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THE AMERICAN ECONOMY

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* 1860-1940 *

By

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With a Foreword by

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To
The Commonwealth Fund

Foreword

by Dr. Keith A. H. Murray

Twenty five years ago the directors of the Commonwealth Fund of New York created twenty Fellowships annually for British graduate students to study in American universities. It was their belief that international understanding could be forwarded in no more practicable a way than through the provision of international opportunities for education and travel to young men and women of character and ability; and also that the importance of unity of thought and purpose on the part of the two great English-speaking nations of the world lent a special value to reciprocal educational opportunities between the two countries. Since then, the field from which the Fellows are drawn has been extended, and the annual number of Fellowships has been increased to thirty two; five hundred and twenty three awards have been made since 1925.

Few of us who were granted these privileges in the early years of the scheme can have appreciated at that time the prescience of the directors, or can have imagined that the fortunes of the British Commonwealth would become so inextricably or so rapidly associated with those of the United States. Few, if any, can have foreseen the changes which have occurred in the political outlook and in the economic organisation of that great country or the international responsibilities which have been thrust upon her and accepted by her at such short notice.

There is to-day greater knowledge of Great Britain in the United States than there is of the United States in this country. When, so recently as last summer, one of our elected representatives in the House of Commons speaks of Americans in terms of 'unlettered, pot-bellied money magnates'—and this is not an isolated impression—one realises how out-worn are many of the current opinions of America. Yet it is vital that our knowledge of

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the United States should be accurate, for upon true knowledge depends friendship. •

Mr. Youngson Brown, therefore, could scarcely have adopted a more direct method of fulfilling the purposes which the Commonwealth Fund has in mind than by the writing of this history of the American Economy during the years 1860-1940. He is well-qualified to do this. His wartime service as a pilot in the Fleet Air Arm has given him a maturity, born of experience; his training as an historian and an economist has enabled him to distinguish the significant from the insignificant; moreover his critical approach is, at the same time, objective and sympathetic.

It may be invidious to select certain chapters in such a valuable and timely study, but I may be forgiven if I mention in particular the chapter on the peopling of America which sets the stage for the better understanding of American development and of her current problems; the chapters on the growth of railroads and on the New Deal, a comparison of which throws into startling relief the remarkable changes in American attitudes during the period of the study; and finally a concluding chapter on the American way of life, which is as stimulating as it is bound to be controversial. This chapter leaves no doubt that the writer has seen deep into the heart of America.

April 15th, 1950.
The Rector's Lodgings,
Lincoln College,
Oxford.

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Chapter 1

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THE PEOPLING OF AMERICA

THE United States of America is like India, like Russia, like Australia, and to a certain extent like China, in one vital respect; she is almost a continent in herself. Western Europe knows nothing similar, and western Europeans—ourselves—will never understand the United States unless we grasp this overriding consideration: the United States is not merely a very big country; she is so enormous as to embrace all, and more than all, the geographical variations of the whole of Europe. England and Wales are together about 58,000 square miles, Scotland is just under 30,000; the United States is just over 3 million square miles or about 34 times as large as England, Scotland and Wales.

Figures, like words and sermons, never convince. If the traveller takes a plane due westward from Boston to Buffalo, the journey will occupy about two hours; and then if he looks at a big-scale map he will see that he is still pretty well on the east coast. Texas, only one among 48 States, is almost 750 miles at its extreme points from east to west; California, just another State, is nearly 700 miles from north to south and supports a population over three quarters the size of that of the sovereign state of Canada. Fast motor coaches take a day and a night to cross Texas. Southern California borders on Mexico, and there it is semi-tropical, in many parts torrid, cactus-growing desert; yet one crosses the Northern border of California into Oregon over thickly wooded mountains, mountains covered with cedar, hemlock and Douglas fir, traversed by many roads that become snowbound and impassable in winter. New York from the coast of these Pacific States lies about 2500 miles to the east—about as far as from London to Newfoundland, and considerably further than from London to Moscow, Istanbul, Cairo or Timbuctoo.

When Rhode Island joined the United States on the 29th of May, 1790, and thereby finally and completely turned the 'revolted colonies' into 'the more perfect union' which the Constitution was designed to achieve, the nation so created was, in point of territory, not large by the standards of the time, and in point of population fairly small. The first Americans, clustered in the river valleys and spread more thinly across the eastern slopes of the Allegheny or Appalachian Mountains, numbered only a little over three million in 1790, in addition to about three quarters of a million of coloured people. Very few lived more than 150 miles from the coast, and only about a quarter of a million were on the inland side of the Alleghenies. Kentucky and the Ohio Valley began to be colonised in the last three decades of the 18th century, but it was largely unknown country even there, and westward stretched the bulk of the land, unexplored, unmaped and unknown.

This territory, which now contains over 80 million people, was then almost empty; but not quite. It was the land of the Indian, and of the buffalo which helped support the Indian. The aboriginal population of North America (*i.e.* north of the Mexican border) must in the 16th century have reached and perhaps exceeded one million people. These primitive farmers and hunters were scattered widely across the continent, practising a 'shifting agriculture' (from which the early settlers learned a good deal), and eking out their livelihood by fishing, hunting, and gathering the fruits, berries, herbs and roots of the country. Before 1800 the Americans had already encountered and antagonised about 100,000 of these primitive inhabitants in the country east of the Alleghenies. They had also met the 30-40,000 Indians of the Ohio Valley. But beyond, still almost unknown at the opening of the 19th century, were the Chippewa and Sioux of the Minnesota-Dakotas area, the Crow, Blackfoot, and Cherokee, the 80,000 Indians of California and the '50,000 hostile Indians' between the Missouri and the

Rockies,' who still exhibited in 1869, according to the Commissioner of Agriculture, 'a stolidity of character and an inaccessibility to civilizing' influences which are remarkable even in this strange race of men.'

Among these primitive inhabitants, the tribes of the Plains, especially, depended almost entirely upon the buffalo—and therefore upon an abundance of living space. Before 1800 the buffalo was to be found almost everywhere in the United States outside the areas now occupied by the Atlantic and Pacific coast States, but by 1850 it was largely restricted to the Great Plains, and its slaughter had begun. Figures vary widely, but it has been estimated that from 1835 to 1845 no fewer than 400,000 were killed annually, and that the climax of the slaughter, from 1870 to 1885, saw the death of at least 10,000,000 of these animals. Their number at one time must have been immense; in 1852 observers travelling on the Santa Fe trail, standing on the top of Pawnee Rock, calculated that they could see from 200,000 to 800,000 buffaloes, but could see in no direction the outermost limits of the herd. But by 1885 the buffalo had gone, and with it, the independence of the northern Indian. Hopelessly outclassed in warfare, he had lost the struggle of two and a half centuries, and the 1940 census put the Indian population at just under 340,000.

There were, in 1790 and later, some other non-American occupiers of the now United States, but none of any very great numerical importance. There were Spaniards and some French in Florida and the upper Mississippi, and Spain as well as America was showing an interest in colonising Texas. A chain of Missions and Presidios was established by Spanish laymen and Spanish Franciscans along the coast of California from south of Los Angeles to San Francisco between 1770 and 1823, but the number of resident Spaniards cannot have exceeded a few thousand. North of these settlements there were, until the late 1840's, British and Russians, the former from Canada, the latter from across the Bering Straits; these groups

were traders—mostly fur traders—and they likewise were not numerous. All these people, red man and white man, Asiatic, European or native in origin, at no time numbering more than one million and a half, the sole inhabitants of the United States west of the Mississippi in 1790, and almost its sole inhabitants west of the Appalachian Mountains at the same date, were in the course of the 19th century either ejected, absorbed, or contained; and the lands which they once occupied, and the far larger lands which they scarcely occupied at all, were taken over by 40 to 50 million people whose ancestors had lived elsewhere; and were by these newcomers settled and exploited.

This stupendous achievement was made possible by the greatest human migration in history. The population of the United States grew from rather less than 4 million in 1790 to about 92 million in 1910, and in 1940 reached almost 132 million. Thus in the course of the 19th century, whereas Britain increased her population $3\frac{1}{2}$ fold, America increased hers fifteen fold. This was not and could hardly have been a natural increase. Peter Kalm, about 1750, saw good reasons for a high birth rate:

‘There is such an amount of good ground yet uncultivated, that a new-married man can, without difficulty, get a spot of ground, where he may comfortably subsist with his wife and children. The taxes are very low, and he need not be under any concern on their account.’¹

Nevertheless, subsistence, however easy, and taxation, however low, will scarcely enable a nation to increase its population fifteen times over in a century. The peopling of the United States was not a national but an international achievement. America in the 19th century was the land to which Europe’s ‘surplus’ population could flow, and America’s readiness to accept this population was a fact of incalculable importance to the 19th century world.

This transatlantic migration, although in reality a ‘continuous movement, can conveniently be divided into

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three fairly distinct stages, in each of which population moved into the United States from a different part of Europe. The first stage, from the close of the Napoleonic wars to about 1860, is sometimes known as 'the Celtic migration', the immigrants coming chiefly from England, Ireland, and the Rhine Valley. This phase is rather different from the two which followed it. Those people who moved prior to 1860 moved, on the whole, rather from compulsion than from hope; the emigration of the 1840's and the 1850's an American historian has even called 'the flight from hunger.' But after 1860, emigrants, if they did not quite return to the grand optimism of Joseph Priestley, who sailed for America in 1794 in order to found a new community based on new principles of social life on the banks of the Susquehanna (he subsequently accepted a professorship at Philadelphia), left their homes rather because they hoped for better things across the Atlantic than because, while they stayed, they knew that they had nothing left to hope for. These more purposeful newcomers of the second and the third phases, were, from 1860 to 1890, predominantly Englishmen, Scandinavians, and Germans; while the years from 1890 to 1914 brought Italians, and a complex of peoples from the Russian and the Austro-Hungarian empires. Thirty three million people crossed the Atlantic and entered the United States between the Battle of Waterloo and the Battle of the Marne! The years of greatest movement were the six years prior to the outbreak of the first world war, the whole of the 1880's, and the period 1847-1854: seventeen million people entered the United States in these twenty four years. An uncertain but surprisingly large proportion of them, it is true, found their way back to Europe—probably from 20% to 25%. Even so, the movement was on such a scale as almost to stamp a special character on this century of European life, and by comparison with it, certainly, the movements of people into and across Europe during and before the Middle Ages fade into numerical insignificance.

War in Europe made movement difficult until 1815. The cessation of war in that year made emigration possible, and the aftermath of war made it widely desirable. In the 1820's most immigrants were from England and from Ireland, where agriculture was adjusting itself with difficulty in a period of falling prices. Agricultural distress was, indeed, often severe, and there were several long and bitter winters; in 1828 Irish emigration, mostly of the 'small, but industrious and comfortable farmers',² for the first time topped 10,000. This was but a prelude. Despite, or more probably because of, the deep poverty of Ireland at this time, her population grew at a rate which astonished contemporary observers. A low standard of living, the minute subdivision of land, and above all the high food value and easy growth of the potato all combined to encourage early marriages and large families. Half the population of Ireland depended absolutely on the potato: 'Och, we sure had everything we wanted in the potato, God Bless it; we had only to throw a few of them in the hot ashes and then turn them, and we had our supper.'²

This dependence on a single crop was extremely dangerous, for the potato will not keep for longer than a few months, is bulky to transport, and, worst of all, is subject to disease. Wart disease in potatoes was known in Britain at least from the second half of the 18th century, but it never became general. In 1845, however, the pandemic Blight—a fungus disease—suddenly appeared and swept away from one third to one half of the Irish crop; in England and Scotland and Germany there was also a loss, but a less severe one. In Ireland, government relief and private charity came to the rescue, and emigration, which had been proceeding on a considerable scale for over ten years, did not show any immediate increase. All depended on the success of the 1846 crop; it failed; in a single week of July, it is said, the fields turned from a scene of promise to 'one wide waste of putrefying vegetation.'³ In western Germany also, with an agriculture very similar to Ireland's, both in the system of land-holding

and in the crops grown, there was disaster. American maize could not reach Europe in sufficient quantity until the canals in the interior of the States became open in the spring, and all over Europe the price of food rose, the winter seeing both famine and an international grain panic. In Ireland the dead were buried, it is said, unrecorded in pits.

As a direct consequence, Irish emigration to America doubled in 1847 to reach a figure of over 100,000. Germany, with close on 75,000, was not far behind. The American vessels which brought food to the starving in Europe also carried them away, and in huge numbers, although shippers raised their rates from £2 or £3 to £5 and then to £7. The sums required were supplied by the sale of belongings, by charitable action on the part of landlords and others, by begging. The fortunate who could secure a passage to the United States stood a reasonable chance of surviving the journey; mortality on the way to Canada (the goal of most Scots emigrants) was far worse than on the way to the States.

In 1848-9 this calamity was repeated, and the great wave of Irish emigration from 1849 to 1853 was set in motion. Along with it came disaster in Germany—the disaster of bad harvests and inescapable debts, coupled with political uncertainty following the disturbances and failures of 1848. Land sales and emigration reached their peak for early 19th century Germany in 1854, when 215,000 Germans entered the United States. Emigration grew, for a short time, into something of a mania, and scarcely a country in Europe was left unaffected by it. The merchants at the great ports of embarkation—Liverpool, Hamburg, Bremen, and Le Havre—grew rich by it, the last named, it is said, becoming so popular that it ‘took on the appearance of a German town’.⁴

This first phase of trans-Atlantic migration was assisted by the action of individuals in America in two ways. Some remitted money back to their friends and relatives in order to enable them to emigrate also. This means whereby

emigration begets emigration' became important as early as the '40's; in 1848 upwards of £400,000 was remitted to Great Britain, mostly by and for Irishmen, and in the early 1850's the sum remitted annually exceeded £1 million—a figure it was not again to reach until 1878. Secondly, a stream of information, almost all of a favourable sort, was sent back by emigrants and others interested. Morris Birkbeck, attempting to attract settlers to his colony on the Wabash, published his 'Notes on a Journey to America' in London in 1819, a book which went into eleven editions; forty years later Caird wrote his 'Prairie Farming in America'; and in between lay a host of books, pamphlets and articles, especially those for German consumption by Gottfried Düden, and a series which appeared in Chamber's Edinburgh Journal. Most important of all must have been the letters sent home to relatives; peculiarly convincing is the story of the man who went from individual to individual on an emigrant ship, asking the people why they chose to emigrate; and who found the commonest answer was for the emigrant to pull a letter from his pocket, and handing it to him, say, 'read this'.

After this first major Irish and German movement had come to an end, about 1857, immigration into the U.S. proceeded more slowly for a few years (affected, probably by the crash of 1857, and of course by the Civil War) and it never resumed its old character; the emigration of hope and of precaution now came to replace the emigration of despair.

The following three decades were the great period of German emigration to America, which reached its peak in the early 1880's. This was the time in Germany when the loosening of the peasant's ties with the land and of restrictions on his freedom of movement became finally and wholly effective, and the period also of the joining of the struggle between the old rural, craft industries and the new factory industries. Exceptionally rapid economic changes were taking place, and the peasant or craftsman who lost his old way of life did not always like the alter-

native of wage-earner or factory-hand likely to be offered him in his own country. Germany had already sent over one million persons to America, and where friends and relatives had gone it was easy to follow—especially as a good Atlantic crossing had been reduced from seven weeks in the 40's to two weeks in the 80's. In the single year of 1882, a quarter of a million Germans entered the United States.

In the case of Germany, emigration was to a large degree the response to the pains and difficulties of an economic transition. England, taking her largest share of American immigration in the early 70's and the late 80's, was troubled rather by the periods of dull trade and low wages which appeared during the 'Great Depression'. Unemployment was exceptionally severe (for the 19th century) from 1880 to 1886, and the wages of Scots miners—to take one example—fell with exceptional rapidity to as little as 2/- a day in the late 70's; emigration from England and Scotland to America exceeded 100,000 only twice in the 19th century, in 1882 and 1888, but it was over 15% of total United States immigration for the greater part of the 70's and 80's.

The third most important contribution made to America's population in these middle decades came from Scandinavia. Scandinavia has the distinction of sending in these years a greater proportion of its people overseas than any other region. Norwegian emigration to America had begun as early as 1825, but the great Norwegian and Swedish influx took place in the 1880's and early 1890's. For several years Norway and Sweden combined to send over 50,000 persons annually to the United States—an astonishing number from a population well under 8 million. This movement was, on the whole, agricultural in origin, but Sweden never knew the deep rural poverty of Ireland. In the course of the 19th century the number of Swedish landless agricultural workers doubled, and there was a rapid increase in the burden of poor relief; a situation reminiscent of that of England

in the early 19th century. But the Norwegians and the Swedes left Scandinavia before their case became a desperate one. Emigration was significant as early as the late 60's and grew as the industrial depression affected Swedish industry and the agricultural output of America flooded into European markets in the 70's and 80's.

Lastly, there came the Mediterranean and East European phase. Italian emigration, scarcely important until the late 80's, reached unprecedented figures in the 20th century. It exceeded 50,000 for the first time in 1888; 100,000 in 1900; 150,000 in 1902; 200,000 in 1903; 250,000 in 1906; and reached its climax in the following year with 285,731. (The figure for 1914 was only slightly less. In these peak years no less than 2% of the total population was leaving the country annually for settlement overseas). This movement resembled the German in its mixed character: there were artisans from the north, submerged by the rise of industrialization; and peasants from the south, affected like their Swedish counterparts by American competition, and also by the increased concentration of land-holding and the growing commercial-mindedness and rapacity of landlords. From southern Italy especially emigration flowed towards the United States. And with the Italians, for similar reasons and in not much smaller numbers, came people from the Austro-Hungarian and Russian Empires.

Thus over several decades the distribution of the world's population was changed, by no man's decree, in conformity to no country's law. All over the western world 19th century transportation developments gave the means to move, legal changes did away with the restrictions on movement, and for a century common people left their homes to seek a better existence. America, more than any other region, took them in. Wherever economic adjustments required to be made, emigration to America was, in those days, always a possibility which might make them easier.

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This huge movement of people was a private affair. The American government, after setting up the American Chamber of Commerce at Liverpool in 1823 to help attract artisans to America, took scarcely any part in it. The British government made a few feeble attempts to encourage emigration to Canada in the 1820's, and European governments made a few sporadic attempts to hinder movement overseas prior to 1860. But movement was the affair of individuals, families or groups; in America the railway companies especially worked to promote it, and in European countries philanthropy and co-operation assisted individual effort.

This situation remained virtually unaltered until 1917, when the United States Congress passed, over the veto of Wilson, a literacy test. With this Act the United States began sensibly to restrict trans-Atlantic immigration (trans-Pacific immigration, never comparable in volume, it had moved to control as early as 1882, when Chinese immigration was prohibited). This step ended a phase of the economic life of both America and Europe. In 1921 the 'quota law' was enacted limiting immigration in any year to 3% of the number of each nationality in the United States according to the Census of 1910, and in 1924 (with labour backing) a new law was passed changing the details to 2% of the populations of 1890—a change which halved the possible number of new admissions and which worked in favour of the 'old immigration' countries of northern and western Europe, as it was intended that it should.

Thirty two million people came to America—officially: how many crossed the American-Canadian border, especially into the New England towns, will never be known. Of the recorded 32 million, at least 24 million remained. In 1790 the density of population in the seaboard States was about 8 to the square mile, and this population was about 60% English in origin; in 1870 the national density was 12.74 per square mile, and about

two and a half million Germans and two and a half million Irish, mostly Catholic, had profoundly altered the racial composition; by 1940, with—to name no others—about four million Italians added, the population mixture was complete (and Americans could enjoy Sinclair Lewis' description of his hero—'a Typical Pure-bred Anglo-Saxon American, which means that he was a union of German, French, Scotch, Irish, perhaps a little Spanish, conceivably a little of the strains lumped together as 'Jewish', and a great deal of English'),⁵ and yet the population density was only 44 to the square mile. The population density of Britain in 1940 was 490, that of France 197. America with equal density of population would have had not 132 million inhabitants but 1450 million or—if the French figure is taken—about 600 million. Did even the greatest migration in history really 'fill up' those empty spaces west of the Alleghenies?

Chapter 2

*

1790 — 1860

THE territory of the United States, huge and various, must be expected to have a history correspondingly complicated and diverse. It is one of the tasks of the historian to select and to simplify, but simplification, already hard, is made in this case still harder by the fact that the area described by the word 'America' kept on changing through several decades of the 19th century. The Declaration of Independence, signed by 'the Representatives of the United States of America' in 1776, claimed independence not for the inhabitants of the 3 million square miles of the present-day United States, but for the inhabitants of 13 States on the eastern sea-board with a population of less than 4 million. Few of these individuals, except up a dozen or so river valleys, lived more than 100 miles from the sea. From this coastal base, American sovereignty was expanded right across the continent by three methods; pioneering, purchase, and war.

All territory east of the Mississippi was American from the beginning of the nation, and this area was quickly entered and appropriated to use. The completion of this work took, of course, decades, but this part of the continent was well mapped and organised for governmental purposes by 1830. This was not, after all, a colossal task. To reach the great Mississippi Valley from New York was possible, even in 1800, in a mere five weeks. The process of colonisation east of the Mississippi had hardly begun, however, when Napoleon astounded the American Minister in Paris by offering him the huge region of Louisiana for the paltry sum of \$15 million—an opportunity which President Jefferson did not let slip. Thus in 1803 the United States was launched on her career of territorial expansion by purchase, and well launched, for the Louisiana Territory comprised approximately all the land between the

Mississippi and the Rocky Mountains with the exception of Texas; American territorial rights were about doubled in extent overnight. This immense acquisition was unknown, because almost unexplored, until the expedition of Lewis and Clark who, with forty three men, left St. Louis in the spring of 1804 and returned there in the autumn of 1806, having ascended the Missouri River, crossed the Rockies, and floated down the Columbia to its entrance into the Pacific. Jefferson himself promoted this expedition, and personally compiled for Lewis a digest of all the available information relating to Louisiana. These explorers were the first white men to cross the Rockies in the northern part of the range and the first to reach the mouth of the Columbia River overland; on their trip they saw, in their own words, many a spectacle 'which since the creation has been lavishing its magnificence on the desert (sic), unknown to civilisation',¹ and their work made one of the greatest single additions to the geographical knowledge of the world.

This purchase, however, was but the beginning of a lengthy process. In 1819 the United States bought Florida from Spain for \$5 million. Two years later American cattlemen began to settle in the Mexican province of Texas and 'incidents' between Americans and Mexicans began and rapidly multiplied. In 1836 the Americans revolted, and Texas set out on its brief career as an independent territory. In 1845, however, its requests for admission to the Union were heeded, and war with Mexico—to the surprise and alarm of no-one, though to the anger of many—began. The price of peace was recognition of the American claim to Texas, and the cession, in return for \$18 million, of what is now California, New Mexico, most of Arizona, Nevada, Utah, and parts of Colorado and Wyoming. The United States had done it again, although this time to the accompaniment of diplomatic and other manoeuvres which 'no American historian of character mentions with pain'.

The remainder of the story is soon told. The Gadsden Purchase of 1853 made a small adjustment to the Mexican-American boundary—it cost \$10 million, which was the highest price per acre America ever paid. In the north, Russia renounced all claim to territory south of 50° 40' in 1824, and the joint British-American occupation of Oregon, begun in 1818, ended peacefully in 1846 with the extension of the 49th parallel to the sea. (President Polk certainly had designs on Mexico, but he was too wise to be swept away by the bluster of the time regarding the northern frontier—'Fifty four forty or fight'). Finally, in 1867, Alaska was sold by Russia for \$7.2 million. Only in Florida, Texas, Oregon, Utah, and (scarcely perceptibly) California, had settlers gone ahead of acquisition: not counting Alaska, America had acquired 2,178,000 square miles for \$55.2 million—a prize which finds its comparison only in the territorial stakes of the four greatest international wars of the past 200 years.

In 1790 the United States was, despite her commerce and her industries, predominantly what British mercantile policy had wished her to be; a huge agricultural estate. All nations were, at this time, predominantly agricultural, but few more so than the United States. There were only six towns with a population of over 8,000, and of these only Philadelphia contained over 20,000. This town had, it is true, a cultured and even a brilliant society; but for a comparable degree of urban development in Britain we have to go back to the 15th century.

This situation altered with extreme rapidity, and by 1860 the *percentage* of the urban population had increased five fold. At the same time the great westward movement began, and farming spread through the 'old Northwest'—the region bounded by the Ohio, the Great Lakes, and the Mississippi—and crossed the Mississippi, pausing at last when the area of low rainfall, approximately to the west of the 97th meridian, was reached. This vast extension of the cultivated area brought with it both increased regional

specialisation and changes in the predominant crops of the older-established eastern sections of the country:

East or west, northern farming was at first primitive in organisation and technique if judged by contemporary British standards. The family-operated farm, and the farm ownership which usually went with it, remained predominant until 1860. The earlier the period, or the farther the location from any centres of population, the greater the degree of self-sufficiency practised; for the frontiersman proper, potash was the only cash product, and his crops of vegetables and corn were supplemented by game, maple sugar, and the berries and fruits of the surrounding woods.

In more settled areas, notably after about 1815, the growth of food for home needs plus a scant surplus to be exchanged at the local store for salt and sugar gave place generally to farming for a market. Only with this change did the technique of agriculture improve. At the beginning of the century the prevailing rotation—when there was one; the incentive to adopting such a practice was feeble where free and fertile soil was available at a man's back gate—was the medieval usage of grain and fallow, while manuring was conspicuous by its absence; but by the 1840's the use of manure, the planting of clover and gypsum and the practice of draining were widespread in the east. The American edition of Liebig's 'Chemistry in its Application to Agriculture' appeared in 1841, only a few months after the book's appearance in Britain. Household industries declined, the family as an agricultural economic unit began to break up, and, as working capital grew in importance, the country-store took on the function of supplier of short-term capital. These changes, especially noticeable in Pennsylvania, the Narragansett country of Rhode Island, and the Connecticut Valley, were of little importance in the west, where corn received in 1843 'no manuring, no hoeing, or but very slight, no harvesting in many cases, that being attended to by hogs . . .':² for, as was observed even later, in 1851, 'it is evident, that so long as the fertility

of the soil is such as to secure a heavy crop with a small expenditure of labour, only a few can be persuaded that it will pay best to adopt more expensive systems of culture." The American farmers, it has been argued, by ignoring their real costs in the progressive reduction of the fertility of the soil, 'were conducting the most stupendous bargain counter in the history of agriculture.'

The bargains, however, were chiefly for Americans. Export trade in northern farm products declined in relative importance from 1790 to the Civil War as demand grew from the scattered villages and towns between Lake Michigan and the Atlantic. By 1860 141 cities had a population in excess of 8,000, and New York had over one million inhabitants. Philadelphia, now second in size, had grown from 20,000 to 566,000, and west of the Alleghenies Chicago had jumped from a mere fur trading post on the lakeside to a community of 100,000 people. And besides the bigger towns there were, especially in New England, New York, New Jersey, and Pennsylvania, innumerable villages 'clustered around a cotton or a woollen mill, an iron furnace, a chair factory or a carriage shop' and bent upon growing into thriving cities. Further away, the extension and intensification of plantation agriculture in the South created fresh markets for northern produce, and after 1849, when gold was discovered in California, that State became an important market for the produce of the upper Mississippi.

This emergence of markets, coupled with the movement to the west, put eastern agriculture in a difficult position. Eastern farmers had begun largely to sell their crops, but within a few decades supplies of wheat, beef, pork and wool were arriving from the low-cost areas of the west in such quantities and at such low prices as almost to force the easterner out of business. New York and Pennsylvania were the leading wheat-producing States prior to 1825; but the first shipment of grain from Wisconsin took place in 1841, and by 1860 half the wheat of the United States came from the five States of the Old Northwest: as early as 1840

flour made from western wheat was consumed by the farmers as well as the townsfolk of New England. Besides wheat, sheep farming declined steeply, the eastern farmer could barely maintain his hog population, and by 1859 half the beef supply of Massachusetts came from outside New England. The eastern farmer, thus faced with the same situation as the British farmer in the 1870's and 1880's, had recourse to the same remedy; he utilised his proximity to market to specialise in orchard, dairy and market-garden produce. By 1860 New York was established as the leading dairy State, Maine had already become famous for its potatoes, western Connecticut for its cheese, and the Mohawk Valley for the apples which it sent to New York city. Specialisation followed close on commercialisation, and the eastern farmer adapted himself to the times with remarkable promptitude.

As in 18th century England, improvement was accompanied by the publication of agricultural periodicals, beginning with 'The American Farmer' in 1819, and the formation of agricultural societies, which made rapid progress after about 1845. More characteristically American was the rapid development of agricultural machinery. The most important invention was the mechanical reaper, patented by Hussey in 1833 and by McCormick a year later. At first a poor affair (McCormick sold not a single one prior to 1840), it began to come into use about 1845, and in 1847 McCormick, with great business acumen, moved from his farm in Virginia to Chicago in order to be near the rolling prairies and wheat fields of Ohio, Illinois and Wisconsin. Here he built his factory, and by 1851 was employing 300 men to turn out about 1,000 machines a year. American supremacy in this field was demonstrated at the London Exhibition of 1851 where an American machine won the medal in the reaping competition, and again, more crushingly, at Paris in 1855. In this same decade the steel plough was being produced by the thousand, and was soon to play a vital part in the cultivation of the stubborn soil of the prairies.

Changes in the South were less remarkable, time bringing the intensification and spread of familiar practices rather than change. The long-staple sea-island cotton had been introduced from the Bahamas in the late 1780's, and in 1793 there had appeared the epoch-making invention of the cotton gin—an invention as essential to the 19th century as the water-frame or the power loom, for without it only a small fraction of the cotton crops grown could have been prepared for the market. The gin 'marked a turning point not only in southern agricultural but in American history'.⁶ Its availability enabled the South to double its cotton production (most of which was for Britain, although the percentage had fallen to 60% by 1859) every decade up to the Civil War; and this expansion of production 'revived the moribund institution of slavery,'⁷ while the soil-exhausting character of early cotton culture drove the planters westwards and helped to precipitate the Civil War. Cotton indeed became king of the southern economy. For tobacco growers the times were on the whole indifferent to bad, at least until 1850, although the rise of sugar production offset this decline. But cotton growing expanded from South Carolina and Georgia through Alabama, Mississippi, Louisiana, and entered Texas. It moved so fast because it was done so badly; C. C. Clay, just prior to the Civil War, said, 'I can show you with sorrow, in the older portions of Alabama and in my native county of Madison, the sad memorials of the artless and exhausting culture of cotton. Our small planters, after taking the cream of their lands . . . are going further west and south in search of other virgin lands which they may and will despoil and impoverish in like manner. Indeed, a country in its infancy, where 50 years ago, scarce a forest tree had been felled by the axe of the pioneer, is already exhibiting the painful signs of senility and decay. . . .';

Far more than slavery, it was this destruction of the soil which was widespread in the southern economy; indeed,, although the slave population of the southern States was 30% of the total in 1860, only 384,000 whites

out of 8 million actually owned slaves, and the majority of these owned fewer than 10 slaves a head. The South was thus not a land exclusively of slave-owners and large plantations. Nevertheless, its economy depended on slavery, and slavery provided a labour force crude in its operations, unintelligent, exceedingly hard to adapt to economic change—disadvantages which brought in their train a fresh host of evils, among which 'worn-out land' was one of the least.

These changes in response to the emergence of new markets were made possible only through improved transportation—an improvement which was stimulated by the fact that prior to the Civil War most internal trade was in agricultural commodities which were both bulky and perishable.

America like Britain passed through a phase of road building financed by tolls; this lasted from about 1790 to 1820, the most significant achievement being the Cumberland Road or 'National Pike' connecting Cumberland (west of Philadelphia) with—ultimately—St. Louis. This road was begun in 1806 but did not reach even Indiana until 1840, and no tolls were in fact ever collected on it; it was financed by the sale of Federal land—it was 'a compact' between the United States and the States of Ohio.' It was one of the most important avenues to the west, and was frequently so crowded as to seem 'more like the leading avenue of a great city than a road through rural districts.' Although the United States turned in the 1820's to water communications, road building was of course continuous in the 19th century and was frequently preceded by the even more primitive activity of making or popularising trails, of which the Santa Fe, from New Mexico to California, is the most famous, and along a portion of which stage coaches began to travel in the 1850's.

The most notable achievement in transportation prior to 1840, however, was the Erie Canal. A few canals had

been constructed in the United States in the 18th century, and the idea of a canal connecting the Hudson River and the Great Lakes had been put forward as early as 1777. The failure of improved overland transport to decrease costs sufficiently, and the increasing obviousness of the fact that America's natural communications were good from north to south but bad from the Atlantic coast inland, led the New York legislature in 1817 to pass an Act for the construction of a canal from Lake Erie to the Hudson; the money was raised chiefly by loans, most of which were subscribed in Britain. The 363 miles were completed in 1825 at a cost of \$7 million, and the Erie Canal was an immediate success; tolls exceeded the interest charges before the canal was completed, and by 1882, when tolls were abolished, \$120 million had been collected. The freight rate from Buffalo to New York fell from \$100 to \$15 per ton, and the time required for the journey was cut from 20 to 8 days. Public enterprise can seldom have achieved fuller financial justification, for not only did the canal make money, but the value of farm land in western New York State doubled, and New York City rapidly became the foremost American seaport.

A mania for canal-building then began. Philadelphia, fearing New York's competition, constructed a system of canals and portages to Pittsburg, and other schemes were projected and many put in hand all over the Middle, Western and Southern States. This phase came to an end with the crash of 1837, and was succeeded by intensified railroad building and the hey-day of the river steamboat. Fulton had taken the 'Clermont' up the Hudson in 1807 (thereby giving the United States, probably for the first time, a lead in technological progress) but boats capable of making a good passage *up* the Mississippi, against its strong current, did not appear till 1815. Thereafter, progress was rapid, and still more rapid after Fulton's monopoly of steam navigation on the rivers was set aside in a decision of 1824. Matched to the Mississippi the Missouri and the Ohio, the river steamboat found its

fullest economic expression. By 1851 nearly 600 boats were on the rivers, and the Mississippi Valley was for a time the greatest artery of American commerce. It was, in a sense, a new Atlantic, for the boats carried grain downstream, and immigrants up; in 1852 a single boat on one trip carried 500 home seekers north from New Orleans, and in 1855 the zenith was reached when 3 million passengers travelled on Ohio River boats. These were days immortalised in two American classics—'Huckleberry Finn' and 'Life on the Mississippi,' written by one who had earned his living on the boats he wrote of.

This picturesque episode was contemporaneous with the activity which, of all those taking place prior to the Civil War, is probably the most akin to the life of later-day America; the building of railroads.

It is obvious that, generally speaking, the importance of mechanical means of transportation varies in proportion to the distance that has to be covered. Thus mechanical transportation is of little value on a small island like Bermuda; but rises to a high value on a continent, and to maximum value on a continent which produces commodities valuable in bulk, and which offers formidable climatic and geographic hindrances to human or animal movement. It is easy to see that this last case is that of the United States. Not only is it about 2,500 miles from coast to coast; but, firstly, the rivers in the eastern part of the country flow mainly north-south and are therefore of little assistance to trans-continental travel, and secondly, a large area of the United States, between the Rocky Mountains and the Sierra Nevadas, is desert. Thus the traveller who leaves Salt Lake City in the morning by train for the Pacific, will pass the Great Salt Lake, cross the Great Salt Lake Desert, pass through the Basin Region (a polite name for more desert) and will, still averaging 40-50 m.p.h., see the night fall while he is yet in desert land. This kind of country reaches its dramatic and luridly beautiful, but absolutely arid, climax in Death Valley in southern Cali

formia—scene of disaster to at least one company of would-be travellers to the Pacific Coast.

