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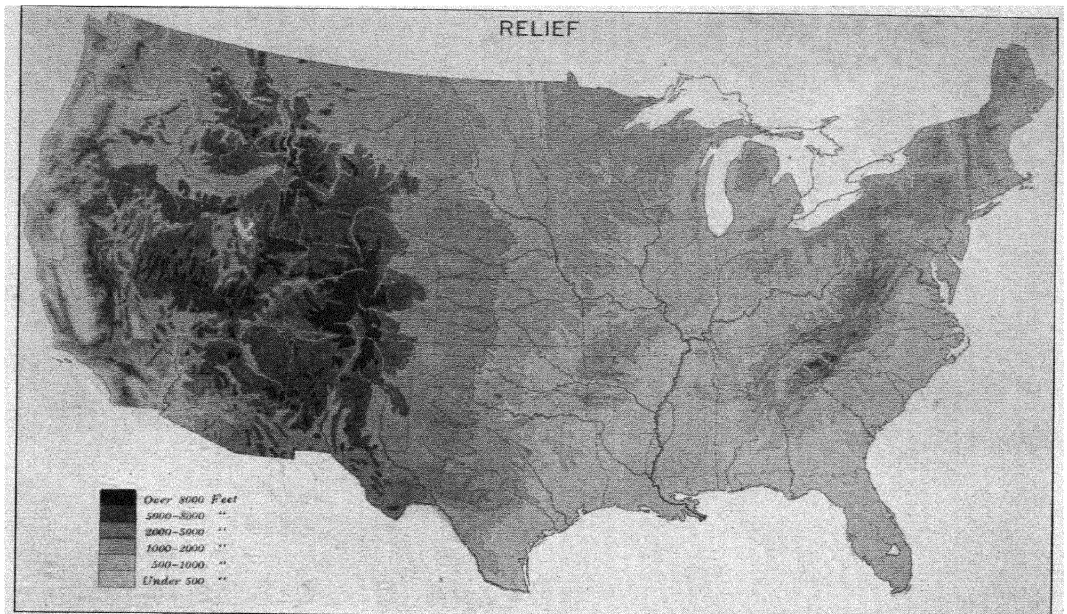
THE SOCIAL HISTORY OF AMERICAN AGRICULTURE



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THE SOCIAL HISTORY OF AMERICAN AGRICULTURE

BY

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NEW YORK

THE MACMILLAN COMPANY

1936

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Set up and printed. Published August, 1936.
First printing.

PRINTED IN THE UNITED STATES OF AMERICA
NORWOOD PRESS LINOTYPE, INC.
NORWOOD, MASS., U.S.A.

TO THE MEMORY

OF

FREDERICK JACKSON TURNER

PREFACE

THE several chapters of this book, written originally as successive offerings in a lecture course for University College, University of London, necessarily reflect some of the characteristics of spoken essays, each of which has to be relatively complete in its way. They were, however, so organized, in subject and in matter, as to tell the story implied by the general theme in a connected manner. The book, therefore, can be used either for topical study or for a comprehensive survey of the social history of agriculture. To fit it the better for class use, subtopics have been provided by way of analyses of the chapter contents.

It is pleasant to acknowledge the help given me by Professor B. H. Hibbard, of the University of Wisconsin, Department of Agricultural Economics, and author of *A History of the Public Land Policies,* who read chapters I and VIII; by Doctor H. L. Russell, late dean of the College of Agriculture, University of Wisconsin, and now director of the Alumni Research Foundation, who read chapter V; and by Professor John D. Hicks, of the History Department, author of *The Populist Revolt,* who read chapter VII. Each of these gentlemen offered valuable sug-

gestions, some of which were embodied in a revision of the text. Doubtless errors and imperfections remain and for them the author is personally responsible.

The publishers and the author unite in acknowledging the courtesy of the Carnegie Institution of Washington and the American Geographical Society of New York who, as joint publishers of the *Atlas of the Historical Geography of the United States* (1932), prepared by C. O. Paullin and J. K. Wright, have kindly granted the use of the original drawings from which the illustrative maps in this volume have been made.

JOSEPH SCHAFER

State Historical Society of Wisconsin
Madison,
June 13, 1936

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Chapter I

LAND FOR FARMERS

The land supply. Farm lands in America, as compared with older countries, have always appeared to be superabundant. The few ship loads of English settlers who entered the Chesapeake region in the first quarter of the seventeenth century; the Pilgrims and Puritans of Massachusetts; the Dutch of New Netherlands; the Swedes of Delaware; and the other early groups, all thought of themselves as pioneering in a vacant continent. Nevertheless, among the earliest and most persistent social problems was that of making land available for ever-growing numbers. So eager and determined, at most times, was the quest for new lands that one would almost be justified in maintaining the exact opposite of the usual thesis that in America the supply of that commodity has always exceeded the demand.

Availability of land is a relative matter. Fertile soils were abundant in most districts, but sometimes the rights of the native Indian tribes stood in the way of their absorption by individuals, or perhaps the problem of clearing the forest seemed too arduous an undertaking. Distance from older settlements caused hesitancy always, and transportation

conditions were the most absolute of limitations. Movement into new areas was therefore spasmodic and, in a geological sense, catastrophic, rather than silently continuous.

The emigration of the Thomas Hooker congregation from Boston to the Connecticut valley was not complicated by Indian difficulties, yet it produced a powerful social disturbance in the Bay colony. Expansion in seventeenth century Virginia was marked by two bloody Indian wars, and a rebellion of the frontier settlers against the colonial government. And when, by the middle of the next century, tobacco planters had reached the headwaters of the Ohio, philosophers justified Britain's war with France as a means of breaking the barrier to expansion into much needed fresh tobacco lands beyond the mountains.[1] The attempt to interfere with the movement of population across the Alleghenies through the King's Proclamation of 1763 is reckoned among the causes of the American revolution.

Conditions of agricultural expansion. The military, political, and diplomatic history of America's territorial development makes a very general framework for her agricultural expansion. The wars of the nineteenth century with England, Spain, and Mexico had definite relation to the occupation of distinct regions, while within the greater areas a chronological map of Indian cessions might stand for a history

[1] John Mitchell, *The Contest in America between Great Britain and France,* London, 1751. Also his *Present State of England and the Colonies,* London, 1767. Also, *American Husbandry,* London, 1775.

of successive thrusts of a burgeoning people's colonizing impulse.

If all the good land with which the United States was endowed at the birth of the republic had been fully usable, there would have been no reason for Americans to cross the Mississippi prior to the middle of the nineteenth century, at the earliest. Such episodes as the settlement of Missouri, Texas, and Oregon cannot be explained on the theory of a redundant population in the older states. Yet, in all these cases the migrants were looking for land. The first large emigration to Oregon took place in May, 1843. At that very time occurred a land rush of settlers into the Sauk purchase of Iowa, while in the far-off Willamette valley the pioneers of the pioneering movement were framing a provisional government to guarantee the possession of their squatter claims.

Waterways and railroads. Men in the eastern states looked upon these events and marvelled. Horace Greeley thought the emigration of a thousand souls to Oregon wore "an aspect of insanity." In a burst of indignant eloquence he exclaimed: "Why do they brave the desert, the wilderness, the savage, the snowy precipes of the Rocky Mountains, the weary summer march, the storm-drenched bivouac, and the gnawings of hunger?" But the Oregon emigrants were not insane. They could give the editorial pundit a very sound answer, namely: "You say our wagon wheels in going to the Willamette carved ruts across millions of acres that are

fully as fertile as what we find here. True enough. But what good is land if the means of getting its products to market do not practically exist? In the Willamette valley a navigable river flows by every settler's door, and the ocean is only a short distance away. Similar situations in the middle west were no longer easy to find. Therefore, we headed for Oregon to insure to ourselves and our children really valuable farm homes."

One cause of the Civil war was the spread of slavery on the one hand, the progress of free-labor settlements on the other. A cogent argument has been made to show that, by 1860, slavery expansion had reached its geographical barriers and could not practically go farther.[2] Though vast areas in both regions remained to be utilized, the South protested every suggestion of preventing farther expansion of slavery by law, and the North just as stubbornly insisted on the principle of limitation. All this looks strange now, but under conditions of the time it was not unnatural. Dearth of land for farmers and for planters was at that time a reality, not a fancy. People were still under the psychological obsession that areas a few miles from navigable water were worthless for agricultural purposes.

