.831	9.24	43.679.064	15.87
1870.....	213.439.991	56 64	41.852.630	11.12	50.919,666	13.53
1871.....	220.995,559	51 59	48.601.080	11.35	66.862.589	15.61
1872.....	194.458.406	45.39	59.356.592	13.85	84.357.982	19.68
1873.....	231,904,077	45 92	69.853.173	13.83	100.857.593	19.97
1874.....	228.149.732	40.06	119.143.282	20.93	114.038.605	20.03
1875.....	206.271.795	41.31	79.077.679	15.84	110.292.780	22.09
1876.....	202.247.842	38.49	94.181.630	17.92	121.615.589	23.14
1877.....	200.821.765	34.06	90.636.898	15.37	150.101.362	25.46
1878.....	213.128.093	31.31	154.809.695	22.74	170.277.023	25.01
1879.....	198.687.747	28 45	188.526,959	27.00	174.230.816	24.95
1880.....	238.787.934	28.98	266.108,950	32.30	193.352.723	23.47
1881.....	278,018.722	31.55	241.641.847	27.34	226.386.821	25.62
1882.....	233,294.072	31.82	155.008.497	21 14	178.002.738	24.28
1883.....	288,841.684	35.92	163.196.443	20.29	186.392.822	23.18
1884.....	239,510.224	33.04	130.395.872	17.99	194.703.245	26.86
1885.....	248.611,181	34.22	123.326.867	16.97	201.800.801	27.77
1886.....	254,409.407	38.21	100.799.692	15.13	162.689.021	24.43
1887.....	250.236.436	35 60	125.453.686	17.85	175.784.781	25.00
1888.....	271.275.629	39.67	86.368.408	12.63	169,872.314	24.84
1889.....	286,235,227	39.19	98,847,455	13.54	174.504.227	23.90
1890.....	304.566,922	36.03	132.073.183	15.62	224.756.580	26.59
1891.....	346,848,321	39.77	106.155,721	12.17	226.448.303	25.96
1892.....	315,096,548	31.02	262.455.846	25.84	250.438.545	24.66
1893.....	247,289,240	29.75	153.277.859	18 43	247,075.061	29.73
1894.....	276,068,989	31.76	133.196,928	15.30	249.846.142	28.77
1895.....	263.982.189	33 27	99.144.413	12.50	219.090.299	27.61
1896.....	251.817.571	29.17	128.550.669	14.90	219,413.574	25.41
1897.....	296.834,858	28.76	181.420.814	17.58	235,051.930	22.79
1898.....	286.311.334	23.66	305.108.915	25.21	284,879.827	23.54
1899.....	277,723,374	23.07	232.903.066	19.35	304.696.334	25 31
1900.....	325.244.296	23.73	225.906.246	16.48	319.696.334	23.32
1901.....	397.417.247	27.21	245.836.198	16.83	337.152.992	23.09
1902.....	373.307.140	27.54	184.786.389	13.63	328.831.350	24.26
1903.....	408.442.137	29.34	185.308.064	13.31	323.244.697	23.22
1904.....	461.424.464	32.15	135.747.224	9 46	308.836.077	21.52
1905.....	472.114.493	31.65	118.185.098	7.92	283.065.098	18.97
1906.....	500.536.700	29.14	177.216.467	10.32	347.385.463	20.22
1907.....	593.145.135	32.00	167.348.227	9.03	345.706.609	18.65
1908.....	556.681.462	30.34	189.051.824	10.30	331.961.663	18.10
1909.....	520.907.436	31.80	135.693.409	8.28	302.555.341	18.47
1910.....	565.934.957	33.10	109.828.320	6.42	259.259.654	15.16
1911.....	713.018.206	35.41	103.401.553	5.13	282.016.883	14.01
1912.....	723.008.839	33.31	99.899.270	4.60	318.838.493	14.69
1913.....	731.758.513	30.13	181.907.266	7.49	321.204.373	13.23
1914.....	792.716.109	34.03	137.495,121	5.90	293.218.336	12.59
1915.....	510.455.540	18.80	506.993.179	18.66	454.575.404	16.74
1916.....	535.952.043	12.55	380.638.102	8.91	599.059.151	14.02
1917.....	731.990.339	11.76	531.866.009	8.54	737.795.334	11.85
1918.....	897,324,082	15.37	374.978.216	6.42	1.153.702.460	19.76
1919.....	1.610.134.072	20.78	678,363,413	8.75	1.962.615.469	25.32

Exported domestic merchandise, classified by great groups—Contd.