Sensing her peculiar need, America was very quickly off the mark in the matter of railroads. The first railroad in the modern sense was opened to public traffic in 1829, and the success of the Mohawk and Hudson (again New York was leading the way, although this time with a private company) was such that within 90 days of the opening of the road its stock commanded a premium of 36%. This was in 1831, and a railroad mania began. Those towns, such as Baltimore and Boston, which had been unable to divert trade in their favour by means of canals, now saw their opportunity, and a great number of railroads, very few exceeding 100 miles in length, were proceeded with. By 1837 about 2,500 miles were in operation, less than 10% of which were south of Virginia. But the thing had been overdone, in regard to both railways and canals; high rates of interest and low rates of earning, coupled to under-estimation of the engineering difficulties to be encountered, helped lead to the panic and crash of 1837.

But hope rapidly revived. By 1850 9,000 miles had been completed, and 'the day of short roads joining the termini of steamboat navigation on neighbouring rivers, or some important nearby cities or towns was gone, and the day of the trunk line was dawning.'¹⁰

In 1850 the New York Central made a through connection with the Great Lakes, and in 1852 Chicago, and in 1854 the Mississippi, were connected to New York by rail. In 1856 the Mississippi was bridged, and by 1860 a handful of lines had reached, or almost reached, the western frontier of agricultural production. Progress in the south was not comparable. There were difficulties; population was less dense, inter-regional trade less lively; the rivers flowed conveniently to the sea; there was a remarkable dearth of mobile labour. Nevertheless the '50's saw great efforts made by the Gulf ports to save the trade from Illinois, Missouri, and Kentucky, and between 1850 and 1860 8,000 miles of road were built in the southwest, and

St. Louis was connected by rail with Chicago, Cincinnati, New Orleans and Savannah. By the outbreak of the Civil War the United States had just over 30,000 miles of railroad.

These roads were built chiefly by immigrant Irish and German labour, sometimes imported specially for the task, and usually paid about \$1.25 a day; some of the labourers, the Germans especially, remained to settle in the neighbourhood of the roads which they had built. Lack of uniformity in gauge was pronounced as soon as American engineers began to build their own locomotives; the British 4'8½" was the smallest and probably the commonest, but gauges varied up to 6', and Pennsylvania and Ohio alone had seven variations. But the most remarkable feature of American railroad (and canal) building was its finance. Private capital was drawn upon largely, and loans at high interest rates found much support in Britain; but where private capital proved insufficient, the States did not hesitate to pledge their credit, and even, in some cases, to take over the whole business of railroad construction. Thus New York lent \$6 million to the New York and Erie; Maryland purchased \$3 million of Baltimore and Ohio stock; Illinois appropriated \$8 million for 'internal improvements'; while the Virginia legislature outdid all others with a contribution of \$21 million. It is thought that the counties and towns, individually, did even more. After 1850 Federal aid began, with grants of public land to the States (the Cumberland Road arrangement was a precedent), and by 1861 this type of assistance amounted to about \$31 million. State indebtedness (almost all for this purpose of helping private enterprise supply better transport facilities) increased fifteen fold between 1820 and 1840, and only seven States, most of them in New England, avoided incurring such debts; others, in 1837, got out of their difficulties by repudiation. Some railroads paid well—the Canadian and Amboy earned its cost from 1834 to 1837—but railroads were, on the whole, 'hazardous invest-

ments,' despite the undoubted economic benefits which they brought.

The quickening of commerce within the country was matched by the growth of overseas trade. For a time, the result of the War of Independence was that Americans 'found to their consternation what it was like to view the British Empire from the outside' ¹¹ and the effects of the war of 1812 were even more serious. But after 1815 commerce boomed. America continued to be primarily a supplier of raw materials; and the raw material which headed the list was cotton. The share of raw cotton in American exports rose from 7% in 1800 to 31% in 1820 to 58% in 1860, and the prosperity of the northern ports and shipping interests became bound up with cotton exportation; little wonder that the South thought that cotton would win the Civil War. A long way behind cotton, comprising not 20% of the total, were wheat, flour, and tobacco. In exchange for these came, first in value, British woollens, with the newer British cotton manufactures not far behind; up to 1860 British mills clothed the vast majority of those Americans who did not wear homespun. The remaining imports were a long miscellaneous list—sugar, coffee, hides, iron rails, wines and silks—luxuries and necessities, four fifths of which were manufactures or semi-manufactures.

American trade in this period was naturally—in view of its character—preponderantly with Europe, and especially with Great Britain. Britain, indeed, both in 1820 and in 1860, had a larger share in American imports and exports than the six next most important countries put together, and she had a greater share in American trade in the latter than in the former year. This was of course chiefly due to the British-American division of labour in the production of cotton goods. After the United Kingdom in importance came France and then Cuba, this Spanish possession having become by 1821 Jamaica's successor as America's 'sugar island'. This Atlantic trade is often half

forgotten because of the romantic 'China trade,' begun in 1784 when the 'Empress of China' sailed for Canton, and which was to produce in the 40's and 50's the technical triumph of the 14 and even 18 knot clippers, and to make Salem a world-famous port; but tea and pepper 'in volume and value . . . amounted to only a fraction of the prosaic products of the Industrial Revolution that were brought month after month from Liverpool to New York.' ¹²

This expansion of commerce—17 fold between 1790 and 1860—produced a great demand for shipping tonnage for use in the home trade, the China trade, and the European trade. The first of these was reserved to American vessels in 1818, a reservation always helpful and particularly important for a decade after 1849, when the gold rush to California began and both men and goods went round Cape Horn to the new boom town of San Francisco; this commerce reached its peak in 1853 when 282 vessels entered the Golden Gate from east coast ports. But the home trade was a small thing to the American shipper, who did not need protection for a livelihood. This was the golden age of the American mercantile marine. Shipbuilding had been a substantial industry prior to the Revolution, Boston, it is said, turning out 30 large ships annually in the middle of the 18th century; in the 19th century America came close to achieving world leadership. In the decade 1820-1830 about 90% of American foreign trade was carried in American bottoms, and although this declined steadily the percentage was still well over 60% in 1850-60. At the mid-century mark the American merchant marine of three and a half million tons registered was only a few thousand tons behind that of Britain, and in the great shipbuilding boom from 1847 to 1857, occasioned by the Irish famine, the repeal of the Corn Laws, and the demands of trade in cotton, tea, and stores to California, 'the United States became easily the unrivalled shipbuilding nation of the world.' ¹³

This supremacy was based chiefly on a cost advantage. From the Revolution to at any rate 1830, abundant supplies of oak and pine were available all along the coast from Maine to Virginia; supplies in fact improved after 1815, as the industry became better organised and as the construction of canals enabled New York and Boston to reach further into the interior. But after 1830 the situation deteriorated; timber had to be brought from the Great Lakes, from the interior forests of Maryland and Virginia; prices rose, and inferior woods—birch and chestnut—came into use. Already the United States had run through a great part of a great natural resource. The differential in timber prices as between Britain and the United States fell from almost 100% in the 30's to less than 20% in the 50's, and as prices rose Britain began to draw on the forests of Scandinavia and Russia. Until the late 50's the United States held her own; but then, prior to the Civil War, collapsed dramatically. There were several reasons. Costs continued to rise, and the reserved trade to California fell away abruptly. British clippers—the first one had been built in Aberdeen in 1839, and the *Thermopylae*, built there in 1868, acquired the reputation of being the fastest British clipper ever constructed—overtook the American vessels in design. But above all, the British made a great technical advance; they began to build composite vessels, of wood and iron, which were cheaper to build, cheaper to maintain, and cheaper to run. The first ocean-going composite vessel appeared about 1850, and five years later an all iron ship made the fastest tea passage from China. The cost advantage now turned the other way; the largest and most advanced iron industry in the world was behind the change, and America failed to follow suit. Perhaps there was, for once, a failure of American initiative; and undoubtedly the tariff hindered the use of imported iron, while American ore deposits were unfavourably located. In any case, the construction of iron vessels was left, for the most part, to boilermakers, and American shipbuilding fell away, never to recover.

It had, however, been a great industry. In the '50's New York had had 31 shipbuilding establishments, employing, on the average, over 70 hands each—some 200. These were the biggest yards; the majority, up and down the coast employed five or perhaps 10 men, and did not necessarily work the year round. Paternalism was common and corporate ownership rare, for this remained to the end a handicraft industry where the skill of the master carpenter was the vital factor, and fortunes were not to be made.

Shipbuilding, important though it was, was by no means the major American industry in 1860; in value of product it did not rank in the first 10, and it had therefore sunk in relative importance since the beginning of the century. Its decline was chiefly due to the emergence of large-scale factory industry, especially in textile production, a business which took the lead in industrial change even more decidedly than in Britain. 'All stages of industrial development,' as a distinguished American historian has put it, 'were contemporary in America.' " This is particularly true of the cotton industry. Thus the first use of the water frame in an American factory was by an English immigrant, Samuel Slater, at Pawtucket in Rhode Island in 1790; and after that date change was rapid, and uniformity in the technique of production disappeared for over half a century. Factory production, however, very quickly became dominant, so that 'the short period between 1810 and 1830 saw the centre of gravity of textile manufacture shift from the fireside to the factory'. " Long before the crisis of 1837, both the power loom and the steam engine had established themselves in cotton working, and one New England company had over 30,000 spindles in 1830. And yet the industry was not modern 'thro and thro' by contemporary British standards until the 50's or even the 60's. The day when a cotton mill advertised its willingness to exchange cloth or yarn against almost any country produce at the village store had passed by 1820, but even 10 years later it is doubtful if 3% of eastern textile mills employed

steam power, and the vast majority of mills as late as the 30's and 40's had a paid up capital of less than \$45,000.

By 1860 America had 5.2 million spindles (Britain then had about 30 million), and the cotton industry had spread into 29 States. It grew chiefly, however, where it had begun; in New England. 75% of the cloth made in the United States in 1860 was made in New England, and New England had 14 spindles for every one south of Mason and Dixon's line. The West did even worse than the South. This concentration of effort was in part due to the determined, often skilful, and occasionally long-sighted efforts of the Boston capitalists who controlled most of New England's production. These men 'had been merchants and commission agents, ship owners and commanders, had been in the China and India trade, had built bridges and turnpikes and canals, had speculated in real estate in and around Boston.' ¹⁶

Their shift of interest from commerce to business 'was one of degree rather than of kind' but they changed the life of much of New England between 1820 and 1840, building the modern 'factory towns' with their canals, mills and mill sites and rows of many-storied tenements for the work-force to be. These towns—Lowell, Waltham, Holyoke; they are still to be seen, their rather dreary individuality still enduring—were in their organisation paternalistic and all-embracing. The movement was initiated by F. C. Lowell, who before founding his company at Waltham visited England and studied the cotton industry there; repelled by what he saw, he set out to establish a factory community which would combine profitability with social decency. The result was the puritanic and paternalistic 'boarding house system' with its matrons, its 10 o'clock curfew, and the general policy that 'the company will not employ anyone who is habitually absent from public worship on the Sabbath, or known to be guilty of immorality.' ¹⁷

Hargriet Martineau visited Lowell in the 30's and was immensely impressed; a French visitor in 1836 was less

enthusiastic, but seems to have given justice where justice was due: 'Lowell n'est pas amusant, mais Lowell est propre et décent, paisible et sage.' ¹⁴

The Waltham factory, started in 1813, paid dividends of 104.5% on the original investment in the first 10 years of its existence, and this no doubt helped to establish 'the Waltham system' in New England. Rhode Island, on the other hand, went forward with a social organisation (or disorganisation) much more comparable to that in Britain. Both systems made handsome profits in good times, and both suffered extensive bankruptcies when trade was poor. Despite an early tendency to distribute almost all of the operating profit among the shareholders, many of the original firms survived to 1860, and many of the far large number of small concerns, with capital at first hardly in excess of what would be needed to run a farm, built themselves up to make the average New England spindleage in 1860 7,000. In America, as in Britain, industrial capital was 'its own chief progenitor.'

Over one million people were employed in cotton mills by 1860. No other manufacture was as important as this, but a group of industries connected with agriculture was of great growing significance. Liquor—the form in which colonial agricultural produce had frequently reached the market—was made in industrial establishments in colonial times, but these greatly multiplied in size and in number after 1800, while the production of whisky replaced that of rum. Much more important was flour milling—probably technically in advance of the British industry by 1830—and, more important still, meat packing. This industry began when the development of canals and railroads put an end to droving, and by 1850 Cincinnati, the early centre of the industry, was packing half a million hogs a year, and earning its reputation of being 'the most hoggish place in the world'—a distinction which Chicago was disputing, however, by the 50's. Thus even before the Civil War Americans were acquiring that propensity to use tinned or otherwise prepared foods—even breakfast

cereals were not known—which has distinguished them ever since, and which is characteristic of an economy in which the division of labour has been carried to the limit.

Agriculture also made demands on the iron industry for ploughs, reapers, and so forth. Several plants making ploughs and agricultural machinery employed well over 100 persons by 1860, and it is probable that the overall value of the output of farm machinery and tools multiplied from five to ten times between 1840 and 1860. This industry was located chiefly in Ohio and Illinois.

The metal-using industry which made the most remarkable progress in this period, however, was that of small-arms manufacture. Subsidized by the government shortly after 1792, the small-arms manufacturers—prominent among whom was Whitney, inventor of the cotton gin—had by 1810 brought manufacture to such a stage of precision that the interchangeability of parts became a reality, and did not remain, as in Europe, a dream. Not important in volume of output, this industry gave America pre-eminence in the design and use of machine tools and automatic processes which—and this is the vital thing—economised labour.

The iron industry upon which both these metal-using industries depended was, unlike them, relatively poorly organised and backward, despite the fact that in value of output it exceeded any other except flour-milling. In 1860 the bulk of American iron production was carried on east of the Alleghenies, because the introduction of mineral fuel, which was to lead to the supremacy of the Chicago-Pittsburg region, was only in its early stages. As late as 1850 wood was the principal fuel for railroads, steamboats, blast furnaces and forges. The use of mineral fuel for smelting was unknown in Pennsylvania, for example, in 1825, and as a consequence large-scale production was at a discount. The hot blast, however, introduced in Scotland in 1829 and adopted in America five years later, made the use of anthracite possible, and between 1830 and 1850 larger plants and therefore more economical production

began. Even so, in 1860 70% of works were charcoal blast furnaces. In iron working, the puddling and rolling processes were not introduced into America until 1817 — more than 30 years after their discovery in England; and although between 1840 and 1860 their economy and improved efficiency led to their widespread adoption, in 1860 America was producing not quite half of her requirements of railway iron. (Locomotives she had made from the beginning, and was even exporting them before 1840). Thus American iron production increased, and rapidly, from about 50,000 tons in 1810 to about one million tons in 1860; but it remained an affair primarily of out-of-date processes, of small furnaces and bloomeries scattered about, like lumber mills, among the woods, settlements 'remote from other communities,' where the iron-master might exercise an authority more than feudal in its completeness. It is doubtful whether in 1860 there were half a dozen iron works with over 1,500 employees each in the entire United States, although there were some furnaces capable of producing 300 tons of pig iron a week, and the largest rail mill in the country had turned out over 17,000 tons of rail in 1857.

Almost all of this activity was in the north; the manufacturing carried on in the Southern States was of negligible importance.

As industry develops, the importance of wage earning must increase. By 1860 every eighth person in New England, every 48th person in the West, was engaged in manufacturing industry. Conditions varied widely, but hours uniformly were long; $12\frac{1}{2}$ hours, even $13\frac{1}{2}$ hours, were common in the cotton mills until the 40's, provided, of course, that full time was being worked. In 1840 the government granted the ten-hour day to its employees, but New England mills did not begin to enjoy even the eleven hour day until after 1852. Child labour was officially controlled in Massachusetts from 1836, but in fact no effective labour legislation was passed prior to the Civil War. Real

income for the nation as a whole seems to have grown rapidly from the 1820's, but industrial earnings seem to have been lower in the 40's than in the 30's, while hours seem to have been, if anything, longer in the 30's and 40's than in the 20's.

The workers in the early New England cotton mills were mostly the daughters of the mechanics, machinists and farmers of the vicinity. They came 'to escape dependence upon male relatives, to help their families achieve greater economic freedom by the purchase of land, or to help pay off a mortgage,'¹⁹ and in bad times it was, at first, always possible for them to return to their homes in the surrounding country-side. This gearing together, as it were, of agriculture and industry gave for a time to the New England mills a working force more cultured and more poised than any other in the factory world, and Miss Martineau found 'no need to enlarge on the pleasure of an acquaintance with the operative classes of the United States.'²⁰

This situation did not last long. By 1850 'the white-gowned girls who marched to welcome Presidents, who talked so intelligently to foreign visitors, who wrote poetry and stories filled with classical allusions . . . had been driven out by a prolonged and fruitless struggle to protect their standards.'²¹

As business multiplied and wages fell, as hard times became more frequent, as the tide of immigration rose and Irish and French-Canadian labour came to predominate in the towns, lower living standards and the breakdown of the paternalistic system were inevitable. By the forties, where Trollope had seen 'the realization of a commercial Utopia,' there prevailed the degradation which F. C. Lowell had sought to avoid. By the 50's, in Holyoke, families lived in cellars, in attics, in shanties, overcrowding was appalling, and regret was general for the 'filth and stench, necessarily attendant upon thickly settled regions.'²² These conditions were by no means confined to New

England, and in 1845 it was estimated that every fifth person in the city of New York was a pauper.

As conditions deteriorated and as the labour force of the factories became separate and distinct, labour organisation grew. At first the law hampered it; collective bargaining was treated as conspiracy early in the century (as in England) and prosecutions continued intermittently until 1836. Despite legal hostility, there was a carpenters' strike in Philadelphia in 1827, for example, for a ten-hour day, and a first national convention of labour representatives was held in 1834. By this date, if not earlier, the comparison of the 'white slave' of the northern factory with the black slave of the South was being made in New England—16 years before the comparison was made on the floor of the Senate. In 1837 the first strike (or mass demonstration) occurred in Western Massachusetts, and in 1843 the 'white gowned girls' at Chicopee 'marched round the streets doing themselves no credit.'²³ These were strikes against wage cuts, but the bulk of practical worker endeavour in these decades was directed towards securing a reduction of hours.

In the South, there was almost no organised labour, in the West very little. American labour was composed of too many nationalities, people came and passed on too quickly, most of the country's work was on too much a handicraft basis for much organisation to be possible. As a consequence of this, and of the recurring and disastrous crises which struck workers so severely, the movements which made most stir and endured longest were those which were not confined to wage-earners, as that term is usually understood. From 1840 to 1850 America passed through her phase of idealistic reformism. There were the Associationists, for example, who 'began their activities under the impression that it was no difficult matter to stop the progress of the Industrial Revolution and revert to the simpler and freer days before the rise of capitalist industry,'²⁴ and whose greatest achievements were the founding of the ideal communities of Brook Farm and Oneida; there were

the advocates of producers' co-operatives, who founded over 400 stores in New England before 1851, but whose efforts were over a few years later; and there were the land reformists, who based their doctrines on those of Thomas Spence, and whose leader, the Englishman George Evans, was 'the most rigid doctrinaire of a period of doctrinaires.' These movements led by middle-class reformers such as Owen (another British subject) and Horace Greeley, were not worker movements and gained little worker support. They distracted attention from real grievances and practical possibilities (Greeley was a bitter opponent of trade unionism) and their positive contribution—if they made one—was to convince employees that they must compromise with factory industry, and wring from employers such concessions as they could, trade by trade. Unionism proper could begin only after the prophets of a new heaven and a new earth had had their day.

The difficulties of workers, would-be trade union organisers, business men and even speculators were increased by the continual repetition of crises and depressions. These were largely the result of unsound bank practices. Prior to the Civil War banking was on the whole a regional or even a local affair. The Federal Government exercised control over banking operations via the First Bank of the United States from 1791 to 1811, which made available both a reliable note-issue and rediscounting facilities for the State banks and what in England would have been called the 'country banks'. The charter of this institution was not renewed in 1811, chiefly because of personal animosities and because the State banks thought that their earnings would increase if there were no central bank to accept government deposits. Financial confusion compelled the chartering of the Second Bank in 1816, but this bank, like its predecessor, expired after 20 years, killed by interested advocates of States' rights, interested advocates of an easy money policy, and by the fact that the controversy about its monopoly power became a political issue fought

THE AMERICAN ECONOMY 1860-1940,
out between Jackson and the Bank's able president,
Nicholas Biddle.

The disappearance of the Bank caused a rapid increase in the number of State-chartered banks, of which there were 788 by 1837. This resulted in loanable funds becoming more readily available, and these were used largely to finance land speculation; the end was precipitated by Jackson's intervention with his Specie Circular of 1836 which required that public lands be paid for in specie. This put a great many speculators in an impossible position, specie payment was widely suspended, and a great deal of hardship was the consequence.

After this the States were on their own. There was another suspension in 1839, but through the 40's and up to 1857 rediscount systems operated in New York and Boston, covering a wide area, and the banking system stood up fairly well. The 50's were a time of boom, with gold discoveries in California and war in Russia, but in 1857 an outflow of specie, due to an unfavourable trade balance arising from a failure of the sugar crop in Louisiana and to the withdrawal of foreign investments, caused a restriction of credit just when railway investment and New York Stock Exchange speculation were at full stretch. Speculators who could not wait for the country to grow up were unfortunately not the only sufferers, and suspension of specie payments again spread widely. Business did not recover for two years.

In every one of these crises 'hands' in the mill towns, so eagerly sought for in times of boom, had first their hours or their wages reduced, and then were dismissed. There was the possibility of farm work—labourers in 1858 were glad to get \$4 a month and their board—and one might always 'move on'; unquenchable optimism was not the prerogative of the speculator. But it must have been hard to be hopeful and quite impossible to feel secure when whole towns 'shut down', when four storey houses sold for a dollar a-piece (which they did, according to the not very reliable Cobbett, in Philadelphia in 1822), when

wage cuts were imposed although 'this will be bad for the help for there is a great many of them that just live now.'²⁵

Thus America before the Civil War was not yet, economically, characteristic of herself. Amazing progress had been made; what was a rural economy in 1790 had built 30,000 miles of railroad by 1860—more than Britain has to-day. European people made these giant strides possible. So did European money, especially British money; foreigners had invested over \$375 million in American enterprises by 1860, or the equivalent of one third of the total American railroad investment. If the founding of America was a European investment of capital and labour, hardly less so was her development.

But the America of 1860, 'it was the old world yet'. There was no big scale production; there were no trans-continental railways; there was no inhabited prairie, or hardly any; Denver scarcely existed, San Francisco was still a small place, Chicago was but a rising town on the western fringe of populated America. So situated, America looked outwards more than she was to do again until 1917; strong ties of trade still bound her with Europe. And not only had she important characteristics still to acquire, she had some which were yet to be sloughed off. Her industrial supremacy, far from being in mass production, was on the whole in fine work—in making rifles, machine-tools, sewing machines. Her development was aided and to some extent guided by Federal and State intervention. And nothing was more characteristic of her than her ship-building industry, carried on with great skill in the innumerable wooded, sheltered harbours of the Atlantic coast, drawing on the immense stored-up timber wealth of virgin country. Above all, she was still half slave.

On this economy fell the stimulating calamity of the Civil War, a war ushering in new opportunities and new dangers, which would in their turn bring forward the men who would be equal to them—and the laws which would not.

Chapter 3

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PEOPLING AND SELLING THE WEST

SHORTLY after the close of the Civil War America was in possession of all that is to-day her territory, and had been for a considerable time in possession of most of it. But this territory was, over vast areas, almost empty. She possessed; but, west of the Mississippi, the shadow rather than the substance.

It was about 1850 that the westward-moving frontier of settlement had halted at the edge of the Great Plains, described then and earlier as desert. Much of this land is in fact exceptionally well suited for the growing of maize and of wheat, and for dairying. But the American pioneer who reached it was accustomed to the forests and the well watered land of the east, and this country covered with waving prairie grass stretched before him limitless and treeless, with little rainfall and few rivers, providing therefore no timber for houses, fences, implements or fuel, and no water for crops or livestock. It did not attract, indeed it repelled, the early farmer.

At first the Great Plains were merely the highway to the west. The discovery of gold in California had brought thousands to the Pacific Coast in the 50's, but this was merely the first of a series of booms and rushes. Gold was discovered in the next fifteen years in Colorado, Nevada, Arizona, and Idaho. Many came and a few were fortunate, but the majority remained to exploit other forms of mineral wealth, to do well in the business of supplying stores to the mining communities, and to farm; to-day agriculture is the chief business of the Mountain States. Thus by 1860 there were two frontiers, one in the east and one in the west. In the east the line ran through the middle of the Dakotas, Nebraska, and Kansas; this was the time of the saying, 'No law west of Kansas and no God west of Dodge City.' In the west there was hardly a line

at all, but a few thousand settlers scattered between the Rockies and the coast, drawn there by the lure of gold.

It was the area in between which filled slowly. The rail road engineer was looking it over in the mid 50's, and the completion of America's first trans-continental railroad, the Union Pacific, in 1869 helped bring in the flood of hunters who exterminated the bison and thus made the Great Plains available for the range-cattle industry. For it was the rancher who was first on the scene, extending his operations northwards and westwards from Texas. In a few years ranching invaded all parts of the Great Plains. Costs were negligible, because competition from others for the land did not at first exist. This was the brief noon, from the late 60's to the late 80's, of the cattle ranches which extended over thousands of acres of unenclosed, often Federal land, of the roundups and of the cattle drives, of the cowboys. Hollywood has never forgotten it, and it was considerably more artistically recorded by the pencil of Frederick Remington. But it could not last. The market for beef and hides became glutted, and the farmer, following more slowly, was yet not to be denied. That fertility lay latent in the 'black lands' was clear by the 60's. The farmer adapted himself to new methods and crops, and technical progress supplied him with wire to fence his land, steel ploughs to plough the hard earth, windmills to pump water, railroads to carry away his produce. Struggles for the ownership of land ended in his favour, and by 1890 the Great Plains were in the possession of the farmer. The makers of the Census for that year were able to state that the frontier had vanished, and that an era of American life had come to an end.

This observation has given rise to a theory, almost to a school, in American history. This is the so-called 'frontier thesis.' According to this notion, pioneering on the frontier was the dominant force in moulding American customs and ideals, a force which fostered especially democracy and 'rugged individualism', and sent back continually to the east a complex of democratic and other

western ideas. This notion is picturesque, but scarcely credible. Melting pots and new environments were not confined to the frontier (itself an unreal, over-simplified notion at best) and western life probably demanded as much and maybe more co-operation than life in a New England mill town; on the other hand, the lawlessness of the frontier encouraged or compelled an individualism of which posterity can scarcely be proud. The idea, in fact, if it is anything, is a glorification of agriculture as a 'way of life'—a very different thing. Moreover, the notion that the existence of 'free land' constantly drew workers to it from the settled and more crowded east is a myth. The individual on the east coast who wanted to farm in the west required his fare, and unless he was to be a mere labourer, a wife and her fare; free land was not always really free, and apart from the price of land he needed capital; above all, he needed skill. Frontier farmers were therefore usually 'small men', either immigrant farmers, people from down the road, or eastern farmers. In his 'Autobiography', for example, Lincoln Steffens, famous American journalist, tells how his grandfather moved from a farm in eastern Canada to Illinois in the 1820's, where he 'bought, cleared and worked his piece of wilderness';¹ how his father grew up there but, like 'many a western boy . . . determined to go west,'² and so came to California, despite a few skirmishes with the Indians, in 1862. Statistics, such as they are, tell the same story, of westward migration achieved by a prolonged succession of often very short moves, so that the population as a whole was continually edging westwards; it is known, for example, that of 2,115 persons who purchased land in southern Nebraska in 1873, no fewer than 944 came from Nebraska itself or from the neighbouring States of Iowa, Missouri and Kansas, in that order; only 161 purchasers came from the Middle Atlantic States and New England. That movement took place is not for a moment to be denied; some areas grew prodigiously in population, Minnesota by almost 3,000% in a decade! And of course such movement and rapidity

of development in the west caused continual movement out of the east; but if the frontier drew westward—although seldom quite to itself—potential as well as actual industrial labourers, the frontier was also the ‘free land’ which drew European immigrants across the Atlantic, many of whom remained in the industrial east; and therefore it cannot, from any point of view, be convicted of denuding the east of people.

The great economic question which this process of colonisation raised was one unfamiliar to western Europe; how should land be transferred from public to private ownership?

The principles of land survey had been set out in the Land Ordinance of 1785 (under which, incidentally, 1% of all land was to be set aside for educational purposes—a provision of great wisdom) and these principles endured. Land disposal policy, however, was continually changing, because Congress wanted to do two incompatible things: it wanted, in the first place, to use the land for revenue-producing purposes and thereby minimize the need for taxation; but it *also* wanted to create a ‘Jeffersonian democracy’ of small independent farmers, that is, to settle the country—a policy which required numberless sales at low prices, whereas the other policy must lead to limited sales at high prices with little concern as to who actually bought the land. The problem was further complicated by the practice of making extensive grants of public lands to individuals, States or corporations in order to assist the development of schools, highways, canals, railroads and a variety of other public institutions, excluding churches.

As a matter of public policy it was the second of these policies—the liberal land policy—which prevailed. After about 1800 the agrarians and westerners, growing in numbers and therefore in political influence, extorted from a reluctant Congress, still revenue-minded, a series of measures which gradually liberalized the land policy, reducing both price per acre and the size of the smallest lot which could be sold, and which culminated in the

Homestead Act of 1862, signed by Lincoln—one of the most famous pieces of legislation in American history. This Act gave to any citizen or to anyone declaring his intention of becoming a citizen, 160 acres of land *free* after 5 years of settlement plus an improvement, or, if the settler preferred, he could buy the land at \$1.25 an acre at any time after his location. The Act put, however, no restriction on the size of holding nor any restriction on alienation, and it forbade the raising of loans against land until possession was legally complete. Moreover, at the very time that Congress passed this Act, it was deliberating the gift of over 100 million acres to railroads, and 13 days later it passed the Morrill or Agricultural Colleges Act, giving the States 9 to 10 million acres for the endowment of Colleges of Agriculture and the Mechanical Arts.

Thus the advocates of cheap, even free land got their desire; but amid much gifting of land to other interests. These public grants came, of course, ultimately upon the market, but for sale to the highest bidder; and thus the homesteader was often compelled to take second-best lands or lands far from transportation facilities—that is to say, lands which might be almost worthless from a money-making point of view. In all, 125 million acres of public land were gifted to the railroads, and 200 million other acres were sold for what they would fetch. Furthermore, the law could be manipulated by abuse of the commuting clause in the Homestead Act; land might be occupied for 6 months and then bought at \$1.25 an acre by the agents of large buyers, i.e. speculators, who thus were able to engross great tracts at a low price. This broke the spirit but not the letter of the law. Administration, too, was corrupt. The General Land Office was merely inefficient; but some of the State Land Offices were capable of anything.

These manoeuvres were to some extent the fault of the law itself, for the Homestead Act was ill suited to conditions in the prairies which it was supposed to help divide. The Act was drawn up by easterners who knew only eastern

conditions. East of approximately 97° West it was a reasonable measure. But in the area of low rainfall west of the 97th meridian the conditions demanded either very small-scale irrigation farming or, more commonly, very large-scale dry farming. 3,000 acres was a far more suitable size in the west than 160 acres, and so the law was against both reason and good farming. The conservation problems of to-day are not unconnected with this failure to grasp the facts—a failure itself a product of the vastness of the country. In 1878 the need for revision of the law was first suggested, but the government totally failed to act, and liberalizing measures were not passed until 1909 and 1916.

In these circumstances it is hardly surprising to learn that landholding was concentrated from a very early date. Prior to 1890 only 3½% of the land west of the Mississippi was acquired by homesteaders, and only later did the Act appear of much practical importance, five times as much land being disposed of under the Act between 1892 and 1926 as previously. Thus the Act, if it was a triumph for the principle of small-scale landholding, was a very poor triumph in practice.

It is noteworthy that the process of engrossment appears in its most extreme form in California, where Henry George was able to watch the speculators and engrossers at work. In one county 3½ million acres of 'swampland,' so-called, were sold at \$1 an acre. Brigandage was practised—one group put a fence round 28,000 acres of what should have been homestead land, and the courts were sufficiently complaisant or intimidated to uphold the claim. By 1871 sixteen men in California owned at least 84 square miles apiece. George commented in that year, 'the land of California is already to a great extent monopolized by a few individuals, who hold thousands and hundreds of thousands of acres apiece. Across many of these vast estates a strong horse cannot gallop in a day, and one may travel for miles and miles over fertile ground where no plough has ever struck, but which is all owned.'²

In 1935 it was estimated that, counting as a large farm one with an output of over \$30,000, California had 30% of the large scale cotton farms of the country, 41% of the large scale dairy farms, 44% of the large scale general farms, 53% of the large scale poultry farms, and 60% of the large scale fruit farms. This was hardly the realisation of homestead ideals. Yet it could scarcely have been otherwise. Man made the laws but God made the country, and agricultural economics as well as graft, greed and speculation dictated the course of events.

It is clear, however, all things considered, that the individual who thwarted the homesteader was the speculator. The speculator in western lands, occasionally himself a farmer, is indeed one of the most potent figures in American history, never more so than in the later 19th century. It is worth while to trace out one remarkable example of speculative investment.

As already mentioned, the Morrill Act was passed thirteen days after the Homestead Act. This Act granted to each State 30,000 acres of public land for each representative and senator sent to Congress; in all, about 10 million acres, in the form of scrip (i.e. entitlement to land purchase) was made available to the public. The money obtained by the States from scrip sale was to support Agricultural Colleges. Homesteaders and small men everywhere saw their danger: 'We hope that every choice location in this region of country will be taken by an actual settler, so that the Agricultural College Sharks will have to accept the bluffs or barrens, or go where they will not deprive the best portions of the State of the anxious labour necessary to improve them.'³ This was in Wisconsin; and it was to Wisconsin that Ezra Cornell came in 1866 with scrip bought from the State of New York, it being understood that both the down payment for the scrip and all return on the land investment were to go to endow Cornell University. Cornell bought over 900,000 acres of scrip, at just under 60 cents an acre. He sold about 400,000 acres of

scrip' in the next two years at an average price of about 95 cents an acre, and the remainder was used* to enter just over 500,000 acres of timber land, mostly in Wisconsin, between 1866 and 1867. Cornell sold nothing till 1871 and little until 1880. But in 1882 he sold 100,000 acres at \$16.80 an acre; a tract of about 25,000 acres was valued at \$150,000 in 1879, and at over \$513,000 in 1885, at which price it was then sold. A quarter section (160 acres) reached the record price (for Cornell) of \$83 an acre in 1891. After 1906 nothing of importance remained.

Counting in the initial cost, taxes, lawyers' fees, interest on capital, commissions to land agents who selected the land, and other unavoidable charges, the total expenditure involved was about \$1.7 million, of which interest and taxes made up just short of \$1 million. On this outlay the total return, from sale of land, sale of wood, a little rent, and so forth, was \$6.8 million. No large amounts of land were sold after 1901, and the profit was therefore in the neighbourhood of 6% per annum net of all expenses. This is not a remarkable return, especially when it is remembered that money in 'the west' in the 60's and 70's was usually lent at about 10%. Nevertheless, Cornell's investment 'was one of the outstandingly successful land speculations in American history, to be compared only with the landed operations of the western railroads which received imperial domains from the government.'