This condition changed in startling fashion with the progress of railway building. Whereas in the earlier period only the river fringes had constituted available farm land, the railways brought into use

[2] C. W. Ramsdell. *Mississippi Valley Historical Review*, XV, 151–171.

successive blocks of fertile soil lying at impracticable distances from water transportation. It would seem as if the railway should have been a permanent cure for the farm land shortage, and yet incidents like the great Oklahoma rush of April 22, 1889, when 50,000 persons, at the sound of a bugle, crossed the proclamation line in the hope of staking choice quarter sections for homesteads, or obtaining valuable lots in cities to be laid out and peopled the same day, throw serious doubt upon such a conclusion.

The king's grants-quitrents. The manner in which the soil of the New World passed into the hands of those who made farms is a matter of fundamental social importance. Under English law all land in the colonies belonged to the king who could grant it as he saw fit, and since custom is controlling in such matters, the method to be followed seemed predordained. The king would, of course, grant the lands in large tracts to companies or to his retainers who, in their turn, would lease them, for farming purposes, following the English practice. Colonies were needed for Britain's advantage, but they could not succeed without the guidance of leading men and these did not care for the terms of banishment implied in going to America, unless circumstances made staying at home unpleasant or removal very profitable. Land grants, therefore, were the travelers' checks with which migrating grandees were fitted out, and the investment comtemplated was settlers contracting to pay quitrents upon parcels of land.

Quitrents were supposed to fulfill two functions:

discharge the feudally derived obligation to the grantor; and satisfy the colonial government's claim upon landed property in the way of taxes. A rate of two shillings per one hundred acres, which was the rule in Virginia and not far from the average rate everywhere, does not seem like a burdensome tax. Yet it proved an enormously difficult levy to collect. Innumerable evasions occurred, stay laws were passed in the interest of grantees, as were laws permitting payment in products, usually at an overvaluation. After the Revolution, all the states abolished quitrents, thus changing holdings under grants that were so far conditional to strictly alodial or fee simple properties.[3]

Small-holdings of small people. While leaders of upper class derivation were necessary to the success of colonies, workers drawn from the poorer and needier social strata were indispensable. A voyage to the New World in the small seventeenth century ships was no holiday excursion. The percentage of deaths en route was high, and the period of acclimatizing also cost many lives. The plain people, in short, held the whip hand. They might refuse to leave home, and then all colonizing plans would fail. Or, they might agree to go if conditions were made sufficiently attractive for them. The assurance that a small area of land, usually fifty acres,

[3] For an excellent general treatment of the subject of quitrents, see L. C. Gray, *Agric. in the Southern U. S.*, I, 382–385. The New England colonies, however, did not adopt the quitrent system. For the whole subject of the land laws in Virginia colony, see P. A. Bruce, *Economic History of Virginia in the Seventeenth Century*, 1896, I, Chap. VIII, Macmillan.

would be given to every emigrant as a bonus for settling in an overseas colony was an irresistible temptation to landless people with means enough to pay their passage. And, when even the indigent could be carried to America and within three to five years each man receive for his mere labor,—which had meantime supplied his living,—a farm, some livestock and tools, one secret of the success of English colonies stands revealed.[4] Such "indentured servants" were the main reliance of Virginia and Maryland tobacco planters till toward the close of the seventeenth century, when negro slaves became plentiful enough to take their places and also to supply much of the farm labor in Pennsylvania and elsewhere in the colonies.[5]

Variety in colonial land laws. Land for farms was granted differently in the different colonies. Virginia and Maryland planters employed the so-called "head right."[6] This empowered one to locate fifty acres of land for every emigrant he brought to the colony. By transporting himself a man earned his fifty-acre grant. By introducing one hundred persons, he could claim five thousand acres. The headright was fearfully abused, claims being fraudulently created by hundreds and sold to be used as land scrip, the system ultimately breaking down and giving rise to the fee system of purchase; but

[4] W. E. Dodd, Emergence of Our First Social Order, *Am. Hist. Rev.*, XL, 2 (Jan. 1935).
[5] E. Channing, *History of the United States*, II, Chap. XIII, and notes.
[6] See P. A. Bruce, *supra*.

it yielded many of the great holdings that became the basis of the tobacco planting regime. Some dignitaries received grants as king's or proprietor's favorites, and set up what was intended to be the American equivalent of the English manor, though the jurisdictional features of the English nobleman's estate failed to mature and American manors remained practically great plantations.

In Pennsylvania, the proprietor granted lands, in tracts to suit settlers, at prices which were not always low compared with those later demanded by the United States government for wild land. The usual prices, in the eighteenth century, were from one shilling to three shillings per acre, equal to $1.00–$3.00 in our money. In New York, large grants were the rule and the Dutch patroons having early engrossed the district along the Hudson, agricultural settlement was retarded. It was not until western New York was opened up, after the Revolution, that farming development in that state came into its own.

Land law of New England. Of special interest was the system of grants in New England. Here we have what might be called controlled expansion. Men of prominence would associate together and ask for a grant of land. The general court would appoint viewers to help the applicants locate their tract, and to execute a survey, which came to be, frequently, in the form of a square six miles on each side. The grant made, the proprietors would divide it up into shares, and receive applicants for

these fractional parts of the grant, to whom they conveyed title in fee simple. The settlers of the new tract would organize themselves into a town and hold town meetings, into a parish and maintain a church, into a school district and support a school. The proprietors would hold proprietors' meetings as long as any lands were left in their hands to dispose of. From early in the eighteenth century three shares were commonly reserved, one for the first settled minister, one for the ministry forever, and one for the school.[7] In this manner was the foundation laid for a full-fledged new community of the regulation Puritan type. Most of the private grants in New England were small, though a number of the leaders were favored with large areas, some of which became estates of the English type.[8] Rhode Island, small as she is, had some of the largest farms in New England, due to extensive early grants which were not divided up among heirs.

Squatting. One feature of colonial land settlement became very prominent later, namely, the custom of squatting. A squatter was a person who settled on a selected spot, built his cabin, cleared land and raised crops and cattle without bothering to secure in advance any kind of title to the tract he occupied. The land was there; he needed it. God meant the earth for man's use, so he used it. The forested character of most areas, and the ab-

[7] J. Schafer, *Land Grants in Aid of Education, U. of Wis. History Studies,* vol. 1, Madison, 1902.

[8] Bidwell and Falconer, *Agriculture in Northern United States,* 49.

sence of exact survey lines, made squatting easy and comparatively safe. At all events, it proved so difficult a problem to deal with legally, that proprietors of the back lands rarely attempted to eject squatters, or to collect rent from them for the use of the land. When surveys caught up with the squatter so his trespass became a matter of record, he was not punished, but was usually permitted to buy the land at the going knock down price. Thus the squatter in effect was treated as a pre-emptor. The farm of his own choosing became his after a period during which, with good luck, he might support his family from its products and also accumulate money to pay for the land itself.

Pennsylvania and Virginia were especially tender toward the squatter–pre-emptor. It was estimated that in the back parts of Pennsylvania, as early as 1726, were 100,000 squatters. "Improvement rights" were early bought and sold, like horses or any other kind of personal property. But by the middle of the eighteenth century "settlement rights" became the basis of a new kind of realty title. If a man had built a cabin, lived in it, and raised a crop on land he had cleared, he was a "settler" with rights protected by law.[9]

The pioneer who was bold enough to encounter Indian dangers on the western frontier cared little or nothing for the rights of landed proprietors

[9] J. C. Ballagh, *Am. Hist. Assn. Rept.*, 1897, p. 112. Of 670,000 acres of land "occupied between 1732 and 1740, 400,000 acres were settled for which no grants had been issued." That is, by squatters.

whether these were colonial governments, state governments, or great speculators. Pioneers carried a tomahawk for defense against the savage and as a camper's convenient tool and this they used to mark out on trees a claim to land they wished ultimately to settle upon, called, in consequence, "a Tomahawk claim." Then they would bring on their families, roll up logs for a cabin, deaden trees to open a clearing, and begin the crude process of subsistence farming. If someone came along who fancied the location and the land, they were ready to sell "improvements" and move on to begin again in some other spot. When the land came into the market, squatters were usually given preference over others who might wish to buy. In fact, during the post-revolutionary period a right of "pre-emption," which simply legalized squatting, became virtually universal though by no means uniform in the states which were to form the union.[10]

Washington's dealing with squatters. That the squatters of this period considered themselves all but invincible is demonstrated by their willingness to throw down the gage of battle to a speculator of such overmastering prestige as the military founder of American independence. The experience of George Washington in 1784 with a group of squat-

[10] This subject has been treated in detail by Henry Tatter in "The Preferential Treatment of the Actual Settler in the Primary disposition of the vacant lands in the United States to 1841." Ms. St. Hist. Library. Printed summary, Northwestern University, 1933. See also L. C. Gray, *Agric. in the Southern U. S.*, II, 621–629; and Bidwell and Falconer, *Agric. in Northern U. S.*, 75–76.

ters in western Pennsylvania is illuminating. Being a surveyor and an excellent judge of wild lands, Washington some years previously had become possessed of claims to many thousands of acres "over the mountains." One of these claims covering 2,813 acres of excellent land on a tributary of the Monongahela river (Millers Run), he had somewhat improved, by negro servants, as a means of holding the land; yet he found it now occupied in parts by fourteen squatters all of whom bore Scotch names.