Manufactures for further use in manufacturing.		Manufactures ready for consumption.		Miscellaneous.		Total value.	Year.
Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.		
Dollars.	....	*Dollars.*	....	*Dollars.*	....	*Dollars.*	1800
.....	....	.....	....	.....	....	.....	1810
4,867,379	9.42	2,925,165	5.66	84,526	0.16	51,683,640	1820
4,117,606	7.04	5,461,589	9.34	182,244	.31	58,524,878	1830
4,841,101	4.34	10,584,079	9.47	246,320	.22	111,660,561	1840
6,060,900	4.49	17,162,206	12.72	139,494	.10	134,900,233	1850
11,304,094	5.86	28,832,786	14.96	208,474	.11	192,751,135	1855
12,641,625	3.99	35,811,383	11.33	988,371	.31	316,242,423	1860
8,400,921	4.10	35,503,955	17.33	1,448,434	.71	204,899,616	1861
8,126,464	4.52	26,918,451	14.99	641,826	.36	179,644,024	1862
11,393,244	6.12	33,447,115	17.98	2,056,482	1.11	186,003,912	1863
9,861,090	6.88	25,344,570	17.66	587,940	.41	143,504,027	1864
10,650,288	7.79	30,120,816	22.00	360,376	.26	136,940,248	1865
12,357,000	3.66	39,231,280	11.62	800,358	.27	337,518,102	1866
15,065,010	5.38	43,505,080	15.55	429,209	.15	279,786,809	1867
17,017,616	6.32	42,935,166	15.94	217,423	.08	269,389,900	1868
13,887,562	5.05	47,139,144	17.13	140,210	.05	275,166,697	1869
13,711,708	3.66	56,329,137	14.96	363,341	.09	376,616,473	1870
13,858,056	3.23	75,551,340	17.63	2,530,284	.59	428,398,908	1871
21,087,265	4.92	65,306,501	15.24	3,920,385	.92	428,487,131	1872
24,976,655	4.95	76,059,102	15.06	1,382,839	.27	505,033,439	1873
26,026,258	4.57	81,124,581	14.24	950,963	.17	569,433,421	1874
27,458,054	5.50	74,503,493	14.92	1,680,299	.34	499,284,100	1875
31,459,259	5.08	74,450,509	14.16	1,627,418	.31	525,582,247	1876
31,513,556	5.34	112,673,046	19.11	3,923,597	.66	589,670,224	1877
28,685,480	4.22	110,440,970	16.23	3,368,007	.49	680,709,268	1878
30,169,002	4.32	103,254,499	14.78	3,471,767	.50	698,340,790	1879
29,044,159	3.52	92,774,139	11.26	3,878,448	.47	823,946,353	1880
32,820,713	3.71	102,458,449	11.59	1,699,395	.19	883,925,047	1881
37,164,800	5.07	124,835,385	17.02	4,934,240	.67	733,230,732	1882
37,996,198	4.72	122,448,549	15.23	5,347,936	.66	804,223,632	1883
37,800,437	5.21	118,172,882	16.30	4,382,102	.60	724,964,852	1884
39,437,313	5.42	110,818,865	15.25	2,687,919	.37	726,682,946	1885
34,037,715	5.11	111,627,312	16.76	2,401,382	.36	665,964,529	1886