The history of this investment shows the risks run by land investors and the care required of them. Choosing land—especially timber land—was a highly skilled task, and 'land-lookers' were an important class of men on the pineland frontier. Once secured, timber land was liable to pillage. It was hard to keep trace of what went on far up the trout streams, deep in the pine forests, and investors were obliged to keep constant watch over their own. Lumbermen, who notoriously cut timber on the public domain all through the 19th century, were no respectors of the rights of property—at least those of others: as one official remarked with resignation, 'No-one will buy, of course,

so long as he can steal with impunity. . . ." The most serious financial hazard and unfortunate social by-product of speculation was the ill-will which arose between residents and absentee owners. In Wisconsin it became a common practice 'for residents to organize new counties and towns, often unnecessarily, construct expensive school buildings and courthouses, lay out little needed roads through the woods, build substantial bridges, vote heavy subsidies to proposed railroads, and in each case give the lucrative contracts to themselves and their friends,' knowing full well that they had arranged the local taxes so that 'the burden of such expenditures would rest upon non-residents;' in this way 'they levied the highest possible taxes on speculators' lands, they supplied themselves cheaply with school buildings, astonishing the said speculators, who could not understand how they were taxed, for several successive years, for the construction of those buildings, and yet have none within miles of their lands.' Also, absentee land-owners were often not informed of their tax assessments, but the penalty for non-payment was forfeiture of the land. Thus speculators did not have it all their own way. But they fought back, Cornell's lawyers securing tax reductions in the 70's of up to 60%. The counties in their turn became exasperated, and accused non-residents of 'badgering the tax assessors' and even of opposing legitimate and needed improvements.

In this state of warfare, in which every man's hand seemed against every man, economic development was distorted and harrassed. The holdings of speculators tended to compel a widespread dispersion of population, which made necessary the extension of railroads across thinly populated areas and raised the cost of local government. Settlers deeply resented speculators' profits. As a Senator from Minnesota put it in 1862, 'What the land speculator makes upon the rise of his land is wrung from the hard labour and incessant toil of the honest but poor settler.'

In short, American land policy was no system but a conflict of systems. Men fought a battle in which the law of the land was a significant factor in the struggle but by no means the deciding one. Lack of a definite policy gave speculators their chance, and fortunes were built on 'uncarned increment'. The East was to a certain extent set against the West. On the other hand, speculation was a bar in some degree to the wastefully rapid destruction of valuable resources—although even so, irreplaceable stands of timber were gone in a generation—and led often, especially in connection with the railways, to energetic colonisation and development. Such confusion, such a blundering into the future, gave America, if not the best of the two worlds of orderliness and expansion, at least not quite the worst of either. Perhaps, indeed, this compromise between them was the unintended gift of *laissez-faire*, as 19th century America understood it. Yet the history of the public lands contains two regrettable features which America might have learned to eliminate in the future, but did not: the inconsistency of continual compromise, and a tendency to regard raw material resources which were extensive as if in fact they were unlimited.

Chapter 4

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RAILROADS

WITH the exception of a few prongs of road, most of which ended in nothing in particular, there was no railroad mileage west of the Mississippi in 1860. All was in the east, and much fairly recent. An investment of \$1.25 milliard had been made by individuals both native and foreign, by towns, counties, States and the Federal Government itself, and as a consequence the flow of trade was not only greater but was also changed in direction, being now decidedly from west to east, towards New York and Boston, rather than from north to south, towards New Orleans.

The Civil War—in real terms the most costly war of the 19th century—acted on the whole as a stimulus to railroad development. Railroads became strategically as well as economically important, and trans-continental railroad building especially was pushed forward, in order to bind the West more closely and more securely to the Northern cause. Survey work in the Great Plains region had been in progress since 1853, and construction of the Union Pacific-Central Pacific was actually begun in 1862 and the road completed in 1869. Two other trans-continental roads were built shortly after the war: the Northern Pacific 1867-83, and the Santa Fe 1869-1884. A decade later, in 1878, the Great Northern was begun, and this road was completed in 1890.

Some of these lines, such as the Santa Fe, were built piecemeal and not planned and constructed in one stroke from terminus to terminus. Piecemeal building was certainly the common method of construction in the east, where there were very few through systems prior to 1870, and where a great deal of subsequent railroad building was the result of competition between different roads. Thus the Pennsylvania competed with the New York Central for

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traffic eastwards from Chicago, and the Baltimore and Ohio was then attracted into this field and, in the 1880's, the Erie. No line felt that it could afford to be dependent on another for its supply of traffic, and no town wished to be served by only one line. Some lines were mere predatory devices. The New York, Chicago and St. Louis Railroad (the so-called 'Nickel Plate') was built from Buffalo to Chicago in 1881 with a view, not to carrying goods or passengers, but to harrassing, threatening, and finally selling out at a handsome profit to Vanderbilt's New York Central; at any rate, it is hard to see what else the promoters could have had in mind and this is in fact what they did. The attempt of the West Shore to repeat this success a few years later with a 950 mile line from New York to Chicago was a dismal failure. In the prairie States, competitive building was almost as wasteful. The South, on the other hand, was comparatively neglected until the late 80's, and it is remarkable how the natural advantages of river and coastwise transportation in that region delayed until after 1895 the completion of many through routes.

The volume of this building, extending from the Hudson River to the coast of California, was phenomenal: America had 53,000 miles of railroad in 1870; she doubled this amount by 1882 and doubled it again by 1904; by 1920 the all-time maximum of 254,000 miles had been reached. This gave the United States more mileage than Europe, and more than one third of that of the entire world. Such a rate of investment, to say nothing of its frequently speculative character, was almost bound to cause economic fluctuations, and these were in fact severe between 1865 and 1895; the extent of railroad building varied in this period between 1,700 and 12,900 miles a year, and the economic crashes of 1873, 1884, and 1893 were clearly worsened if not caused by 'railroad financiering'. *The Economist* of the day was well within its rights when it described very many American railroad projects as 'commercially unsound, or deeply tainted by jobbery and fraud'.

Of all these enterprises the Union-Pacific-Central Pacific road is probably the most famous, and while by no means unique is certainly one of the most remarkable examples of enterprise in the history of American transportation. This road was built in two divisions simultaneously, the Central Pacific building eastwards from San Francisco and the Union-Pacific westwards from Nebraska. Such a project had passed through many minds and been much talked of, and 'a swarm of interested entrepreneurs buzzed about the corridors of Congress' ² in 1861, among them Collis P. Huntington, part proprietor of a hardware store in Sacramento, and head of the Central Pacific Railroad of California, capitalised at \$8.5 million but with nothing paid in. Huntington and his associates had in fact about \$200,000 at their disposal—and it was all with Huntington in Washington in 1861. This money has never been accounted for; it is known only that Huntington returned to California without the money but with a charter. Congress, in fact, under the Pacific Railroad Bill, granted two charters. The Union Pacific received twelve million acres of unsurveyed land, in alternate sections along its route, 10 miles deep, and also \$27 million in 6%, 30 year government bonds as a first mortgage. The Central Pacific received only nine million acres of land and \$24 million in government bonds. Huntington sent to his partners in California the cryptic message, 'We have drawn the elephant.' ³

The news of the charter was hailed with widespread enthusiasm in the west, and particularly by the gold miners of Nevada whom the Central Pacific seemed likely to serve. The settler too wanted railroads—'no music was sweeter to his ears than the whistle of the locomotive.' ⁴ But the Central Pacific partners, having spent their \$200,000 at the national capital in a manner of which they left no record, now possessed only a charter, and the Federal government's promise to pay in bonds for work in progress at a rate varying from \$16,000 a mile plus land grants over the plains to \$48,000 a mile plus land grants

in the mountains. The California financiers, able to lend their money in San Francisco at over 20%, refused to help. The Central Pacific promoters overcame the difficulty in two ways. Firstly, they re-mortgaged their property, turning the government claim into a junior lien, to the tune ultimately of about \$27 million; and secondly, they invoked support from the local communities along their proposed route. This support varied from freely given donations to what was little more than capitulation to blackmail. Thus San Francisco voted a bond issue of \$3 million to be donated to the railroad (at a time, incidentally, when Stanford, one of Huntington's three partners, was Governor of California). But if towns were not so complaisant their greed and fear of one another were played, on adroitly; 'They start out their railway track and survey their line near a thriving village. They go to the most prominent citizens of that village and say, 'If you will give us so many thousand dollars we will run through here; if you do not we will run by.' And in every instance where the subsidy was not granted this course was taken, and the effect was just as they said, to kill off the little town.' ⁵

Thus town after town was compelled to give rights of way and terminal sites, in addition to making stock or bond subscriptions; 'They have blackmailed Los Angeles County \$230,000 as a condition of doing that which the law compelled them to do.' ⁶ They began the line with the money so secured from Sacramento County, continued it with the federal mileage subsidy, and then repeated the process all the way to Utah, building the entire road without using a dollar of their own.

This, however, was only part of the story. Before they had proceeded 100 miles, Huntington and his partners resorted to the device of a separate construction company—the Credit and Finance Corporation—which had sole rights to purchase all material for and carry out all the building work of the road. The directors of the road were the sole stockholders of the construction company, and in their first capacity they paid over to themselves in their

second capacity about \$79 million in bonds, stock and cash for building and supply services. Of this sum experts later estimated that upwards of \$36 million was in excess of a reasonable cost for the work done, and was therefore 'lost' entirely to the railroad as such, mostly going into the pockets of the directors. The Union Pacific, building westward to meet the Central Pacific, did likewise. The directors of this road watered its capital to the tune of an increase from \$50 million to \$111 million, and then paid over to themselves as contractors—their organisation was the egregious Credit Mobilier—sums which went up to \$96,000 a mile, or twice the maximum estimates of the engineers. Such practices ran on one occasion into an unexpected obstacle—an honest man. In 1864 the Union Pacific had the ill-luck to find itself with a chief engineer named Day, who estimated the cost of building the first hundred miles of road at \$30,000 per mile, the second hundred at \$27,000 per mile. The vice-president objected to the figures so strenuously that Day reluctantly raised his estimate to \$50,000; shortly afterwards he resigned. The next engineer—evidently a more reasonable man—used Day's plans and specifications but 'spent' about \$75,000 a mile. . . . The result of these proceedings was that the cost of the Union Pacific finally worked out at about \$94 million; no one has ever been able to build the line on paper for more than \$44 million.

The Credit Mobilier is more famous than the Credit and Finance Corporation not because it made bigger profits but because it ultimately caused one of the greatest American 19th century scandals. In 1873 quarrels as to the distribution of the spoils led to investigation, as a result of which Oakes Ames, one of the promoters (a former manufacturer of shovels), lost his nerve, and, before the House, 'called the role of corruption himself from a memorandum he drew from his pocket.' He revealed how quantities of Credit Mobilier stock had been distributed in Congress 'where it will do most good' ever since 1867 (he himself had written privately in that year, 'We want more friends in

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this Congress. . . . There is no difficulty in getting men to look after their own property'). It was revealed that those implicated included Garfield (a future President), the Vice President, the Vice President elect, and—with splendid impartiality as to party—many prominent Senators and Representatives. The direct profit of the Credit Mobilier was established as being at least \$33 million, and the 'era of Tarnished Reputations' began to unroll itself. 1873, the year in which these revelations were made, saw the worst panic in American history since 1837.

But in the 60's all this was still in the future. Actual construction was begun on the Central Pacific in 1863 to the accompaniment of brass band music and the firing of guns. Then for four years an army of some 10,000 Irish and 3,000 Chinese toiled over mountain and across desert. The route was badly chosen and as badly engineered. Sometimes whole sections of the mountain line had to be lifted from one side of a valley to the other; work was done in winter over frozen ground which had to be done over again in the spring thaw; and so on. The haste of construction caused great waste—but with over \$50 million to come and go on this did not greatly matter to the directors, since the loss was fixed in an enduring capitalization which had to be borne by other people. As the two lines grew nearer, each built frantically in order to secure as much of the government grant as possible for itself. The Union Pacific, built largely by war veterans, was progressing five miles a day through hostile country; sometimes the Indians captured a whole train, slaughtered its crew, burned its cars. Hundreds died—towards the end the workers of the rival lines were killing one another. No one seemed to count the cost; the nation followed the progress day by day with intense excitement. Finally, in 1869, at Promontory Point, Utah, the two lines met. Spikes of gold and silver were driven into the joining rails. 'Chicago held a parade several miles long; in New York City the chimes of Trinity were rung; and in Philadelphia the old Liberty Bell in Independence Hall was tolled again.' The greatest railroad

in the world was completed, and a crowd of millionaires emerged from the adventure, idolised by a grateful population.

This story is paralleled by many others in the great age of railroad construction in America. In these years the American government gave, often to people possessed of little more than a stated intention to build a railroad, in all, 150,293,000 acres of land, 'as much as whole kingdoms owned,' and all the coal, copper, oil, gold and silver under them, and all the timber above them. This was a region larger than France and Germany combined; the Northern Pacific received the most princely land grant of all—44 million acres, or 7 million acres more than the territory of England and Wales. This policy of Federal support for 'improvements', or one very like it, had been advocated in America since at least the 1820's, and the railroads were 'improvements' arousing the utmost enthusiasm; Senator Wilson of Massachusetts declared, 'I give no grudging vote in giving away either money or land. . . . What are \$75 million or \$100 million in opening a railroad across regions of this continent, that shall connect the people of the Atlantic and the Pacific. . . . Nothing! As to the lands, I don't begrudge them.' These railroad lands, received without cost, would be sold for from \$1.25 to \$30 an acre. In all, it is estimated that about 60% of the cost of constructing America's railroads was originally borne by government, about \$707 million in cash, about \$335 million in land.

The moral of this story is not, however, at all clear. Railroads were produced quickly; but at excessive cost. They were decidedly *not* the product of unaided private enterprise, but private individuals made vast fortunes out of their construction. And great tracts of land, with all that they meant in wealth and power, came to be owned by men who possessed them like the barons of old, as Veblen observed, 'not by virtue of having produced or earned them . . . but because they own them.'

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The railroads, as the Senator from Massachusetts said were built to unite the people. But they served another vital purpose. Whether or no constructed simply for the profits of construction, almost all ran through many miles of undeveloped territory, and some railroad promoters (including Huntington) stayed awhile to wring such additional profits as could be got out of the actual operation of the newly created systems; and this required the development of the territories served.

The most famous figure in this work of development was James J. Hill, shipping agent and trader of St. Paul who began his life's work of building the Great Northern after he had passed 40. From 1875 Hill began his struggle to extend a bankrupt local line westward from St. Paul to the Pacific coast, and in 1890 he, like Xenophon before him, saw the sea. Hill's aim, like that of all the 'railroad kings' was monopoly, monopoly of carriage between important places and through a prosperous country, and this he achieved; but the prosperity of his domain he built up himself to an unusual degree. All through the 90's Hill encouraged immigration and made, in his own words, 'great efforts, and very successful efforts . . . to settle up all this northern section between the Great Lakes and Puget Sound.' Nor did Hill leave it at settlement. According to his biographer, he was 'first convinced of the feasibility of building up a great railroad system in the Northwest when he saw how rank the grass grew where the gophers and the wheels of the Red River carts had loosened and upturned the soil;' ¹⁰ this keen sense of the importance (to a railroad man) of the land and what was or might be done with it Hill never lost. He started his own stock farm in 1881, brought over from Britain several score thoroughbred bulls in the next few years, and placed them with responsible farmers all through Minnesota and Dakota, permitting their free use for breeding purposes. The cost of this latter effort Hill put at upwards of \$150,000. In 1906 he sent out over the Great Northern 'an experimental train fully equipped and accompanied by lecturers' ¹¹—in

accordance with his favourite dictum, 'We must get the facts direct to the man on the land'—and in 1912 a soil analysis service was begun. All this, according to Hill, 'wasn't a railroad matter.'

But this was not the start of 'empire-building', nor was this activity confined to the far west. There is, for example, the case of the Illinois Central. The Charter of the Illinois Central was secured from the state legislature in 1851 by the usual means—prominent being a 'loan' to the editor of an influential local paper for \$2,000 and the buying off of the opposition with 1,000 shares of stock—not to be assessed. The route decided upon was got through the legislature chiefly by an individual who owned about 15,000 acres of land in Central Illinois, and the Company finished the transaction by listing \$51,229 as 'charter expenses'. Construction was begun in 1852 by Irish and German labour and—after some transient difficulties which saw most of the bonds pass into the hands of British investors—the road was completed in 1856.

The Illinois Central was built through largely undeveloped country, and as soon as it was building settlers began to flow in of their own accord. The directors, however, did not stand by idle to see how Smithian principles would operate to achieve an ideal development. They stepped in first to promote new towns along the line. The railroad itself was forbidden by an amendment to its charter to lay out towns on or near its route, so the chief directors formed themselves into an Associates Land Company. They themselves purchased those alternate sections where they proposed to have stations before the location of the stations could be publicly known. This enabled them to buy at about \$2.50 an acre; they then, as railroad directors, put stations on their own land and realised a handsome profit. A good town investment carried out in this way would pay about 50% on capital for the first 10 years.

But town promotion pales in significance before the promotion of immigration. The State of Illinois increased its population by 101% between 1850 and

1860, and by 48% from 1860 to 1870. This immense increase was at least partly due to the Illinois Central policies after 1854. In that year 100,000 copies of a circular advertising the agricultural possibilities of the State were sent out, the railroad directors having reached the significant conclusion that 'The profit on the transportation of produce is of more importance than a protracted land speculation.'¹² In 1855 advertisements were inserted for many months on end in all important eastern papers. Pamphlets were got out and sent to Britain—pamphlets from reading which 'an uncritical person would gather that Illinois lands were not only among the richest and most productive in the world, admirably adapted to the growth of wheat, corn, barley, flax, castor beans, sweet potatoes, and every kind of garden vegetable raised in New England, but were also extremely healthy, easy to plough, and possessed of inexhaustible fertility.'¹³ In 1857 the road spent \$34,000 on advertising the State, and the next year it began to embellish its pamphlets with illustrations.

Alongside this effort, agents of the road campaigned for immigrants to Illinois. A Swede named Malmberg toured Norway and Sweden in 1854 and again in 1860 speaking, advertising, distributing pamphlets. He sent lists of names of immigrants to the railroad, which arranged for agents to meet the newcomers at the ports and see them supplied with tickets to Illinois—a necessary precaution because other American states and Canada had agents of their own at the ports to lure immigrants elsewhere. Similar efforts were made to secure German colonists. To these colonists, and even more—although this was less remarkable—to colonists coming from eastern states, the Illinois Central made from 1854 to 1870 about 34,000 land sales; thousands of other immigrants must have bought from other speculators. From 1861 to 1865 Illinois was the destination of more overseas immigrants than any other western State.

Colonists secured, the Illinois Central took up the work of agricultural improvement. Recognising that the pros-

perity of the road depended upon the prosperity of the farmers who settled along its route, it embarked from the mid 50's upon a programme of agricultural promotion. Thus for the State Agricultural Fair of 1858 it carried exhibits, lumber and fixtures free of charge and ran special trains in order that as many people as possible might attend; it also furnished $2\frac{1}{2}$ miles of cars on its side tracks to provide sleeping accommodation for those visiting the Fair. During the war it promoted cotton culture in south Illinois, and when that failed with the return of peace, published pamphlets on fruit growing. This latter idea was eminently successful; by the late 60's the company regularly in the season ran 'specials' to Chicago hauling 10 to 20 carloads of peaches every day, and several small fortunes were made on fruit farms in southern Illinois in the 60's. By 1870 Illinois was one of the two or three greatest agricultural States in the Union, and was exceeded in population only by New York, Pennsylvania, and Ohio; to attaining this position the work of the Illinois Central had clearly contributed a great deal.

Thus the railroads brought fortunes to some and new prosperity to many tens of thousands in a very short time. But all human achievements are a mixed blessing, and the railways were more mixed than most. To some extent their glory departed, only their faults survived; at least in the public notice. The Credit Mobilier scandal helped the change; national triumph and exultation, as one Senator put it, 'turned to bitterness and shame' at the revelation that 'every step in that mighty enterprise had been taken in fraud.' " But what really brought the railroads into disrepute was the business of 'railroad financiering' as carried on—to choose an outstanding example—by Jay Gould.

Jay Gould was, it has been said, 'the capitalist par excellence'—a compliment which capitalism, no doubt, would gladly do without. Gould, before 1867, was a man of little importance—one who 'roamed about trading in little railroads;' but in that year he was elected, with the

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approval of 'Commodore' Vanderbilt of the New York Central, to the board of directors of the Erie Railroad. Work on this road had been begun in 1833 with stock subscriptions of \$1½ million and a loan of \$3 million from New York State. The money ran out, and the road went into insolvency. In 1842 new subscribers were forthcoming, perhaps because the State waived claim to its original \$3 million and advanced \$3 million more. The road was built, but in 1859 passed into insolvency once more. In 1861 it was reorganised and reopened, a total of \$50 million having by now been spent upon it, mostly public money. By 1866 Vanderbilt, in control of the New York Central, also wanted to control the potentially competitive Erie, and it was for this purpose that he supported Gould among others as a director of that road. But once in control, the subordinates forgot their master, and proceeded to issue, by slow degrees, \$10 million worth of convertible bonds. Vanderbilt, in an effort to keep control of Erie, had to buy. As the situation worsened he also had a 'highly obliging' judge of the New York State Supreme Court enjoin the Erie directors from further issue of securities. But Gould and his flamboyant partner Fisk, 'those close observers of the law', found an equally obliging judge to issue counter-injunctions, and, at an appropriate moment, flooded the market with Erie shares. Had not Jim Fisk said, 'If this printing press don't break down, I'll be damned if I don't give the old hog all he wants of Erie'? Vanderbilt lost \$5 million to \$7 million in this attempt to keep up with the galloping inflation in Erie shares, and when he attempted to revenge himself by arresting the ring leaders for contempt of court, they escaped with about \$6 million in a suitcase across the Jersey City ferry.

As a consequence of this escape, the Erie Railroad was administered for a time from a Jersey City Hotel. But the situation was uncertain, and Gould and Fisk were not happy about it, and so to clear it up Gould went to Albany to secure a measure which would clearly legalize the recent issue of convertible bonds. As soon as he stepped

into the capital of New York State he was of course arrested, but was able to work in his hotel suite in company with a sheriff's deputy. Gould had with him \$500,000. What he did with this money is almost as little known as what Huntington did with his \$200,000 in Washington in 1861—almost but not quite, for Gould subsequently publicly regretted having over-paid one man by \$5,000, and a Senate investigation in 1873 showed that the Erie had in 1868 an outlay of over \$1 million for 'extra and legal services'. Certainly some senators appeared 'marvelously enriched after confidential interviews with both sides,' sums up to \$100,000 were mentioned, and Gould secured his Bill. In the same year peace was patched up with the 'Commodore' ('This Erie war', the Commodore is reported to have said, 'has taught me that it never pays to kick a skunk'), Gould and Fisk paying over to the 'Commodore' \$4.5 million, and the lawful directors of Erie then returned to New York to conduct their affairs from the marble halls of Pike's Grand Opera Palace, at 23rd Street and 8th Avenue.

Gould was not forced out of Erie until 1872; and before his departure there took place the low comedy of the Albany and Susquehanna—an affair so farcical that in it the railroad kings and their rivalries are satirised in sober truth for ever.

The Albany and Susquehanna was a coal road, only 180 miles long, built with money from local investors, lavishly aided by loans from the State of New York and the city of Albany. The Erie, in 1869, decided to get control of it. They therefore proceeded to buy up all available shares, which were quoted as low as 20; but Ramsay, director of the road and chief moving interest in it, resisted. Shares quickly rose to 65, and became very, very scarce. Ramsay and his fellow directors, on the eve of the Board election the control of which all parties were struggling to secure, sold themselves 9,500 shares hitherto unissued, paying 10%, and borrowing the money, at that, against their own road's bonds!

At this stage deadlock was reached as far as buying stock went, so both parties had recourse to the law. Each side secured injunctions against the other's use of some of its voting rights, and Erie followed this up with an injunction restraining Ramsay from carrying out his duties as president of the road. This gave the Erie party a majority of votes on the board, and they therefore proceeded to convene a meeting; but just as they were about to proceed to business, an 'enemy' attorney entered the room and served upon four of those present a new injunction restraining them from acting—an injunction which left the Board without a quorum. This 'fell like a thunderbolt on the Albany members of the Erie party, and they precipitately retired from the field and took the first train to New York in search of counsel and assistance.' ¹⁵

By now everyone was enjoined, so that the Albany and Susquehanna Railroad was in a state of suspended animation, while the natives along its route, who with fond hope of future benefits had invested their savings and taxed themselves for its completion, were not only bereft of transportation but were soon to be treated to a display of violence and terrorism on both sides.

But the resources of the law were not yet exhausted, and Erie now played their trump card. They appointed a receiver. But they were too late—an hour before, a Supreme Court judge in Albany had appointed another receiver and—which was more to the point—the Albany receiver was in charge when the Erie receiver arrived, and proceeded, along with his henchmen, to demonstrate to the intruder that possession is indeed nine tenths of the law by throwing him into the street. The law was now at its last gasp. New York put forth a new injunction, enjoining all and sundry, including the Albany police, from interfering with the Erie receiver! Albany retorted, by enjoining the sheriffs from putting the Erie receiver in possession.

Baffled in Albany, the Erie party telegraphed its writs to Binghampton, the other terminus of the coveted line,

and began by this very dubiously legal means to take over the company's property there. By the next day the two parties were installed at opposite ends of the road, and trains bearing sheriffs in possession of conflicting processes began to approach one another along the line. But the Albany party now showed themselves the more determined, and the more able. They skilfully derailed the first Erie train, and took its crew prisoner. They then advanced up the line serving processes on route. An Erie locomotive advanced to meet them. But when the two trains were in sight of one another, the superior esprit de corps of the Albany faction became evident. They had had one success; moreover it was their road, and many of them were personally attached to Ramsay. They did nothing to avoid a collision, whereas the Erie driver stopped his train and even attempted to back out of the way. In vain; there was a crash, the Albany locomotive fell off the track and its crew fell upon the demoralised mob from Erie; as the 'Scotsman' of the day recounted the affray, 'Pistols were used, with stones, clubs and fists, threats, cries and horrid oaths were mixed so as to be quite unintelligible, except as to their hideousness and profanity . . . the fight was continued until about 8 o'clock . . . it is impossible to make a complete list of the wounded . . .'¹⁶

This attempt of two commercial corporations to levy war upon one another constituted, legally, merely a riot. But it was enough. The Governor of New York State stepped forward and took possession of the road, threatening at the same time to place the district under martial law. The public attitude had altered from amusement to hostility. Gould and Fisk beat a hasty retreat to New York, and the New York judge chiefly concerned found it best to ignore the contempt in which his processes had been held. 'Nothing is lost save honour!' exclaimed the unabashed Fisk.

This sordid comedy and others like it were played by unscrupulous men for high stakes. Gould, perhaps the

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most shamelessly unscrupulous of them all, stated under oath in 1873, 'In a Republican district I was a Republican; in a Democratic district I was a Democrat; in a doubtful district I was doubtful; but I was always for Erie.' Somewhat later Gould secured control of the Union Pacific, out of which he made \$20 million by compelling it to buy a potentially competing line which he had secretly acquired himself. He died in 1891, worth \$10 million per annum. The financial repercussions of his activities were, to say the least of it, serious. His flight from New York in 1868 with \$6 million in currency caused, it is said, 'a decline in securities and even a fall in the \$;' " while the practice of withdrawing several millions from the banks so as to cause a fall in commodity prices as money became 'tight' was a common one. Worse still was the contempt in which the law came to be held. The popular election of magistrates meant that 'men had been elevated to the bench who should have ornamented the dock,' " and judges struggled with one another to circumvent justice. Worst of all, the public became inured to such practices, and enquiries into them by representatives of the public, themselves sometimes far from pure, were regarded as 'the great public comedies of the times.' Never was there a legal, economic and political setting so favourable to unlimited personal aggrandisement.

The career of a Gould is not typical of the age. Gould was a pure financial manipulator; in six years he expanded the capital of Erie by \$65 million, and at the end of the process had not a new locomotive, train or station to show for it; in 1869 large sections of the road could be covered only at 10-15 miles an hour, and it was acquiring a reputation for accidents which it took decades to lose. This was exceptional—there certainly were honest roads—or at least roads so nearly honest that the economic historian, possibly corrupted by the nature of his study, is tempted to call them so. The Burlington was built up without scandal. The Great Northern was an efficient concern, and Hill once declared—probably truly—"I never bought or

sold a share of stock for gambling purposes in 'my life.' Some of these men certainly had imagination, and possibly remarkable financial foresight. On the other hand the aim of them all was monopoly; there was no limit to the lust for power. Harriman in the 20th century built up a 'system' comprising no less than the Union Pacific, the Southern Pacific and the Illinois Central; and the Great Northern, once secure, monopolised the transportation of the products of its empire, and the saying arose in Minnesota, 'After the grasshoppers we had Jim Hill. . .'

Some railroads undoubtedly exploited their power, recouping themselves for cutthroat competition in one area by gross overcharging in another. It was against such methods that the farmers banded themselves in the Granger Movement—a general movement of agrarian discontent, but aimed largely at the railroads. The Grangers sought to secure laws to control railroad rates: the first Act was passed in Illinois in 1869, and the most famous was the Potter law of Wisconsin of 1874. The courts on the whole supported such legislation (described by *The Economist* of the day as 'direct legislative attacks on property'), and in 1887 the Interstate Commerce Act pursued the same policy—just and reasonable rates, no discrimination, etc.—on a federal basis: but the railroads on the whole were able to thwart such interference and later got legal support when in 1879 the Supreme Court held that the Interstate Commerce Commission could declare rates to be unfair but could not lay down any ruling as to what a fair rate would be! Not till 1906, with the passage of the Hepburn Act, were the most prominent abuses corrected.

The position of American railroads to-day is one of chronic near-insolvency. The gross over-capitalization resulting from 19th century abuses is a hopeless burden, and since 1920 road transport has been the proverbial straw. In 1916 Wilson's Administration put the railroads under government control, and as one American historian has admitted, 'certain efficiencies and economies did

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result. However, the railroad's went back to private ownership in 1920 and have never since recovered their prosperity. In 1948 they were advertising (literally) their inability to make 4% on capital, a part of their campaign to induce the Interstate Commerce Commission to grant another 8% increase in freight rates—their constant prescription for solvency, since they long ago resigned themselves to handling all passenger traffic at a ruinous loss.

This is the economic position of lines which are undoubtedly the most technically advanced in the world. America has her railroads, and although she did not get them cheaply, the burden is lightly carried. 'Nothing is lost save honour,' Fisk had said; and perhaps he was very nearly right.

Chapter 5

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THE DEVELOPMENT OF INDUSTRY

WHEN the Civil War broke out, America was still predominantly a land of small-scale, local, handicraft industry. The commencement of the war was a shock to confidence; but its continuation soon generated a demand for, and created conditions vastly stimulating to, industrial development. Specie payments were suspended and prices became based on 'greenbacks'—prices which rose continuously with the amount of issue but also varied with sagging or reviving confidence to the northern cause. Taking the war period as a whole, prices soared; between 1860 and 1865 they rose between 110% and 130%, while money wages rose only between 45% and 60%. Mostly cause, but partly effect, the government's expenditure rose from \$60 million in 1860 to \$1,218 million in 1865; allowing for the depreciation of the currency, this was an increase of over eight fold, and it is not surprising to find that by the end of the war government demand accounted for about one fifth of the total sale of American manufacturers. Moreover, the Federal armies by 1865 consisted of almost 1 million men, and just as the necessity to feed them caused an agricultural boom, so the necessity to clothe them caused the woollen industry to double in size, although only commencing its expansion after \$1 million worth of cloth had been imported from Europe in 1860. This industry was assisted by the Morrill Tariff of 1861, which embarked America on her career of high protection; by 1864 the average level of duties was 47%. No session of Congress during the Civil War did not raise tariff rates, and scarcely any protectionist claim—and there were many—was left unsatisfied; the plea was often that of the desirability of the government's supporting its own manufactures, so that if patriotism is the last resort of a scoundrel it was also one of the first resorts of the American

business man. Some industries could not be helped. Cotton manufacture suffered severely from raw material shortage, but managed to carry on at about 45% of its usual volume; the workers suffered less than in Britain, because alternative employment in America was easier to find. The petroleum industry, born in 1859, was exporting \$16 million worth by 1865. The export of sewing machines rose almost as rapidly, while locomotives were sent to Brazil and steam engines to Mexico. As for the railroads, they especially boomed. Many roads besides the Union Pacific were begun or expanded, and many of these already established—including the Erie and the Illinois Central—paid dividends for the first time. Between 1860 and 1870 the number of industrial establishments was increased by almost 80%, and the number of wage-earners in industrial establishments rose from 1.3 million to 2 million; these are percentage increases unequalled in any other decade of American history. Such prosperity in spite of war was possible because the as yet unused resources of the country were so great, because the average age of the population was so low that the Union army was almost 'an army of boys', and because immigration flagged but never stopped. America made for 5 years an 'enormous and unexampled expenditure' of men, money and material on the prosecution of war, and yet emerged with wealth visible 'in new furnaces, mills, factories, tanneries . . . new railroads and countless oil-wells . . . new vessels on lakes, rivers and canals . . . in the extraordinary increase of elegant and costly buildings in country and town.' ¹

The Civil War, therefore, was the forcing ground—as it has been called—of American industrial development, and after it was over business men settled down to exploiting the now tolerably well-known American domain. The increase in manufactured output was phenomenal. The value of manufactured products increased from about \$2,000 million in 1859 to about \$13,000 million in 1899 and then to \$68,000 million in 1929; the latter figure is much

inflated by the 20th century price rise and requires to be almost halved for the purposes of comparison, but the first two are comparable as they stand. This stupendous increase has many significances; most notably, from the international viewpoint; America by the 1890's had become the premier manufacturing nation of the world. Great internal changes had been involved. Between 1900 and 1910 her population at last ceased to be predominantly rural, or at least very small town, in character. Her industrial leadership changed from fine work to mass production, and with this change went a movement of industry westward and southward, apparently towards its raw material supplies—the coal and iron ores of the middle west, the cotton and timber of the south, the petroleum of the middle west and of California. Above all, industrial emphasis passed from wood and cotton to iron and steel. Yet what to the British observer is probably most remarkable (apart from the scale of things) is the prevailing importance of the processing of food; flour milling came first in value of product in 1860, meat packing came first in 1914, and second in 1929.

Thus growth, and rapid growth, has been characteristic of the American economy, at least until the long pause of the 30's. It has never been even growth, measuring industry against industry—inconstancy of rate has been a universal characteristic of industrial expansion in the U.S.'²—and the rates of growth, at least since 1870, have continually tended to decline; but for physical production as a whole 'it is even mildly probable that the rate of growth may have been increasing somewhat.'² Material richness, perpetual change, and the expectation of these forever—this is the life of more and more of America since Gettysburg and before.

Through this lengthy period some concerns maintained a continuous history. The agricultural implement business of Cyrus H. McCormick, begun in Chicago in 1847, maintained itself as the leading concern in its field, and was worth about \$23 million in 1902, when it merged with six

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other companies to form the International Harvester Company; this new concern was capitalized at \$120 million, and 'strangely enough' received assets 'equal or almost equal to its capitalization'.³ It supplied, in the first 10 years of its existence, between 75% and 90% of all American agricultural machinery, and McCormick's exports, from the 50's onwards, were of importance to Russia, South America, and even Britain. The meat-packing industry likewise includes firms dating back to before the Civil War, when Gustavus Swift, P. D. Armour, and Nelson Morris started work as very small pork-packers and cattle dealers. The task of supplying the Federal armies during the Civil War was an immense stimulus to this business, and when the war was over the development of refrigeration was another. Cooling rooms were in use by the 70's and refrigeration cars—largely thanks to the enterprise of Swift—by the 80's. Large scale production for the national market became possible, the Union Stockyards in Chicago became the greatest centre of animal slaughtering in the world, and the packers went first into the transportation business and then—in order to fill their returning refrigeration cars—into farming and merchandising. The use of by-products drove them into miscellaneous manufacture and into research. The economies of large-scale in this business are considerable, and since about 1885 five concerns have dominated the industry and worked intimately together to preserve their supremacy; a letter about the Denver market written by P. D. Armour in 1916 is illustrative; 'Swift's plant, from what I hear and from the little I saw of it, is far ahead of ours both as to size and condition. Of course, as you know, everything here is done on a 50-50 basis, and with the facilities we have it is almost impossible to keep this ratio.'⁴ Conducted along these lines, firms ought to be very nearly indestructible, and no one need wonder that they have lasted for almost a century.