These settlers believed that Washington's title was imperfect because his improvements had been very sketchy and so they determined to stand suit for ejectment rather than accept his offer to sell "the whole tract" at 25 shillings per acre (depreciated currency), to be paid in three annual installments, with interest, or to make them his tenants under leases running for 999 years, at £10 per 100 acres annually. The great man was successful in ejecting the settlers, due possibly to the care he had taken in perfecting his title but probably, in part, to the fact that he was George Washington whose name may have had a magic influence upon the high court before which the cases were tried.[11]

Pre-emption. The principle of pre-emption could not fail to grow out of the custom of squatting and both are normal products of the American frontier. Pre-emption did not become fixed in the national land laws till 1841, but frequent special acts of earlier dates had recognized its legitimacy. Wher-

[11] A. B. Hulbert, *Washington and the West,* pp. 49 ff.

ever, and for whatever purpose, men settled in the wilderness, they were sure to claim the right of buying, at minimum prices, the lands they occupied, including their improvements. Sporadic efforts of the federal administration to dislodge squatters from government lands or from Indian lands were so unpopular that eviction laws became virtually dead letters. Whole townships, future counties, even future states were once communities of squatters. It was reported in the United States Senate, in 1837, by no less a statesman than Jefferson Davis, that the newly created Territory of Wisconsin had a council, or legislative body, made up, in a large majority, of men who were squatters.[12] "Squatter sovereignty" became notorious politically in connection with Kansas. Yet many of these settlers were the very best type of American pioneers, emigrants from the New England states, western New York, Pennsylvania, Ohio, the border states and the South. They selected lands before they were for sale because in those regions were choice wheat lands or else reserved mineral lands, which were then specially attractive. They regarded themselves as pre-emptors, not as squatters.

During the nineteenth century, the pre-emption principle was not only made a part of the law controlling the disposition of government land, but was also inserted in all manner of special land grants.

[12] *Register of Debates,* XIII, 760–763 (February 1837). Davis' authority for the statement was Henry Hubbard, senator from New Hampshire, who was familiar with Wisconsin and was a large speculator in lands in that territory.

School lands might be bought at the minimum government price by those who had settled upon them. Companies receiving grants in aid of canal construction had to agree that settlers on their allotments would have the pre-emption privilege. And railroad companies, recipients of many millions of government land, were obliged to accept the same condition.

Professional squatters. Much has been said in condemnation of the pre-emption principle, and congressional debates on that subject were sometimes very bitter. Abuses in its operation were patent. One was the tendency to professionalize squatting. Men of a certain backwoods type actually preferred to move from place to place, keeping in the shadow of the forest, rather than to settle in a given spot and help reduce the land to a cultivated state. Being skilled axmen, these persons loved to open small clearings, to erect log cabins, and chop rails to enclose small fields. But that is as far as they cared to go in making improvements. At that point they were glad to sell out to a newcomer who wanted to make a farm and liked the location. The squatter packed up his few belongings, took down his trusty rifle, and traveling twenty, fifty, or a hundred miles, found another tract of land that suited him, and made similar improvements to be disposed of in the same way. Cases of squatters who repeated that operation a half dozen or more times were not rare. It was their method of making a living. Squatting was their trade.

Social effect of squatting. The squatter fulfilled, for his successor, two functions which otherwise were distinct: he "located" the land for him, a service always compensated at some customary rate when performed by a land-wise man, surveyor or other; and he contributed labor in making the first indispensable improvements. The locating function was speculative, but that was always the case. The man who could find choice tracts for incoming settlers, as the squatters did, was naturally able to command pay for his enterprise at a higher rate than one who offered them indifferent claims.[13]

The squatters' unrestricted wandering might, and often did, cause trouble with Indian tribes. This abuse, however, merely called for the more effective policing of Indian reservations which would have been desirable for other reasons. They were not the only white intruders upon Indian lands, and it is at least arguable that the dealer in fire-water, whom the law was designed to exclude but did not, was more often the instigator of Indian hostility than was the squatter. At worst, the squatters of the professional type were only the ragged fringe of the pioneering movement. The great body of new settlers, in any designated public land district, were honest householders seriously engaged in the laborious but hopeful business of making new farms. Such persons were squatters only in the technical

[13] Government surveyors were often charged with selling their information to settlers and especially to speculators.

sense of occupiers prior to purchase. By every moral standard they were pre-emptors.

Why pre-emption was opposed. The special laws granting the right of pre-emption were sometimes so faulty as to put a premium upon fraud, as for example, the "floating rights" provision in some of the early laws.[14] But fraud and corruption were not the only causes of complaint against the pre-emption principle. It contradicted the doctrine of free sale of public lands at the best prices obtainable, a policy inaugurated at the beginning of the national period and adhered to theoretically until adoption of the homestead law in 1862. The United States emerged from the Revolutionary war with a large public debt for the payment of which the government virtually pledged the public lands, their most available national resource. In order to make the most of this asset the lands must be sold for the best price they would fetch.

A plan for the disposal of the public lands was made in 1785, in the so-called land ordinance of that year, which applied to the country west and north of the Ohio river. The system of rectangular surveys was adopted, and ranges of six-miles square townships laid out on north and south lines. Alternate townships were to be sold entire, presumably to companies as was the custom in New England, or to speculators; the balance, in blocks of not less than one mile-square or 640 acres, at the price of

[14] Theodore Rodolf, Wis. Hist. Society *Collections,* XV, 357–358, gives an example of the way the floating right was used.

$1.00 per acre. Sales began in September, 1787, the auction being held in New York.[15]

Early federal land sales. The experiment failed to satisfy Congress. The demand was not keen. There was too much state land on the market, usually at a lower price and in locations both safer from Indian harassment and nearer the means of transportation.[16] Then, too, a Massachusetts aggregation had bought of Congress a vast area in southern Ohio on such favorable terms that they were able to undersell the government. Add to all this that hundreds of would-be settlers preferred to take possession of small tracts without the formality of buying them, especially if they had to travel long distances to land sales, and we have a situation that must have thrown considerable doubt upon the Congress plan to dispose of its public lands. The best chance appeared to be to let vast tracts go to companies or wealthy speculators which was done to the extent of several million acres in Ohio, the so-called Ohio company and John Cleves Symmes being the leading purchasers.[17]

In making these sales the government agreed to accept its own depreciated currency in payment. The rise in value of American money, after the adoption of the federal constitution, and particularly

[15] B. H. Hibbard, *History of Public Land Policies,* N. Y., 1924, 41.

[16] See, for example, O. Turner, *The Holland Purchase,* 363, 367, 368. Also, *Memoirs of the Historical Society of Pennsylvania,* IV, Pt. II, p. 114. J. F. Jameson, *The Am. Revolution: a Social Movement,* 64–65.

[17] For the conditions of these grants, see Hibbard, *Public Land Policies,* 43–45.

after Hamilton's financial plan went into operation, changed the whole aspect of the land business. For one thing, the deferred payments stipulated in the big contracts could not be made. For that reason the amount of land actually alienated to companies was greatly reduced from the original sale figures.

Hamilton's policy. Like the continental congress, Hamilton as secretary of the treasury under Washington, strongly favored the plan of large-scale sales to speculators and associations, and he was willing to accommodate the individual settler only incidentally. He suggested, indeed, a reduction of the price to thirty cents per acre, but since payment was to be either in specie or in securities of equal value, that was in reality a higher price than had been paid by the earlier large purchasers, but it was still very favorable to speculators. Hamilton made no real approach to the solution of the government's dealing with the actual settler. In fact, quite the contrary. Like many other public men, he believed that sales to settlers must be made mainly by speculators,[18] for he thought the government could not assume the responsibility of these petty transactions.

Problem of the land law. The other great secretary of the treasury of the early period, Albert Gallatin, being one of the apostles of Jeffersonian democracy, might be expected to deal with the public land question in a different spirit. That question,

[18] *The Works of Alexander Hamilton.* Lodge Edition, N. Y. 1886. Vol. XII. 47–54.

though much discussed in Congress session after session, seemed stubbornly insoluble. It had contradictory aspects, depending on whether it was regarded from the settler's point of view, from that of the government seeking revenue, from that of the states having lands to sell and settle, and from that of eastern communities loath to lose population through over-stimulated emigration.