36,732,490	5.22	112,417,839	15.99	2,397,691	.34	703,022,923	1887
40,176,023	5.88	113,892,689	16.65	2,277,041	.33	683,862,104	1888
42,712,932	5.85	123,183,883	16.87	4,798,885	.65	730,282,609	1889
46,454,992	5.50	132,527,050	15.68	4,915,101	.58	845,293,828	1890
47,961,372	5.49	140,349,741	16.09	4,506,825	.52	872,270,283	1891
50,284,241	4.95	132,792,441	13.07	4,664,360	.46	1,015,732,011	1892
49,070,703	5.94	129,938,284	15.63	4,379,638	.52	831,030,785	1893
67,145,189	7.72	135,659,274	15.61	7,288,415	.84	869,204,037	1894
62,253,782	7.85	143,609,893	18.10	5,312,023	.67	793,392,569	1895
76,219,728	8.85	181,789,157	21.04	5,409,788	.63	863,200,487	1896
98,284,243	9.52	212,959,122	20.63	7,456,636	.72	1,032,007,603	1897
101,990,563	8.43	222,537,358	18.38	9,463,916	.78	1,210,291,913	1898
117,730,260	9.78	262,656,583	21.81	8,163,203	.68	1,203,931,222	1899
153,275,660	11.18	331,746,496	24.20	14,894,539	1.09	1,370,763,571	1900
148,350,529	10.16	317,745,673	21.76	13,960,167	.95	1,460,462,806	1901
132,206,324	9.75	321,946,630	23.75	14,404,028	1.07	1,355,481,861	1902
140,666,864	10.10	327,468,629	23.52	7,100,911	.51	1,392,231,302	1903
174,876,659	12.19	348,734,801	24.30	5,559,792	.38	1,435,170,017	1904
209,926,174	14.07	402,049,798	26.96	6,403,980	.43	1,491,744,641	1905
226,210,513	13.17	459,812,655	26.76	6,791,584	.39	1,717,953,382	1906
259,442,028	14.00	480,681,423	25.93	7,394,612	.39	1,853,718,054	1907
261,105,883	14.23	489,469,958	26.68	6,515,567	.35	1,834,786,357	1908
231,144,267	14.11	440,271,747	26.87	7,783,393	.47	1,638,355,593	1909
267,765,916	15.66	499,215,329	29.19	8,079,822	.47	1,710,083,998	1910
309,151,989	15.35	598,367,852	29.72	7,592,542	.38	2,013,549,025	1911
348,149,524	16.04	672,268,163	30.98	8,155,539	.38	2,170,319,828	1912
408,806,949	16.83	776,297,360	31.97	8,531,897	.35	2,428,506,358	1913
374,224,210	16.06	724,908,000	31.11	7,122,249	.31	2,329,684,025	1914
355,862,329	13.10	807,465,511	29.73	80,826,502	2.97	2,716,178,465	1915
657,923,305	15.40	1,998,298,249	46.77	100,306,729	2.35	4,272,177,579	1916
1,191,262,523	19.13	2,942,577,415	47.25	91,672,430	1.47	6,227,164,050	1917
1,201,439,423	20.58	2,185,420,221	37.43	25,787,655	.44	5,838,652,057	1918
922,401,664	11.90	2,563,350,160	33.08	12,950,778	.17	7,749,815,556	1919