Other industries have experienced more of the economic ups and downs of the world. Cotton has steadily increased the value of its product and declined in relative import-

ance. Holyoke, Massachusetts, built as a cotton town, saw the manufacture of paper begun in one mill in 1855. The company earned huge profits, and by 1865 when 'the tariff was high enough to make profits nearly inevitable,' capital was poured into the paper-making industry, but especially into Holyoke. In time, efficiency as well as profit was achieved, and by the 1870's American paper was being exported to Britain, and Holyoke claimed to be the greatest centre in the world of fine paper manufacture. Away on the west coast (where the Zellerbach partnership had been formed in 1888), only wrapping paper and newsprint were made prior to 1890. After that date, the industry began to drift towards Canada. Reforestation policies were begun in the United States after 1890, but it was too late, and as Canada has always shown reluctance to export raw lumber, the United States industry has declined in importance and firms within it have acquired extensive lumbering and manufacturing interests in Canada. Crown Zellerbach, for example, owns or controls 500 million acres of forest in Oregon and Washington, and 220 million acres in British Columbia; this position has been achieved by buying up cut-over timber lands (which sell cheaply) and reforesting them, and it is now the boast of this corporation that it is self-sufficient in raw materials and that it can point on a map to the acres which it will be cutting in 1999. American per capita consumption of paper rose 5 times between 1899 and 1939 to reach over 250 lbs. per annum.

Remarkable changes in scale and organisation have taken place in other industries. Shoe-making, for example, still predominantly a putting-out industry with its centre at Lynn, in Massachusetts, up to 1860, was taken over by machine processes before the end of the century, and the 'ten-footer shoe shops' were replaced by industrial establishments employing on the average, over 55 people each. Craftsmen have seldom had to give way more rapidly to employees. A less well-known example of a similar development is to be found in the manufacture of optical instru-

ments. J. J. Bausch opened an optical shop in Reynold's Arcade in Rochester in 1853; his skill was his own, his capital was augmented by that of Henry Lomb, who invested his life savings of \$64 and later kept the firm going through the Civil War by means of his soldier's pay. (Both these men had left their homes in Germany after 1848). In 1876 Edward Bausch, a son (who had been educated at Cornell University) took an exhibit of microscopes to the Centennial Exposition at Philadelphia. Impressed by the machine tools which he saw there, Bausch returned to Rochester resolved to apply machine methods to microscope production; his success, involving many patents and requiring great technical skill, established the firm's leadership and once again turned the craftsman, not quite into an anachronism, but into an adjunct to delicate machinery. The increase in output which resulted was even more remarkable than the change in technique which was its cause. In 1870 there were about 50 microscopes in the United States, in 1935 Bausch and Lomb manufactured their 250,000th microscope, and were employing over 6,000 persons in their works at Rochester. In two generations a single family had revolutionised an industry technically, kept control of it, and, in expanding American optical glass production from zero to 65% of American military requirements between 1912 and 1918, performed a signal national service.

The most remarkable innovation of all, however, was the motor car. Invented and at first developed abroad (France was turning out 500 cars a year in 1893) the motor car in America began by being the origin chiefly of 'vast and visionary financial projects to monopolize patents in what was already seen to be a promising but uncertain new field of enterprise.'* These attempts being uniformly unsuccessful, practical 'tinkering mechanics' like Olds and Ford got to work, the former making 1,400 cars in 1901; and by 1905 the automobile although 'not yet perfected' was 'at least reliable.'* Ford, realising its potentialities, which in a large and wealthy country like the United

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States were almost limitless, pressed forward to make the automobile popular. In 1909 his output for the first time exceeded 10,000; the next year it exceeded 18,000; by 1914 it was 250,000, and mass production, with large concerns supplying parts only, had arrived. Since then, the automobile industry has risen to first place in value of product, and it has been estimated that automobiles, directly or indirectly, gave support in these years to from 16 million to 20 million people, the approximate increase in American population between 1920 and 1930.² A great concern, such as General Motors Corporation—one of the big three in the industry—was employing 220,000 people by 1939, was selling over 1 million vehicles a year (more than the output of the entire British industry) and had interests in firms in Germany and Britain, as well as assembly plants in Canada and a huge export business to Europe, South America, South Africa, the East and Australia. There was one car in the United States to every 5 people in 1939, and California had achieved the ratio of 1 : 2.5 by 1947.

The social consequences of automobile development have been tremendous in the United States, its economic consequences not less so. The automobile has been the greatest investment discovery since the railroads; it has revolutionised agriculture, and opened a new era in transportation. But behind it, as behind all American industrial development since 1860, has stood the giant industry of iron and steel manufacture, supplying to automobile producers something from 15 million to 20 million tons of steel a year—and then counting them only third on its list of important customers. It is this industry and the sudden rise to prominence of this industry which has turned the United States into the economic colossus of the modern world.

The military demand for iron and steel arising out of the Civil War, great as it was, did not counterbalance the check to civil construction work. Hence the chief gains of the period were in quality and technique—higher quality, more uniform quality, and larger makes. Yet progress to

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the close of the Civil War was not remarkable. By 1865 the largest iron works in America made only about 20,000 tons of pig iron per year, and at a time when 12" plates were being rolled at Sheffield for the British Admiralty, the best equipped American mills could not roll armour more than 1½" thick; the Confederate iron-clads actually used hand-forged armour plate!

It was not until after the war that the industry made really striking advances in volume of production and in technique. By 1873 the output of 1860 had been trebled; the product, moreover, was of better quality and was more economically produced. In 1861 more than 30% of American iron was produced in small charcoal-fired furnaces, and the absolute quantity of charcoal-iron (though not the percentage) continued to increase until it reached its maximum in 1873. By that date the depletion of the forests made wood-fuel scarce and costly, and this hastened (as it had done in England one hundred years before) the adoption of coal and coking. The use of coke, of the hot blast, and even of waste furnace gases had been known in 1860; but the technique of the majority was far behind the technique of the best, and ten years later a German visitor declared that 'there was not in the whole country a rational coking plant.' Nevertheless, great progress was made in the 60's: furnaces became larger; blast temperatures went up to the British level; most important of all, Bessemer steel was produced in 1865, and, thanks to the suitable (i.e. non-phosphoric and non-sulphurous) character of the Lake Superior and New Jersey ores, success came fairly easily, so that several Bessemer converters were in profitable operation by 1873. About half the demand for iron and steel at this time originated in railway construction and maintenance; but for every mill rolling Bessemer rails, there were still seven which rolled only iron rails.

From this time onwards America rapidly increased her self-sufficiency in metal production and assumed the leadership in technical advance. Imports, which reached a

high figure in 1872, reached their maximum of almost 2 million tons in 1880, and thereafter declined. In 1879 the American output of pig iron exceeded 3 million tons for the first time; in 1880 it exceeded 4 million tons! This was almost 50% of British output, and by 1890 the British lead was trifling, while in production of steel, steel rails and rolled iron Britain had already been surpassed in 1887. By 1890 American iron production was over 10 million tons, an increase of over 40% within two years, and this 'at a time when there has been no special activity in the construction of new railway mileage, a sufficient indication of the multiplying uses to which iron and steel are being put.' By the 1920's pig iron production was running at rather less than 40 million tons per annum, and by 1937 (a year not remarkably favourable to the industry) American output of pig iron and steel—now made almost entirely by the open hearth process—was about 88 million metric tons—an output about 2 million tons greater than that of Great Britain, France, Germany, Italy and Japan combined.

Over this same period America surpassed Britain in technique as well as in magnitude of effort. According to the British Iron Trade Commission in 1892, 'Modern iron making in America began when, in 1881, the long-doubted rumour became a certainty, that Captain W. R. Jones and William Kennedy had by means of high heats and large volume of blast, succeeded in more than doubling the output of the Edgar Thomson furnace without altering the plant.' When the 70's began, Britain was using higher blast pressure and higher temperatures than the United States; by the early 80's the Americans were using double the British pressures and blast temperatures at least as high as those in use in Britain. Twenty years later the American industry, while in the process still of converting from Bessemer to open-hearth production, was also beginning to secure the economies of large scale which have throughout the 20th century been so important to it. Not only was American steel production by 1899 more than

double that of Great Britain; America was also operating the largest units. Statistics for 1901 show that America made 8.7 million tons of steel in 81 Bessemer convertors while the United Kingdom used 78 convertors to make 1.7 million tons; for open hearth production the comparison is similar. This was undoubtedly an important factor in securing the \$2.50 to \$3 a ton cost advantage which America was enjoying by this period. Equally important, probably, was the scale of organisation. The above-mentioned British Commission of 1892 was no less impressed by the organisational activities of Carnegie than by the technical achievements of Captain Jones: 'Andrew Carnegie was the first to recognise and act on the necessity for the successful iron producer to control his own material, and it [American technical progress] gained international importance when this wonderful man joined to plants and mines the possession of railroads and ships.' The policies of vertical and horizontal integration achieved their apotheosis with the formation in 1901 of United States Steel—the billion dollar corporation. The corporation owned and mined 65% of the Lake Superior ores, owned 5 large docks at two harbours, operated 'the largest fleet engaged in any one traffic under the American flag,'¹⁹ possessed the largest automatic unloaders in the world, used them to load its own trains which ran over its own track from Conneaut to Pittsburg drawn by what were reputed to be the world's largest locomotives, and was responsible, initially, for one half of the total output of steel in the United States. It proceeded to improve on its advantages in 1906 when it began to spend \$50 million set aside for the creation of an entirely new plant at Gary, Illinois. On a site of 1,500 acres an entirely modern steel works, making open-hearth steel exclusively, was laid out, complete from shipping berths to rolling mills, and in which the flow of production was routed uninterruptedly from east to west. This works on the shore of Lake Michigan, employing upwards of 20,000 men, remains the largest steel plant in the world, producing annually, as is

its boast, steel 'sufficient to provide eleven sets of standard gauge rails stretching from New York to San Francisco.'

Thus in a mere quarter of a century or thereabouts, between 1880 and 1905, America seized from Britain the leadership in the scale, the technique and the organisation of heavy industry—a leadership which had been Britain's boast for at least a century—and thereby established herself with a single mighty gesture as the greatest economic power in the world. This dominance was not provided by any one firm in any one industry, nor by the ingenuity of any one set of men. Its basis was securely laid in certain immense natural advantages. America possesses about half the world's resources of iron ore and about half its resources of coal. Moreover, these immense assets are of high quality and are geographically concentrated, the ore in the neighbourhood of Lake Superior, the coal in a great belt stretching from Pittsburgh to Alabama. And this geographical distribution makes these raw materials eminently transportable by lake or river, while human effort has supplied railroads to help the process. Hence America is uniquely favoured for the production of iron and steel—what one of her own economists has called 'the foundation of the material apparatus of civilization—and hence the unmatched concentration of heavy industry along the southern shore of Lake Erie, in the States of Ohio and Pennsylvania. This is the industrial heart of the United States, where the traveller is bewildered as he passes through hundreds of miles of smoke stacks, coking plants, refineries, blast furnaces. This is the seat of American economic power, itself the result of taking skilful and bold advantage of the finest combination of natural assets and resources in the world. In this sense, it is true, Americans might is mostly the product of circumstances. But much the same can always be said of economic power, and yet nothing be explained. It is the human activity—the 'Effort, expectation and desire'—which transmutes resources into wealth that is the crux of the matter.

Thus it is not surprising to find that this tremendous industrial expansion, averaging a rate of growth of more than 4% per annum between 1870 and 1930, or more than double the rate of growth of population, was dominated, as was the building of railroads, by certain remarkable personalities. These men, who gathered into their own hands tremendous concentrations of income and power, were as common as and probably even more powerful than were their predecessors and contemporaries in the field of transportation. Among them, two—Rockefeller and Carnegie—stand out as immensely more important than their fellows, and of these two Carnegie, as the more constructive, is perhaps of greater historical interest.

Carnegie, child of a poor Scots weaver, came to live near Pittsburg in 1848. He began work at 14 as a bobbin-boy in a cloth mill, and graduated within a few months to the \$800 a year job of telegraph clerk. He soon left this employment to begin work in the Pennsylvania Railroad as secretary to a superintendent, and while there began to speculate, first in sleeping cars for railroads and then in oil . . . and prospered. In 1863 he turned his attention for the first time to the iron industry, financing the expansion of a Pittsburg firm in return for a minority interest in it—an interest which shortly became a majority interest. By 1865 he was 'interested' in three companies, and resigned from the railroad. The men he worked with were skilled ironmasters, especially the celebrated Captain William Jones; Carnegie, on the other hand, was no more than 'a commercial traveller on a heroic scale.'¹¹ In 1872 he agreed to devote his workers to steel production, a form of enterprise in which many others had shown the way. But Carnegie's distinction was to do on a huge scale what others had attempted only on a small. The works he possessed at Pittsburg were well located and admirably staffed; Carnegie himself had the liquid capital; the risks, should the demand prove almost insatiable (as indeed it did) were negligible, and Carnegie was neither afraid of risks nor a falterer in faith in his adopted country. The 'million

'dollar steel works' at Braddock, modelled on British practice, was ready by 1875, and Jones began there his work as a technical expert in pursuit of ever higher levels of output as the iron industry strove to keep up with demand, which increased fifty fold between 1875 and 1890. Jones, at his own request, drew only a salary; the profits accrued to Carnegie and his brother, and are stated to have amounted to \$1.625 million in 1879. Carnegie, who remained almost as ignorant of the technical requirements of steel production as he had been in 1863, drove his employees, advertised his steel works on all possible occasions, and enjoyed long holidays in Scotland. In 1892, threatened by Rockefeller, Carnegie secured control of the ore supplies of the immensely rich Mesabi Range, west of Lake Superior. In 1894 profits rose to \$4 million, and in 1899 to \$21 million, this for a company which had no watered stock, no bonds, and only a few unimportant debts to bankers! Two years later Carnegie and his partner Schwab sold out to Morgan for \$492 million of which Carnegie got \$225 million, and the 'billion dollar corporation' of United States steel was born.

Carnegie, it is clear, 'grew up with the country'. He believed in it; and having, in supreme degree, that wonderful combination of business assets, hard-headedness and imagination, he was able to avoid the mistakes of underestimating or undervaluing its potentialities. He knew little about steel making, but he could find and keep men who did. He had drive; to the communication 'Lucy Furnace No. 8 broke all records to-day', the answer was, 'What were the other ten furnaces doing?'¹² He was careful—'never allowed a man to get away with a dollar from him or his properties and he never forgave a man if he lost money.'¹³ Above all, his enterprises were financially sound, whereas his rivals' very often were not; the National Tube Company, which he decided to fight in 1900, was composed of assets worth \$19 million, capitalized at \$86 million. In comparison with such competitors, Carnegie's business was genuine as well as enormous.

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To run through a list of Carnegie's fellow millionaires would be tedious, although probably the only feature of their lives which all shared in common was their success in accumulating money. Rockefeller, who saw the oil industry grow from almost nothing to an output of 243 million gallons a year between 1862 and 1872, secured an 80% control of the industry by 1876 by means of secret agreements with the railroad companies, agreements which profited him and them and beggared his competitors. His rise to greatness was marked by illegality and violence, and in 1879—already the arch monopolist of his age—Rockefeller and his partners were indicted for criminal conspiracy in restraint of trade; but as one American historian has put it, 'During 40 years the Standard Oil men marched from trial to trial like habitual felons, before the public was convinced that it was not dealing with the archcriminals of the age, but with destiny.' " Standard Oil entered the 20th century as a huge trust producing just on 90% of the total output of American refined oil—an output now in the region of 350 million barrels per year.

Carnegie, Rockefeller, McCormick, Weyerhauser, Morgan, Ford, Giannini—these men and many others like them had remarkably little in common. None preyed on society like Gould. They shared among them many qualities in very unequal measure—organising ability, technical skill, financial acumen, bargaining sense. Not all were monopolists—Carnegie especially believed in 'competition,' and disliked even pools. Not all were sunk in that 'worst species of idolatry,' as Carnegie himself called the endless amassing of money. They were among the few who had been to hand when vast possibilities were opening; they were skilful, fortunate, determined; and in the spiral of rising production for which they were themselves in part responsible, they were caught up, and found a way of life from which they could not, even if they would, break free. They were the product of a society which regarded the worst of them rather as the 18th century regarded highwaymen—with a mixture of fear and admira-

tion—and their best efforts brought to that society, as to themselves, riches until then undreamed of.

Chapter 6

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TRUSTS AND GOVERNMENT

THUS in the 35 years between the end of the Civil War and the end of the century, American output figures leapt upward, while at the same time control over that output became concentrated to a degree previously unknown. After 1900 the situation changed in that the picturesque figures of the 19th century were largely replaced by the boards of directors of more impersonal corporations—Carnegie by United States Steel, Hill by the Great Northern Railroad, Rockefeller by the Standard Oil Trust; but the concentrations of power in a few hands remained.

Protests against both the methods of 'monopolizing' and the extortions of 'monopolists' were few and far between until the late 70's—a nation which did not have time to check in the slightest the destruction of irreplaceable natural resources would hardly find time to criticise contemporary methods of conducting business. In 1879 came Henry George's 'Progress and Poverty' a book inspired largely by the author's contact with the operations of Huntington, Stanford and others in California, which explains to a large extent the nature of George's solution for economic ills, namely, the single tax on land values. The subject received much more attention in the 80's, and in 1894 there appeared one of the most telling attacks on the trusts, Henry Demarest Lloyd's 'Wealth against Commonwealth'. From this time forward, criticism of 'big business' has been incessant and widespread in the United States.

Under English common law of the 18th century, joint action taken with a view to controlling the market was a conspiracy and therefore a criminal offence. Agreements in restraint of trade (i.e. contracts not to compete), were generally held to be against public policy and therefore

void at law, although they were not liable to prosecution as either criminal or civil offences. Increasingly through the 18th century, indeed, partial restraints of trade stood some chance of validation if they could be shown to be 'reasonable'. These legal attitudes became incorporated into American common law also.

Since about the middle of the 19th century, however, legal opinion in the two countries has tended to diverge. In Britain contracts to control prices and output or to divide markets even on a national scale, have been more and more upheld as reasonable restraints of trade, unless extraordinarily oppressive. (The Agricultural Marketing schemes of the 1930's were government sponsored schemes in restraint of trade—the first statutory monopolies since Elizabeth). In America, on the other hand, the old view has tended to prevail; W. H. Taft, later Chief Justice of the Supreme Court, said in 1898, 'Upon this review of the law and the authorities, we can have no doubt that the association of the defendants, however reasonable the prices they fixed, however great the competition they had to encounter, and however great the necessity for curbing themselves by joint agreement from committing financial suicide by ill-advised competition, was void at common law, because in restraint of trade, and tending to a monopoly.'¹ The struggle in America for over half a century has been to determine whether or not it is possible to devise and enforce laws which will prevent business men from 'committing financial suicide by ill advised competition.'

The general drift of public opinion and of the interpretation of the common law in the 1880's made pools and price-fixing agreements weak and uncertain devices, and trusts or combinations, uniting in a single corporation or holding company several previously distinct businesses, began to be formed, slowly between 1879 and 1896, rapidly from 1897 to 1904. The Sugar Trust appeared in 1887, United States Steel in 1901, and between the two lay the American Tobacco Company, the Standard Oil Company,

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the United Shoe Machinery Company, and many score other less famous consolidations.

By 1890 thirteen States had moved against the trusts; but State action was bound to be inadequate. Federal action became inevitable after the presidential campaign of 1888, when both parties joined with the public in condemning the trusts. Harrison, the Republican candidate, was elected, and in July 1890 signed the so-called 'Sherman Act, 'apparently a minor measure of appeasement to the farm group.'² The substantive provisions of the Sherman Act are simple and the whole measure may be summarised as follows:

- 1) Joint action of any sort in restraint of trade is illegal.
- 2) Monopolization or attempted monopolization of interstate or international commerce is a criminal offence.
- 3) Private parties, public authorities, and the Attorney General may proceed against injurious combinations.
- 4) Persons violating the law are liable to a fine of \$5,000, a year in jail, or both. (Under a later amendment, the officers of the corporations concerned are themselves liable to these penalties:).
- 5) Actions to 'prevent and restrain' violations of the law may be brought by the Attorney General.

This law, passed almost unanimously and with little debate, did not contain a definition of 'restraint of trade' or monopolising', and therefore it was left for the Courts to decide the meaning of these words as and when litigation was brought before them. What happened?

The first important decision concerned the American Sugar Refining Company. This company controlled the production of 65% of American sugar refineries in 1892, and then acquired control of the stock of four other companies which refined about 33% of the total; result, control of 98% of American output. In 1895 the Federal government advanced to the battle, and accused the Sugar Trust of engaging in a combination in restraint of trade in violation of the Sherman Act. The case was decided by a

majority decision of the Supreme Court in favour of the Company, on the ground that since the Constitution gave Congress power to regulate only interstate commerce, and since the monopolizing of manufacture was a different thing from the monopolizing of commerce, no direct violation of a Federal Statute could be involved. Not until 1905 did it become clear that the Courts would apply the Act to the monopolization of manufactures, and by that time over 250 combinations had been formed, including the giant United States Steel Corporation. During the most active phase of the combination movement, therefore, the Sherman Act, at first sight, gave pause to no-one.

Decisions were made, however, affecting individuals other than manufacturers. In 1897 the Supreme Court declared railroad agreements to be illegal—probably not, on the whole, a very good sphere to choose for the enforcement of competition. It had already, in 1894, upheld a government injunction restraining the Railway Union from striking, on the ground that such a strike constituted a conspiracy to obstruct the mails and restrain interstate commerce; and it went on in 1908 in the famous *Danbury Hatters* case, to make it clear that it held the Sherman Act to apply to *all* combinations acting in restraint of trade (therefore including unions on strike) and to boycotts affecting interstate commerce; this decision cost the Union concerned \$310,000 in damages, and the discouragement to union activities in general was not completely removed until 1932.

When Theodore Roosevelt took office in 1901 there commenced a more vigorous movement against the trusts, but not until 1911 did the Supreme Court finally move to shut the stable door—of course years after the horse had bolted. In that year the Attorney General brought suit against the Standard Oil Company of New Jersey, formed in 1899, as being a 'conspiracy in restraint of trade.' The Company had in fact 'all but a complete monopoly' of pipe-line transportation; it refined or controlled the refining of about 80% of American oil; it controlled no

fewer than 70 companies which it operated in the guise of independents. And if its market position 'raised a faint suspicion of monopoly', its profit record left even less room for doubt. Independents struggled along with a margin of 1 per cent per gallon between crude and refined oil prices, and made a profit; Standard Oil averaged 3 cents, and one of its subsidiaries in the Mountain States had the benefit of a 5 cent mark-up. The government reckoned the original investment in the Company at about \$70 million; on this the combine managed to pay \$326 million in 8 years, and this hardly represented a reckless dividend policy for its reserves grew simultaneously to \$261 million. It practised price discrimination all over the 48 States: in 1904, in Pittsburg, where there were genuine independents, oil cost 8.5 cents a gallon; but in New Jersey it cost 11 cents; while 'the citizens of Albuquerque, New Mexico, were forced to be the most generous. They paid 23 cents. . . .'

This Company the Supreme Court dissolved in 1911. The Company obediently split into its subsidiary parts, but competition between them was not resumed. With the development of the automobile came new markets, and fresh 'competitors' did appear, but competition has usually been of a gentlemanly and considerate character. Then the law did help loosen up the market but little more can be said.

With this judgement the Supreme Court re-asserted its right to dissolve holding companies and other close combinations; but by this and other decisions it also made it clear that the oppression of competitors, predatory pricing arrangements, and so forth were the causes of its hostility, and that those combinations, however large, which followed a 'live and let live' policy with their remaining competitors, were in no danger from the Sherman Act.

Twenty one years of trust-busting had not proved very fruitful. The combinations attacked were usually well established, and their genuine dissolution would have been both difficult and dangerous. Moreover, the law clearly had numerous defects; action by the Department of Justice

was slow and uncertain, unfair competitive practices—intimidation, tying-contracts, false statements—were free to flourish, it was not at all clear what was and what was not legal ('Our lawyers did not feel absolutely sure that they knew the answer').⁴ These and other considerations led to the promises of all parties at the 1912 election to promote supplementary legislation. (Roosevelt, incidentally, standing as Progressive candidate, proposed a Commission to licence and control the trusts). Wilson, the Democratic candidate, was elected, and in 1914 there appeared the Clayton Act and the Federal Trade Commission. Under the Clayton Act,

- 1) 'unfair methods of competition' (defined in the Act) were declared unlawful where their effect was substantially to lessen competition or to tend to create monopoly.
- 2) labour unions were specifically declared not to be per se combinations in restraint of trade.
- 3) interlocking directorates among 'competitors' and the acquisition by one company of stock in another were declared illegal.

The Federal Trade Commission was set up, consisting of five paid members, responsible to the President, and its task was to investigate breaches of the law and to enforce the substantive provisions of the Clayton Act. To aid it in its work the Commission had certain powers to subpoena witnesses and to demand the production of documents.

Thus reinforced, the government resumed the attack, and three most instructive legal cases were argued before the Supreme Court at the close of the war.

In 1918 the United Shoe Machinery Corporation, which first appeared in a slightly different guise in 1899, was responsible for putting out to shoe manufacturers about 95% of the shoe-making machinery used in the United States, leasing these machines by contracts containing tying clauses. The Supreme Court decided in 1918 that this consolidation did not contravene the law, chiefly on the ground that the consolidation had increased efficiency, and that the

constituent firms made non-competing groups of machines (which was not the case). In 1922, under the Clayton Act, the Supreme Court enjoined United Shoe from using tying clauses in its contracts, but ten years later investigators could not detect any change in the organisation of the industry.

In 1920 came the case of United States Steel, the greatest of all industrial holding companies. This 'industrial empire', containing about 180 firms, was responsible at the opening of its career for between 50% and 60% of United States steel production, but its share had fallen by 1920 to around 43%. The corporation had never engaged in price wars with its rivals, but had early assumed the 'price leadership' of the industry and had sought stable prices. The 'exhortation' (as United States steel described it) not to resort to 'unreasonable and destructive competition' was in some instances remarkably effective: the price of steel rails, for example, which from 1880 to 1891 had fluctuated from \$8.50 to \$16.50 was stable from May 1910 to April 1916; and again from October 1922 to October 1932. The Supreme Court found that the effort at combination was evidence of wrongful intent; but that the effort had failed. There was undoubtedly something in this. Prices quoted are not necessarily prices realised, and competitors did make contracts at lower prices. It is also the fact that the share in the industry secured by United States Steel declined—it was down to 30% to 35% by 1932—and much importance was attached to this by the Supreme Court. How far this decline was due to the assumption of price leadership cannot be determined, and the decline did not prevent the corporation from earning good profits. In any case, the Supreme Court emphasised that mere size was not an offence. United States Steel received a clean bill of health, and as a result there has been no price competition between steel producers for decades. When the whole question was raised again in 1939, Professor Yntema, of the University of Chicago, was hired by United States Steel to present its case to the government, and, in a monu-

mental three volume defence, argued with considerable effect that the demand for steel is inelastic and that overhead costs in steel production are not an important factor in unit costs. Whether these arguments are sufficient to justify long period price stability is another matter. The steel industry, in any case, did not alter. On February 20th, 1948, all American steel companies announced price increases of exactly \$5 a ton for semi-finished products. This looked so like collusion that the Joint Congressional Economic Committee, presided over by Senator Taft, hailed before it President H. G. Batcheller of Republic Steel, President A. B. Homer of Bethlehem Steel, and President Benjamin F. Fairless of United States Steel—three corporations producing respectively 8%, 15% and 40% of United States output. The newspaper report was as follows:

‘Taft asked Homer and Batcheller why all steel companies announced price increases the same day, Feb. 20th.’

‘It was entirely a coincidence’, Batcheller said. Homer said he ‘couldn’t explain.’ ’ ’

One hardly get the impression that American industrialists go in fear and trembling of the anti-trust laws.

Thirdly, in the International Harvester case of 1927 a company controlling 65% of the trade was exonerated chiefly on the ground that its practices were not unfair, and that it was at least as efficient as its rivals—may be more so. In this case, however, the Court expressly approved the practice of ‘price leadership’; if independents sold their products at or about the same prices as International Harvester this was done ‘independently and as a matter of business expediency . . . the fact that competitors may see proper, in the exercise of their own judgement, to follow the prices of another manufacturer, does not establish any suppression of competition or show any sinister domination’.

In spite of the hopes which it raised, the Clayton Act proved of little help in regulating and encouraging competition. The problem of what constitutes a substantial lessening of competition provided an easy means of limiting the scope of the Act. The provision forbidding price discrimination aimed at a competitor, and even the Act's successes—as when it was used to compel a seller of perfumes to cease representing his product as 'irresistible . . . will enable the user . . . to attract and win the love of any person desired' because as the Commission said, 'such are not the facts'—were often unimportant, if not trivial. Price discrimination became more discreet, some tying contracts were invalidated, injunctions were secured restraining false advertising; but interest in the Act soon lapsed, especially when it became clear that the outlawing of inter-company stock acquisition did not involve the outlawing of intercompany acquisition of assets, and that therefore the spirit of the law could very easily be set aside without any damage to the letter. (Legislation to stop this particular loophole in the law was still pending in mid-1948).

What, then, did anti-trust legislation in the United States achieve? Obviously, not the enforcement of price competition; rivals alter their prices in steel, in oil, in agricultural machinery, and in many other industries, by agreement; and the law has recognised this practice. Nor has it prevented in some cases the engrossing of the market; in 1939 the production of virgin aluminium was solely in the hands of the United States Aluminium Company, while two companies shared the production of 95% of America's plate glass.

The business world, nevertheless, altered profoundly between 1880 and 1940. The practices by which Rockefeller rose to power, which aroused the indignation of H. D. Lloyd, Lincoln Steffens, and many others, and which came in time to be execrated by a developing social conscience and described in the paler language of the law as

'unfair'—practices which were unscrupulous and obviously economically destructive—and about which the trouble originally began, these were already on the wane when Lloyd wrote 'Wealth against Commonwealth.' The Sherman Act came as a sop to the agrarian west, where equality of opportunity was still at that time a living ideal, and the struggle changed into one between the advocates of equality and the exponents of large scale production. In this struggle, big business was able to put up what appeared to be a convincing case on the ground that it stood for stable prosperity, and it was helped in its defence by the Supreme Court which, if capitalists are angels, was clearly on the side of the angels; and this the Supreme Court was, to some extent, bound to be, on the principle that a system, like a man, is in the eyes of the law innocent until proved guilty. The onus probandi rested on the Attorney General and the Federal Trade Commission, and their case on the grounds of general national prosperity was and is almost impossible to prove.

Moreover, it soon became abundantly clear that mere size does not exclude competition in some form or other. No doubt 'competition is something of which producers have only as much as they cannot eliminate,' but the fact remains that they cannot eliminate it altogether, and the expenditure of almost \$200 million on advertising in 1930 is there to prove it. These alterations in competitive behaviour have not, however, been much influenced by anti-trust legislation.

The law, in fact, has been directly a changer chiefly of forms, a challenge rather to the ingenuity of lawyers than to the rectitude of business men. When illegality threatened the trading association, the trust came in; when illegality threatened the trust, the holding company appeared; when the holding company was outlawed, the purchase of assets came into fashion; and through it all ran the development of the elusive 'communities of interest'. This was the reality at which the law could not strike. Just how significant these communities of

interest made' the fact, say, that in 1935 30 corporations each had an assessed valuation greater than that of 18 States, is hard to tell. The concentration of economic power—the significance of the '200 families' supposed to control American destinies—has been grossly exaggerated, and the whole system has hung together so well that attacks upon it easily appear as the work of those not 'interested in maintaining the American system.' It hung together; indeed, the interlocking of great corporations *was* the system, and what was probably its real vice—the concentration of profits—did not even appear as harmful until the 1930's.

But the anti-trust laws improved the system indirectly, in that they taught business that it cannot ignore the public interest. It was that old-fashioned, straightforward scoundrel Commodore Vanderbilt, who produced one of the two most damning sayings of 19th century American monopoly; 'What do I care about the law? Hain't I got the power?' and his son who produced the other, 'The public be damned.' (He added, incidentally, 'I am working for my stockholders;' at that time he himself held 87% of the stock.) Years passed, and in 1892 the even more powerful Mr. Morgan, protesting to Roosevelt about the invoking by the latter of the Sherman Act in connection with the Northern Securities Corporation said, 'If we have done anything wrong, send your man [the Attorney General] to my man, and they can fix it up". But in the 20th century the third partner to these arrangements—the customer, the common man, the man whom the west has always stood for in respect to industry—has more and more come into the picture. The Attorney General, the Federal Trade Commission, and in 1939 the Technical National Economic Committee have all investigated business and published their findings. Vast sums have been spent for this purpose—the work of the Technical National Economic Committee alone cost \$1.1 million between 1938 and 1941. The policy-making results of that investigation were, to put it mildly, meagre. The Committee 'avowed its faith in

free enterprise,'* and recommended the 'vigorous and vigilant enforcement of the anti-trust laws'* despite the evidence which it had itself accumulated regarding the ease with which they were evaded. For example, the following dialogue is most illuminating:

Mr. Levis: As far as our company is concerned I have never signed an agreement to restrict, and I am informed by our counsel that there are no agreements in existence.

Mr. Cox: Quite apart from signing such agreements, you have reached no oral understandings with anyone with respect to the same thing?

Mr. Levis: I can't answer that, Mr. Cox.

Mr. Cox: Why can't you answer that?

Mr. Levis: I don't consider that would be an agreement. I may have talked about it, but I have no agreement of any kind.

Mr. Cox: What I am really trying to find out is whether you gave anyone an oral promise or assurance that you would not produce more than 100,000 gross in any given year.

Mr. Levis: I don't recall it.

Mr. Cox: Would you say definitely that you never had done so?

Mr. Levis: No; I probably may have. I have given a lot of people assurances on matters of that kind in a 25 years business career.' ¹⁰

Nevertheless, the work of the Committee was invaluable in the publicity which it gave to business. It got the information. As one business man said, 'Everything that we have in our records has been sent down here. I was asked what to send and I looked at the subpoena and said, 'move the office down', so that everything that we had is here.' ¹¹ The result is that the public knows what businesses matter, who control them, what policies they pursue. Business men are public men, and as such are liable to be asked to justify their actions. Consequently, they cannot act and are not regarded as a set of men apart from and

above their fellows. 'Our industry,' 'our economy' are phrases constantly on American lips, and American industrial leaders for their part probably cultivate good public relations with greater assiduity than do any other business men in the world. Business in the United States, in more senses than one, is everybody's business, to its own great advantage, and the anti-trust laws must be given a share in the credit.