An act of 1796, while incorporating most of the conservative post-revolutionary ideas, which were also those of Hamilton, diverged sharply from Hamilton on the subject of price. Congress may have hoped to discourage speculation by charging purchasers all that the lands were worth. Hamilton certainly did not want to limit speculation, and his proposed price had been thirty cents while that of the 1796 act was two dollars per acre. It did not work. Hardly any lands were sold under its terms. The stiff price, the virtual refusal of credit, and the size of the areas offered, not less than 640 acres, were blamed for its failure.

In 1800, under the leadership of William Henry Harrison, of Ohio, supported by Gallatin and other congressmen familiar with frontier conditions, the law was changed to permit minimum offerings of 320 acres, and also to give buyers a credit on three fourths of the purchase price, that balance to be paid in four equal annual installments. A settler could, therefore, become possessed of 320 acres on the payment of $160; and, if he made his subsequent payments promptly, the government waived its

interest claim.[19] A very important provision of this law was its establishment of federal land offices in the districts in which lands were located. This became a permanent feature of the system and of course was in the interest of settlers who thenceforth could purchase land near home.

Democratizing the land law. Still, the competition of state lands kept down sales. Western New York and western Pennsylvania afforded many advantages to northern immigrants. Kentucky and Tennessee welcomed those from Maryland, Virginia, and the Carolinas. Settlers petitioned for the privilege of buying in such amounts as they could pay for. Gallatin believed that the price, $2.00, had had one desirable effect, of preventing large-scale speculation. Nevertheless, he recommended both a reduction of the price, and a reduction of the minimum acreage that could be bought by an individual. The latter point was exactly contrary to the views Hamilton had voiced a decade earlier; but Gallatin, being like his predecessor concerned about the state of the treasury, believed that receipts for public lands should build the fund for paying the nation's debt. He also foresaw that the evil of deferred payments must be avoided by selling for cash only.[20]

Gallatin's ideas were not fully met in the act of March 26, 1804, for the disposal of the public lands in Indiana territory. The minimum purchase, how-

[19] *Am. St. Papers,* Pub. Lands, I, 265. Gregg's Report from the Com. on Pub. Lands.

[20] Letter to Joseph H. Nicholson, Chm. &c., Jan. 2, 1804. *An. of Cong.* XIV, 1585–1589. Summary in Hibbard, *Pub. Land Policies,* 73–74.

ever, was reduced from 320 acres to 160 acres. Later laws permitted the purchase of as small an amount as 80 acres, and then, finally 40 acres became the unit in land selection and purchase. It was not till 1820 that the familiar one-dollar-twenty-five cents per acre price was established and coupled with it Gallatin's cash payment plan.[21]

Pre-emption again. In all of the discussions up to that time the demand from the West for a pre-emption privilege to the actual settler had been steadfastly resisted. It was felt to be incompatible with the policy of disposing of the lands so as to derive from them the maximum revenue. Pre-emptors—or squatters—would naturally pick the best lands in a given region, and for these they would, of course, pay the minimum price. That would discourage other buyers and there would be no enthusiastic bidding at the auctions. In short, it would demoralize the entire public land policy. This must be kept in mind if we are to understand the long and bitter struggle through which frontier states and territories secured the preferential treatment of actual settlers.

The architects of the American land policy were practical men, not logicians, and defended their system on a few simple principles. First among these was that the public lands belonged to the whole na-

[21] Readers of Eggleston's *Hoosier Schoolmaster* will recall how the old lady, who had a marriageable daughter, leered when telling the young schoolmaster about her husband's economic foresight in that "the six hundred dollars he got along o' me [was] all salted down in Flat Creek bottom land at a dollar and a quarter an acre."

tion. Hence, they must not be alienated in a way to benefit chiefly one part of the nation, namely the West; or so as to injure another part, the East, as would be the case if too many of its people were tempted to emigrate to the West. Congressional leaders, too, were as keenly interested in the doctrine of the "sufficient price" as was later Edward Gibbon Wakefield who gave that phrase currency. Like him they professed a desire to secure regularity in the settlement of the public domain, the exclusion of speculation, and the maximum benefit to the colonizing nation. But they were no nearer certainty as to what the sufficient price should be, or how it could be obtained, than Wakefield himself.[22] Besides, so many public men were engaged in land speculation that professions cannot always be taken at face value.

When in 1820 Congress abolished the credit principle they coupled with that change the reduction of price from what had been nominally two dollars but actually somewhat less, to one dollar and twenty-five cents per acre where it remained.[23] The theory was that any land that was wanted at all should be worth that much, and that competitive bidding would bring up the sale price of the rest to about what it was worth. Lands once offered for sale which were not bid off, were then to be offered, by the land office, at private sale at the minimum price.

[22] See his *Art of Colonization* and his *England in America*. Also, Hibbard, *Public Lands*, 551–554.

[23] The graduation principle, passed in 1854, applied only to lands once offered at public sale and passed over.

Direct action of settlers against speculators. Such was the theory; the practice was far different, due mainly to the conflicting interests of speculators and squatters. For, despite the views of Gallatin and others that the prevailing knock down price would prevent speculation, it actually failed to do so for several reasons. In the first place, men with money could usually assemble certain kinds of scrip, or warrants which empowered the holder to locate and enter definite amounts of land, as Virginia colonists did with headright certificates. The first of the series of soldiers' warrants were those representing the claims of revolutionary soldiers and officers. It was those warrants that Washington used so largely in his land speculating.[24] Next, the soldiers of the War of 1812 received land warrants; then those of the Mexican war; and finally the northern soldiers of the Civil war. Such warrants not only guaranteed their possessor a price as low as the minimum, but generally lower than the minimum. Hence speculators were eager purchasers of soldiers' land warrants which had a definite place in market quotations.

Then, too, men of means and social position like many of the speculators, could exert influence in various ways that gave them advantages over the common man who tried to buy land for a farm. One method was to court the surveyors who, of all men, knew most about the lands that were up for sale at the land offices. By commanding the sur-

[24] Virginia soldiers' warrants could be assigned. See *Am. State Papers,* Pub. Lands, I, 13.

veyor's co-operation by whatever means (and charges of actual corruption freely launched were probably not always fallacious) the speculator would know exactly what lands to place scrip on without personally inspecting them. If, then, certain of the tracts he coveted were actually occupied by a squatter who had made improvements but had not the means of purchasing, the speculator could take the improved claim out from under him. And he had other tricks in his bag. One was to bid high enough for desirable lands to have the tract knocked down to him, and then forfeit the purchase by refraining from reporting at the receiver's desk and paying over the money for it. In that case the same tract would be open to private purchase after the auction closed. He would then go around to the land office and buy it of complaisant officers at the minimum price.

Speculation, when profitable. Of course, there were frequent occasions when more than the minimum price could be safely paid in the expectation that the lands would increase rapidly in value. That was true when the speculator himself was able to set in motion a current of immigration to the neighborhood of his selections, as when he controlled the local water power and built a grist mill, or the natural townsite and established a local trading center, or the best steamboat landing which would determine a townsite; or if he had influence in an eastern community from which many emigrants were heading west, so that his personal appeal would bring in

numbers sufficient to absorb the remaining public lands and also his private holdings.[25]

All of the above situations were illustrated in the settlement of every one of the western states, and besides there were not wanting speculators whose appeal to special foreign immigrant groups was peculiarly effective. For example, Morris Birkbeck and George Flower, two Englishmen of means, established an English colony in Edwards county, Illinois, by bringing over a hundred and fifty English farm laborers as purchasers of their lands. Montgomery county, New York, in the last decade of the eighteenth century, received a large Scotch colony, appropriately named Caledonia. They came from the Highlands of Perthshire and were attracted to America by the representations of Charles Williamson, a Scotch or English speculator who sold them land at $3.00 per acre, on a credit of ten years, supplied them with provisions for a year, with teams, cows, etc. This case reveals some of the services which the large speculators were able to perform for their clients.[26] Sometimes they built roads, as in the Genesee country of New York, obtained public favors for their communities from state legislatures or from Congress, and generally played the role of patron or laird till the community arrived at the stage of self-helpfulness when the great man often fell into disfavor.

[25] An admirable account of one of the greatest land speculations is in Paul W. Gates, *The Illinois Central Railroad and Its Colonization Work*, Cambridge, Harvard University Press, 1934.
[26] O. Turner, *Holland Land Purchase*, 380 ff.

The question as to speculators' profits cannot be answered in a word, for these necessarily varied with circumstances. Where a rapid flow of settlement filled up the area in which speculators' lands lay, they were apt to reap sure and generous rewards, provided they were not too greedy. If they held their lands at too high a valuation, as compared with comparable lands not too far removed, settlers would pass them by. Then taxes, interest, and possibly a financial depression would be likely to cause losses instead of gains.