Year.	Imported merchandise, classified by great groups.					
	Crude materials for use in manufacturing.		Foodstuffs in crude condition, and food animals		Foodstuffs partly or wholly manufactured.	
	Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.
	Dollars.		*Dollars.*		*Dollars.*	
1800	.....	....	.....	....	.....	....
1810	.....	....	.....	....	.....	....
1820	1,983,706	3.64	6,081,641	11.15	10,820,814	19.85
1830	4,214,825	6.72	7,382,274	11.77	9,653,971	15.39
1840	11,510,245	11.71	15,273,321	15.54	15,188,845	15 46
1850	11,711,266	6.75	18,011,659	10.38	21,465,776	12 37
1855	26,151,458	10.14	32,935,329	12.78	34,137,837	13.24
1860	39,691,797	11.22	45,743,826	12.94	59,837,674	16 92
1861	29,259,172	10.11	40,177,496	13.89	53,742,740	18.58
1862	31,928,211	16.86	32,495,120	17.17	34,566,127	18 25
1863	46,958,837	19.30	30,454,691	12.51	35,167,621	14 45
1864	38,746,439	12.24	44,258,461	14.00	51,557,954	16.29
1865	28,777,028	12.05	35,137,244	14 72	48,030,634	20.12
1866	16,114,499	10.61	60,669,119	13 95	72,481,508	16.67
1867	41,684,616	10.53	50,697,276	12.81	65,387,466	16.52
1868	39 366,270	11.01	51,719,723	14.47	77,878,959	21.79
1869	47,663,754	11.42	52,924,832	12 68	95 073,003	22.77
1870	55,615,202	12.76	54,081,091	12.41	96,081,635	22.03
1871	66 799,655	12.84	63,618,372	12 24	103,225,752	19.84
1872	91,715,359	14 64	76,745,348	12 25	121 746,757	19.43
1873	94,293,376	14 68	83,364,065	12 98	122,063,864	19 01
1874	73,366,563	12 93	94,264,481	16.61	119,618,137	21.08
1875	78,891,769	14.80	90,018,885	16.89	113,145 852	21.23
1876	66,370 245	14 41	94,186,516	20 44	91,927,329	19 95
1877	69,592,668	15.42	86,134,465	19 08	114,579,052	25.39
1878	72,485,326	16.58	84,399,969	19 31	102,034,859	23.34
1879	73,328,788	16.45	82,283,989	18.46	102,659,926	23.03
1880	131,861,617	19 74	100,297,040	15 01	118,125,216	17 69
1881	114,244,631	17.77	102,486,852	15.95	123,380,388	19 20
1882	131,356,113	18.13	104,947,672	14.49	139,438,506	19.24
1883	133,612,450	18 48	93,091,358	12.87	142,127,926	19.65
1884	119,150,641	17.84	103,010,830	15.43	130,778,286	19.59
1885	106,774,553	18.49	93,345,583	16.16	102,937,933	17.82
1886	128,434,759	20 22	91,588,644	14.41	112,771,436	17.75
1887	143,361,050	20.71	106,362,234	15.36	111,714,382	16.14
1888	155,057,432	21.42	116,087,107	16.03	111,048,075	15 34
1889	163,548,106	21.94	123,130,984	16.53	122,254,266	16.41
1890	170,637,250	21.62	128,480,142	16 28	133,332 031	16.89
1891	184,175,197	21.80	150,639,399	17.83	147,721,884	17.48
1892	188,317,595	22 76	175,558,861	21.22	139,794,773	16 89
1893	209,277,112	24 16	131,663,968	15 19	153,739,181	17.75
1894	130,086,011	19.86	133,309,989	20.35	155,348,824	23.72
1895	180,939,902	24.72	141,377,238	19 31	107,026,180	14.63
1896	197,646,852	25.35	130,002,310	16 67	118,805,703	15.24
1897	196,159,371	25.66	128,379,785	16 79	129,244,951	16 90
1898	189,322,244	30.73	103,984,608	16 88	86,091,010	13.97
1899	208,565,691	29.91	98,933,256	14.19	123,448,135	17.71
1900	276,241,152	32.50	97,916,293	11.52	133,027,374	15.65
1901	248,006,751	30.13	110,385,208	13.43	125,540,654	15 25
1902	303,001,868	33 55	120,280,302	13.31	95,350,256	10.56
1903	330,491,084	32.22	119,202,674	11.62	116,620,623	11.37
1904	320,794,431	32.37	132,223,895	13.34	118,222,862	11 93
1905	389,160,658	34.82	146,130,903	13.08	145,355,839	13.01
1906	414,687,999	33.81	134,315,448	10.95	140,358,114	11.44
1907	477,027,174	33.25	149,747,693	10.44	158,656,263	11.06
1908	363,482,258	30.43	145,577,427	12.19	147,008,870	12 31
1909	451,359,259	34.40	164,110,674	12.51	165,700,920	12.63
1910	566,270,770	36.37	144,776,636	9.30	181,566,572	11.66
1911	511,362,140	33.48	181,194,863	11.87	172,006,501	11.26
1912	555,986,041	33.63	230,358,230	13.93	196,100,608	11.86
1913	635,210,201	35.04	211,746,500	11.68	194,243,220	10.72
1914	632,865,860	33.42	247,947,621	13.09	227,644,329	12.02
1915	575,357,144	34.38	223,929,564	13.38	285,725,091	17.07
1916	948,825,500	43.17	251,886,746	11.46	310,938,181	14.14
1917	1,109,704,565	41.73	335,573,042	12.62	343,435,475	12.91
1918	1,230,252,430	41.76	372,681,751	12.65	380,227,084	12.91
1919	1,674,182,024	42.88	545,300,293	13.97	555,699,249	14.23