Chapter 7

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AGRICULTURE: IT'S PROGRESS DECLINE AND STABILISATION

IN American economic history the part played by agriculture is of exceptional importance. Up to about 1870 America was predominantly an agricultural country. Seventy years later agriculture gave employment to less than a fifth of the American people, but this decline, great as it was, left agriculture still a major industry, and its fate was the subject of anxious and peculiar attention. More often in America, probably, than anywhere else in the world, the question is posed, Is agriculture an industry like any other? To this question America, in common with many European countries but unlike Britain, has returned, on the whole, a decided negative. And it is because of this—because the history of American agriculture and of America herself cannot be understood without understanding also something of American ideas about agriculture—that this aspect of American life presents an outstanding case of the importance, to a purely economic development, of history—tradition—folk lore—all confused but all significant, and all essential to the formation of institutions, policies and practical results.

Colonial America, as Britain had desired, was predominantly an agricultural country. In its occupational structure it was not unlike England in the 16th century: a country, at its most active, of yeomen farmers and frontiersmen, with a fringe of trading interests, powerful but not extensive, on the coast. Disregarding the subtleties of the Revolution (for its motivation was extremely intricate—as it has been said, it 'was not merely a question of 'home rule'; it was also a question who should rule at home'),¹ the American War of Liberation may be pictured as the revolt of an agricultural estate against its planners; and the simplest proof of this is to go to Lexington, where the first

shots were exchanged after the call of British authority—'Disperse, ye rebels'—had been ignored, and see there the triangular village green, surrounded by tall American elms and white wooden houses in the 'colonial style', and grasp the rural quality of it all. This was the beginning—or at least one of the points of departure—of the American nation, and Americans have not forgotten it. Lexington remains to this day a place of pilgrimage.

The pre-eminence of an agricultural ideal, however, did not vanish with the attainment of nationhood. For the most spectacular effort of the new American nation for at least a century after 1776 was the effort to occupy the country. In this enterprise tens of thousands took part directly, and those who did not saw it as the American occupation par excellence—the activity which, more than any other, set America apart from other nations and gave her life a special tone which could be found nowhere else in the world. The farmer was not, of course, the spearhead of this advance. The man who opened new country—who made a clearing in the forest, who broke a path through to the nearest river or stream, who built a log cabin and lived largely by the use of his rifle—was the frontiersman, a highly-skilled individual. But close on his heels there came the farmer, either a migratory being who would stay a while and then move on, or one who aimed to settle permanently, to farm his land year after year, to die there. The log cabin (Abraham Lincoln was born in one) became a loghouse, the sod house on the prairie became a frame house, everywhere the wilderness became cultivated. This picturesque and (in the childish sense) romantic facet of American life caught a hold of the country's imagination in a rather special way. It was an English poet—and a late Victorian one at that—who wrote

'Long live the weeds and the wilderness yet.'

No American poet up to that time could have written such a line. To America the weeds and the wilderness were, until very recently, signs of a natural order too hostile, too large, to be enjoyed; the uncultivated country repre-

sented, always, not an escape from man's handiwork but a challenge; and the individual who met and overcame that challenge was the farmer, reducing the waste to orderliness, the deep forest to a homestead, or a ranch, visibly changing America from a place which 'some chose to be hang'd ere they would go thither; and were,' to the richest country in the world.

To enforce, as it were, respect for this rural origin, two of the greatest figures of early American history—Thomas Jefferson and Andrew Jackson—both spoke and acted in sympathy with rural and in opposition to urban ideals. Thomas Jefferson, twice President of the United States, diplomat, lawyer, landowner, an 18th century man in the best sense of that phrase and author of the Declaration of Independence wrote in his 'Notes on Virginia,'

'Those who labour in the earth are the chosen people of God, if ever He had a chosen people, whose breasts He has made His peculiar deposit for substantial and genuine virtue. It is the focus in which He keeps alive that sacred fire, which otherwise might escape from the face of the earth. Corruption of morals in the mass of cultivators is a phenomenon of which no age nor nation has furnished an example.'

Andrew Jackson, also elected President in two successive campaigns, stood for the frontier rather than for a specifically agricultural tradition, but the two are not always clearly distinguished, and Jackson's anti-city anti-commerce leanings were, beyond doubt, exemplified in his action in destroying the Second United States Bank in 1836. Thus two American heroes, one cultured and sophisticated, the other a 'man of the people', shared this common bias, and set a powerful example for national ideals.

These origins and ideals were of little consequence in practical affairs before 1921, and in connection with events prior to the Civil War are scarcely worth mentioning. How and why was this so?

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The explanation is simple; ideas and ideals utilisable for the bolstering of agriculture's position in the economy lay dormant for decades because for decades agriculture was well able to look after itself. Up to the Civil War agriculture continued the dominant national occupation in terms of employment (and therefore of votes . . .); indeed it continued to be the occupation of over half of America's gainfully employed population, and this was still true in 1870, although then by a small margin over manufacturing and miscellaneous occupations combined. Through the 19th century, too, especially the earlier part of it, farming continued to be cushioned from the hard truth of a law of diminishing returns by the seemingly endless supply of cheap land—the 'virgin soil almost without value' of Méline's lament of 1891; and the Homestead Act, badly as it worked, kept alive at least the possibility of equality of opportunity for small farmers in the west.

Demand, both national and international, technological ingenuity, railroads, immigration—all these combined to make possible the process of continuous expansion. In the north, movement paused about 1860 when settlers reached the edge of the true prairie, land treeless and often waterless, thought at first to be infertile, and in any case useless because of the absence of wood and water, and because its soil was too hard to be broken by the plough. But once the true fertility of prairie soil was recognised, innovation overcame all difficulties. The railroads brought in what wood was necessary, and the fencing problem was solved by the invention of barbed wire, patented in Illinois in 1874; within 10 years its price fell by 75%. The water problem was solved by the introduction of windmills, which, oddly enough, were very rarely seen in the Great Plains prior to the 70's; and then, at first, were for supplying water to railway locomotives. Thirdly, the steel plough, first made commercially in 1833 but improved in 1869, became available to subdue the hardest soil. Thus equipped, cultivation spread westwards. The man-power shortage caused by the Civil War was a further challenge,

but one likewise met by improved manufactured devices. The Civil War, was, in fact, the decisive factor in mechanisation. Semi-mechanical reapers had been available in the 50's, and the Marsh harvester was on the market after 1864, although not perfected for another decade; but the truly revolutionary development was the combining of a Marsh type harvester with a twine-binding arrangement, on the market before 1880. 'The invention of the twine binder . . . by increasing the amount which a farmer could harvest, increased by that precise amount the quantity which he could profitably grow. In other words, it was the twine binder more than any other single machine or implement that enabled the country to increase its production of grain, especially wheat, during this period.'

Within a few years all other types of reapers were obsolete. By 1880 about 80% of all American wheat was cut by machine, and by the end of the century American farmers were also using mechanical planters and cultivators.

This phase, from the Civil War to about the end of the century, is dominated in agricultural literature by the quarrel between old friends—between farmers and railroads. In 1890 a correspondent to a farmers' paper wrote, 'There are three great crops raised in Nebraska. One is a crop of corn, one a crop of freight rates, and one a crop of interest. One is produced by the farmers who by sweat and toil farm the land. The other two are produced by men who sit in their offices and behind their bank counters and farm the farmers.'

These grievances were real. The farmers faced two problems. Firstly, the railroads, whether to meet obligations on watered capital or not, discriminated in freight charges, recouped themselves for losses due to intense competition in one district by extortion in another, charged what the traffic would bear, and so on; in addition, grain elevators and other storage facilities were often engrossed by the railroads, and farmers were obliged here also to pay the monopolists price. Secondly, agricultural expansion during

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the Civil War had been in a time of high prices, and in the post-war period prices fell while farm yields, due to continuous cropping, tended to decline. The farmers tried to meet these difficulties one by one. To combat the railroads, they turned to the organisation known as the Patrons of Husbandry, or the Grange, founded in Washington D.C. in 1867 as a sort of social, ritualistic farmers' club, and converted it into an instrument of political co-operation and pressure. By 1874 the Order had about $1\frac{1}{2}$ million members, who helped elect State and Federal politicians committed to policies of controlling the railroads; and soon in the big farming States—Illinois, Iowa, Missouri, California, and many others—railroad rates were regulated by legislation and constitutional amendment, monopolistic devices prohibited, and commissions for enforcement of the law established. The railroads fought back and the controls worked badly, but the evils diminished. In 1876 the Supreme Court upheld such legislation, and then reversed itself ten years later; but in 1887 farm pressure secured the Interstate Commerce Act, and although this Act also worked badly until made truly effective by the Hepburn Act of 1906, it became clear that the railroads had to reckon with public opinion and the Federal government as well as the farmers and their Grange. The Granger movement waned in the 80's, but it had done its work; a cardinal principle in United States internal economic policy—that the Federal government might act against interstate monopolies—was established, and the farmers had discovered their potential political strength.

The currency agitation came to a head in the so-called 'Greenback movement' about 1878. The question at issue was, what to do regarding the \$433 million of paper money issued during the war to finance the northern war effort? The farmers, as debtors, were hostile to retirement of this paper, i.e., to deflation; and in 1878 fifteen Greenback candidates went to Congress. The struggle, the major element in the financial history of the period, was a drawn one; the contraction of the Greenback issue was finally halted

in 1878, but the farmers could not secure action to offset the decline in prices experienced at this time all over the western world. Mortgages pressed heavily, and farm politicians seemed unable to help. Their achievement was rather the political one of organising agrarian discontent and forming the well-known American anti-capitalist combination (never very smooth-working) of farmer and work-ing-man, than of preventing deflation. But the benefit of these activities was not clear until after 1900.

In these years, seemingly so troubled, the farmers showed that although they had real grievances they were neither poor nor uninfluential; and after the worst period of the 70's, American agriculture entered upon its (so to speak) Victorian period; from 1895 to 1915 it was on the whole stable, prosperous and old-fashioned.

Although New Mexico and Arizona did not reach statehood until 1912, the opening up of new land was ceasing after about 1885 to be an important matter, and with this stabilisation of agricultural frontiers a pronounced regional pattern became established. Rice was introduced in the 80's into the coastal lands of South East Texas and South West Louisiana; the cotton and tobacco regions expanded; the first fruit shipment eastwards from California was made in 1867, and by the 90's California's concentration on vegetables and citrus fruit had clearly begun; while wheat growing moved into all parts of the semi-arid regions west of the 98th meridian, with, in some areas, disastrous results. New England, along with Iowa, Minnesota and Wisconsin developed somewhat like Britain and became the great dairying centres for the urban east.

Mechanization, after its giant strides of the 70's and early 80's, made progress that was steady but not spectacular until about 1910, when the petrol engine began to effect fresh, great, changes. As late as 1905 self-propelled steam-power combines were being built in California, and the usefulness of the petrol engine for large-scale farming

had first to be proven in Argentina. It did not, however, make a great deal of headway before the war; although petrol driven tractors were in use in the United States from about 1905, none of them had rubber tyres, and, prior to 1911, none weighed under 2½ tons. Their development, like that of the harvester, was a response to the stimulus of war and of post-war changes.

This whole agricultural industry was in this period largely dependent for its growth and prosperity upon international trade. It is, indeed, one of the paradoxes of American history that it was the homesteader, the rancher, the Greenbacker, the clay-eater—the agricultural conservative by nature and tradition—who gave America her stake in international trade and by his exports paid for the imports which made possible America's rapid industrialisation. This situation was not only paradoxical, it was also novel. Prior to 1850, a great many American farmers, especially in the West, had been concerned chiefly in growing food for themselves or for exchange at the village store; yet in the next half century they entered the largest of all capitalist markets—the world food market. Even during the Civil War the North had increased its interest in overseas trade, raising its wheat exports from 39 million bushels 1856-60 to 138 million bushels 1861-65. After the war expansion continued, and in 1901 this export reached its peak of 239 million bushels, or 31.4% of the crop. Corn exports passed their maximum in 1897. Meat exports, insignificant in 1860, were worth almost \$180 million in 1900. The international consequences were tremendous. Huge supplies of cheap food became available for the first time in history, and western Europe responded with urbanisation, population movements, rising living standards. At the same time and by the same means, America was enabled to service the loans which speeded her own industrialisation. To put it crudely, food paid for railroads, and railroads facilitated the delivery of yet more food. But the blessing was found a mixed one; tariff barriers soon appeared to protect Europe's own farmers; and before the

end of the century the American farmer was faced also with competition in what European markets remained from Argentine, Canada, Russia, Australia. American agricultural exports fell even more swiftly than they had risen: wheat shipments averaged only about 80 million bushels 1910-1912; corn exports in 1913 were less than 11 million bushels; butter and cheese fell from 79 million lbs. in 1898 to 6 million in 1914, and bacon exports were cut to a third. And yet, despite this sensational contraction, such was the expanding potential of the huge American economy that the farmer suffered little or nothing, the domestic market growing fast enough to take all his output, and the prices for dairy and market garden products even moved upwards! In the South, cotton exports continued to expand (Britain by now taking only about one third of the crop) and tobacco exports increased by 50% 1899-1913. For a decade or so American agriculture knew the bliss of equilibrium.

Upon this fortunately adapted industry there next fell the almost unmitigated calamity of war. The causes of the Great War were doubtless not predominantly economic, and certainly the economic harmony which, on what came to be the Allied side, preceded the outbreak of war, does not seem to have been achieved by forcing difficulties on other people. But in any event, that harmony and the promise of further smooth progress were alike destroyed by the war, and in few places more completely than in the agricultural sector of the American economy.

The first effect of the war was to strengthen the demand for American food, chiefly on account of the failure of Russian supplies due to the closing of the Black Sea and the Baltic. From 1909 to 1913 the United States wheat acreage had averaged about 47 million acres; by 1919 it was 74 million acres. The size of the crop did not increase correspondingly—only by about 38%—but wheat prices rose from 65 cents a bushel to \$2 a bushel and over *and were guaranteed*. The case was the same with the out-

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put of pork and lard. Exports of these to the United Kingdom rose from about 450 million lbs. 1909-14 to over one thousand million lbs. in 1918, while prices rose from \$8 a cwt. to a maximum of \$19 a cwt. in the summer of 1919. In short, no major United States crop contracted in output while most increased; and prices rocketed. With a base of 1910-1914=100, agricultural prices rose to 195 in 1918, and to 230 by 1920; then fell sharply to 145 for 1921. The price rise in agriculture, however, kept ahead of the rise in all commodity prices up to the end of 1919, and thus in spite of heavily increased costs, prices acted as a powerful force encouraging more farm output.

This increase in production, however, could not be achieved by drawing men into agriculture; on the contrary, over 1 million men left farms for service with the American forces. The increase was achieved by capital, not labour—i.e., by renewed mechanisation of the farm. Expenditure on farm implements more than trebled between 1914 and 1920, and the gasoline tractor came to stay; of these about 1,000 had been at work in 1910, but the figure was 25,000 by 1915 and about 246,000 by 1920. But—and this was the catch—rapid adjustments in wartime cost a great deal of money; by 1921 interest on farm mortgages had risen to \$1,497 million from \$624 million in 1913. And then, when these heavy commitments had been made, agricultural prices fell; not only fell but collapsed; and not only collapsed but collapsed first. The American farmer, in short, suddenly found himself in the classic post-war agricultural position—out on a limb. The results were poverty, foreclosure (the victims of which were often recently returned soldiers) and appeals to Congress which met with no real response.

Thus American agriculture, thanks to the European struggle, entered the 20's 'in a bad state', with that mythical entity the average farmer almost 25% worse off than his town kinsmen as compared with their relative positions in 1910.

Throughout the 1920's agriculture continued depressed. Output swollen relatively to demand kept prices continuously low relative to other commodity prices, and only in 1929 did the 'farm dollar' come to be worth 90% of other dollars as compared to 100% in 1909-14. Farm population declined slightly—from 31.6 million in 1920 to 30.2 million in 1930—while total population rose. The decline in land values which took place was spectacular, reminiscent of that in Britain in the last quarter of the 19th century—from \$79 milliard in 1920 to \$58 milliard in 1930. Even this precarious position was maintained only by the huge volume of United States' foreign lending. From 1919 to 1929 inclusive new foreign issues floated in the United States were worth \$8.17 milliard while the net outward movement of long-term capital totalled over \$6 milliard; only this enabled foreigners to continue to buy United States farm produce, using dollars which they could borrow but could not earn.

Yet despite—or perhaps because of—the difficulties, mechanisation continued. The gasolene tractor went on from its early successes to prove itself one of the most important agricultural inventions ever made. In 1917 Ford was buildingg tractors on an assembly line; in 1924 the all purpose tractor appeared, thoroughly manoeuvrable and with an adjustable track, handy for cultivation; and in 1932 rubber tyres came in, providing better performance, with greater economy and fewer breakdowns. The number of tractors in use rose with 19th century-like rapidity: in 1925, 549,000; in 1935, 1,048,000; in 1940, 1.8 million. The use of combine harvesters, reducing the need for seasonal harvest labour, likewise increased; in 1920 less than 5% of the wheat crop was harvested by combines, in 1938 almost 50%, and the percentage has risen further since then.

The problems of harvesting mechanically the crops of cotton, tobacco, and sugar-beet and sugar-cane are not yet finally solved. The problem in these cases is not so much to build a machine as to build one cheaply enough. In the case

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of cotton, which is especially important, a solution may at last have been found. After the issue of some 800 abortive patents between 1850 and 1940, International Harvester began, in 1948, the mass production of a cotton picking machine in a plant in Tennessee. If truly successful, the results will be epoch-making, for cotton-picking employs about 4 million people for about 40 days per year, and it is estimated that over one million farm-workers would be displaced should mechanized picking become widespread in the South.

The agriculture which these devices served or might serve changed considerably in the first four decades of the 20th century. As tractors came in, hay (for obvious reasons) went out. Nor was this all: 'The increasing replacement of farm work animals by automobiles and tractors has resulted in a rapid retardation in the production of horses and mules, has tended to retard the lumber industry, and has released millions of acres of crop land—which means that the increasing mechanisation of agriculture has contributed to the retarded growth of certain of its branches, especially the production of oats and hay.' * Comparing the later years of the 30's with the last years of the 19th century, the other most significant changes are the rise in milk and milk products to a position of complete dominance (over 22% of output value) and the relative falling away of hogs (13%), cattle (11%) and wheat (7%)—a fall, in short, in those products once largely exported. Of exports, only tobacco—of which America holds a near monopoly in the British market—grew in these years. The most rapid growth was registered by the citrus fruit of Florida and California; this item grew in percentage importance almost ten fold, but even so was not worth a tenth of the sales of milk and milk products in 1935-39.

And yet, despite this proven adaptability, agriculture's importance and prosperity continued to decline. The percentage of Americans gainfully employed in agriculture fell from just under 50% in 1880 to 37.5% at the turn of

the century, to 27% by the end of the war, to 17.6% by 1940. Output admittedly rose; it rose by almost 50% between the end of the century and the mid 30's, but even this gain was not sufficient to keep up with the population increase. And the character of agriculture was also changing. Tenant farming increased from 25% in 1880 to 42% in 1935, the cotton tenants in the South—Arkansas, Alabama and Missouri—being amongst the most poverty stricken of all American citizens, their principal asset their mules. Farm labour became commoner—almost 3 million people worked for wages on farms in 1930—and the spread of large scale farming gave more and more farm labourers work conditions like those of the factory system at its worst—routine labour for an anonymous employer represented by a foreman, for poor wages and for limited periods. Whichever way it was looked at, American agriculture was definitely falling behind, was definitely becoming a huge adjustment problem, and, in certain sectors such as the wheat growing middle west, conspicuously a problem of low prices and swollen output. It was when the American people were faced with this problem that the American tradition became important.

To begin with, even in the slump of 1920-21, nothing was done by the Federal government, and adjustment by 'natural forces' went forward. There was much talk, and it is interesting to find this sentiment expressed by President Harding in 1921:

'It is unthinkable that with our vast areas . . . and the great ability and resourcefulness of our farmers we should accept the status of a distinctly industrial nation. Our destiny seems to require that we should be a well-rounded Nation with a high development of both industry and agriculture.'

This was only a sentiment and nothing came of it—in the 20's. There was continual but unsuccessful pressure to get government help—the McNary-Haughen bills, for price-fixing at home and surplus-dumping abroad were

passed by Congress but vetoed by Coolidge in 1927 and 1928.

Then in 1929 came the second agricultural price collapse in a decade—the first instalment of the terrible depression of the 30's. The Federal Farm Board, set up in 1929 to encourage co-operative marketing and to work for price stabilisation, sank \$500 million in an attempt to finance crop storage—and was beaten. Prices still fell; by 1932 farm income was less than 50% of 1929, and the return to the average farmer for his labours was estimated at about \$5 a week.

America's answer to this was the Agricultural Adjustment Act of 1933. This Act was a part of President Roosevelt's recovery programme, and was based on the experience of the Federal Farm Board with regard to the hopelessness of price control without production control (a discovery being simultaneously made by the Ministry of Agriculture in Great Britain). The basic idea was to raise prices by eliminating surpluses by reducing acreage; and the inducement to reduce acreage was a system of benefit payments financed by processing taxes on the commodities concerned. This scheme removed 10 million acres from cotton cultivation in 1933, and in 1934 performed a similar service for a host of other products. In 1933 also, 6 million pigs were slaughtered and made a notable contribution to the country's supply of fertiliser, while the weather reduced the wheat crop ten times more effectively than did the Agricultural Adjustment Act—a natural disaster as a result of which Henry Wallace, then Secretary of Agriculture, 'breathed a sigh of relief; it would not be necessary to write about the logic of ploughing up wheat while millions lacked bread'. The question of what price to try to realise was answered by taking as base-period 1909-14, years which were seen by some as normal and by others as golden, and years which it accidentally happened the Department of Agriculture had used as a base for its indexes of prices of farm products because monthly price data were not available before 1908. Taking this as its base-

period the Act undertook to 're-establish prices to farmers at a level that will give purchasing power . . . equivalent to the purchasing power of agricultural commodities in the base-period.' Thus was to be restored the lost 'parity' between agriculture and industry.

This attempt 'to bring about economic justice—to right a social wrong' was simply a scheme to restore prosperity by paying the same number of people more (i.e., a 'fair price') for less. It appeared to work fairly successfully—the economic position of farmers improved—although there were loud protests about the destruction of crops and animals to raise food and raw material prices at a time when tens of thousands of Americans were cold and hungry. And obviously, the scheme encouraged agricultural prosperity but not efficiency; the consumer paid for being the citizen of a 'well-rounded Nation'—and occupational adjustment by farmers was avoided.

This scheme was declared unconstitutional by the Supreme Court in January 1936, but already the drought of 1934 followed by the dust storms in the Southern Plains had proved more effective in changing the agricultural position than any act of government. The Soil Erosion Act of 1935 which resulted made the first attack on erosion, and it was followed in 1936 by the not very effective Soil Conservation and Domestic Allotment Act, which set aside \$500 million for the conservation and protection of the soil. At last the Federal government was moving to preserve the long-wasted natural resources of the country.

These Acts, vaguely restrictive in their operation, were merely interim measures until the bounty of nature again became an embarrassment. In 1938 came the comprehensive Agricultural Adjustment Act, much more a farmers' act than the preceding measure. The basic idea—to maintain farmers' incomes—remained the same—the method, again, was by the setting up of parity prices and the establishment of marketing quotas reached by two-thirds agreement among producers, along with—a new idea, this—the maintenance of an 'ever normal granary'.

The¹ chief change, however, was that income parity replaced price parity—the Act sought the ‘re-establishment at as rapid a rate as the Secretary of Agriculture determines to be practicable and in the general public interest, of the ratio between the purchasing power of the net income per person on farms and the income per person not on farms that prevailed during the five years period August, 1909–July, 1914 inclusive.’ This change merely made it clearer than ever that anyone caring to be an American farmer would be guaranteed a certain share of the national income. But as benefits are received proportionately to income, the wealthy (and perhaps therefore the efficient) farmers get most, although their lever on public opinion is the plight of their smaller, poorer brethren.

Thus American agriculture became the most planned and planning sector of the economy; production, prices, soil use—the government has a say in them all. The ‘principle remaining field of independent enterprise’ is (or would be in ‘normal’ times—are they ever ‘normal’?) a pensioner of the rest of the economy, and the consumer accepts this situation not on its economic but on its ideological merits.

This idea of ‘parity’ is so peculiarly American that it is worth examination. It involves two ideas—balance (a ‘healthy’ agriculture) and welfare (the condition of individual farmers). The parity prices concept is directly analagous to the terms of trade concept in international trade. It assumes (for balance) that there exists one price relationship which confers ‘balance’ and implies that any deviation from this is a sign of unbalance and that something ought to be done about it. The difficulty, of course, is to decide what is the ideal relationship, and the 1909-14 base is merely a statistical accident, though it happens to be unusually favourable and its acceptance is therefore probably not an accident.

As to welfare, its nature can no more be determined by Congressional deliberation than by statistical measure-

ment. When men are well enough off is seldom known to themselves ('when they pray for their daily bread, the Bishop includes several things in that Petition which the Sexton does not think on'),⁸ and in agricultural life the so-called non-economic items are especially important. A distinguished American economist has suggested that perhaps 'economic goods as a class are predominantly 'necessary' rather than truly valuable. The importance of economic provision is chiefly that of a pre-requisite to the enjoyment of the free goods of the 'world. . . .'⁹ On the other hand, economic welfare may be the largest part of total welfare, in which case both would change together, except where important non-economic satisfactions require to be foregone in order to secure some economic ones.

But these hesitations are irrelevant. If parity is politically acceptable, it can be used; and to the farm bloc the whole scheme has appeared as a counterpoise to tariffs and to monopoly practices in general. Whether, without these government efforts, production would have been much different or farm population much less, it is hard to say; it is only certain that prices in the 30's would have been lower. In any event, prices have not been so high as to arrest the percentage decline of the population engaged in farm work, and of course the scheme has been practically inoperative since 1939. What is significant is that in these measures America—land of change and of opportunity—made a big effort, for the first time on such a scale, to resist change.

Chapter 8

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BANKING INVESTMENT AND SPECULATION

FROM 1836, when the Second Bank of the United States was allowed to expire, to 1863, the Federal government exercised no direct control over American banking activities. This was the period of State or State-chartered banks, and it corresponds in some respects to the phase of English banking history in the first few decades of the 19th century. Of these State-chartered banks, America possessed about 1600 in 1862. The notes which they put out provided a thoroughly untrustworthy paper currency, and it was chiefly to remedy this that the National Bank Act of 1863 was passed. This Act, which in several important particulars was based on the British Bank Act of 1844, was a product of 'Currency School' thought, seeking to place restrictions on the individual banker's freedom of action. Thus it required that all banks should have at least five stockholders, a prescribed capital stock (depending on the size of the city in which the bank was located; the minimum was \$50,000), and that they deposit with the Federal government Federal bonds either equal to one third of the bank's capital or a minimum of \$30,000, in return for which the banks were to receive 90% of the current market value of the bonds so deposited in the shape of national bank notes. The banks showing no enthusiasm to toe the line, the note issues of State banks were driven out, at least for a while, by a 10% tax in 1865.

This scheme was connected with the war; it was intended by means of it not only to improve the note issues but also to encourage national solidarity and to facilitate the promotion of the sale of Federal bonds (out of the selling of which, acting as official intermediary between the Treasury and the public, Jay Cooke—'the first modern American'—made a vast fortune on a commission of $\frac{1}{2}\%$).

But war finance, as usual, left an evil legacy. The United States since 1791 had been on a badly working bi-metallic system; but in 1861 specie payment was suspended (as it turned out, till 1879) and Government irredeemable paper money—greenbacks—came forth to finance the war. (S.P. Chase, then Secretary of the Treasury, is reported as saying, 'The war must go on until the rebellion is put down, if we have to put out paper till it takes \$1,000 to buy a breakfast:' not the language of the younger Pitt, this was the same sort of policy as the British statesman had pursued at the start of the Napoleonic war). In 1862 and 1863 the Treasury put into circulation \$431 million of greenbacks of which about \$400 million remained in circulation after the restoration of peace. This money sank steeply from par to touch 39 momentarily in the late summer of 1864, and the general price level soared from an index of 100 in 1863 to about 215 in 1865.

As soon as the war was over the struggle for deflation and for the resumption of specie payments began. Economic experience and reflection had accumulated since Britain had argued this issue between 1809 and 1821, and the pains of deflation were this time clearly foreseen. Even so, Congress in 1866 rather rashly made provision for retiring ten million dollars of greenbacks in six months, and for retirement thereafter at a maximum rate of \$4 million per month. At this rate, the whole issue could have been retired in about $8\frac{1}{2}$ years. But after \$44 million's worth had been retired and the price level had fallen to about 170 (not, of course, a matter purely of cause and effect), Congress lost its nerve and, urged on by the farm bloc who were the chief sufferers from falling prices, ended the process. In 1873, short of revenue in bad times, Congress actually went into reverse and raised the issue to \$382 million. After further struggles, the greenback issue was finally stabilised in 1878 at just under \$350 million.

Mearwhile, interest shifted to the question of the resumption of specie payments. The crash of 1873, the

worst since 1837, due largely to over-investment in railroads scarcely one of which paid a decent return (and especially to Jay Cooke's manipulations of the stock of the Northern Pacific), ushered in the seven lean years. Times were bad and resumption less popular than ever. Nevertheless, in 1875 Congress voted to resume—in 1879.

The anti-deflationists (they cannot be described as inflationists, for the price level fell from 215 to 96 between 1865 and 1879, and this in an expanding economy) now turned to an attempt to remonetise silver, which had ceased to be coined, in accordance with a law of 1873 (the celebrated 'Crime of '73'), but which in fact had in any case not been coined for many years because the 16:1 ratio which had prevailed had overvalued gold. The value of silver in terms of gold was at this time unusually unstable. In 1873 the silver dollar was worth \$1.02 in gold; but, due in part to the abandonment of a silver or mixed standard by several European countries at about this time, the value of silver in terms of gold sank in the '70's and was down to 90 cents by 1876. This altered the whole question; and the renewed agricultural pressure which resulted was at last successful; a Bill of 1878 permitted a limited remonetisation of silver, and in the next twelve years 378 million silver dollars were coined. In spite of this, prices, both of farm produce and of silver, still fell, and dissatisfaction continued. In 1890 the Republican Party responded by passing the Sherman Silver Purchase Act which committed the United States Treasury to purchasing approximately the entire output of the United States mines—an output which came to about \$156 million in the next three years. But by 1893—chiefly as a result of the Baring crisis in Britain and the development of an adverse foreign trade balance—the Treasury's gold reserve had sunk dangerously low, and gold began to be hoarded; there ensued a considerable loss of confidence, a sharp credit contraction, and the government narrowly avoided being forced off the gold standard and onto a path of further inflation. It was able to get out of its difficulties only by repeal of the Silver

Purchase Act, and even so there was considerable loss to the commercial community. In 1896 the 'inflationists' made one more effort, their last, when W. J. Bryan fought his famous campaign for the Presidency on a policy of the free and unlimited coinage of silver at a ratio of 16 to 1; and lost. This was the end of the consideration of controversial monetary schemes. In 1900, the United States at last went on to a monometallic gold standard—an action luckily coinciding with new gold discoveries and with the further development of extractive processes and the use of credit, so that both the annual coinage of gold and the per capita supply of bank notes and other forms of money increased, and the general price level rose 50% between 1896 and 1914.

This question settled, the United States had still to devise a satisfactory banking system. Banking operations in the second half of the 19th century, while not wildly irresponsible or remarkably unskilful, were punctuated by periodic orgies of bank failures, and in 1907 there came the 'bankers' panic'—a small foretaste of 1929. New York banks had lent money which was either borrowed from abroad or formed part of the reserves of inland banks to investment trusts, who used it for speculation on the Stock Exchange; several of these companies overreached themselves, and the consequence was a widespread closing of bank doors. This crisis led, firstly to stop-gap legislation liberalising the conditions under which the banks might issue notes, and, secondly, to the Federal Reserve Act of 1913. This act, which was the outcome of three years' work by a Monetary Commission of Congress and was, therefore, unlike many important American measures, the embodiment of much careful thought and consideration, is of great importance in American economic history both for what it did and for what it failed to do. The aim of the Act was to secure greater control over American banking practices. This was needful even by old standards, for state banking had survived the National Bank Act of 1863, and the number of State banks had actually increased rapidly

in the 1880's and 1890's. This revival was due to the greater freedom (not always unwise) granted to State but refused to National Banks; for example, State banks usually had lower reserve requirements, and had greater freedom in lending—especially on the security of real estate, a matter of importance in country districts. No longer concerned in the issue of notes, the State banks thus rose in numbers and in importance as other banking activities came to the fore.

The Federal Reserve Act contained four important provisions. Firstly, it set up a Federal Reserve Bank in each of 12 districts arranged to cover the entire country—i.e. a series of bankers' banks. This was a half-way house on the road to the European practice of concentrating power in the hands of a single central bank. Secondly, all National banks were obliged to buy a share in the Federal Reserve Bank of their district with one sixth of their capital stock and surplus. In addition, State banks were encouraged to comply with certain Federal requirements and become members of the Federal Reserve System. Thirdly, a Federal Reserve Board was created, consisting of seven members, with the duty of controlling national bank policy from Washington. Lastly, the amount of legal reserves required was reduced; it was laid down that these reserves had to be kept in the district Federal Reserve Bank, and greater elasticity in the note issue was secured by permitting the Federal Reserve Banks to issue a special category of notes ('asset currency') against certain classes of short-term paper, gold or gold certificates.

This legislation conferred one real and one paper advantage. The real advantage was that it compelled member banks to maintain a minimum reserve with the Federal Reserve Banks, and the Federal Reserve Banks to maintain a minimum reserve of 35% of notes against deposits. This took a large slice of the nation's banking reserve out of the control of banks operated solely for profit. Unfortunately, few State Banks chose to become members of the Reserve System, and some National Banks even went over to State charters; thus by 1922 one third

of the nation's banking resources and two thirds of its banks were out with the Reserve System. The paper advantage was that the Act appeared to enable independent experts to control credit by changes in the Federal Reserve Banks' discount rates and by open market operations. On the face of it, this seemed likely to remove local credit policies from the action of local pressure; decisions would be taken on the basis of national, not sectional interest. In the event, however, this was largely counteracted by manipulation of reserves, and by the fact that in the '20's the banks were able to free themselves to some extent of the need of borrowing from Federal Reserve Banks by expanding credit on the basis of the large gold inflow into the United States in these years. Even apart from this, control, when exercised, was not always for the best, and this was especially unfortunate as the increased elasticity which the system provided made the consequences of un wisdom in high places worse than would otherwise have been the case.

To understand the banking reforms required in the 1930's however, it is necessary to examine not only banking practice but also the development of national finance and of investment habits in business and among the public.

The history of national finance in the United States is both remarkable and revealing. Prior to 1861 almost the entire Federal revenue was obtained from customs duties—a situation almost medieval in character. In 1863 an income tax was imposed but this did not last beyond 1872. There then set in a period which to-day seems almost mythical in the annals of public finance—a period when the problem was not how to find enough revenue but how to avoid embarrassing surpluses—embarrassing because they had to be used to pay off public debt, an activity which forced a contraction in the volume of circulating currency. Federal debt was reduced from \$2,324 million in 1866 to \$587 million in 1893. Expenditure on armaments was, of course, small by contemporary British standards. Reduction of revenue became a major problem, and in the 1888 election the Democrats proposal to solve it by lowering

tariffs and the Republicans by raising them; the latter won, and the result was the McKinley tariff of 1890 (described by the *London Times* as 'an act of unfriendliness . . . hardly less decided than the Berlin and Milan decrees of Napoleon'). After about 1893, however, surpluses became rarer, and this, combined with a growing equalitarian movement, led to the income tax measure of 1909—made law by an amendment to the Constitution in 1913—which imposed a tax of 1% on all incomes up to \$20,000. This yielded \$71 million in 1914 and \$3,945 million in 1920—a figure not exceeded until 1942.