The years 1835 and 1836 were one heyday of speculation in government lands. The panic of 1837 and the resulting financial depression ruined many speculators as well as more legitimate business men. Among holders of Wisconsin lands who felt this pinch was Daniel Webster of Massachusetts. He, as well as Edward Everett, Ralph Waldo Emerson, and Caleb Cushing, owned considerable western land bought at the minimum government price. Slow sales, annual tax demands, and interest charges proved too much for Webster who was forced to relinquish his Wisconsin holdings to Cushing.

Soft snaps for speculators. Some shrewd Yankees speculated in ways that almost guaranteed profits. There were state lands to be had at times. In Wisconsin the so-called "500,000 acres" given to the state under an act of 1841, by the United States for an internal improvements fund, was choice tracts, selected by state officers out of the aggregate of unclaimed government land. It was located in the

most promising situations, and of course only lands of good quality were chosen. Having made its selections, the state proceeded to sell them at the government's minimum of $1.25 per acre; and this it did on a thirty years' credit, the interest only at seven per cent being collected each year in advance! Here was a chance for speculators, it almost looks as if it had been made for them. They hurried to buy up the several parcels of the 500,000 acre land in certain counties, paid the interest on the purchase price, and quickly found purchasers at about double the state's price only a few cents of which they had as yet paid in.[27]

Settlers' grievance settled. It was the actual or suspected partiality shown by officials to wealthy speculators which, by a natural reaction, brought about co-operation among the squatters or settlers to render a portion of the land law inoperative. The law was clearly designed to bring about a free sale of the public lands for the highest price to be had among competing bidders. Since speculators, by their chicanery, tended to make free bidding impossible or abortive, the settlers combined to abolish the practice entirely. So far as they were concerned, there would be but a single bid for each tract claimed by a settler and that bid would be "one dollar and twenty-five cents." Should any moneyed man, or his legal representative, attempt to bid after "settler," something was sure to happen to him

[27] Joseph Schafer, Wis. Hist. Society *Proceedings*, 1920, 156–181.

and he was likely to recover consciousness only to learn that "settler" had paid for the land and carried away with him the register's receipt which was a good title. After a time speculators carefully refrained from bidding on claimed lands. The frontiersmen, by direct action, had democratized the system of land sales at the cost of government income.

It would be a mistake to suppose, however, that they had eliminated speculation, or that dishonesty was wholly foreign to the character of pioneer settlers themselves. Money not only continued to "talk" but also to beckon. In Wisconsin, the effects of the 1837 panic and depression were so severe that it was known hundreds of claimants would not be able to raise the money to pay for their lands. President Jackson, acting on petitions from the settlers and from the territorial government, postponed the sale several times. Finally Van Buren set it for late February and early March, 1839. At that time so much government land was on the market in several public land states, approximately 12,000,000 acres in the aggregate, that a money famine seemed inevitable. Therefore, thought one of the local speculators, "opportunity will be afforded, to those who have money, of entering one half of a pre-emptor's farm which is improved by paying for his half; that is, the pre-emptors will be willing to let you bid off their lands at the sales and deed one half to them. My opinion is that as much money can be made at the land sales to take place this fall as at

any former period, by purchasing only such lands as have been improved, with the settler's consent." [28] That plan was carried out by half a dozen speculators, some of whom secured in this way a few thousand acres of good land. Some, however, were over-reached by the settlers who turned over to the speculator the part of their claim that was swampy or otherwise worthless.[29]

Settlers become speculators. But settlers were speculators on a small scale just as truly as the moneyed men were on the large scale. It was the common practice, especially of Yankees, to enter more land than they expected to use for farming purposes in order to have a tract for future resale at a high price. The rules of the Milwaukee county settler's association permitted the claiming of a maximum area of 640 acres though the normal claim was 160 acres. Evidently most of the largest were intended to be divided later, and probably some of the smaller holders expected to get along with 80 acres, speculating on a good price for the balance. Besides, all sorts of small business and professional people became "settlers" in the beginnings of new communities for the sake of acquiring settler's rights to good land in which they would then be protected by the settler's association. Once entered at the land office their tracts were held for a speculative rise in price.

[28] John Catlin to Moses M. Strong, Aug. 2, 1838. With Strong Mss. in Wis. State Hist. Library. When this was written the sale had been proclaimed for November, 1838.

[29] J. Schafer, *Four Wisconsin Counties,* chap. V.

Foreign immigrants not speculators. Here, however, a distinction should be drawn between settlers who were normally of a speculative turn, like the American Yankees, and such persons, mostly foreigners, as were only too glad to obtain possession of a small tract of land out of which to make a farm. The best examples of the latter class were, of course, the peasant type which constituted so large a proportion of the immigrants from every foreign country. Never having owned any land, or if any merely a Liliputian area, such persons rejoiced exceedingly if, through the expenditure of $100 they could acquire title to eighty acres, or for fifty dollars even as little as forty acres. And having gained it, unlike the mobile Yankees, they stuck to it, through good and evil report, making farms which in due time were frequently used to finance the purchase of other tracts relinquished by American neighbors anxious to "go west," and raise wheat or cattle on a larger scale.[30]

But both the modesty and the immobility of foreign stocks disappeared after the lapse of a single generation in America, and the children of Irish, German, English, Scandinavian, Polish, and Bohemian parents became quite as land hungry as Americans of the older lineage. The later phases of the public land history would have a character distinct from the earlier on that account alone—the

[30] See Letters and Diary of Fr. Diederichs (trans.), *Wis. Mag. of Hist.*, VII, 218–237, 350–368. Also, J. Schafer, *Winnebago-Horicon Basin* (in press), chaps. VIII–XIII, especially chap. IX. And J. Schafer, Yankee and Teuton in Wisconsin, Characteristic Attitudes toward the Land, *Wis. Mag. of Hist.*, VI, 125–145.

universal grim determination to secure the very largest portion of land to be obtained on the minimum government terms. There were, however, other concurrent circumstances affecting that history. We are dealing, in this late phase, with the immense non-forested areas of the great plains, with the heavily timbered western mountains, or the dry grass-covered plateaus. From the point of view of land utilization each one of these characteristic land types invited to exploitation on a scale greatly enlarged from the earlier farm-making practice.

Homesteading. The original homestead law, offspring of the earlier pre-emption policy, which in its turn sprang from the custom of squatting on the public lands, required a five year residence on the quarter section homesteaded as a condition of receiving patent free of cost save a small entrance fee. But later a commutation amendment was adopted whereby purchase could be made at the minimum price after fourteen months. Later still the residence requirement for a free homestead was reduced to three years. A homestead entry could be treated as a pre-emption. Also the person who had "proved up" on a pre-emption, settled upon perhaps before the land was surveyed or ready for entrymen, had no need to live on it longer and he could then take up a homestead. A timber-culture law of 1873 provided a way of obtaining another quarter section by cultivating one fourth of it—later one sixteenth of it—in trees.[31]

[31] In 1878 this law was changed by requiring only ten acres to be planted and cultivated in trees.

A very present help to the eager seeker of a mile square farm was the Civil war soldier's land warrant, issued under a law which was designed to encourage the ex-soldier holders to select farms for themselves and thus obtain the full benefit of the government's bounty. Did they do it? In 1868 the commissioner of the General Land Office wrote: "It is believed that not more than 1 in 500 . . . have located their warrants . . . the greater part of such warrants having been sold and assigned, the soldier having received in cash probably an average of 75 per cent of the minimum price of the land." [32] Various other kinds of land scrip could be had to supplement soldiers' warrants, such as agricultural college land certificates issued to states having no public lands and sold by them for cash; common school fund claims; railroad land-grant scrip, etc. These were on the market, as well as the lands owned by railroads and other organizations under federal grants, which sometimes were sold to individual farm-makers at not much above the government's price.

Acquiring large prairie farms. In some or all of these ways, in addition to purchase from private holders, the makers of prairie farms, on which full advantage could be taken of the newest labor saving machinery, succeeded in gaining farm areas distinctly larger than settlers had secured in more easterly localities. The census reveals the result. North Dakota farms, for example, according to the

[32] Commr. Joseph S. Wilson, Report for 1868, p. 106.

1910 census, averaged 382 acres while the census of 1920 makes that average 466 acres. For corresponding dates, Wisconsin's average was 85 acres and 117 acres respectively.

The great plains of North America stretch from about the western limits of the first tier of states beyond the Mississippi, that is, Arkansas, Missouri, Iowa, and Minnesota, through an average of more than ten degrees of longitude, to the high Rockies. In that broad sweep the terrain changes in character both from the effects of increasing altitude and increasing aridity. It comprises what travelers and geographers, from the time of Long's expedition to the Rocky Mountains in 1819, called the great American desert. Emigrants to Oregon, California, and Utah, crossing it summer after summer with large numbers of livestock, demonstrated the falsity of that description, for a land which would graze cattle all summer and, as was proved incidentally, all winter too, and sometimes bring the beasts out in spring fat enough for the slaughter pens, is not properly a desert.