Imported merchandise, classified by great groups—Continued.

Manufactures for further use in manufacturing.		Manufactures ready for consumption.		Miscellaneous.		Total value.	Year.
Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.		
Dollars.	....	*Dollars.*	....	*Dollars.*	....	*Dollars.*	
.....	....	.....	....	.....	....	.....	..1800
.....	....	.....	....	.....	....	.....	..1810
4,079,064	7.48	30,998,900	56.86	556,709	1.02	54,520,834	..1820
5,152,486	8.22	35,734,837	56.97	582,563	.93	62,720,956	..1830
11,359,196	11.56	44,300,005	45.09	630,094	.64	98,258,706	..1840
26,163,152	15.08	95,312,499	54 93	845,174	.49	173,509,526	..1850
34,720,080	13.47	128,959,080	50.02	904,915	.35	257,808,708	..1855
34,899,303	9.87	172,128,991	48.68	1,314,528	.37	353,616,119	..1860
32,613,807	11.27	132,272,902	45.72	1,244,425	.43	289,310,542	..1861
23,773,633	12.56	65,697,925	34.69	895,661	.47	189,356,677	..1862
35,148,512	14.45	95,009,168	39.04	596,986	.25	243,335,815	..1863
52,280,953	16.52	128,449,577	40.59	1,153,899	.36	316,447,283	..1864
29,902,363	12.52	96,138,098	40.27	760,213	.32	238,745,580	..1865
55,840,774	12.84	198,128,401	45.57	1,577,765	.36	434,812,066	..1866
55,665,853	14.07	180,516,320	45.61	1,809,565	.46	395,761,096	..1867
53,435,379	14.95	133,432,080	37.33	1,604,029	.45	357,436,440	..1868
62,650,909	15.01	156,555,462	37.49	2,638,419	.63	417,506,379	..1869
72,228,206	12.75	173,614,888	39.82	996,521	.23	435,958,408	..1870
87,606,647	13 88	203,483,271	39.11	10,868,428	2.09	520,223,684	..1871
96,641,675	13.98	237,928,516	37.97	10,852,450	1.73	626,595,077	..1872
71,913,498	15 05	232,108,020	36.15	13,665,210	2.13	642,136,210	..1873
63,411,606	12.67	192,431,867	33.92	15,811,796	2.79	567,406,342	..1874
51,087,445	11.89	177,891,440	33.38	9,645,884	1.81	533,005,436	..1875
48,531,632	11.09	145,691,808	31.62	11,477,847	2.49	460,741,190	..1876
46,500,681	10.75	125,654,539	27.84	6,830,770	1 52	451,323,126	..1877
55,569,071	10 66	124,785,193	28.55	6,845,504	1.56	437,051,532	..1878
49,692,449	11.15	130,145,818	29.19	7,666,805	1.72	445,777,775	..1879
110,779,516	16.59	196,587,405	29.43	10,303,952	1.54	667,954,746	..1880
87,790,890	13.66	203,725,925	31.70	11,035,942	1.72	642,664,628	..1881
98,623,766	13.61	238,716,691	32.94	11,556,826	1.59	724,639,574	..1882
98,755,423	13.66	242,945,562	33.59	12,648,195	1.75	723,180,914	..1883
94,698 249	14.18	207,771,072	31.12	12,288,615	1.84	667,697,693	..1884