War finance also involved large scale government borrowing, and the Liberty Loans began in 1917. These loans were more important for their long-term than for their immediate results, great as these were. They brought into the U.S. Treasury over \$22 milliard; but what was of more lasting importance, they were sold through member banks of the Reserve System by methods of salesmanship not unlike the high-pressure method used by Jay Cooke in the Civil War, and were purchased by over twenty five million people. It is this flotation which is thought to have introduced to the American public on a grand scale the investment habit.

In the early days of American business, financing was by means of loans from local bankers or merchants, the re-investment of earnings, and so forth. But the division of labour came in time to produce the investment bankers—middlemen, and usually rather conservative middlemen, dealing as a rule in bonds. Their emergence in America may be dated from about 1873, the year in which the 'House of Morgan' began its career. There is, of course, nothing dangerous in investment banking per se; it can, however, be so conducted as to be a means to power which may or may not be abused; and it can readily lead to a concentration of power which is in itself probably undesirable. The method of achieving power is usually to make the price of financial aid not only a money fee but also a share in the control of the concern so aided; in 1933

he twenty partners of J. P. Morgan and the four additional partners who were in Drexel and Company held in all 126 directorships in 89 corporations with total assets of over \$20 milliard. This was not necessarily an evil, although the existence within the system of undesirable practices was proven in the hearings before the Senate Committee on Banking and Currency 1933-4; for example, it was proved that in 1929 Morgan's offered certain individuals (business men, senators, public figures—including e.g. ex-President Coolidge and Colonel Lindberg) stock which the company had bought at \$20 a share at \$20 a share—when everybody knew that it was selling on the market at \$35 to \$37. Stock so offered varied in different cases from 1,000 to 10,000 shares. There was no suggestion of bribery; these were merely 'favours', 'courtesies',¹ accompanied by no more than the exchange of 'nice polite letters'²—and, presumably, less than the ideal distribution of resources which capitalism and a free market are supposed to achieve. These revelations caused anger and dismay among the public; but such practices by the most respectable firm on Wall Street were of far less importance than the type and volume of share promotion carried on by far less scrupulous men.

Share promotion in the late 20's was realised to be a possible source of profit and so became a business like any other. Coming in on the rising tide of easy credit after early 1927, numerous investment agencies found it possible to sell almost any stock for a period of about 30 months. Foreign loans especially were floated which responsible men would not have sold and intelligent men would not have bought. In 1927, for example, the National City Company of New York received the following expert advice regarding Peru:—'I have no great faith in any material betterment of Peru's economic condition in the near future. The country's political situation is equally uncertain.'³ (A few years previously the London *'Times'* had described the Peruvian Treasury as 'flat on its back and gasping for breath.'). This knowledge, however, did

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not prevent the National City Company from floating a loan for Peru in 1927 for \$15 million following it up by another for \$50 million, and in 1928 by another for \$25 million. This netted the Company a profit of \$680,000; by 1933 these bonds stood at below 10. This was by no means an isolated example, and what a British Select Committee wrote about British investors in the 1870's might with equal justice be applied to American investors of the 1920's; 'the credulity and cupidity of certain classes of the community have blinded them to the danger of embarking on speculation. . . . They appear to have measured the value of the promises held out to them not by any rule of experience but their own sanguine expectations and thus have fallen a prey to those who, by trading on their credulity, have obtained their money and then betrayed their interest.'

About this sort of thing it is possible to take the line that fools and their money are soon parted. It is not so easy to regard with indifference the practice which American banks indulged in of creating their own 'investment affiliates.' To these organisations (simply the banks themselves in another legal guise) individuals who consulted their bankers with regard to investments were sent, and there the client's funds were invested in securities in which the 'affiliate' had an interest, or were even used by the bank directors (in their role as investment bankers, of course), to manipulate the market for their own profit.

Such folly could not last; but the 30 month exploitation and destruction of this new market made gambling on the stock exchange a mania. The index of security prices, taking 1926 = 100, was 183.6 in January, 1929, 225.3 in September, 1929, fell to 153.8 in December, 1929, and reached bottom by July 1933 at a figure about one sixth of the total stock market value at the peak—a fall involving a paper loss of about \$74 milliard. Some stocks became completely worthless; some of them had never been anything else. The market value of perfectly sound concerns fared little better. A selected group of 20 public utilities did best, merely declining from \$141.9 to \$28 per share.

This catastrophe was possible because, firstly, the banks, however honest, were in an awkward position. They had, early on, made loans to individuals on the basis of real estate or securities, and these loans were sometimes used for speculation. As speculation grew, large firms financed themselves more and more by floating public loans instead of getting short term funds from the banks, who, to offset the decline in their business, were obliged to put their own funds in investment securities—which was risky—or press them on business men as long term loans—which made the banks' position highly illiquid. Thus between 1921 and 1929 banks' commercial loans scarcely increased, but their loans on securities more than doubled and their loans on real estate more than trebled in amount. And secondly, salesmanship was applied to banking, where, generally speaking, it ought not to be applied.

This was a case, therefore, where psychological factors dictated the course of events. The Reserve System was then at best an ingenious but weak system, and the easing of credit to counteract a recession in 1927, added to the awkward and unforeseen gold inflow, added to the increased earning assets of commercial banks, created a situation where banking checks to speculative activity could be and were simply by-passed, given the connivance (blind or contriving) of stock exchange operators, heads of corporations, bankers, and above all, the public. And even if the historian withholds all sympathy from the gambling public (as from an habitual drunkard) the consequences were appalling for everyone.

These developments, forming only a part, though a large part, of the causes of the extremely severe depression of the early 30's, reached their own climax in the banking crisis of 1931-2. All through the '20's rural bank failures had been not uncommon, due as a rule to the falling crop prices and falling land values which went with agricultural depression, and aided considerably by incompetent management. But bank failures spread rapidly after the stock market crash of 1929 and through the onset of the general

business depression. Rather fewer than 500 banks failed in 1928; but in 1930 the failures were 1,345, and in 1931 2,298—more than 500 banks failed in the single month of October—and this was followed by the bank ‘holidays’ of 1932 and 1933, which began in Nevada and culminated in Roosevelt’s declaration in March, 1933 of a national bank holiday for four days. From the time of this declaration—virtually Roosevelt’s first action as President—confidence began to revive.

The institutional weaknesses which these calamitous events revealed all too clearly were dealt with in the Banking Acts of 1933 and 1935—the latter described as a ‘fundamental revision’ of the Federal Reserve Act. These Acts jointly,

- 1) divorced all banking affiliates from their parent banks.
- 2) set limits to the proportion of non-government securities which a bank might hold.
- 3) gave to the Federal Reserve Board power to refuse credit to member banks financing speculation.
- 4) provided for partial government insurance of deposits.
- 5) allowed the establishment of branch banks by national banks (hitherto only State banks had been permitted to establish branches).
- 6) gave to the Federal Reserve Board mandatory authority over rediscount rates, power to alter reserve requirements at any time and without Presidential approval, (reserve requirements were doubled in 1937 in order to ‘sterilise’ a gold inflow), and power to compel Reserve Banks to follow the Board’s policy with regard to the buying and selling of securities (previously the Board had been able merely to ‘advise’).

By these Acts the United States at last established, as much centralised control over credit as is perhaps possible, setting up a system not unlike that, both in appearance and in effective power, which had existed in Britain from 1844; and secured—as far as laws could secure—that banking

would be carried on as a responsible business with a view to other than the immediate profits of the owners and enterprises concerned. At the same time, the Securities and Exchange Commission of 1934 was set up with power to compel a reasonable minimum of accuracy of information in connection with new stock issues, to prepare advisory reports on corporate reorganisations, and so forth. These and kindred measures relating to the Stock Exchange were called in the vernacular 'blue sky laws,' because they ended the possibility of promising the investor 'the blue sky.' The American economy, and certainly Wall Street, began to fade from a 16th century-like splendour and recklessness (at any rate of the imagination) 'into the gloom of common day'; at least for a while.

Chapter 9

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INTERNATIONAL TRADE AND TARIFF POLICY

THE internal development of the United States was by no means, as many American authors have sought to make out, a matter solely of American enterprise, American ideas, and American concern. Manpower and capital came extensively from Europe; the foundations of such measures as the National Bank Act and the Federal Reserve Act are to be sought where the Americans sought them—in European experience; above all, the pull of European markets exercised a continuous and most important influence on the direction and pace of change in the American economy—the earliest and most conspicuous example being with respect to the culture of cotton. The so-called ‘frontier thesis’, in fact, has done no greater disservice to the United States than to withdraw American attention from her contacts with the rest of the world, and to foster a notion that American history can be explained with little more than a glance outside America’s borders.

For within America the myth of American economic self-sufficiency is exceedingly popular, despite the facts. On the face of it, this is surprising, for the United States has always been an important international trader, and her importance in this respect, far from decreasing with the years, has grown. Between 1860 and 1939 American foreign trade multiplied in value about three fold. This impressive increase raised the American share of world trade from about one twelfth in the early 1870’s to about one ninth in the late 1930’s—a period in which Great Britain’s share fell from about one fifth to about one seventh. Thus by the end of the 1930’s America was, in her commodity trade, the world’s greatest exporter and the world’s second largest importer. Nor were the commodities which she imported of little national significance. They included

not only 'luxuries' like coffee and bananas, but also obvious 'essentials' like rubber, sugar, raw silk and paper (all these imported on a large scale) besides less conspicuous items like chromium, tin and tungsten, little known, perhaps, but without which her great metallurgical and engineering industries would be hopelessly crippled.

There is a simple reason, however, why these great international dealings should play so small a part in the ordinary American citizen's idea of his country. Despite the great share which America has always taken in world trade, the significance of her overseas trade relative to the size of her internal trade—and therefore to her total national wealth—has declined, and by the 1930's was down to a very low figure. In 1929, for example, the British export of commodities was equivalent to 17% of the British national income, while the Canadian equivalence was 20%; in the case of America, the equivalence was only 6%. Thus America's stake in international trade, great as it is, and far more important to her—both economically and strategically—than is commonly realised, yet represents a much smaller fraction of her total income than is usually the case with an important trading nation.

To speak of the increasing share taken by the United States in world trade, however, is to obscure certain other, and equally important, changes. The volume of American exports, for example, did not by any means increase steadily; thus the total annual exports for 1920 were not exceeded until after 1940. Again, the composition and direction of American trade altered. Thus the exports of raw materials fell in relative importance almost continuously through this period; just prior to the Civil War these constituted over 60% of American exports, were below 50% for the early 1870's, below 30% for the early 1920's, and for the later 1930's fell below 20%. These changes did not quite correspond to a decline in the importance of food exports—food exports were at their relative maximum in the early 1890's—but the converse movement in manu-

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factured and semi-manufactured exports is clear; these, worth less than 20% of total exports prior to 1870, passed the 50% mark 1911-1915, and by the later 30's stood at over 70%. In the period 1937-1940, the leading export groups were, firstly, electrical, industrial and agricultural machinery; secondly, petroleum and kindred products; thirdly, raw cotton. These constituted about 30% of total exports. They form a diversified group; but after them—with the exception of tobacco—there comes a long list of manufactures; automobiles, chemicals, aircraft, iron and steel mill products, and so on. The general picture is clear; in 80 years America completely reversed her role in international trade, turning from being an exporter of raw materials to being, even more markedly, an exporter of finished and semi-finished manufactures—a reversal which it took England about six hundred years from the date of the Norman Conquest to achieve.

With these alterations in the nature of American trade went alterations in its direction. Europe, herself as of old a producer of manufactures, steadily declined in relative importance as a market from the early 70's. When the decline began, Europe was taking just over 80% of America's exports—chiefly food, then; by 1936-40 Europe's share had been almost, although not quite, halved. As Europe declined, other American countries, especially Canada and Argentina, rose to a greater prominence, the former finally displacing the United Kingdom as America's most important trade contact. The rise of Asia was in a way even more notable; her share increased from 1% in 1871-75 to over 16% in the late 1930's (the automobile industry made British Malaya, with her rubber, the second most important source of American imports by the late 1930's), and with the rise of Asia there rose the West Coast ports, facing towards the Orient and Hawaii. It is not an accident that one of the finest museums of oriental art in the western hemisphere is in Seattle.

Against this background of swelling and shifting trade opportunities American tariff policy has operated with astonishing uniformity of purpose and design.

American tariff schedules are almost co-existent with American nationhood. The Declaration of Independence was signed in 1776, and in 1789—one year before the full and final ratification of the Constitution—the first tariff act, 'protective in intention and spirit,' was passed by the Congress of the Confederation. This Act imposed duties of from 5% to 15%, mainly for 'revenue but with the details designed to stimulate home production. In accounting for the passage of such a measure at such a time, when, in Europe, opposition to government interference was growing, it must be remembered that Alexander Hamilton's famous 'Report on Manufactures' of 1791 anticipated the nationalism of List—or, more surely, of Cauwès—far more than it recalled the doctrines of Adam Smith; and though of little influence at the time it shows the prevalence of such views, and was destined to become one of the revered documents of early American history.

But, after all, an at least moderately protective tariff policy was the common possession of every capitalist country in the 18th century; and for many decades this remained the limit of American legislation, so that America began the Civil War with a tariff which, in retrospect at least, can only be called liberal—the highest level of duty was 24%. America was not then, of course, a much industrialised nation. In 1862, however, in search of revenue for war, she raised the duties; and in 1864, as a part of what was described in 1888 as 'probably the greatest measure of taxation which the world has seen,'¹ she raised them again, and appeared with a tariff the highest in the world, its average rate on dutiable commodities being 47%. Five days of discussion were given by Congress to this Act, 'which was in its effects one of the most important financial measures ever passed in the United States.'¹ It was, according to the greatest American authority in this field, 'in many ways crude and ill-considered,'² passed by men

'willing to tax every possible article at the highest rate that anyone had the courage to suggest,' 'schemes for money-making were incorporated in it,' and while it was outwardly a revenue measure, it was drafted, supported and worked for by staunch protectionists.

Thus it was in time of war that America embarked on her career as a highly protected nation. But high duties, like drunkenness or the smoking of tobacco, are a habit which, once acquired, it is extremely hard to get rid of; and the United States has never got rid of them. The 1864 duties were not generally revised until 1883, and by then they had ceased to be thought of as forming a war measure. In the intervening period Congress was concerned chiefly with the problems of reconstruction in the South, and when tariffs were considered, the influence of the South, always a low tariff area, was at a minimum. Moreover, as is always the case with tariff revision, the interests in favour of decreases were scattered and weakly organised, those opposed concentrated and well organised; so that most unfortunately the United States was unaffected by the tariff reduction movement which made headway in Europe in the 1860's—relations with Britain, mainspring of the movement, were in fact rather bad as a result of wartime disputes regarding the rights of neutrals.

The tariff thus having, if a little uneasily, slept and slumbered for almost two decades, the boom years after 1879 brought revenue surpluses so great that revision became imperative; but, passed by a predominantly protectionist Congress, the Act of 1883 made reductions only of a very feeble sort. For example, the duty on steel rails was lowered from \$28 a ton to \$17; but as by 1883 the European cost advantage had become negligible, this reduction was of no practical significance. The controversy therefore continued, and finally in the 1888 election campaign the tariff formed the major issue. The Republicans, aided by factors extraneous to the tariff question, won by a narrow margin, and used their mandate to pass one of the four most famous modern American tariff Acts; the

McKinley tariff. This measure raised the average level of duties to 49.5%, extended the range of application of heavy duties, and, for the first time, made a fairly big show of extending protection to agriculture—a show which was, as it was bound to be, largely devoid of genuine effect. In 1894 the battle swung the other way, the reform party won a crushing victory, and the tariff was lowered—but, for reasons related to the tactics of politics, not by a significant degree; the revision was in fact ‘anxiously conservative.’³

This revision, like the McKinley revision, did not endure for long. The years following 1893 were years of deepening depression, and a nation taught to believe that a lower tariff was the solution for all its ills found it equally easy to believe that it might be the cause of them. Besides, the Treasury showed a deficit in every year from 1894 to 1897. The result was the Dingley tariff of 1897, the most important tariff measure since 1864. It was destined to remain in force for twelve years. Primarily a revenue-producing measure, it raised the average level of duty to 57%; its framers were especially kind to the wool, the silk and the linen interests, steel rails, which were exported, paid duty, and agriculture was not forgotten. Altogether, this Act seemed to carry protection to the limit, and even the economic credulity of good party members began to be a little strained.

The remainder of the tale is soon told. The next Act of consequence was the Underwood tariff of 1913. This time the Democrats passed the measure which they had hoped to pass in 1894, and supported by popular opinion which saw the tariffs as responsible for both rising prices and the trusts, secured for America what was probably her most liberal tariff since the Civil War. But, due to the outbreak of the 1914-18 war soon afterwards, this tariff never had a chance to become effective.

In 1922 the Fordney-McCumber tariff was passed, inspired chiefly by agricultural distress, towards which it could be at best an ‘amiable gesture.’⁴ But, as usual,

increased protection could not be confined to a single sector of the economy, and besides the new or higher duties on 'any and every sort of item' of agricultural produce, help was given to chinaware, jewelry, toys, iron and steel, the clothing industries, and so on. The result was the most extreme protective tariff yet devised. This was peculiarly disastrous, for it came at a time when America had newly exchanged her traditional debtor status for that of creditor to the Old World. Agriculture, now depressed, had worked the change by means of the huge food exports to war stricken and war impoverished Europe. In 1913 America had been a net debtor to the tune of about \$5,000 million. By 1923 American assets abroad had almost trebled, foreign assets in the United States had almost halved, American government loans abroad had reached the stupendous total of \$11,500 million, and the United States had reached the position of creditor for about \$15,000 million. In this situation, requiring the repayment of millions of dollars annually, the Fordney McCumber tariff was enacted, making repayment in any medium other than gold almost out of the question.

Worse was to come. By 1929 the net long term indebtedness of the world to the United States, exclusive of the \$11 billion or so of war debts, had risen to about \$8.1 billion. In mid-1929 a limited tariff revision, again for the ostensible purpose of aiding agriculture, was proposed and begun; again the manufacturing interests managed to claim a share in any benefits going; and again a compromise was reached. This Act, the Hawley-Smoot tariff, was not enacted until the summer of 1930; but its origin was entirely pre-depression, and its framers therefore do not even have the poor excuse that it was the easiest response to an economic disaster. It imposed duties up to 130% ad valorem, it did what it could to protect agriculture—there were duties on onions, tomatoes, cabbages, turnips, tulips, narcissus bulbs, blueberries, and even peanuts—it endeavoured to help industry still further, although all important branches of industry were already

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so much 'helped' that 'more help' was almost beyond the wit of man, and its total effect may be summoned up very simply: it was futile. The farmers could no longer be deluded into believing that protection was of service to producers who faced no foreign competition (Canadian wheat was almost the sole exception and it had been adequately taken care of since 1909), and it was plain that manufactures were already so heavily protected that further doses of protection could be of little use. The only real effect was a blow to world trade, to world confidence, and to American confidence in the doctrine of the Republican party.

Finally in a new era, after America had passed through the shades of 1929-33, there came the Trade Agreements Act of 1934, which took from Congress the power to make tariffs and gave it to the President, making possible changes in the rates of up to 50% without Congressional ratification. Under this arrangement 21 bilateral trade treaties with unconditional most-favoured-nation clauses were negotiated before 1942, and the American tariff barrier was thereby reduced by perhaps 15%.

This aspect of American history raises the twin questions, why is America a protected nation and why is she so heavily protected? These questions are not identical, and require different answers.

America is protectionist because tariff duties have always been an important source of public revenue. Tariffs, as 20th century Britishers are apt to forget, tend to perform two economic functions; to exclude goods, and to collect money; outsiders think only of the first, but citizens of the protected country think of both, and all through American history the fiscal and the protective aspects of tariff policy have been closely interwoven. Thus in 1860 the Federal government obtained 95% of its revenue from customs duties. The proportion temporarily sank below 50% during the Civil War, but prior to 1913 was only very rarely below 40%, and it is only since 1917 that customs duties have been clearly left behind in American

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finance as the most important source of public revenue. Thus to do without considerable customs duties would have required a fiscal revolution in 19th century America.

But the tariff, it is true, has from time to time yielded too much revenue. Financial considerations produced the revisions of 1883, 1890 and 1897, as well as that of 1864, but except for that of 1913 no general revision has had a conspicuously lowering effect.

The reasons for this—apart from the fact that higher tariffs can reduce revenue as effectively as lower ones—are political. The interests of industry and of agriculture tend to be distinct, and to be separately represented according to whether a State is preponderantly agricultural or industrial in character. Different industrial interests also tend to be represented by different State representatives. The result is a process of compromise-of log-rolling or back-scratching—which reaches its apotheosis between industrial interest themselves. It tends to be especially prominent in the Senate, where all States are equally represented; big States must conciliate little States, and the usual result of conciliation in tariff disputes is a little more protection all round. This process is inevitable as long as decisions involving the distribution of immediate economic gain or loss are left to a political body. A voter sitting in any State between the Mississippi and the Rocky Mountains reading in his newspaper about tariff revision is liable to have as his first question to his Senator, 'What are we getting out of it?' Looking at tariff bills with a view to determining their long-range international (or even national) political wisdom is not easy in any country, and it is harder than usual in remote inland areas of a country, possessing sectional political representation and two parties which have habitually prophesied either ruin or prosperity from high tariffs. And anyway, hasn't America always had high protection and thriven on it?

This competition of interests became more noticeable in the 20th century, for as agricultural prosperity faded, the necessity of reconciling agriculture to high tariffs grew.

Attempts to 'protect' agriculture in America are bound to be pretty well a farce, although a little can be done against Canadian imports. The farmer has on the whole, however, clearly seen his position as seller on a world market and consumer in a national market and has remained a low protectionist and a Democrat, but it is the attempts to win him round to protection that have made the wool duties the 'bloody corner' around which the most violent of American tariff battles have been fought. For protection to wool is protection to agriculture, and to a form of it pursued in no fewer than seven States—Wisconsin, Iowa, Minnesota, Nebraska, Wyoming, North Dakota and Montana. (The population of the last three of these combined was only 1.22 million in 1945, when State population averaged 2.8 million—but three States, however small, equal six Senatorial votes). And the particular charm of protection to wool is that it can readily be combined with protection to woollens, by which means, although the prices to the consumer are bound to be raised, a stimulus is given to both agriculture and industry. Protection to wool and to woollens existed in the 1816 Act, and was increased in 1864—the industry prospered greatly during the Civil War. In 1883 protection to woollen goods went above the average rate, but importation—especially from Britain—continued, woollen cloths worth \$9.25 million entering America in 1889, and woollen dress goods worth \$15.2 million. By the 1890 Act the minimum duty was set at over 40%, while dress goods of the cheaper class were taxed at the maximum figure of 100%. Even this was not sufficient to stop importation, while the price of the home manufactured produce went up by the full extent of the duty. Free wool—which the manufacturers rather favoured—appeared in 1894, but lasted only to 1897. Raised again in 1922, these duties reached their limit in 1930, by which time importation had been squeezed down to negligible proportions. To this day the British visitor to the United States cannot help being astonished at the high prices and the poor quality of the woollen goods for sale in American

stores, nor, if he crosses the border into Canada, at the difference in price of the British woollens sold there.

These measures were not passed without a show of justification on economic or other grounds. Strategic arguments were flogged to death in 1922 and arguments about the tariff being the mother of trusts were influential in 1913. But the general argument in the 20th century has been for a 'scientific tariff'. A scientific tariff, according to its exponents, equalises the cost of production (including reasonable profits) at home and abroad. This is supposed to produce a situation 'fair' to the home producer. The immediate difficulties are that costs of production are notoriously difficult to estimate and that costs of transportation must also be taken into account. But even ignoring these points, it is obvious that genuine equalisation of costs of production is simply equivalent to the stoppage of international trade. The scientific tariff cancels out all natural or acquired advantages. Adam Smith said it long ago: 'By means of glasses, hot beds, and hot walls, very good grapes can be raised in Scotland, and very good wine too can be made of them at about thirty times the expense for which at least equally good can be brought from foreign countries.'⁵ But what seemed funny to an 18th century Scots philosopher seemed no more than reasonable—or at any rate opportune—to a 20th century American Senator:

Mr. Bailey: 'The Senator from Rhode Island would vote unhesitatingly for a duty of 300%'.

Mr. Aldrich: 'Certainly. If it was necessary to equalise the conditions . . . I would vote for 300% as cheerfully as I would 50%'.⁶

The Democratic alternative of a 'competitive tariff' came logically to the same thing; protection according to this theory should not be unnecessarily high—just high enough.

For all the Republicans' 'science' there never was nor could be a 'scientific tariff'. And only experts could decide

what some tariff provisions really meant. A tariff reduction may look generous and be meaningless—for example, the reduction in steel rails in 1883. Obscurity was sometimes impenetrable—not always by accident; an American Senator who knew tariff schedules said in 1909, 'Some of these amendments I have studied diligently, and I am not able to say to-day whether they raise or lower the rates, and I have not been able to determine yet with the aid of gentlemen who are experts on this subject.' 'Amid the division and subdivision of categories, the endless details, the specific duties and the ad valorem percentages, 'jokers' which benefit a particular industry or firm are hard to detect.

All this means that popular judgment can easily be evaded. The voter has to take the word of an 'expert' who may not be sure himself or may be an interested party. The consequence is that everyone plays for safety, and duties tend to be left as they are or raised. This is an additional reason for taking the tariff out of politics as was done in 1934. But if all economic questions were to be taken out of politics, what would there be left nowadays for democrats to vote upon?

Chapter 10

*

LIFE AND LABOUR

THAT what Adam Smith called in 1776 'the natural progress of opulence' should be customarily regarded by modern western society as the principal affair in its economic history is at once natural, symptomatic and unfortunate. It is natural because the 'progress' which has been achieved has exceeded in the past century that of any preceding century; symptomatic because it is viewed—or was viewed in Britain and America between about 1830 and 1930—with a very high degree of self-congratulation and satisfaction; and unfortunate because this pre-occupation with the increase in wealth has obscured the many and profound social changes which that increase has entailed. Of no country is this more true than of the United States, where, in spite of the fact that extreme variations in living conditions are to be found co-existing in different parts of the country even to-day—as is natural enough over an almost continental area—living conditions have on the whole changed so greatly and so fast that what men mean by 'living' has itself been transformed in the course of a few generations. To speak in these circumstances merely of a *standard* of living—whatever degree of accuracy is achieved, and it is hard to achieve much—must of itself go far to obscure the real issue.

Whatever is doubtful about the changes which took place between the Civil War and 1940, it is certain that these changes affected the lives of more and more people in every decade. The population of the United States in 1860 was over 31 million, or already more than one third as large again as that of Britain. By 1890 the American figure had almost doubled; by 1930 it had almost doubled again; by 1940 it had reached not quite 132 million, and by the beginning of 1948 stood at over 145 million. This

rate of growth far outstripped that of Britain, and produced, in fact, for any comparable period, the most rapid growth which the western world has even seen. It turned the United States into a giant in comparison with those once great countries—Britain, France, Holland, Spain—which had originally colonised the American seaboard, giving America in 1940 a population which exceeded that of these four countries combined. Thus it is clear that a tremendous increase in output must have been achieved merely in order to maintain among American citizens a constant level of material prosperity.

As everyone knows, the increase in output in these years far exceeded the increase in population. The frontiersman of 1860 lived in a sod-house he had built with his own hands on the prairie; he fought Indians; his home was the centre not only of a large family but also of local craft and industry; and when he travelled, he travelled by wagon or on horseback. His farmer descendant works with agricultural machinery, lives in a home provided with fewer children but all modern conveniences (except sanitation, often), travels by car or plane, knows less about firearms and Indians than the curator of the local museum, buys many of his possessions by mail-order from the great stores of Chicago—and is growing to be almost as rare a creature in society as was the frontiersman 80 years before. For the intensification of industrial development has overwhelmed the old American scene. Any major production index tells the same tale. Coal production in 1870 was 29 million tons; in 1900, 241 million; in 1940, about 500 million. With pig iron and steel the trend is similar; in the early 1870's, 2.3 million tons were produced; in 1900-1904, 30 million; in 1937, 88 million. In 1900, again, scarcely an automobile was on the roads; thirty years later over 26 million motor vehicles were registered—one for every fifth American citizen—and by 1941 the figure was 35 million, or rather more than one vehicle for every fourth American. It is pointless to multiply instances; all are of this order of magnitude—with one exception. The exception is agri-

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culture. Between 1860 and 1915 the output of corn and of wheat multiplied respectively only about four and six times; this was, even for corn, faster than population—but only slightly faster. Such a decline in the importance of primary production is only to be expected in a developing economy; and in spite of it, food imports for consumption remained at about 4—7% of home production.

These tremendous production increases were secured, as were the corresponding increases in Britain, with reduced human effort, at any rate in terms of hours spent at work. In 1860 only a few skilled craftsmen enjoyed a 10 hour day, and a 70 hour week was the custom; the tempo of working life, that is to say, was still set by agriculture. But by the late '70's the 60 hour week was being introduced in the factories, and by 1909 about three quarters of those employed in manufacturing industry worked 54 to 60 hours per week. By 1930 the 50 hour and by 1940 the 40 hour week were coming in—actually the 1930's saw so much short time, probably more than any decade since the '70's, that overlong hours were then the reverse of the problem. These figures refer only to factory employees; many non-factory workers continued to work long hours, and attempts to control child labour were not too successful prior to 1914. But such shortening of hours could easily be afforded by an economy in which output per industrial man-hour rose over five times between 1870 and 1940.

In statistical form, this progress may be summed up as follows, in terms of real income per capita measured in 1926 dollars:

1859	...	...	...	about	\$300
1869	...	...	...	...	\$230
1879	...	...	...	...	\$315
1889	...	...	...	...	\$385
1899	...	...	...	...	\$455
1909	...	...	...	...	\$525
1919	...	...	...	...	\$590
1929	...	...	...	...	\$620
1937	...	...	...	...	\$570

If plotted on a graph, these figures show an almost linear progress from 1869 to 1919; a decline of about 7.5% in the slump 1919-1921; then the seven fat years 1923-29, all over \$600; a catastrophic decline of 22.5% in the slump 1930-33; the attainment of a new though lower peak of \$570 in 1937, followed almost at once by a new decline.

These figures are thought to be reasonably accurate—to within, perhaps, 5% to 10% either way. What they are really worth is another matter. They omit consideration of a great many important elements in life, ignore changes in quality, make huge assumptions about the intrinsic importance of saleable goods. For example, people swarmed into the cities between 1860 and 1900, and America then knew the problems which Britain knew in the 1840's. About 1860, probably, these evils of urban overcrowding were at their worst, although it was as late as 1873 that a correspondent to the Scotsman described New York as 'the filthiest city in Christendom.' Housing difficulties were anything but absent in the period after the Civil War. Thus the town of Holyoke, which had just under 5,000 inhabitants in 1860, doubled its size in each of the next two decades to reach almost 22,000 by 1880, and then more than doubled again before the turn of the century. The inevitable accompaniment of such growth was disorder and misery, and the following is an account of one aspect of life in Holyoke in August, 1873, a time of marked prosperity:

"There is one pitiful and miserable sight which we have seen night after night in front of the fruit and vegetable stands, since green and ripe fruit came into the market. It is a drove of poverty stricken children, often girls, clad only in one or two ragged and dirty garments, down on their hands and knees in the gutters, greedily picking out of the mud and dirt and eating the bits of spoiled and decaying fruit which have been thrown out as worthless. No danger that it will be left there to mould and decay, and rise up again in our noses. Nothing is so far gone, but that some child will be found hungry enough

to eat it. . . . They are growing up brutalized by neglect, and there is no need to wonder over the long criminal lists and the never-failing police court record, when we see what training for crime and misery these children are receiving, as their miserable fathers and mothers received before them.'¹

Seventeen years later, in this same New England town, infant mortality (children under one year of age) was 312.56 per 1,000; and in 1900 31% of the total number of deaths in Holyoke was of children under one year old! Yet for the 90's seven other cities in Massachusetts had worse records in this respect than had Holyoke. The briefest reflection on such appalling figures conjures up a faint vision of the wells of misery which 19th century prosperity covered over. Nor was it all of the 19th century; there was more overcrowding in Holyoke in 1920 than in 1860, and to this day living conditions in many large American cities—vide Chicago's 'south side' and the fringe of plank shanties which surrounds so many American towns—are such as would not be tolerated in Great Britain. An official estimate in 1940 put the percentage of United States urban dwellings ($\frac{3}{5}$ of the nation's total) which were located in 'concentrated slum and blighted areas' at no less than 29%.

Nor is the situation much better in the countryside. One fifth of American homes in 1940 were rural farm dwellings, and of these a mere 18% had running water and 11% indoor flush toilets. The poverty of American housing standards, especially pronounced in rural areas, must strike the most casual observer, whether he judge by sanitary provision, solidity of construction, or, if he be so whimsical, aesthetic merit. Perhaps this is partly explained by the fact that whereas 54% of American families owned at least one car in 1940 (giving about 20 million private cars for the nation) only about 53% owned a home.

In spite of these atrocious home conditions, in spite of the high infant mortality rates which persisted so long in some areas, the health of the American people improved

and continues to improve. To-day, life expectation is in the neighbourhood of 65 years; in 1860 it was about 40 years. Life has been prolonged, therefore, in the ratio of three to two. The contribution of medical science in securing this result has been, of course, outstanding. But medical science has required and has received the aid of social organisation. In 1870 there were health departments in only a handful of towns and one State, there was no organised training of nurses, there was not a hospital bed per 1,000 of population. Improvement began to be noticeable from about 1875, and from 1900 became fairly rapid. To-day, for example, there are nine hospital beds per 1,000 of population instead of one per 1,150, and American medical services—frequently paid for by consumers on a group basis of sickness insurance—are second to none.

A high standard of living, however, is characteristic of America in the 20th century, not in the 19th. Then the familiar combination prevailed, of deep and abiding social misery with rising levels of output, a combination which was to a large extent the human aspect of the unevenness of the 19th century distribution of income.

The Civil War, at the start of industrialization, had impoverished many and enriched a few; and at all times growth—so much the main element in the American story—made for changing values, changing values made for speculation, and speculation made for the concentration of wealth. Huge fortunes, acquired chiefly through the rate of growth of the economy, are characteristic of America; this was what Henry George's 'Social Problems' was about, and at least one business man who read the book was so impressed that he got out of street railways and went into politics in Cleveland as a reformer. But he was unusual; in a growing country devoid of established social obligations men fought for these exceptional gains with a singleness of purpose, sometimes bordering on the insane, while to others they fell with no more than a little honest work.

Such statistics as are available suggest, as in Britain, a constant share for wages in the national income at about 36% to 37%. But prior to the 30's, little is known for sure. A study carried out for 1935-6 revealed an income distribution situation not unlike that of Britain. Only 10% of American families enjoyed incomes in excess of \$3,000 per annum; about 25% were moderately well off, with incomes between \$1,500 and \$3,000; of the remainder, 11 million families or rather less than 40% of the total had incomes of from \$750 to \$1,500 and were 'fighting poverty', while another 8 million families and over, with still lower incomes, faced malnutrition if not actual starvation. American taxation in these days did, as it had always done, very little indeed to reduce such inequalities, which tended on the whole, however, to be less extreme than in Britain. For example, in America the wealthiest 1.25% of all income earning units received about 13.5% of the national income, and the wealthiest 8% received about 30%; in Britain the corresponding figures *before taxation*, were about 20% and rather over 35%. The situation *after* taxation is one of greater equality in both countries, but certainly American taxation is less levelling than British. A remarkable feature of American taxation in the 1930's was the uniquely favoured position enjoyed by incomes of from \$5,000 to \$50,000; up to \$2,000 the tax system as a whole was actually regressive. Changes since 1940 have done something to make the system more smoothly progressive throughout its whole range (the 1942 tax structure was almost twice as effective in reducing income inequalities as was the tax structure of 1929), but inequalities remain very great, and there is little pressure to have them drastically reduced. The probability is that inequalities were greater in the second half of the 19th century, but then wealth changed hands with remarkable rapidity and the saying 'three generations from shirt sleeves to shirt sleeves' had real contemporary significance.