The railroads crossed the great plains from east to west, as did the main emigrant trails. Farming settlers crowded along all communication lines, especially the railroads, taking homesteads as near to transportation service as possible, which means anywhere along the entire line at distances north or south within a practicable hauling distance from the road. Geographers, public men, even land office commissioners warned against the danger of entering

land beyond the 100th meridian for ordinary farming purposes.

At that time no settlement, practically, had broken into the vast buffalo range of the semi-arid plateaus, the big herds of Texas cattle ranging freely from the staked plains to the Canada boundary. As late as 1882, when Dugald Campbell, an Argyleshire sheep specialist, took up his homestead and timber-culture claim in the valley of the Cannonball river, North Dakota, he was at the edge of settlement, the land adjacent to his being unsurveyed. He says: "I camped in my covered wagon beside some twenty thousand square miles of unoccupied land; devoid of animal life, except the ubiquitous jack-rabbit, a few packs of devilish wolves, and at times a welcome band of the shy and graceful antelope." The next summer, driving across the waste of "bad lands" into southern Wyoming Campbell, aided by a Scotch shepherd lad and a collie dog, grazed a flock of sheep, purchased in southern Wyoming, a distance of 600 miles to his Dakota ranch home, never getting out of the public lands area. Twenty years later this sheep rancher abandoned his business, which had been rendered impossible by the incursion of agricultural settlers, and removed to the Willamette valley of Oregon where he started a fruit farm.[83]

Tempted by the opportunity to obtain fine appearing lands near the railroad, and deceived by the

[83] Dugald Campbell, *Sheep and Shepherds Here and Elsewhere*, Ms. in State Hist. Library.

exceptional precipitation of a few abnormal seasons into believing those lands fit for agriculture, the thousands rushed in with results which in a large proportion of cases were tragic. Those who wanted the lands for grazing, the purpose for which they were adapted, were unable to obtain them at economic prices. So farmers and graziers mingled belligerently on the high plateau, to the ruin of both classes and of the grasslands. The government's inflexible land laws made criminals of some ranchers, as it did of some lumbermen, together with their thousands of perjured aiders and abettors.

Violating the land laws. Cattlemen boldly fenced public land, or in some cases where certain tracts would control a water privilege for them, or where land designated as swamp land was cheap enough, they hired persons to locate upon quarter sections and enter them for the cattlemen's benefit, as lumbermen were doing in the forested areas in order to control adequate areas of timber to make the basis for successful milling.

It must not be assumed, however, that large-scale adventurers, like the cattle kings and the lumber barons, were the only offenders against the land laws during the later phase of settlement. Just as in the earlier phase, farming pioneers were quite as ready to stretch the law to the breaking point as were the big operators. On making his entry under the homestead act the homesteader swore that he was taking the land "for his exclusive use and benefit, and not either directly or indirectly for the use

or benefit of any other person or persons whatsoever." Yet in thousands of cases understandings were entered into and finally executed which gave the patented land to farmers exactly as was done in behalf of lumbermen and big ranchers. The ethical question involved was simply never raised—at least not until the time, about 1903, when President Theodore Roosevelt began to enforce the conservation principle by bringing some of the timber barons into the courts on charges of fraud. Then farmers and others also began to reflect upon the process by which they had acquired their large holdings.

About that time a certain highly ethical and deeply religious retired farmer was heard explaining to his somewhat puzzled but frankly honest wife, how wicked the timber men had been in promising to pay entrymen certain amounts for their claim when it should be proved up. "Why," said the good woman, harking back to a time twenty years earlier when her husband and eldest son took contiguous homesteads in the Jim river valley of Dakota: "Isn't that what you done with Byron?" "Oh," said the husband, coloring deeply, "that was a wholly different matter."

Chapter II

PRIMITIVE SUBSISTENCE FARMING

Virginia, "Earth's only Paradise" as viewed from afar by the imaginative poet Michael Drayton, at close range wrought magically also upon the practical mind of Sir Thomas Dale. After surveying the country with care, Dale assured his employers in London: "take four of the best kingdoms in Christiandom and put them all together, they may in no way compare with this countrie either for commodities or goodnesse of soile." [1]

Colonizing motives. Britain's colonization of North America was motivated by the hope of deriving therefrom certain national advantages. Among these was the production of staples like wine, silk, flax, hemp, tar, and soap ashes. Also the opportunity to secure a supply of ship timber, to promote shipping, and to create a great new market for English manufactures, such as woolens. Another advantage was that colonies would relieve the mother country of her redundant population, especially the poorer sort.

The character of the establishments which were to be erected in America was implicit in the national

[1] Brown's *Genesis*, I, 494.

objects that should be promoted by them: they were destined to be agricultural colonies. Other objects there were, to be sure, inspired by the history of Spanish colonization in the two Americas. Most engrossing was the hope of finding mines of the precious metals and hardly second that of discovering a waterway which should open a passage for English ships from the Atlantic to the Pacific. And in the first thrill of excitement over Virginia the latter objects were pursued to the partial neglect of the more legitimate ones. But this condition rectified itself in the course of a few years and Virginia became the first of the long series of English agricultural colonies in North America.

Beginnings of agriculture. The great river valleys of eastern Virginia, before the coming of white settlers, were occupied by an Indian population variously estimated at from 5,000 to 10,000, who obtained their living to a large extent by cultivating the soil. Their method of clearing away groves of heavy timber was by girdling the trees in early spring, to prevent the sap from rising. Through this means the trees died, decayed, and either rotted away or were consumed by fire. To such an extent had clearing and planting proceeded that many hundred acres of open land existed in 1607, but such tracts along James river, where the colony was begun, were all cultivated by the Indians themselves. The colony for strategic reasons took possession of Jamestown Island which was heavily forested.

The English did not understand the labor-saving

methods of the natives, but followed the more laborious mode of land clearing by physically removing all trees and the undergrowth from the soil. Having quickly done this on the small tract immediately around their fort, they sowed about four acres of wheat the first season. Meantime they learned, in the course of their explorations, how largely the Indians depended upon maize or corn for food and saw how it grew in the open fields. Much corn was secured from the natives in trade. When Captain John Smith in the spring of 1609 had about forty acres cleared for the purpose, and also had two Indian captives to teach the whites how to prepare the ground and set the seed, a large field was planted to that cereal.

Capt. John Smith and Sir Thomas Dale. Smith's removal from the governorship, the neglect of the corn crop by the settlers, the failure to secure supplies from the natives, and the arrival of more mouths to be fed, resulted in the "starving time" of 1609–10. It was not till the arrival of Sir Thomas Dale a year later that the colony took on the characteristics of a permanent agricultural community.

The original colonists, like their promoters and leaders—except Captain John Smith—were far more intent on adventure, such as gold-hunting and geographical exploration, than on producing food in the sweat of their faces. The company in London, they hoped, might send adequate supplies of food; or, failing this, they could perhaps obtain it from the Indians in trade. So reckless were they that, as

was reported, many of them exchanged their axes, hoes, mattocks, and other tools—even their firearms—with the Indians for supplies. Since no one had personal property in these things, and all were expected through their labor to contribute to a common store, the sense of personal responsibility was weak, and only a relentless master could overcome their indolence.

Such a master they had in Smith, and such a one they received again in Sir Thomas Dale. On his arrival, May 12, 1611, at Old Point Comfort, Dale lost no time but with all available hands, "fell to digging and cleaning the ground and setting of corn and in 4 or 5 days we had set more ground about Fort Henry than Sir Thomas Gates found sett by the Indians in the year before." He utilized fully the Indian cleared lands about the lower forts, then sought out more Indian lands up the river toward the falls. Most important he saw the need of assigning "farms" (limited for the moment to 3 acres) to a number of the most worthy settlers on a leasehold basis, which went far to insure the growing of adequate food supplies. But he also caused the balance to labor regularly in the "common garden."

Tobacco planting begun. Sir George Yeardley, Dale's successor, extended the system of individual holdings, introducing for the company the custom of granting freehold tenures, with a reservation of quitrent. Settlements were extended, many new homes built, the stock of cattle, goats and hogs multiplied rapidly notwithstanding Indian dep-

redations. In a word, to use the language of one of the old school histories, "Industry and good habits spread among the people."