78,254,677	13.55	182,543,076	31.61	13,671,507	2.37	577,527,329	..1885
91,539,244	14.40	194,791,508	30.65	16,310,485	2.57	635,436,136	..1886
120,079,754	17 34	202,800,073	29.29	8,002,275	1.16	692,319,768	..1887
121,605,094	16 80	211,218,652	29 17	8,940,754	1.24	723,957,114	..1888
115,079,918	15 44	212,482,518	28.52	8,635,860	1.16	745,131,652	..1889
116,924,080	14.81	230,685,581	29.23	9,251,325	1.17	789,310,409	..1890
136,446,309	16.15	217,577,775	25.75	8,355,632	.99	844,916,196	..1891
112,729,303	13.63	204,543,857	24.72	6,458,073	.78	827,402,462	..1892
135,608,418	15.65	228,764,866	26 40	7,347,377	.85	866,400,922	..1893
82,894,732	12.65	148,798,021	22.72	4,557,045	.70	654,994,622	..1894
96,486,622	13.18	199,543,108	27.26	6,596,915	.90	731,969,965	..1895
101,070,937	12.96	226,639,759	29.07	5,559,113	.71	779,724,674	..1896
88,490,406	11.57	217,843,918	28.48	4,611,981	.60	764,730,412	..1897
79,288,417	12.88	153,025,210	24.84	4,338,165	.70	616,049,654	..1898
91,953,914	13.19	169,516,630	24.32	4,730,863	.68	697,148,489	..1899
134,222,045	15.79	203,126,341	23.90	5,407,979	.64	849,941,184	..1900
127,576,924	15.49	205,505,580	24.96	6,157,048	.74	823,172,165	..1901
147,656,292	16.34	231,420,820	25.62	5,611,410	.62	903,320 948	..1902
195,750,847	19.08	257,757,184	25.13	5,896,825	.58	1,025,719,237	..1903
160,233,890	16.17	252,857,673	25.51	6,754,620	.68	991,087,371	..1904
177,827,960	15.91	252,372,650	22.58	6,665,061	.60	1,117,513,071	..1905
220,298,751	17.96	307,801,154	25.10	9,100,980	.74	1,226,562,446	..1906
274,096,464	19 11	364,192,884	25.39	10,700,947	.75	1,434,421,425	..1907
196,248,409	16.43	331,617,926	27.77	10,406,902	.87	1,194,341,792	..1908
222,101,622	16.94	299,106,235	22.80	9,541,514	.72	1,311,920,224	..1909
285,138,373	18.31	367,723,367	23 62	11,471,712	.74	1,556,947,430	..1910
287,785,652	18.84	361,422,180	23.67	13,454,769	.88	1,527,226,105	..1911
293,739,134	17.77	360,018,963	21.78	17,061,958	1.03	1,653,264,934	..1912
349,401,928	19.27	408,178,704	22 51	14,227,681	.78	1,813 008,284	..1913
319,275,488	16.86	449,318,214	23.72	16,874,145	.89	1,893,925,657	..1914
237,176,522	14.17	335,876,628	20 04	16,104,791	.96	1 674,169,740	..1915
356,857,137	16.24	311,870 962	14.19	17,504,984	.80	2 197,883,510	..1916
477,730,509	17.96	377,256,553	14.19	15 655,041	.59	2,659,355,185	..1917
540,742,182	18.36	402,670,415	13.67	19,081,541	.65	2,945,655,403	..1918
609 898 708	15 62	492,769,389	12.66	26,515,274	.68	3,904,364,932	..1919