Social confusion in these eighty years was aggravated still further by the volume and nature of immigration and by the repeated crises to which business succumbed.

The first of these items was of peculiar importance with regard to labour organisation, for it was responsible for producing a labour force, especially near the coasts, of unexampled heterogeneity. Not only did several million persons enter the United States in every decade up to 1930, so that, prior to 1915, the proportion of foreign born to native born in the total population was fairly constant at 14%, and was actually 36% of New York's population in 1920; but this inflow was composed of probably every nationality in Europe, the bulk of the immigrants after 1900 being non English-speaking. In New York, for example, in 1920, 7% of the population had been born in Italy, 9% in Russia. Some towns were much more mixed than this. In 1870 over 50% of the inhabitants of Holyoke had not been born in the United States, the foreign-born in order of importance being Irish, French-Canadians and Germans. These groups lived in their own 'colonies' in the town, the Germans in orderliness and cleanliness, the Irish in shanties in the worst slum in Holyoke. The Germans were Lutherans, the Irish and French-Canadians Roman Catholics. They had neither common church, common living quarters, nor common school, and they hated one another cordially. This situation continued for several decades. In 1890 the Americans born of native parentage were only 17% of Holyoke's population, though there were another 33% or so of home born of foreign parents. By 1920 the percentage of the foreign born in this town had sunk to 33%.

This is an exceptional example, although percentages not very dissimilar were to be found in New York or other towns of Massachusetts at the same time. That it was by no means unique is shown by an examination of the contemporary population of California; for if the French-Canadians were 'the Chinese of the Eastern States', as an official paper described them in 1881, California had the

real thing. Californian agriculture has always shown a tendency to rely on foreign labour, and in the '60's, '70's and 80's it was the Chinese who provided the bulk of the labour force; in 1882 there were about 132,000 Chinese in California, forming from 50% to 80% of the agricultural labour force. Although necessary to the employers, their presence aroused hostility which resulted in race riots in 1893, and by 1910 the number of Chinese in the State was down to about 75,000. The Japanese, meanwhile had begun to appear, starting in the late '80's, and were at first welcome; in 1910 California had almost as many Japanese as Chinese inhabitants. The Hindu population had simultaneously risen to about 10,000—their labour was of great value in the hot Imperial Valley—but their number decreased with the anti-immigration law of 1917, and by 1930 was down to about 2,000. As oriental manpower declined in importance, that from southern Europe grew, and in 1921 California had about 8,000 Portuguese and 50,000 Italians numbered among its population. These incomers, however, did not remain mere labourers, soon establishing themselves either in the towns or on small farms, and so the way was opened for the final wave of foreign labour—that from Mexico. The Mexicans who came, unlike all their predecessors, were migratory labourers and did not settle; they entered California in the '20's at the rate of almost 60,000 every year, worked, and returned home, performing for Californian agriculture a service almost identical with that performed for British agriculture by the Irish in the '30's and '40's of the 19th century. The system suited both Mexican labourer and American employer, and it was superlatively cheap.

The consequences for labour organisation of these remarkable admixtures of population need hardly be stated. Four or five languages might well be spoken on a single Californian farm or in a single eastern factory, to say nothing of the racial and religious animosities lying never far beneath the surface. British labour never had to face these difficulties in nearly so intense a form.

The instability of business likewise added to the obstacles in the way of labour organisation. There were 'crises' in 1873, 1884, 1893, 1903, 1907 and 1929. All partly financial in origin, the first, which was until 1929 the worst, was connected also with overexpansion and speculation in railroads, those of 1884 and 1893 were both connected with fears regarding the safety of the gold standard, and those of 1903 and 1907 were crises of speculation brought on by the collapse of unsound trusts. What chiefly strikes the historian is the apparent casual heedlessness of every one of them; but their main consequence to those who lived through them was the sharp alternation of good times with hard times, the latter inevitably bringing to many workers short time or unemployment. This uncertainty added to labour's propensity to move, to move on where things might be better; prior to 1915, it is estimated, the entire American labour force averaged at least one change per employee per annum. Only by the 1920's was the notion of continuous service being promoted with success, and by 1929 the 'separation rate' was down to 50% for all labour and to 30% for factory workers. By 1936-7 it was below 15%, and in this connection too, the American economy was beginning to ask itself—has expansion ended?

Against this shifting background—as if on a stage where the backdrop continually recedes and fresh 'extras' continually walk on—the American trade union movement developed in a fashion not unlike the British, but with a time lag of from 30 to 50 years.

Prior to the Civil War, the conditions of life for most American workers were by any standards bad. In 1845 it was calculated that every fifth person in the City of New York was a pauper. In the cotton mills conditions of labour deteriorated if anything in the '40's and at least up to 1855, and conditions of living in the towns undoubtedly deteriorated. Faced with such a situation, the labour movements of the period came to resemble the British

movements of the 1830's and early '40's in their revolutionary and utopian character. There were three main lines of development: Associationism, Land Reform, and Co-operation. Associationism was an abortive middle-class movement stemming from the quasi-socialistic ideas of Fourier, and was therefore French in origin. Land Reform was likewise middle class and unsuccessful, and stemmed from the ideas of Spence, visionary land reformer of the 18th century; it, therefore, owed its being to Great Britain. Co-operation, also based on British ideas, was likewise a failure, and so was the native ten hour day movement. Trade unionism, almost wiped out in the 1837-9 collapse, was dealt another severe blow by the depression of 1857, and then was further disrupted by the impact of the Civil War. The labour movement, indeed, may almost be said to have emerged from this period with one possession and one possession only; emancipation—for better or for worse—from the handicraft tradition of a simple community of interest between employer and employed.

The Civil War, as it progressed, stimulated unionism. More local unions were formed, and the process of associating locals into national unions, begun in the '50's, was recommenced and much accelerated; more than twenty five of these were in existence by 1865, their functioning aided by the new developments in transportation.

Thenceforward, up to the next debacle of 1873, American unionism attempted to advance in two directions. Firstly, it attempted to form and operate a national federation of Trade Unions. This ambition produced the National Labour Congress in 1866. A great congerie of associations, neither exclusively industrial nor exclusively political, this organisation had affinities with *both* the Grand National *and* the Chartist Movement of British labour history. Besides industrial unions proper, it embraced farmers' groups, women's rights associations, anti-monopoly leagues, and so forth. In the early part of its career it agitated chiefly for eight hour legislation, and later on was a champion of 'greenbackism'; little achieved,

it expired in 1872. Secondly, the trade union movement endeavoured to promote co-operative societies—i.e. to escape from the omni-present capitalist system. W. H. Sylvis, one of the leading trade unionists of the 50's and '60's, declared in 1868, 'Combination as we have been using or applying it, makes war upon the effects, leaving the cause undisturbed. . . . The cause of all these evils is the WAGES SYSTEM. . . . We must adopt a system which will divide the profits of labour among those who produce them'.² In the late '60's and the early '70's many co-operative ventures were started, often as the result of unsuccessful strikes; even the coal miners (as in Great Britain) made such an effort. But, as before the war, successes were few, failures many (the mobility of labour had a good deal to do with this) and then in 1873 the depression took its toll.

Meanwhile, in 1869, there had appeared the Knights of Labour. This was the first bona-fide national trade and labour society, growing from the worker, in American history. It was begun by Uriah Stephens, a Philadelphia garment-cutter, in Philadelphia, spreading from there to Pittsburg. Its early leaders moved in and out of the wage-earning class in a manner typical of the 19th century, and it grew up a secret association until 1882, in this also mirroring its times, for in the '70's unions, harried by employers, tended to become secret societies.

This organisation, federal in purpose as the Congress had been, was somewhat 'purer' than its predecessor; it had, however, many disparate elements, possessing the allegiance of some who were in favour of ultra-conservative industrial action, others in favour of vaguer schemes of reform, and a few with ideas sympathetic to those of the First International. As a result, it is difficult to give to the Knights a clear historical character. It kept out of politics and can in no sense be considered a political organisation; it never called a strike and seldom supported one; yet its unifying influence was tremendous—its motto, 'An injury to one is the concern of all,' was indicative of its attitude—and it achieved self-consciousness for American labour. In

1879 its membership was only 20,000; but by 1885 it was 100,000. In that year it was (perhaps more by good luck than good judgement) behind the strike on the Missouri Pacific railroad belonging to the notorious Jay Gould—and Gould went to arbitration. This at least *looked* like a spectacular success. In any event, the newspapers built it up, the New York Sun in 1885 declaring that five union leaders exerted autocratic power over 500,000 workmen. In that same year a local was actually formed in England, and total membership did reach the huge figure of 700,000 in 1886. But in 1886 Gould was involved in another strike—the Southwestern—against 9,000 workmen, and this strike he won; almost at the same hour a bomb-throwing incident in Chicago, at a McCormick-Harvester lock-out meeting—the so-called Haymarket bomb outrage—completely alienated public sympathy from the labour movement. This incident, with which the Knights had nothing whatever to do, aroused extreme public anger and apprehension, fear gave place to tolerance, and in the face of this the Order faded away. It had grown too quickly, moving from skilled to embrace unskilled labour; the office staff in 1885 could not even handle the mail, and when industrialists (prominently Carnegie) combined to use the lock-out and the 'iron-clad oath' binding employees not to join trade unions, the Knights collapsed.

Again there was an overlap between the old and the new; for there had meanwhile emerged, in years the most difficult, when industrialists were organised and the public had exchanged indifference for hostility and the Knights still lingered on, the third and this time the enduring national association: the American Federation of Labour, so called from 1886, begun in 1881 as the Federation of Organized Trades and Labour Unions. Differences from the Knights were small but important; chiefly, the new federation encouraged control by national unions rather than by heterogeneous district assemblies, went in for less highly centralised control, had an ideology at least super-

ficially more socialistic and less conciliatory, and, above all, provided a vastly more vigorous and competent leadership.

The American Federation of Labour made heavy weather until about 1894. By 1893, however, it had developed what was to become its standard programme; the eight hour day, government inspection of mines and workshops, employers' liability laws, other practical limited aims, and 'the nationalization of telegraphs, telephones, railroads and mines; the collective ownership by the people of all means of production and distribution.' This last, however, has proved only a rhetorical flourish; despite its socialist theory, its practical achievement has been via moderate industrial action, into which almost all its effort has been put.

Recognition of the unions and agreements with them came by degrees, with the national agreement in the stove-foundry industry of 1891 serving as a model. With these agreements the trade union movement came at least to 'eschew panaceas and to reconstitute itself upon the basis of opportunism.'* For the next fifty years the American Federation of Labour pursued a quiet policy of quiet gains made by individual unions, of high dues, few strikes, and much voluntary arbitration. From a membership of $\frac{1}{2}$ million in 1897, it grew to 2 million by 1904, 3 million by 1917, 5 million by 1920; then (having tried and failed to organize the steel industry in 1919) fell back to 4 million in 1922, and to 3 million in 1932; this decline was due chiefly to managements' development of welfare programmes which made trade unionism at any rate *look* unnecessary, and to insistence on the essentially democratic and therefore American quality of the 'open shop.'

This is a dull story, and quantitatively not remarkable—less than 15% of the working force had been organised at the peak of the development. Enlivening matter is to be found in the activities of the Industrial Workers of the World—the Wobblies—formed in Chicago in 1905, but most active amid the migratory workers of the western

states; this organisation, genuinely revolutionary in its ultimate aims, reached its peak about 1913 and was defunct by 1929; and in any case, it was never more than a side-show.

What is of more moment in this phase of trade union history is the official public attitude, as exhibited by the public's official servant, the law.

A legal decision of 1806 held a combination of workmen without the support of legislation to be a criminal conspiracy in restraint of trade. This doctrine was dealt what was probably its death blow in 1842, unions then being declared not illegal per se. There ensued a long period of extra-legality, labour customarily defending its right to strike by appeal to the 13th Amendment, which prohibits slavery and involuntary servitude. But trade agreements did not have the status of contracts before the law. This 'neutral' situation continued until the 1920's, when State Courts began to hold that such agreements were enforceable, and some States began to pass legislation controlling labour relations.

Such legislation, however, was by no means always favourable. The right to strike remained, until 1937, limited in a variety of directions, although the extent of limitation was seldom clear and varied from State to State. Thus in Kansas in 1920 all strikes were declared illegal. In New York, strikes for a closed shop were legal in the 20's and early '30's, but in Massachusetts were illegal. Sympathetic or general strikes have almost always been held to be illegal, and in the *Fansteed* decision of 1939 the Supreme Court illegalised sit-down strikes. Boycotts, likewise, are of questionable legality, especially if conducted against an employer in another State (because in such a case inter-State commerce is involved). Of almost equal importance, picketing is dubiously legal. This is of especial consequence to American labour because of the minority position of trade-unionists in the period under review; strike breaking by means of the introduction of non-union labour was (and to a lesser extent still is) a possibility in

almost any industrial dispute. State law on this matter varied a good deal. In California picketing was condemned absolutely as intimidation; most States condemned intimidation itself—and then had to define it. When does 'peaceful persuasion' become 'intimidation'? In this as in other labour matters the law has moved steadily towards interpretations more favourable to unions. An early Federal decision argued that 'There is and can be no such thing as peaceful picketing, any more than there can be chaste vulgarity or peaceful mobbing or lawful lynching'; but in 1937 the Supreme Court declared peaceful picketing to be both possible and legal, and since 1940 a series of judicial decisions have increasingly legalised the activities of pickets, chiefly on the ground that such activity is a civil liberty guaranteed under the 14th Amendment (under which no person can be deprived of 'life, liberty, or property, without due process of law').

The weak position of the unions prior to 1937 was still further weakened by the anti-trust legislation, for the Sherman Act gave Federal Courts powers of injunction over activities involving restraints on interstate commerce, and these powers were used—as had never been intended—against strikes. The Clayton Act, fought for by the unions, was so interpreted as to give these same powers to State Courts—Courts to which the employer could appeal. Not until the Norris-La Guardia Act of 1932 was this incubus of anti-trust legislation in any way lightened, and it was finally removed only by Supreme Court decisions of 1940 and 1941—the latter the decision of a Court 'evidently determined to write a new charter of freedom for unionism', and which radically altered the scope of the anti-trust laws.

Apart from and prior to these particular decisions, however, the position of organised labour had been radically altered by Roosevelt's New Deal policies; except for the TVA and the Banking Acts, the New Deal nowhere brought such remarkable and permanent changes. So

impressive are these that one American writer has even described Roosevelt as 'in reality, the head of a labour front government.'

The depression hit labour severely. Whereas prices declined from 100 to 69 between 1929 and 1933, employment declined from the same starting point to 66 and payrolls to 44; union membership, inevitably, followed suit, falling from 3.4 million in 1929 to 2.97 million in 1933, the lowest figure since 1916. The Unions were helpless, and their decline in the '20's began to appear as the start of permanent decay.

The National Industrial Recovery Act was passed in 1933. Section 7 (a) of this Act guaranteed to employees 'the right to organize and bargain collectively', and forbade the joining or not joining of a union from being made a condition of employment (it also forbade the employment of children under 16 and laid down minimum wage rates). Due to employer opposition and evasion the codes worked badly, and the Labour Boards set up under the Act to enforce the law proved unequal to their task. The National Industrial Recovery Act as a whole was declared unconstitutional in 1935, but the labour provisions were salvaged and recodified in the National Labour Relations Act of the same year—the so-called Wagner Act.

This Act

- 1) illegalised employer attempts to put pressure on collective bargaining.
- 2) forbade employers to refuse to bargain collectively.
- 3) forbade employers to interfere with a union or to make membership or non-membership of it a condition of employment.
- 4) set up the National Labour Relations Board to enforce the Act.

This Act, with its upholding by the Supreme Court in the Jones and Laughlin decision of 1937 'was a turning point in industrial history' of the United States. Unions became respectable legally and therefore, so to speak,

socially. Membership more than doubled between 1933 and 1937, and reached 8 million by 1938. The National Labour Relations Board was steadily upheld by the Supreme Court; the subjects admissible for collective bargaining multiplied (they now include pensions), and Federal control was widened by ever more liberal interpretations of the words 'interstate commerce.'

Within this legal framework two major changes in labour activity appeared. Firstly, the expansion of unionism brought less skilled workers into the American Federation of Labour, and the attempt of the Federation to organise mass-production industries was carried out so feebly that John L. Lewis and other leaders broke away to form the Congress of Industrial Organisations which achieved the sensational success of securing an agreement with both Carnegie-Illinois and General Motors in 1937. This was the end of 'unionism for the rich'; by 1942 the Congress of Industrial Organisations had about 5 million members, almost exactly as many as the American Federation of Labour. Secondly, organised labour became more concerned with politics—one might almost say, re-entered politics, for American labour history is a tale of but feeble political action from the 1830's to the 1930's. In this, it is a conspicuous contrast with British labour history, a contrast partly no doubt due to the slower emergence of definite class distinctions, partly to the more equivocal character of American parties.

Thus these 80 years in America as elsewhere produced greater labour organisation. But what is odd in the development is the late date at which the unskilled became organised; the comparative absence of political action; and the massive, corporation-like character of some of the Congress of Industrial Organisations unions so recently emerged, with 'strong men' like Walter Reuther or John L. Lewis (paid incidentally, \$15,000 per annum) talking on equal terms to the biggest industrialists. Oddest of all is the abrupt volte face of the government. At the start of

the '20's the cry was 'Let government be supreme in its sphere and industry in its sphere', and the corollary—'hands off industrial relations'—was accepted as far as the minimum of unavoidable legal control would permit. But in 1935 the government took an active hand and in 1947, with the passage of the Taft-Hartley Act, expressly assumed even greater powers. The politicians began to move into industrial relations just a little ahead of the trade union leaders and their followers moving into politics. These changes, hard to explain on their own level, were but the public responses to changes more complicated and more profound taking place in the basis of American economic and social existence.

Chapter 11

*

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IT is impossible to obtain a correct understanding of the experience of the American economy in the 1930's if that experience is regarded in isolation from what went before—and especially if it is regarded in isolation from the hectic life of the '20's. For America approached the 1930's in buoyant mood. Between 1919 and 1929 both total production and production per hour of work in manufacturing industry rose more rapidly than in any preceding decade of American history. The national real income per head did not, it is true, rise so rapidly—it did not rival the rate of increase of the '90's, for example, nor even that of the '80's; but this was because leisure grew, because technological unemployment was unusually heavy, and because the increase in prosperity was 'spotty', failing to embrace some important industries such as coal mining, cotton, railroad transportation, and, on the whole, agriculture. The failure of these industries was, however, only a relative one; and the overall impression received by visitors was of 'an ebullient prosperity and a confidence in the future', an impression noted with satisfaction by a Government sponsored committee in 1929, which itself observed, 'We seem only to have touched the fringe of our potentialities.'

The chairman of this committee was Herbert Hoover and the words quoted were written probably in February, 1929. Within six months the production level in certain key industries began to decline, within eight months the New York stock-market collapse was well under way, and before the end of the year President Hoover was telling industrialists (in private) 'that no one could measure the problem before us or the depth of the disaster'.¹ Thus in America the 'inter-war period' is very hard to conceive of as a single period at all. The 1920's constituted the 'new economic' era' in which high-pressure salesmanship made

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the radio, the automobile and the permanent wave as familiar as the sun and the rain, and apparently limitless prosperity gave to Manhattan the most famous skyline in the world in a single decade; whereas in the 30's the dream was reversed, and American economists half convinced their country that its fate was 'secular stagnation', with an apparently irreducible minimum of eight million unemployed. It was America's misfortune to reverse the hymnist's order, and to find that it was the morning's joy which led to the night of weeping.

The speed and vigour of the growth of the 1920's, unique to America, appeared to rest primarily on the expansion of the automobile industry and on a building boom. In 1914 just over $1\frac{1}{4}$ million cars were on the roads; by 1929 the number was over 26 million, and the industry had risen from nowhere to be one of the ten largest employers of labour in the United States. As a further consequence of its rise there was the annual expenditure of around \$3 milliard on the upkeep and improvement of roads. The building boom, probably the greatest in American history, grew out of a situation combining high rents with low interest rates, and reached its highest point in 1925 with an estimated expenditure of over \$6 milliard, which would represent an investment over three times as great as in any previous peak year. House building continued on an extensive scale until well into 1928. The amount of novel economic activity generated by these great industries, and by the electrical industry which grew up along with them, was tremendous, although not in itself quite sufficient to account for the nation's energetic growth. The missing factor is the share of labour in the national income; 'there was an increase in the proportion of total income going to profits (including those left in the business) and a corresponding decrease in the relative proportion going to wages and salaries—this in spite of a very considerable increase in real wages, reckoned in terms of commodity buying power.' From mid 1919 to mid 1927 this seems to have

provided a situation where the ability to invest found outlet partly in the financing of the creation of capital goods, but more and more in the purchase of securities sold at ever-mounting prices; as soon as the novel investment opportunities decreased their rate of growth and the illusory nature of the prevailing security values came to be realised, the system abruptly got out of adjustment and consumer demand and investors' confidence were bound to fall away with disastrous consequences.

The crisis of 1929 and the world-wide depression which followed it were not manufactured exclusively in the United States. The aftermath of a till then uniquely bitter and destructive war was world disequilibrium, political as well as economic. Russia withdrew into a position of isolation; the German and Austrian economies lay in ruins, the former so to lie for a year or two, the latter for decades; France was prostrate, and Britain, the greatest power of the 19th century, was weakened, exactly how seriously no one yet knew. Outside Europe, where destruction had not been felt, maladjustment was almost as serious, the expansion of agriculture and the intensification of industrial effort being especially prominent in almost every major economy. Nowhere was this—especially as regards the expansion of agriculture—more true than in the United States, where the slogan had been, 'Food will win the war'. In return for her exceptional food exports of the war years, America had Europe's promises to pay. These promises reached staggering proportions. The indebtedness of the various nations was scaled down by amounts varying from 23% for Britain to 75% for Italy, but even after this reduction (which did no more than discount the high prices of wartime) the principal owing was no less than \$11,522 million, to be paid over a period of sixty two years, the interest to total \$10,621 million. Payment were made on these enormous obligations, payments which were chiefly the transfer to the United States via the ex-allies of German payments on the reparations which

the Treaty of Versailles had fixed at \$33,000 million—an amount reduced in 1924 and again in 1929. These payments constituted a grievance in Europe, caused much international irritation, and were a source of inconvenience and uncertainty in international trade. On such payment, however, the United States insisted through the acrimonious international discussions of ten years; no amount of argument could persuade the American voter that these debts constituted less than a just claim nor that their attempted collection was unwise, and in this opinion he was fortified by several influential economists.

Nor was this all. The war turned the United States into the greatest creditor nation in the world, and her prosperity through the 1920's made her, along with Great Britain, the greatest continuing supplier of long-term capital. She provided both Canada and Latin America with large supplies of long-term capital in the '20's, and raised even larger amounts for Europe. To begin with, most of these European loans went to the United Kingdom, France and other countries on the Atlantic seaboard, which used them to a large degree to finance lending to less fortunate neighbours; latterly, American funds assisted these depressed members of the European economy directly. Under both systems the chief beneficiary was Germany; Germany absorbed more foreign capital than any other country between 1924 and 1928, and this absorption changed her from a creditor country in 1924 (excluding reparations) to the most heavily indebted country in the world, except for Canada, by 1929. Thus American lending was the chief instrument in putting Germany back on her feet and, therefore, the real source of the allied 'repayment' of war debts. This process reached its peak in 1927, when America subscribed about twice as much for foreign lending as did the United Kingdom. American international lending then fell off, slightly in 1928, severely in 1929. In all, it is estimated that America invested some \$4.5 milliard in foreign long-term issues from 1921 to 1929 inclusive. These loans at once helped Germany pay reparations and there-

fore the ex-allies their war debts, helped other countries meet payments due to the United States on account of her large and persistent favourable visible balance of trade (partly a consequence of America's refusal to accept goods in repayment of her loans), and helped support the internal American level of prices. The system was entirely admirable as long as United States lending continued to increase so that net repayment was never required to begin.

The state of international economic affairs in the 1920's was, therefore, a preposterous one. Europe, which had dominated the world in the 19th century, was paralysed by distrust and, to a lesser extent, by poverty. International power had passed to the United States of America. But the leadership which should go with power that country steadfastly refused to accept. Rescuer of the allies in war (whether she would or no), their creditor in peace to the tune of over \$20,000 million (upon which she insisted), America nevertheless hastened to reassume her lost political isolation by declining either to ratify the Treaty of Versailles or to join the League of Nations. She strove further

'to attain an economic self-sufficiency which she had never enjoyed, and which it was impossible for any country to enjoy so long as the existing world economic order was in force, by raising her tariff-wall to an almost unscalable height and by reducing, almost to vanishing point, the stream of immigration from Europe as well as Asia. Yet her economic industrialisation, which made her increasingly dependent upon the world market, and her political individualism, which made her obstinately insistent upon the discharge of Inter-Ally Debts, worked together mightily, during the 'post-war' years, to implicate the United States more and more deeply in the world economic order, willy-nilly.'

Thus America demanded the payment of war debts; lent large sums to Europe; geared her economy to production for foreign markets which the Government helped locate:

and all the while in her creditors and customers (excepting those in Latin America) professed the most complete lack of political interest. This policy was of course a contradiction, a dangerous paradox; as it was expressed when the crisis was upon her, her politicians 'were still professionally reflecting the impulses of a nation which was obstinately attempting to keep its footing in the economic world of A.D. 1931 without deviating from the political paths of A.D. 1783.' Like two large icebergs drifting along a current together, America and Europe touched and ground against one another uncomfortably below the political waters which appeared to divide them.

Yet it is too easy to castigate the United States for her failure to adapt herself to the new situation. International economic and political power was never thrust upon a nation more suddenly. Prior to 1875 the United States had herself been a borrower on a large scale, and up to 1914 was still engaged in the repayment of a very large debt. Had events moved at that pace to which the 19th century was accustomed, the United States might have adjusted her ways of thinking and of acting without difficulty, and have become—as Britain in the 19th century—a complacent acceptor of the repayment of obligations to herself. But events moved too fast. For four hectic years every effort was made to increase exports, while the supply of imports necessarily shrank. Foreign credits in the United States dwindled, American credits abroad grew and surpassed them. America emerged from the war as the greatest creditor nation in the world, having achieved in four years a position such as it had taken Great Britain twice as many decades to come to; and Great Britain had not started from a position of indebtedness. Thus, although American policies cannot be said to have been wise, the framers of policy were faced with a reversal of their problems and yet found still on their hands the internal economic order which had affected the external change, and not one, therefore, easy to adapt to it. If exports were to be suddenly reduced, who was—or indeed who was not—to suffer?

The instability of this international situation aggravated, and was in its turn aggravated by, the unhealthiness of the internal American economic situation; the two combining ultimately to produce the disaster of 1929-1933. Political uncertainty in Europe, along with the repayment of war debts and a commodity export surplus, increased the American monetary gold stock from about \$2.8 milliard in 1920 to about \$4.5 milliard in 1924, after which there was little alteration up to 1930. This 50% increase made the total gold holding almost two and a half times as great as it had been prior to the war. This, coupled to the fact that changes in the banking system since 1913 facilitated the expansion of credit on a given gold basis, made for a plentiful money supply and low interest rates through the decade. These low rates of interest stimulated foreign investment. They also caused banks to have difficulty in maintaining their earnings, and so to seek less secure or less liquid forms of investment. These influences helped also to keep up the price level—despite the fact that costs were, on the whole, falling; this camouflaged inflation was not the subject of action by the Federal Reserve Board, and its continuance was in part responsible for the final development—an increasing propensity to gamble on the Stock Exchange which degenerated into a mania after 1927. This national orgy was financed as well as encouraged by rising corporate profits. ‘Deluded by the insane propaganda incalculating the belief that prosperity was permanent, at least a million people managed to save enough from their income to speculate in stocks.’ By 1929 the market, it was said, was discounting not only the future but also the hereafter, the value of stocks listed on the Stock Exchange having risen at an accelerating pace from about \$27 milliard in January, 1925, to about \$90 milliard by September, 1929. In the face of such competition, the sellers of foreign bonds found their business contracting, and foreign share issues did not make up for this decline. The supply of international credit was beginning to fail, and when the supply of dollars contracted by 68% between

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1929, and 1933, a large number of Americans who had invested abroad found that their creditors were in partial or complete default.

The stock market speculation could have only one end. In September, 1929, the desire to 'realise' was coming to overtop the desire to secure further gains, and prices began to crumble; in the second half of October the wish to realise degenerated into a panic to sell, and by the end of the year the value of stocks listed on the New York Exchange had declined by over 25%, or about \$25 milliard. Recovering a little in 1930, they resumed their decline thereafter and touched bottom in July, 1932, with a loss of about \$74 milliard, or about five sixths of their supposed value in September, 1929. The story (although not on this scale) was an old one:

'Crowds pant, and press to seize the prize,
The gay delusion of their eyes . . .
And disappointed, feel despair
At loss of things that never were'.

But the philosophic calm of an 18th century observer was not the temper of the losers, of whom there were very, very many.

This sudden disappearance from people's calculations of a great many thousands of thousands of dollars set in motion the train of events which was to bring on the depression, resolve the difficulties of the '20's, and produce a fresh crop of problems the resolution of which was to be begun only with Hitler's attack on Czechoslovakia in 1938. This outrage was still almost ten years in the future; but events moved towards it with extreme rapidity. The stock market crash was inevitably followed by a severe falling off in industrial and commercial activity. Public confidence and the public purse were alike flattened, with the consequence that prices fell while unemployment rose; by October, 1931, there were almost 8 million unemployed, by early 1933 over 13 million. The contraction in the real income of the American people was, at its worst, not far short of 50%, and this figure disregards the personal loss

of happiness and self-respect which unemployment brought, ultimately, to between 15 and 17 million individuals. No such disaster had ever before overtaken a nation in what had seemed the high tide of prosperity. Its consequences, of course, were felt all over the world. The abrupt contraction in international lending produced a financial crisis in economically dependent Austria in 1931, a crisis which spread from there to Germany, and from Germany to Britain. As credit failed, international trade contracted, and as international trade contracted the position of the American farmer, in particular, worsened; farm income between 1929 and 1932 declined by *over* 50%. America continued to demand the payment of war-debts until the end of 1933, but by then all debtors (except Finland) had taken a common course in solving the problem—at last—by unanimous default.

The eighteen month old administration of President Hoover proved powerless to arrest the debacle. The \$500 million attempt of the Federal Farm Board to stabilise agricultural prices was a costly failure. The Hawley-Smoot Tariff Act, signed by Hoover in mid-summer 1929, two days after the Agricultural Marketing Act, was a blunder of the first magnitude; the most restrictive American tariff since 1909, this measure helped, a little, to reduce world trade still further, set a conspicuously bad example at a particularly unfortunate moment, and benefitted no one except the Democratic Party, whose strength it undoubtedly increased. The most energetic move of the Republican administration was the creation of the Reconstruction Finance Corporation, an agency designed to lend money with Government backing to private corporations, including banks, in order to ensure the solvency of institutions in merely temporary difficulties. But this was not proposed until the end of 1931. Two years of deepening depression had exhausted the reservoirs of public hope and discredited the government, and the Bill was held up and, for a time, crippled by the opposition of an increasingly Democratic Congress. This measure, more-

over, when it became operative, had the paradoxical effect of helping to cause the run on the banks which was in full swing by February, 1933, for depositors, already nervous about the safety of their deposits even in sound institutions, immediately concluded the worst if it came out that their bank had required a loan from the R.F.C. Of general coherent policy, Hoover had none. He ran budget deficits, but only because the fall in government revenue was always greater than his expectations. He tried to use financial methods to 'assure the maintenance and normal working of the commercial fabric', with the proviso that 'the first shock must fall on profits and not on wages', but neither aim was achieved. Above all, the political tide ran heavily against him in 1931 and 1932, and from November of that year Roosevelt was President-Elect. This winter of 1932-33 provided, indeed, one of the most lamentable possible demonstrations of the evils resulting from a constitution all checks and no balances. The bank 'holidays' which became increasingly frequent from October, 1932, were clearly the product of uncertainty, and one great source of that uncertainty was the vagueness of the programme of the incoming President, in whose hands supreme power would so shortly be concentrated. Both Hoover and the Federal Reserve Advisory Council endeavoured to secure statements from Roosevelt about his views on the budget and the gold standard, but in vain. The situation deteriorated rapidly, and when Roosevelt stood on Saturday afternoon, March 4th, 1933, to take the oath of office, the banking system of America had practically ceased to operate, and at least 15 million men were unemployed.

Roosevelt thus became President at the very nadir of the worst depression in history, having been elected on the programme of a 'New Deal'. In his election campaign, the exact nature of this 'new deal' had not been made at all clear; but generally speaking it was understood to aim at the elimination of those evils in the capitalist system which

had produced the depression, and at the more even distribution of wealth, especially in favour of the workman and the farmer. Thus Wall Street was to be reformed while the less economically fortunate were to be helped to help themselves, and this would—it was hoped—serve the twin ends of getting the country out of the depression and simultaneously meeting the challenge of ‘one third of a nation ill-nourished, ill-clad and ill-housed’. This at least looked like a coherent programme, and the evident resolution and self-confidence of its chief architect and author swept Roosevelt and the Democrats into complete power.

Before any New Deal policies could be begun, however, the President had to overcome the banking paralysis. This grim situation was handled with the most conspicuous resolve. The tone of Roosevelt’s inaugural address was itself a tonic: ‘This Nation asks for action, and action now’; but if Congress fails, the President will ‘ask . . . for the . . . broad Executive power to wage a war against the emergency. . . . The people of the United States have not failed’. Two days later, on the Monday, an emergency proclamation virtually took the country off the gold standard and closed the banks for four days; and on the Thursday an Emergency Banking Act passed Congress, under which both the R.F.C. and the Federal Reserve System were mobilised to support any sound banks and business enterprises. Under this treatment half the banks of the country, with 90% of the country’s banking resources, were open again before Roosevelt had been in office for a fortnight. Only about 5% of the banks were adjudged hopelessly unsound and were never re-opened. The situation had been retrieved by ‘thoroughly conservative policies’⁹—but carried out with unexampled boldness and speed. This was a triumph of personality; Roosevelt’s first ‘fireside chat’ was given on March 12th, and it did more than the Emergency Act to restore confidence and, through confidence, the functioning of the economic system. Roosevelt’s voice and words on the wireless had an effect on his American listeners closely analogous to that

of Churchill's on Britain during the second German war. Warmth of personality, resolution, a confidence massive but unstrained—the sense of these meant more to America at that time than any words, any statutes, or all the gold in Fort Knox.

The way was now open for further action; the patient's heart was again beating, and it was now a question of how to get him back to health. Scarcely more than on the verge of his new measures, Roosevelt here took one step which was, to say the least of it, unfortunate. In the summer of 1932, the major European powers had, through the League of Nations, sponsored a world economic conference, and Hoover had indicated that America would participate in this conference. An American delegation duly appeared in London in June, 1933, and speeches were made and resolutions put forward which gave the world to understand that America supported Britain in seeking, first, exchange stability, and, in due course, the re-establishment of a gold standard. The definite departure of America from the gold standard in April (in order to permit the adoption of internal inflationary measures) was not encouraging, but the world was scarcely prepared for the 'rather petulant and confused tirade' ¹⁰ which Roosevelt sent the Conference in July, denouncing the 'old fetishes of so-called international bankers' ¹⁰ and briskly advising the delegates that a dollar with constant purchasing power 'means more to the good of other nations than a fixed ratio for a month or two in terms of the pound or franc'. ¹⁰ The Conference was unable to survive this rebarbative communication, and the 'nimble inconsistency' ¹⁰ of American policy must take the chief blame. It should be added, however, that the placing of emphasis on internal reforms (in Roosevelt's message these included, ironically enough, balancing the budget) had the approval of both Lord Keynes and Dr. Schacht and was the practice—although not the declared policy—of Great Britain. It can scarcely be said, therefore,

that Roosevelt's message destroyed any strong and reasonable hopes of world economic co-operation.