Virginia, however, quickly passed out of the phase of subsistence farming. Or, perhaps it would be more accurate to say that a different type of farming developed promptly alongside of the subsistence type, which threw the latter into the background. In Virginia's great valleys, served by navigable tidewater rivers with their numerous excellent ports, agriculture leaped from the subsistence plane to the business plane with no intermediate steps. Yet, not far off, on the uplands between the parallel streams, and in the valleys themselves above the fall line, were both subsistence farmers and general farmers.

The reason for this peculiarity of her agricultural history is tobacco. Tobacco was not one of the staples that the colony had been designed to produce, and for several years persistent efforts were made to promote wine growing and silk growing. Exceptionally fine native grapes, and a great abundance of mulberry trees seemed to favor these industries which if once competently advanced, would have freed England from a costly and precarious dependence upon France and Italy for supplies of these luxuries. Some wine was made and also some silk, but the results were negligible. On the other hand, the colonists found the Indians growing tobacco, they promptly began planting it themselves, looking to the Spanish West Indies for seed and for

instruction in the best methods for its management. Since England required a very large supply, the custom of smoking having expanded rapidly since the days of Sir Walter Raleigh and of King James's "counterblast against tobacco," an assured market was at hand. This is why, in the short space of seventeen years, Virginia had passed from the condition of a struggling colony, worried about how its people were to be fed, to a community fired with an ambition to grow rich through the production of a great marketable staple.

Not that riches were attained too quickly and easily. Questions of adequate lands for expansion, questions of a labor supply, questions of the best methods to pursue in order to guarantee the salability of the product: all of these had to be worked out. But the outcome was the planting system, one of the most characteristic forms of business agriculture. The typical early subsistence farming region lay far to the north.

Captain Smith describes New England. "Who can desire more content, that hath small means, or but only his merit to advance his fortune, than to tread and plant that ground he hath purchased by the hazard of his life. If he have but the taste of virtue and magnanimitie, what to such a mind can be more pleasant than planting and building for his Posterite, gotte from the rude earth, by Gods blessing and his own industrie, without prejudice to any?" ". . . And what sport doth Yeeld a more pleasing content, and less hurt or charge than

angling with a hooke, and crossing the sweete ayre from Ile to Ile, over the silent streames of a calme sea?" Thus mused the redoubtable Captain John Smith, sometime colonizer of Virginia, in his *Description of New England,* written before the Pilgrims came thither to test the austerities of his prescription for obtaining earthly happiness.[2]

Location of Plymouth colony. When the Pilgrims arrived, after devoting about five weeks to exploration, during which time they had the luck to find a cache of Indian corn ears for seed, "some yellow and some red, and others mixed with blue—a very goodly sight," they "came to a conclusion, by most voices, to set on the main land—on a high ground, where there is a great deal of land cleared, and hath been planted with corn three or four years ago; and there is a very sweet brook runs under the hillside and many delicate springs of as good water as can be drunk, and where we may harbour our shallops and boats exceeding well; and in this brook much good fish in their seasons; on the further side of the river also much corn-ground cleared. In one field is a great hill, on which we point to make a platform and plant our ordnance, which will command all round about. . . . Our greatest labor will be fetching of our wood, which is half a quarter of

[2] The writer of A Perfect Description of Virginia, 1649 (see Force's *Historical Tracts,* II, No. 8, p. 12), says: "That New England is in a good condition for livelihood. But for matter of any great hopes but fishing, there is not much in the land; for it is as Scotland is to England— There is much cold, frost and snow, and their land so barren except a herring be put into the hole that you set the corne or maize in, it will not come up—"

an English mile; but there is enough so far off." [3]

Having a situation commodious in all respects for the beginning of a colony, when the leaves on the white oaks were the size of a mouse's ears, as the rules of Indian husbandry prescribed, they began to plant their corn. Squanto, the much-traveled native, sole survivor of the tribe or clan which had inhabited that site, taught them how to set it, fertilize the soil with fish, and cultivate the corn; with the result that they obtained a crop of that indispensable food grain. Their English seed, "wheat and pease . . . came not to good, eather by ye badness of ye seed or lateness of ye season, or both, or some other defects." [4] Their corn supply, small as it was, when supplemented with a store of waterfowl and other game and with fish, roots, and vegetables, made a kind of relative momentary plenty for which the thankful Pilgrims celebrated. But it was not until the third season, when, as Bradford puts it: "after much debate of things, the Govr gave way that they should set corne every man for his own particular," that famine was permanently routed and subsistence farming for the first time actually guaranteed subsistence. In two years they had corn for trade with the Indians.[5]

Subsistence farming and farms. It is worth while to consider the ground plan of Plymouth colony in

[3] Bradford and Winslow's *Journal.*

[4] Bradford's *History of Plymouth Plantation, Boston,* 1898, 121.

[5] Bradford, *History,* 246–247. A cargo sent to the Kennebec brought as return 700 of beaver.

its commencement. The basis, Indian corn land along both sides of the estuary, has already been referred to. The granting of one acre to each "particular" took place in 1623. Then, in 1627, after agreeing upon shares in the general venture, the livestock was divided, a cow to six shares or families, two goats to the same, and the larger number of swine in the like proportion. Most significant was the division of the land, the tillable portion of which was bestowed twenty acres to each family or share. This arable lot stretched five acres in length along the waterside and extended back four acres in breadth. The balance of the land they passed by "as refuse or common." "But no meadows were to be laid out at all, nor were not of many years after, because they were but streight in meadow grounds; and if they had been now given out it would have hindered all additions to them afterwards; but every season all were appointed where they should mowe according to ye proportion of cattle they had. This distribution gave generally good content and settled men's minds." [6]

Differences between the Plymouth situation and that of early Virginia are striking. While the Virginians settled in the midst of a numerous and powerful Indian population, the Pilgrims chanced upon, or as they believed, were providentially guided to a spot from which and its neighborhood all the native inhabitants had been recently removed by a deadly contagion. Their extensive corn lands, therefore,

[6] Bradford, *History*, 259–261.

were a free gift to the pious immigrants who, unlike their southern friends, were not compelled to clear away the forest in order to secure ground on which to raise food, or to make enemies of the natives by driving them away from their cleared lands.

Moreover, the Pilgrims enjoyed the advantage of the colonizing experience had in Virginia. Echoes of Virginia's "starving time," however, and the severity of the northern winter, warned them never to relax their diligence in producing food, at the same time that they redeemed their obligations to the London merchants who stood financial sponsors for the colony. The second object called into requisition the best business talent the colony possessed and in this respect the leadership of Edward Winslow stands out in their early annals. Some of their labor force was largely engaged in navigation, fishing, trading, and woods work. But the major portion all of the time, and the entire population part of the time, was occupied with the tillage of their twenty-acre fields and their one-acre gardens, besides utilizing the wood commons, the hay commons, and the pasture commons.

Methods of cultivation. It should be understood that hand cultivation prevailed during the first years. The Pilgrims grew maize precisely after the Indian fashion, save for the possession of better hoes and the labor of men as well as women. In preparing for the corn crop, strips of ground of a hoe's width were loosened up several inches deep and several kernels covered therein. By Squanto's direction, a

fish or two was deposited in the soil near the seed. These plantings were made from four to six feet apart each way and as the plants grew, the intervening ground was hoed over to kill the weeds, also the soil around the growing corn was kept loose. Later the corn was "laid by" through the process of hilling—just as the Indians made their corn hills.

When plows and animal power came into use the system was changed. The field was furrowed out in squares of five or six feet. The seed being dropped at the intersections was then either covered with a hoe or with the loose soil of a second furrow. As the young corn grew, the space between the rows was plowed, and the weeds within the rows hoed out. The final hilling up was generally done with the plow.

In a rough way, the above describes the husbandry not only of Plymouth colony, but of all New England, so far as growing their principal food crop was concerned. Wheat, after corn, succeeded fairly well for some years, but by the end of the seventeenth century it was understood that southern New England could not grow that grain successfully on account of the "blast," a mildew or smut which damaged the crop seriously. Rye was a more dependable bread grain and it continued to be grown even beyond the colonial period. Mixed with cornmeal, its flour made New England's staff of life, proverbially described as "rye and Injun."