Year.	Shipping			Miles of railway in operation.	Patents issued.	Immigrants arrived.
	Built.	Engaged in foreign trade and whale fisheries.	Engaged in coastwise trade and cod and mackerel fisheries.			
	Gross tons.	*Gross tons.*	*Gross tons.*		*Number.*	*Number.*
1800..	106,261	670,573	301,919	.....	.....	.....
1810..	127,575	984,608	440,175	.....	.....	.....
1820..	51,394	620,102	660,065	.....	.....	8,385
1830..	58,560	577,268	614,508	23	.....	23,322
1840..	121,203	899,765	1,280,999	2,818	473	84,066
1850..	279,255	1,585,711	1,949,743	9,021	993	369,980
1855..	583,450	2,535,206	2,676,795	18,374	2,013	200,877
1860..	214,797	2,546,237	2,807,631	30,626	4,778	150,237
1861..	233,194	2,642,628	2,897,185	31,286	3,329	89,724
1862..	175,075	2,291,251	2,830,913	32,120	3,532	89,007
1863..	311,045	2,026,114	3,128,942	33,170	4,184	174,524
1864..	415,740	1,581,894	3,404,506	33,908	5,025	193,195
1865..	394,523	1,602,583	3,494,199	35,085	6,616	247,453
1866..	336,146	1,492,926	2,817,852	36 801	9,458	314,917
1867..	305,595	1,568,032	2,736,455	39,050	13,026	310,965
1868..	285,304	1,565,732	2,786,027	42,229	13,416	138,840
1869..	275,230	1,566,422	2,578,219	46,844	13,997	352,768
1870..	276,953	1,516,800	2,729,707	52,922	13,333	387,203
1871..	273,226	1,425,142	2,857,465	60,301	13,056	321,350
1872..	209,052	1,410,648	3,027,099	66,171	13,613	404,806
1873..	359,245	1,423,288	3,272,739	70,268	12,564	459,803
1874..	432,725	1,428,923	3,371,729	72,385	13,509	313 339
1875..	297,638	1,553,827	3,299,905	74,096	14,837	227,498
1876..	203,585	1,592,821	2,686,637	76,808	15,595	169,986
1877..	176,591	1,611,193	2,631,407	79 082	14,187	141,857
1878..	235,503	1,629,048	2,583,717	81,747	13,444	138,469
1879..	193,030	1,491,534	2,678,067	86,556	13 213	177,826
1880..	157,409	1,352,810	2,715,224	93,267	13,047	457,257
1881..	280,458	1,335 586	2,722,148	103,108	16 584	669,431
1882..	282,269	1,292,294	2,873,639	114,677	19,267	788,992
1883..	265,429	1,302,095	2,933,392	121,422	22,383	603,322
1884..	225,514	1,304,221	2,967,008	125,345	20,413	518,592
1885..	159,056	1,287,998	2,977,936	128,320	24,233	395,346
1886..	95,453	1,111,179	3,019,957	136,338	22,508	334,203
1887..	150,450	1,015,563	3,090,282	149 214	21,477	490 109
1888..	218,086	943,784	3 248,132	156,114	20,506	546,889
1889..	231,134	1,021,595	3 285,880	161,276	24,158	444,427
1890..	294,122	946,695	3,477,802	167,191	26,292	455,302
1891..	369,302	1 005,950	3,678,809	172 035	23,244	560,319
1892..	199,633	994,676	3 770,245	175,691	23,559	623,084
1893..	211,639	899,803	3,925,268	179,834	23,769	502,917
1894..	131,195	916,180	3,767,849	182,733	20,857	314,467
1895..	111,602	838,186	3,797,774	184,628	22,057	279,948
1896..	227 096	844 954	3 858,926	186,681	23,273	343,267
1897..	232,232	805,584	3 963 436	188,844	23,794	230,832
1898..	180,458	737,709	4,012,029	190 870	22,267	229,299
1899..	300,038	848,246	4,015,992	194,336	25,527	311,715
1900..	393,790	826,694	4,338,145	198,964	26,499	448,572
1901..	483,489	889,129	4,635,089	202 288	27,373	487,918
1902..	468,833	882,555	4,915,347	207,253	27,886	648,743
1903..	436,152	888,776	5,198,569	213,422	31,699	857,046
1904..	378,542	898,768	5,392,767	220,112	30,934	812,870
1905..	330,316	954,513	5,502,030	225,196	30,399	1,026,499
1906..	418,745	939,486	5,735,483	230,761	31,965	1,100,735
1907..	471,332	871,146	6,067,648	236 949	36,620	1,285,349
1908..	614,216	940 068	6,425,377	240,846	33,682	782,870
1909..	238,090	887,505	6,501,250	244 084	37,421	751,786
1910..	342 068	791,825	6,716,257	249,992	35,930	1,041,570
1911..	291,162	872,671	6,766,119	254,732	34,084	878,587
1912..	232,669	932,101	6,782,082	258,033	37,731	838,172
1913..	346,155	1,027,776	6,858,775	261,036	35,788	1,197,892
1914..	316,250	1,076,152	6,845,063	263,547	41,850	1,218,480
1915..	225,122	1,871,543	6,517,886	264,378	44,934	326,700
1916..	325,413	2,191,715	6,277,934	266,031	45,927	298,826
1917..	664,479	2,446,399	6,424,638	266,059	42,760	295,403
1918..	1,300,868	3,603,706	6,320,812	.....	39,941	110,618
1919..	3,326,621	6,669,726	6,237,574	.....	38,598	141,183