The difficult problems of international economic co-operation thus evaded, Roosevelt was free to pursue purely national measures of rehabilitation—with the saving afterthought that these would, when all was said and done, do more for the world than any alternative policy. The way was thus clear for the New Deal proper. But this subject, when closely inspected, has a perplexing tendency to
' melt,

Thaw, and resolve itself into a dew'.

For the New Deal was 'grandly opportunist'.¹¹ In pursuing its twin aims of economic revival and social reform, it operated simultaneously on many economic fronts and in its means of proceeding was perfectly consistent on very few of them. It was, in fact, a congerie of policies, and even as a congerie it altered with the years. It began as a governmental effort to rescue capitalism—'Capitalism was saved in eight days'—and here the New Deal measures were, although short of any sort of socialisation, unprecedented and heroic. Where for a hundred years employers and financiers had been free of Federal intervention, they were regulated; where the builders of trusts had been for forty years in chains, they were made free. Agriculture, home of freedom, at last had its freedom guaranteed. The State began large-scale operations, such as the Tennessee Valley Authority scheme, on its own. In the development of international trade policy America gave a positive lead for the first time—the strongest lead by any country since Britain had pushed the ideal of free trade in the 1850's and 1860's. Labour relations were put on an entirely new basis. Not all of this was novel in principle—in the fields of agriculture and finance there were precedents for New Deal policy. The novelty was the overall effect. It was not so much that the Federal government had never before acted in influencing economic activity as that it had never so acted except at the plain behest of the most aggressive and

influential sector of the community—at least, not since the days of Jackson. But Roosevelt's was an independent government, the servant not of big business but of the 'forgotten man'. And hence an intervention inspired by the temporary necessity of business and at first welcomed by business men became, in a few years, a struggle between business and the government.

It is, therefore, not surprising to find that relations with industry were the most unstable element in New Deal policy. To begin with, in 1933, most industries were persuaded to adopt 'codes' which set a maximum to hours and a minimum to wages, and in other ways tended to limit production (i.e. competition) and keep up prices. These codes, produced in a hurry and badly administered, were little more than 'the creatures . . . of trade associations',¹² and operated largely in disregard of the interests of both consumers and small producers. The policy, in fact, amounted to the countenancing of 'self-government in industry', and from 1933 to 1935 the operation of the anti-trust laws was largely suspended while the traditional Federal policy regarding competition went into reverse. This phase ended when the codes were declared unconstitutional in 1935; but they had already fallen into disrepute. With the recession which took place late in 1937 (due chiefly to a violent reduction in government expenditure in the autumn of that year) the government executed a volte face, and a new programme of vigorous enforcement of the Sherman Act was begun, along with general verbal attacks on the efficiency and reputability of business. It may be that this was a matter of looking for a scapegoat to account for the failure of the economy to maintain its progress; it may have been an honest change of mind; it certainly represented a return to traditional American practice. In any event, war interrupted the new programme before it had time to prove its merits, and co-operation between government and industry was perforce renewed.

New Deal policy with regard to business was thus 'everything by starts, and nothing long'. This, however, was the

exception. In dealing with agriculture and finance, traditional policies were further developed and very important and permanent gains secured. Along with the T.V.A., these two fields were probably the scene of the most important and most lasting of New Deal achievements. The policy of bolstering up agricultural prices, pursued with dismal lack of success by the Federal Farm Board under Hoover, was made effective by the Agricultural Adjustment Acts of 1933 and 1938, largely because these latter added crop control to the already well established policy of price support. Prosperity for the farmer was thus secured, if at the price of making the non-farmer pay higher than world prices for his food and raw materials. The banking and financial measures of Roosevelt (once dollar devaluation was accomplished) were largely directed to strengthening the Federal Reserve System and setting limits to the unwisdom of speculators on the Stock Exchange—measures which obliged the American institutions concerned to provide services of an efficiency comparable to those offered by British banking and investment institutions for over half a century. In this respect the New Deal merely made America less old-fashioned and out of date.

After these items, the New Deal must be given recognition for making a major and enduring contribution to the modernising of the American economy in a third direction; that is, by creating the legal framework within which collective bargaining by labour became possible. This change undoubtedly improved the economic and social position of many workers, although it also introduced fresh rigidities into the economy and failed to do away with the atmosphere of violence in which it was possible for two prominent steel companies to possess—as an official investigation disclosed—‘adequate equipment for a small war’.^{1a}

Almost certainly less noteworthy in the perspective of history, although a great deal was made of it at the time, was New Deal policy in respect of international trade.

International economic co-operation, thrown overboard in 1933, was resumed under the Trade Agreements Act of 1934, under which (as already recounted) twenty eight bilateral agreements were made prior to 1945. As far as the freeing of world trade went—the alleged purpose of this novel American policy—the results were rather meagre; and as to securing an import balance in American commodity trade, they were zero. In effect, this tariff reduction programme, whatever its intention, operated simply as a new means for the Department of Commerce to secure its old objective—the opening of new markets to American exporters. The new policy, in short, was of mild assistance to the development of international trade but irrelevant to the major problem of securing a healthy balance of trade between America and the rest of the world. American propensity to import continued to vary, as it had always done, in close sympathy with the internal level of economic activity, but remained too low for international stability. A large favourable balance of trade continued through the 1930's, met by enormous shipments into America of gold and silver. Foreign lending, which at its height in the 1920's had never accounted for more than 3% of America's annual investment, did not revive; private investors had (and have) unpleasant memories of previous ventures, political stability was (and is) far to seek in Europe or elsewhere, while, as American economists have plaintively but justly observed, 'corporations and individuals in the United States seeking profitable investment outlets abroad are not likely to be attracted to countries that, officially and explicitly, proclaim their preference for a type of economic organisation in which private investment for profit receives, at best, a subsidiary role or a sullen tolerance.' ¹⁴

Generally speaking, New Deal policies were least traditional—and it is to be hoped, of least permanent importance—when directed to the relief of the unemployed and the reduction of unemployment. It was here that the twin aims of the New Deal—social justice and

economic recovery—met. Under Hoover, Federal action was confined to small grants to eke out State relief, small 'self-liquidating' public works, and exhortations to the business community to be prosperous. Roosevelt was little more in favour of the direct grant of money and goods to the needy by the Federal government than was his predecessor; the 4 million families who were receiving help in this way at the end of 1934 were mostly the beneficiaries of local aid. Really constructive programmes of public works did not get under way until late in 1933, by which time they were long overdue. At first they were 'quickies' producing few permanent results. But as New Deal policy developed, and as the engineering and legal difficulties of starting large scale construction works were overcome, the public works policy—especially under the Works Progress Administration of 1935—made solid contributions both to recovery and to the national heritage. By 1941 Works Progress Administration had employed over 8 million different individuals and paid out over \$1 milliard in wages; to show for the expenditure, America had roads, public buildings, new housing estates, irrigation and power schemes; in addition, the United States Housing Authority, set up in 1937, erected 130,000 houses in five years in order to do something towards providing 'decent, safe and sanitary dwellings for families of low income,' and to help in 'the eradication of slums.' The Tennessee Valley Authority, spending \$700 million to provide proper flood control over a great area and spread cheap power over a still greater, was but the most ambitious, complete, and striking of these public works projects. These operations were made possible by deficit financing, i.e. by borrowing: from Roosevelt's assumption of office in 1933 to the attack on Pearl Harbour the gross direct debt of the Federal Government rose from \$20.9 milliard to \$44 milliard. But the rate of interest throughout this period never exceeded 3%.

Lastly, as a permanent safeguard against the then prevailing ills, the Social Security Act of 1935 provided a Federal system of old-age insurance and put pressure on

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the States to create their own unemployment insurance schemes, where such did not already exist. The result was that by 1937 all States had evolved some form of employer-employee contributory scheme, under which, as a rule, the unemployed individual receives about half the weekly wage for a period usually limited to 16 weeks. Only about half the gainfully employed are covered by this legislation. Even so, it has been described as 'one of the most sweeping reforms benefitting the masses in recent years.'¹⁵

Such in outline was the New Deal. It made several long-overdue improvements in the American economic system as a result of which America should be better able in future to sustain the shock of economic fluctuation. (And of course it should never be forgotten that the experience of 1929-1933 was unique. It was the product partly of post-war dislocation, and in it, as a most careful student of the depression has expressed it, 'practically all possible factors conspired to do their worst.')¹⁶ But in its avowed and more immediate aims the New Deal failed. If it sought recovery, it was still faced in 1940 with between 9 and 10 million persons unemployed, although in 1935 and in 1938 the figure had been considerably worse. War, when it came, did more than the New Deal to re-energise the American economy, and huge armaments orders and a continuous unrequited exportation to Europe have been the background to a revival which has taken the American production index from 100 in 1939 to over 200 in 1948 (and the Federal debt, it may be added, from around \$44 milliard to near \$300 milliard). If, on the other hand, the New Deal is to be judged by its contributions to social justice, it cannot be claimed that remarkable improvements were made; but eight years is a short time. One great change the New Deal did make; it established the Federal Government incontrovertibly as a mighty economic power in the land, and banished forever serious consideration of the advice of Calvin Coolidge—'Let business be supreme in its sphere and government in its

sphere.' The Federal Government is to-day recognised as a party to all serious labour disputes; indirect controller of credit; potential largest employer in the country; guarantor of farm income; manipulator of the tariff; and, in the last resort, supreme regulator of the national economy. And yet, in spite of all this, it is the changes in America's political position under President Roosevelt which must be placed first, as being both greater in extent and directed by superior wisdom than were the changes in her economy and in her international economic position. Political adaptation to the 20th century world was actually achieved by a great effort of mind and imagination; but the economic adaptation, equally necessary, and required equally on both sides of the Atlantic, was, and it seems is, still to find.

Chapter 12

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THE AMERICAN WAY OF LIFE: IDEAL AND REALITY

'THE youth of America,' said Oscar Wilde (with a painful disregard of grammar) 'is their oldest tradition. It has been going on now for three hundred years.' The likelihood that an epigram will simultaneously hint at and obscure the truth could hardly have a better illustration. For America as it thinks of itself and as 20th century Europe thinks of it is indeed young—but largely because the 20th century has a strong inclination to think primarily in economic terms. Most American economic history—or most that matters—is unquestionably recent history. Less than two centuries have elapsed since the farmer, even in long-settled New England, found it advisable from time to time to 'march into the wilderness in order to molest ye Indians';¹ further west, the modern traveller who admires the Grecian columns and elegant design of the State Capitol at Denver, let us say, or at Olympia, can scarcely avoid the impressive reflection that these modern echoes of an ancient civilization stand on ground which was all but unknown to white men at the commencement of the 19th century and was, even in 1850, scarcely distinguishable from the forest and the wilderness.

America as modern Europe tends to think of it dates, therefore, from about the time of the Civil War; and it might be supposed that a nation which is thus so largely the product of the 19th century would also be a reflection of 19th century ethical and political ideals—the ideals of utilitarianism, in fact; and that this would be of necessity a rather grim and terrible phenomenon. But such is not the case, and for a simple reason: politically and ideationally America is the product of 18th century and not of 19th century thought. In search of national traditions and ideals, America has reached back into that thin slice of time

between the War of Independence and the War between the States, and from it she has taken, with an unusual degree of self-consciousness, a group of notions which unite to form that abstract concept (so alien to a British mind) of a defined national way of life—‘the American way’. And this is important, because American economic development has been influenced by—although one cannot help feeling that it has on the whole been in opposition to—these pre-industrial ideals.

In thinking of American ideals it is both most convenient and most revealing to consider the lives and character of the men in whom these ideals found their unconscious embodiment. There are a good many such men, and the majority of them were signatories to the Constitution—a document as sacred to most Americans as is the institution of the monarchy to most Britons. Some figures stand out particularly clearly. George Washington, first President of the United States, would have been a great man in any country at any time. Without his leadership the Americans might never have won their independence, or having won it, might easily have failed to form themselves into a great, united and potentially prosperous nation. A ‘Virginia planter and frontier colonel,’² he won the war because of ‘his unflagging patriotism, his calm wisdom, his serene moral courage,’ and he helped his countrymen to win the peace because ‘his integrity, elevation and magnanimity never failed.’ And yet, when peace came, his political ambition was nothing—almost too little for his country—for he wrote then, ‘Agriculture has ever been the most favourite amusement of my life,’ and his personal desire was to return to Mount Vernon, his model farm, from which he had carried on a correspondence with such famous British agriculturalists as Sir John Sinclair and Arthur Young. The father of his country, ‘first in war, first in peace, and first in the hearts of his countrymen,’ Washington is revered to this day as a political leader of genius; nor is his social position, as one

of the leading agriculturalists in 18th century America and one of the richest men of his time, forgotten.

Another heroic figure is that of Thomas Jefferson, third President of the United States, previously Minister in Paris and Secretary of State under Washington. Like his great predecessor, Jefferson was a Virginia planter. He inherited 1,900 Virginian acres, and maintained an establishment of 34 persons and 83 slaves. Again like Washington, he was in the forefront of practical agricultural improvement; but in addition to this, being of a philosophic temperament, he enlarged his sympathies into ideal notions, and wrote, 'Cultivators of the earth are the most valuable citizens. . . . I should wish [our states] to practice neither commerce nor navigation, but to be with respect to Europe precisely on the footing of China. We should thus avoid wars, and all our citizens would be husbandmen.' ³ Why should this be desirable? Because the dream of the husbandman is not profit but freedom. The opposite of all this Jefferson found in Europe, which he disliked; there he found the grossly unequal division of property, married to absolutist government—'governments of kites over pigeons.' ⁴ But men, to this 18th century mind, were not pigeons; 'men may be trusted to govern themselves without a master. Could the contrary of this be proved, I should conclude, either that there is no God, or that he is a malevolent being.' ⁵ Thus Jefferson was the ardent advocate of agricultural occupations as fostering equality and responsibility, and therefore freedom. These ideas, as President, he was obliged to compromise in action, finding that he lived in a dangerous world in which it was political folly for a nation to be poor—that is, to be simply agricultural; but these concessions are not remembered, and the influential figure is the Jefferson of Monticello—his home ('Mr. Jefferson is the first American who has consulted the fine arts to know how he should shelter himself from the weather'), ⁶ a half-domed, spacious, Italianate building which he had himself designed, where he appeared a cultured man even in a cultured century,

'a musician, skilled in drawing, a geometrician, an astronomer, a natural philosopher, legislator, and statesman.'

Thirdly, there was Alexander Hamilton, Secretary of the Treasury when Jefferson was Secretary of State. Hamilton did not come from the South, but from the British West Indies; he was not born to wealth, but worked (and married) his way up in the newly-created American nation. His interest all his life lay in commerce, and he was, to Jefferson, the embodiment of the commercial spirit which the latter so much disliked. In its defence, Hamilton wrote one of the most famous state papers ever penned, the 'Report on Manufactures.' This brilliant piece of economic and political writing, anticipating the 'national economy' ideas of Friedrich List far more than it harked back to Hume or Adam Smith, was a complete defence of commerce and a plea for its protection in order to attract capital and bind the interests of business and government together; taken in conjunction with his paper 'On Public Credit', Hamilton may be seen as a national economic planner on a grand scale, an economic statesman of genius and astonishing breadth of view. His ideas were taken over by the Jeffersonians, and it is one of the paradoxes of history that Jefferson, the Southern aristocrat, has come to be seen as 'the great American radical' because of his insistence on freedom and equality, while the upstart Hamilton, prophet of American commercialism and industrialism, with ideas far ahead of his time, developed on this foundation a theory of government by wealth—product, for Hamilton, of the admirable traits of energy, self-confidence and ambition. A man of charm and outstanding commercial, political and literary ability, Hamilton's romantic appeal is not diminished by the fact that he was shot through the heart in a duel at the age of 49.

These men and many others like them were the founders of the United States. They acted, in this matter of founding a new nation, deliberately, conscious of their purpose and

probable achievement; and their lives have, therefore, no parallel in British history. But they are the heroes of their country. 'There were giants in the earth in those days'; and not only did they write 18th century prose but they also thought with 18th century ideas—the Declaration of Independence has been described as a summary of the political ideas of the most advanced political thinkers in Britain from Locke to Hume. The framers of that Declaration were, with the exception of Hamilton, pre-industrial in their outlook; but all united in a belief, more or less generous, in the right and capacity of men to govern themselves in conditions of political equality and to respect one another's right to 'life, liberty, and the pursuit of happiness.'

The independence of the individual was thus the very 18th century idea which the creators of the American people respected in common—Jefferson, at one extreme, because independence made responsible citizens, Hamilton at the other because it gave them the chance to become rich, and through them, the country. This is of the utmost importance in the whole course of American history. It is responsibility for self which produces the drive to work and therefore to earn; and it is working and earning which create responsibility and social prestige. As a New England business man put it a few decades after the Declaration had been written, 'An idler who feels that he has no responsibilities, but is contriving to get rid of time without being useful to anyone, whatever his fortune, can find no comfort in staying here. We have not enough such to make up a society. We are literally all working men; and the attempt to get up a 'Working Men's Party' is a libel upon the whole population, as it implies that there are large numbers among us who are not working men.'

This particular version of the creed, with its strong practical emphasis, is no doubt influenced by the puritan tradition of New England. But its author puts his finger upon one element of the situation which was even more important outside New England than within it; 'We have

not enough such to make 'up a society.' This indeed has been of the greatest consequence, for the checks which an acknowledged 'society' in the cultural sense might have put upon the pursuit of the business of earning a living were, until comparatively recently, pretty well absent in the United States. Almost all Americans were in the business of developing the country's resources; very few stood outside the process to criticise it, or to divert talent in other directions. Thus American society was not so organised as to produce men with the attitudes and the influence of, say, a J. S. Mill, an Arnold, a Lord Shaftesbury. It was, in a sense, an economic machine without a big enough social governor. Thus it was possible for a Senate investigation in 1933 to disclose that J. P. Morgan and his partners had managed by various devious devices to avoid almost any payment of income tax to the United States Government in 1930, 1931 and 1932; and the explanation offered was that this was not an ethical or social matter—'you are bound to have people save taxes where they can according to law.' This was the behaviour of some of America's 'best people' at a time of national emergency. And besides this absence of a developed social ideal, some other considerations should be borne in mind. There is, for example, the fact that, should social disapproval arise, it is easy to escape from it in the length and breadth of forty eight States; also, the setting up of norms of social conduct was extremely difficult in the face of a continual inflow of population with alien traditions, ideals, and even language; while sufficient weight has seldom been attached to the consideration that there has been remarkable freedom from absorption in war or from preparation for possible war. All these factors, and especially the first, go far to explain the single-minded devotion with which America has built up her economic power.

And what matters is that this social milieu is of immediate economic importance to every individual. It is—or should be—a commonplace that people's motives, and the strength

of their motives, are dependent upon the goals which they can imagine. In the matter of earning a living, the individual who cannot imagine himself working his way up to a position of wealth, cannot set out to do so; and if wealth cannot bring him the same power and prestige as other men, he can hardly be expected to make the attempt. But in the egalitarian American society, distinctions based on birth or on education are frowned upon in theory and are of slight importance in fact; in a significant sense, everybody is as good as everybody else, and consequently there is not, to the extent prevailing in many European countries, a group of satisfactions (of goods in the economic sense) which money cannot buy, and therefore there is in America that much more reason for going out and, if possible, earning money. Moreover, the American system of education provides more people with the same standards, the same goals to aim at, than do most European systems, and therefore the average American (of course there are a great many exceptions) possesses both the will and, if he can earn the money, the means to improve his social position indefinitely. Should he succeed in earning more money, his position in society will be determined and his achievement measured almost exclusively by the income position which he has attained. This is not, or has not been, the case in Great Britain, where the accent with which a man speaks, the district in which he has lived, the school which he has attended, even the clubs to which he belongs, may hinder or even limit the scope of his ambitions. The American social system has undoubtedly many defects, but it is clear that its egalitarianism, and the very great significance within it of the size of an individual's income, play a large part in stimulating the willingness of men to try to earn more in order to reach goals which they have been taught to strive for and to which they may at least hope to attain. There are many income levels, but, above the lowest class, there is a remarkably unified set of accepted social standards.

This social structure, operating in a country of great natural wealth, has helped produce the phenomenal material development of the past hundred years: the wage-earner has had the maximum incentive to work, and the salesman as large, as unified and as simplified a market as standardised taste could bring forth. It has also helped to produce the strong streak of wastefulness and inefficiency which has run through that development. Almost irreplaceable timber resources have been used up in a few generations; in agriculture, a few centuries—in some cases a few decades—have sufficed to destroy over 50 million acres of farm land, and to damage severely the productive capacity of another 280 million acres; sectional jealousies have prevented action to this day on the St. Lawrence Ship Canal project and the related power schemes. This is a consequence of the exclusive concern of individuals in a rapidly growing economy with the short run. It is in the short run, in a loose sense, that we are all obliged to live and die. Economy is relative to time, and while the span of human life is not much different in the United States from elsewhere, time is a commodity of which Americans have always seemed rather short.

This haste and understandable short-sightedness have in their turn helped to produce the conditions of perpetual change in which the peculiar American social structure has been able to maintain itself. Class distinctions have never hardened because money has always kept changing hands so rapidly. This was the feature of American life which particularly struck Henry James—not very agreeably. He found it exemplified in New York suburban architecture—no bad reflection of a people's life: these buildings, 'affirming their wealth with such innocent emphasis and yet not at the same time affirming anything else . . . all proclaimed it—that they would have cost still more had the way but been shown them; and, meanwhile, they added as with one voice, they would take a fresh start as soon as ever it would be. 'We are only instalments, symbols, stopgaps,' they practically admitted, and with

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no shade of embarrassment, 'expensive as we are, we have nothing to do with continuity, responsibility, transmission and don't in the least care what becomes of us after we have served our present purpose!' ⁸ And this transitoriness, twenty times more noticeable, James thought, in the United States than in Europe, was, as he correctly pointed out, and still is, due to the fact that all things American tend to take their value from business, and that the values of American business are, or at any rate were, constantly changing.

It may be that the pace of this change is now slowing down; it may be that the Pacific coast paper company which knows what timber it will be felling in the year 2000 is a herald of a new era. Certainly the America of 1950 is not the America of 'The American Scene.' But equally certainly, rapid change dictated by rapidly changing business values has been the keynote of all recent American history, and many Americans would be loath to believe that times have altered; it was the TNEC itself which declared in 1941, 'We reject as un-American and unrealistic the belief that the limits of economic achievement have been reached in the United States.'

This dominance of business was the design of Alexander Hamilton. It was he who looked forward to the alliance between business and government, with the reflection that if this should legalise government by the wealthy that would be just as well, for otherwise the wealthy would be obliged to govern despite the law. This vision was remarkably fulfilled. The struggle between government and big business has often been more playful than real, and always more of a turbulent alliance than a life and death contest. Its character in the hey-day of American development is brilliantly brought out in Lincoln Steffens' report of a description by Theodore Roosevelt of a meeting between himself as President of the United States, Senator Aldrich, leader of the Senate, and J. P. Morgan:

'The other day J. P. Morgan came to Washington, and he and I and Aldrich had a-a-a conference. That's the

world'—this with a laugh and a leer—'conference. And I noticed how he, Morgan, addressed himself to me, not to Aldrich. Aldrich was a senator, and bankers know, they meet, lots of senators. Senators are all in their day's work. But presidents—Morgan talked to me, while I talked to Aldrich, who talked to Morgan. And there we sat—I can see us there; I saw it at the time, and I could hardly help laughing out loud—I, as president, half turned to and addressing the senator, the senator turned to and addressing the banker, and the banker facing and speaking to me, the president of the United States.' ¹⁰

The president represented the people, and the conference represented the triple alliance between business, people and politics.

Yet, in a way, the most popular, the older American ideal is the opposite of all this—the vision more of Jefferson (in his pre-presidential days) than of Hamilton, whom his contemporaries occasionally thought of as no better than a West Indian adventurer; the vision of a great commonwealth of small, independent men, of farmers and small-town life, of a republic withdrawn from a rascally world to live within itself. But is the reality so very different from this ideal? In 1940 almost 45% of the American population lived in communities of fewer than 2,500 inhabitants; small-town life, that is to say, with which too many visitors to the United States never come in contact at all, is exceedingly widespread, exceedingly real to many millions of American citizens. America is full of little places, some dull, many isolated, most of them off the beaten track; scattered over the prairies, across the desert lands, along the coasts, or in the depth of what is left of the forests. They do not set the tone of American life, and their influence is usually forgotten except by politicians, who depend on votes. But to ignore their existence is fatal to an understanding of American life. Equality and fraternity are probably more real in these communities than in most parts of the western world, and there are few American families which have no connection

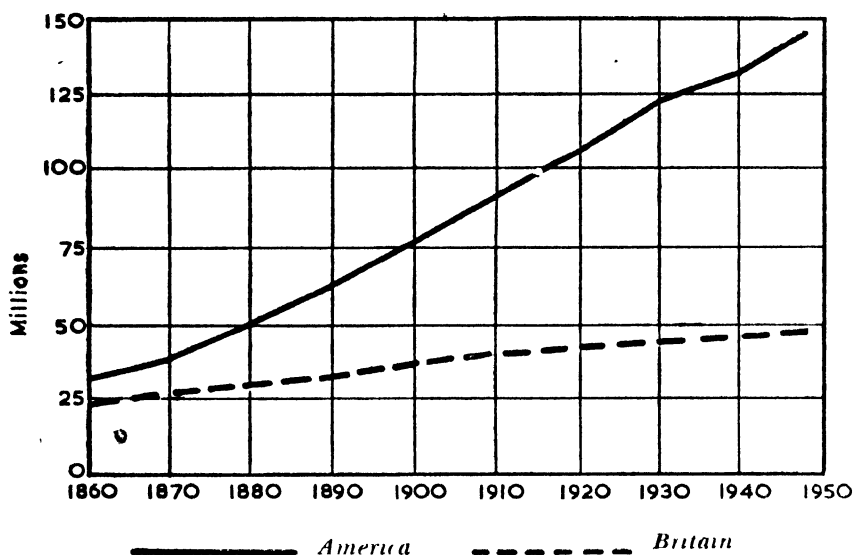
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with one or another of them. Thus the observer or historian who, dazzled by the power of the great cities, the great corporations, the far-flung systems of transportation, the mighty dams, and all the rest of the apparatus for the production, accumulation, and dissemination of wealth, concludes that American industrial history is the history of the life of America, and that anything left over is a mere residual, makes a profound mistake, and a mistake which the passing years seem likely increasingly to expose.

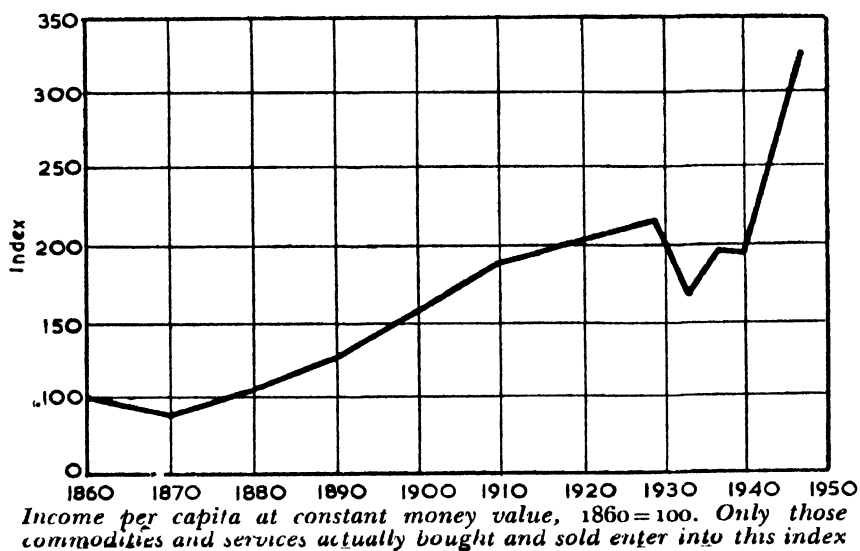
APPENDIX A

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I. POPULATION.

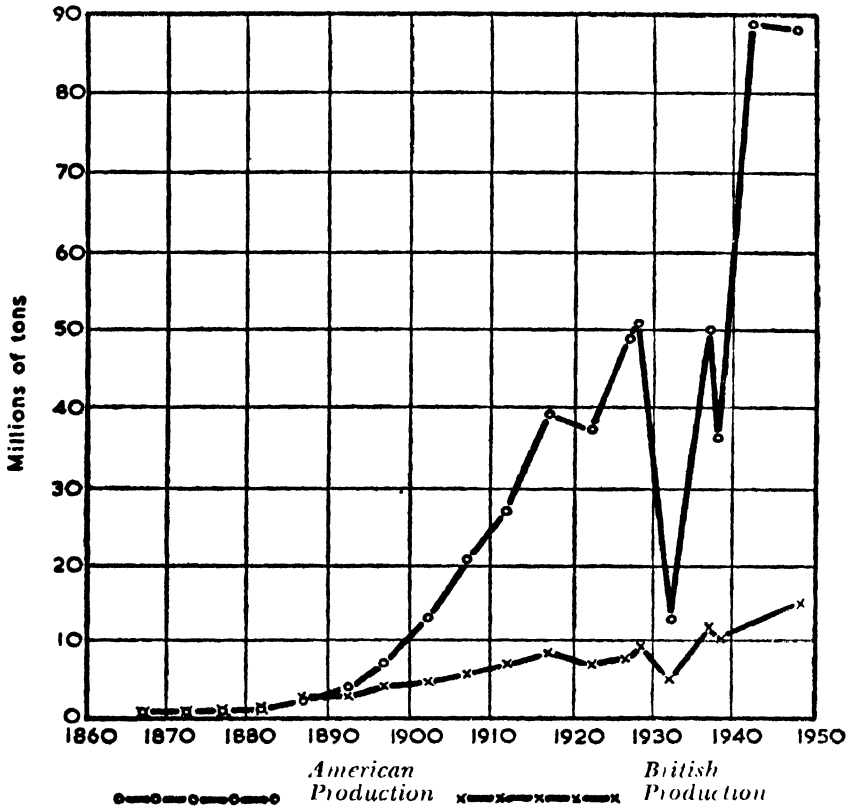


II. INCOME PER HEAD.

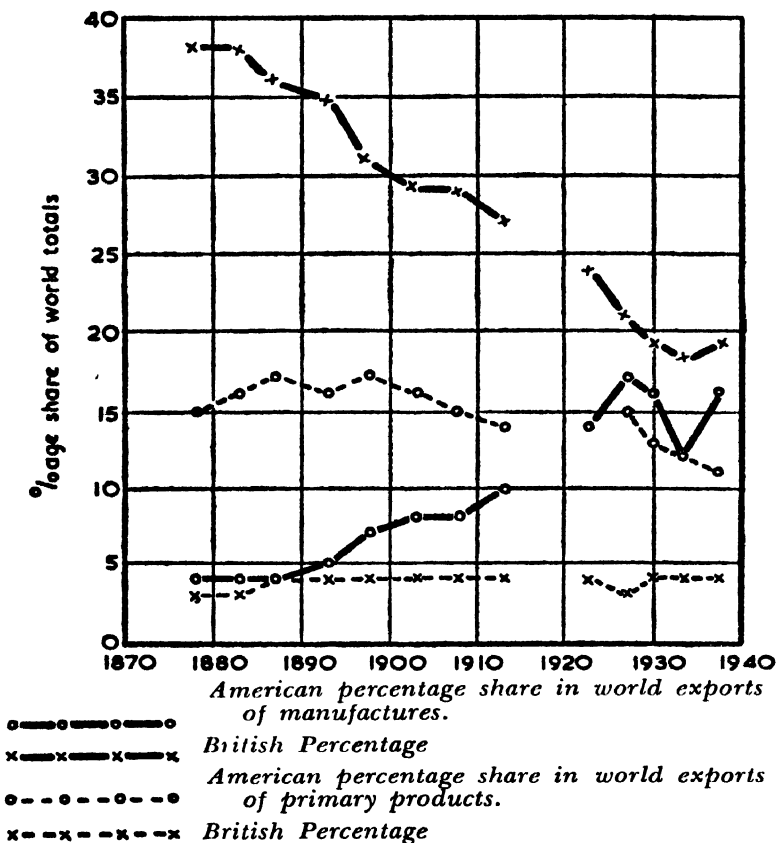


APPENDIX A

III. STEEL PRODUCTION.



IV. EXPORT TRADE.



APPENDIX B

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APPENDIX B

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THE AMERICAN ECONOMY 1860 - 1940

Chapter 6

- ¹ Purdy, Lindahl and Carter, op. cit., p. 293.
- ² Williamson, op. cit., p. 717.
- ³ Purdy, Lindahl and Carter, op. cit., p. 245.
- ⁴ Lynch, *Concentration of Economic Power*, p. 203. Columbia, 1947.
- ⁵ San Francisco Chronicle, March 3rd, 1948.
- ⁶ Purdy Lindahl and Carter, op. cit., p. 346.
- ⁷ Hearings before the Technical National Economic Committee, Part 25, p. 13085.
- ⁸ Final Report of the TNEC, p. 7.
- ⁹ ibid, p. 9.
- ¹⁰ Final Report of the TNEC. Hearings, part 2, p. 567.
- ¹¹ Hearings, part 17, p. 9470.

Chapter 7

- ¹ Carl Becker, *American History Review*, XXIX, No. 2, p. 345.
- ² Jefferson, *Notes on Virginia*, p. 102.
- ³ T. N. Carver, *Principles of Rural Economics*, p. 99.
- ⁴ quoted in J. Hicks, *The Populist Revolt*, p. 83.
- ⁵ Burns, op. cit., p. 129.
- ⁶ quoted in 1940 *Yearbook of Agriculture*, p. 301.
- ⁷ G. N. Peek, *Why Quit Our Own*, p. 20. van Nostrand, 1936.
- ⁸ Mandeville, *Fable of the Bees*, vol. 1, p. 109. 1725 edition.
- ⁹ quoted in *Studies in Wealth and Income*, vol. 6, p. 129. N.B.E.R.

Chapter 8

- ¹ F. Pecora, *Wall Street under Oath*, pp. 32-33. The Cresset Press, 1939.
- ² Pecora, op. cit., pp. 100-101.
- ³ Select, Committee on Foreign Loans, Report p. 7, 1876.

APPENDIX B

Chapter 9

- ¹ F. W. Taussig, *Tariff History of the United States*, 8th edition, 1931, p. 168. Putnam.
 - ² *ibid*, p. 165.
 - ³ *ibid*, p. 321.
 - ⁴ *ibid*, p. 452.
 - ⁵ A. Smith, *Wealth of Nations*, (ed. Cannan), vol 1, p. 423.
 - ⁶ Taussig, *op. cit.*, p. 365 note.
 - ⁷ Taussig, *op. cit.*, p. 376 note.
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PROBABLY the best single-volume economic history of the United States is H. U. Faulkner, *American Economic History* (1949). To this may be added C. W. Wright, *Economic History of the United States* (1949), which contains much useful statistical information in a readily available form. Both these books contain good bibliographies. •

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