COLLATERAL READING

COLLATERAL READING

This work differs from most of the historical manuals of the present day in that no space has been devoted to long lists of "references for further reading" on specific subjects. It must not be understood that the author does not believe further reading essential and desirable. He simply has an aversion to the prevailing custom of telling students where to find information on topics assigned for special investigation, believing that the average student is likely to derive much more benefit from hunting for the information than from the information itself. There are numerous repositories of bibliographical material—guides, lists, indexes, catalogues, and other special works—devoted wholly to bibliography. These publications afford much more reference material than can be conveniently included in a text-book. Many of them are regularly revised, enlarged and brought down to date. The student should seek out works of this nature and learn to use them.

For regular supplementary reading the student will find especially valuable Callender's *Selections from the Economic History of the United States* and Bogart and Thompson's *Readings in the Economic History of the United States.* The former covers only the time previous to 1860. The *Statistical Abstract of the United States,* published annually by the Bureau of Foreign and Domestic Commerce, is a cheap and convenient source of statistical information which may well be used regularly as a basis for exercises in the preparation of graphs and charts.

For collateral reading of an extensive nature the student should widen his acquaintance with works of fiction, travel, description, biography and autobiography. The following short list of books, grouped roughly according to the periods with which they deal, is offered as a working basis for such collateral reading. Books of fiction are given without dates.

I. Exploration and Colonization.

Justin Winsor, *Christopher Columbus and How He Received and Imparted the Spirit of Discovery.* (1891).

Lew Wallace, *The Fair God.* (Spanish conquest of Mexico).

Charles Kingsley, *Westward Ho!* (English adventurers in the Spanish Main, sixteenth century).

Mary Johnston, *To Have and to Hold; Prisoners of Hope; Audrey.* (Early Virginia).

Washington Irving, *Knickerbocker's History of New York.* (Humorous account of Dutch life in New York).

II. Colonial Life and the Revolution.

Benjamin Franklin, *Autobiography.* (Many editions).

J. K. Hosmer, *Samuel Adams.* (1884).

M. C. Tyler, *Patrick Henry.* (1887).

Paul Leicester Ford, *The True George Washington.* (1896).

Henry Cabot Lodge, *George Washington.* 2 vols. (1889).

R. G. Thwaites, *Daniel Boone.* (1902).

W. G. Sumner, *Robert Morris.* (1892).

Archibald Henderson, *Conquest of the Old Southwest.* (1920).

Alice Morse Earle, *Stagecoach and Tavern Days.* (1900).
Colonial Dames and Goodwives. (1895).
Home Life in Colonial Days. (1899).

James Fenimore Cooper, *Leatherstocking Tales.* (Frontier life and Indian wars, latter half of eighteenth century).
The Spy. (Revolutionary War).
The Pilot. (Paul Jones and naval warfare during the Revolution).

Gilbert Parker, *Seats of the Mighty.* (French and Indian War).

Maurice Thompson, *Alice of Old Vincennes.* (Conquest of the Northwest Territory by George Rogers Clark).

J. P. Kennedy, *Horseshoe Robinson.* (Revolutionary War in the South).

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