Fish and meat food; wool. Contemporaries of Izaak Walton, Pilgrims and Puritans were not only

lusty commercial fishermen, but devoted anglers as well, particularly when they had the valid excuse that fish were needed for food. Since the early settlements were almost exclusively along the seacoast, its inlets and the principal rivers, fish was always an important element in the people's diet. Of animal food, pork was the most plentiful, the swine running in the woods and becoming conditioned on nuts, acorns and roots. A little corn finished them off. Cattle also ran in the woods and over the rough grounds, which were the cow commons. They received very little attention, frequently living all winter on browse, dry corn stalks, a little hay and straw, without artificial shelter of any kind, the contemporary English custom of wintering stock in the open being too strong to break despite the difference in the winter climate between the old England and the new. The result was lean kine always in spring, and a very high death rate among the herds. When animals were stabled, the shelter provided was extremely meagre.[7]

Sheep flourished on islands, or where they had some defense against predatory wild animals like wolves, wild cats, panthers and bears. Like the neat cattle, they were liable to be sadly neglected. Yet

[7] Samuel Pickard, *Life and Letters of John Greenleaf Whittier*, Boston, 1894, I, 17. Whittier told his biographer that the "old barn" on his home farm, used till 1821 had no doors; that "the winter winds whistled through it, and snow drifted upon its floors for more than a century. The horses and cattle were but slightly protected in their stalls and 'tie-ups.' This was the early practise throughout New England. Our fathers, coming from the milder climate of Eng., had the traditional English slowness in adapting themselves to changed climatic conditions."

they were kept in small numbers almost everywhere for a home supply of wool.

Home industries. What with field crops, like corn and rye, a variety of farm livestock, and the products of the gun, trap, and rod, the New England farmers could supply themselves with food, and this in spite of the crudeness and wastefulness of their agriculture. But in order to procure those necessaries which the soil did not yield—salt, sugar, tea, coffee; also clothing, footwear, hats; iron and tinware; leather goods; tools and implements; and the small change required annually by church and commonwealth, all manner of shifts were resorted to. Whatever it was possible to make, even though the expenditure of labor upon it was excessive, they made at home. Rough furniture was fashioned from surplus timber, garments and harness from leather made by tanning the hides of animals that died of winter exposure and starvation, or of deer killed in hunting; and shoes and boots from the same. Clothing was wrought from home-grown wool, or flax. The wooden parts of plows and harrows, tool-handles, cart tongues, ox-bows and yokes, often cart wheels, were made on the farm mostly in winter.

The cash absolutely indispensable might be derived from forest products which were incidents of land clearing, like pot and pearl ashes, charcoal, firewood, or other more valuable timber, especially such as could be used in shipbuilding or for lumber. The farmers also manufactured for sale shingles or "shakes," barrel staves, hoops and heading, sugar

molds for the West Indies, treenails for ship builders, wagon wheel spokes, bowls, and in fact all articles made of wood for which a market could be found. Sometimes they could turn off a barrel of salt pork, some smoked hams, or some dressed fowls. And, in many places, where the hard maple tree prevailed, the spring sugar making supplied the home with sweets and often left a surplus for the market. The planting of orchards was common, apples being the favorite fruit. Out of a portion of the apple crop the farmers made cider and if a barrel of cider became "hard" it might perchance be sold as vinegar. Possibly, during the prevalence of the winter snows —after the New Englanders began using sleds, which they learned from the Dutch [8]—interior farmers might manage a trip to Boston, New Haven, or New York, carrying the summer's surplus of butter and cheese, the frozen carcass of a slaughtered hog, or a quarter of beef.

Farming defects. The New Englander in American cultural history symbolizes the qualities of canniness, thriftiness, industriousness, and efficiency. There can be no doubt about the subsistence farmer of that region representing the second and third of those four virtues; he frequently illustrated the first, also, as the saga of horse trading proves; but much more rarely the last. Good farmers were probably as scarce in New England, at the close of the eighteenth century, as they had been in Old Eng-

[8] The use of the sled was copied from the Dutch in New York. England, nearly snowless, did not use them, hence New Englanders had to learn their utility.

land at its beginning. Custom, it must be repeated, is the determining factor in the transmission of institutions from an older to a newer land. And does not Lord Ernle tell us, what later writers confirm, that in England, "From the reign of Henry III to that of George III the trinity fields received the unvarying triennial succession of wheat or rye, spring crops such as barley, oats, beans or pease, and fallow." [9]

The uneconomical open field system, long under condemnation in England, was not reproduced in the New World, except sporadically, but the rotation it implied, or the lack of it, was followed roughly for generations, as if it were a sacred tradition. The weedy fallow was grazed by livestock, just as it was in England, the tillage of the planted fields was equally shallow and ineffective, and similarly the kine "only survived the winter in a state of semi-starvation." Seventeenth century English agriculture, as yet only mildly tinged by a spirit of improvement, save as it had been affected by the market for wool, which made arable land scarce and grain foods dear, was reproduced in New England with but few modifications or adaptations to the different conditions and without the stimulus of high prices for farm products.

Habit was the basis of agricultural practice up to the time when the revamping of general economic conditions compelled its transformation. In Eng-

[9] R. E. Prothero, The Pioneers and Prospects of English Agriculture, *Quarterly Rev.*, 159 (1885), 325.

land that time came with the onset of the industrial revolution and the urban growth and trade expansion accompanying it in the eighteenth century. In America it was deferred till in the early years of the nineteenth century a somewhat similar economic upheaval broke the "cake of custom" letting in new ideas from all sources and new practices which were partly of indigenous growth but largely borrowed from older countries.

Yankee handyman a poor farmer. The New England farmer rather prided himself on his ability to turn a hand to almost any necessary work. He was an expert axman, and he wrought so persistently in wood as to become more or less skilled in carpentry, joinery, and cabinet making,—sometimes also in wood carving. But he was likely to be in addition a cobbler, harness maker, and perhaps a blacksmith, all on the same plane of imperfect training and incomplete equipment, a true "jack-of-all-trades" and master of none. There is no question that all of these experiences made him a more resourceful man than his farmer contemporary in the Old World. But just as certainly it made him an inferior farmer.

The farm, in its most amiable mood, is a jealous mistress. As Jeremy Belknap of New Hampshire wrote, late in the eighteenth century, "so sudden is the succession of labors that upon any irregularity in the weather they run into one another; and if help be scarce, one cannot be completed before the other suffers for the want of being done." He felt

that "It is partly for this cause . . . and partly from a want of education, that no spirit of improvement is seen . . . but everyone pursues the business of sowing, planting, mowing, and raising cattle with unremitting labor and undeviating uniformity." [10]

These observations are keen and eminently just. Farm operations themselves were always, save in winter, pressing on one another's heels. But when the farmer's attention to his inevitable routine was distracted daily or hourly by duties which were quite alien to the function of tillage, like mending harness, shoeing oxen, tightening cart wheel tires, cobbling children's shoes or fashioning an ax or hoe handle, there was no time even to think of possible improvements in his farming. The only way to get along at all was to let habit substitute for thought.

Social arrangements. New England life centered in the "Town." This was part village and part scattered farmsteads. As late as 1810 more than two-thirds of the people in the states of Connecticut, Massachusetts, and Rhode Island lived in towns having from 1,000 to 3,000 inhabitants. Most of the villagers were farmers as well as the dwellers around the village. The villages contained perhaps one hundred houses, though the majority rarely exceeded fifty. Each family had its lot, and its outlying field.[11] But some were clergymen, lawyers, physicians, craftsmen, tradesmen, taverners, mill-

[10] *History of New Hampshire* (Boston, 1792), III, 137–138.

[11] Percy Wells Bidwell, *Rural Economy in New England*, New Haven, 1916. (Trans. Conn. Soc. Arts & Sciences, v. 20.) 253.

ers, sawyers, tanners, etc., in addition to owning and operating farms. Naturally, the intensity of interest in farming varied inversely as that in the profession or trade pursued. Yet it was perhaps the relative leisure insured by the professional man, and especially his superior intellectual training, that gave the earliest impulse to improvement in the methods of New England farming. Jared Eliot, the earliest writer on agriculture, was minister and physician as well as farmer.[12] In this respect we have a rough correspondence with early English agricultural improvement, which began not on the petty and ragged holdings of peasants but on the estates of the leisured class. For example, it was long before clover emerged "from the fields of gentlemen into common use." [13]

How the land was used. The farms of the townsmen might contain fifty, one hundred, or even two hundred acres, but the amount of arable was commonly an insignificant fraction of the whole. Ten or fifteen acres was the rule, the balance being forest, native pasture, and meadow land. Most of the arable was always set to corn, their most useful cereal. It provided—mixed with rye of which a couple of acres were grown—the bread of the family; it fed and fattened livestock and poultry; the stalks when cured served for winter feeding in barns and sheds or, left standing in the field above the snow, at-

[12] Jared Eliot, Minister, Physician, and Farmer, *Agric. Hist.*, 2, 185–212.

[13] *Qtly. Rev.*, 159, p. 333

tracted the hungry, browsing cattle till plowed under in the spring. The husks of the corn ears made mattresses for the beds; the cobs kindled fires and were an ever ready resource to the tobacco smoking householder who frequently needed a new pipe bowl. The New Englander's heart throbbed in unison with that of her poet, Whittier, when he sang the "Corn Song":

> Heap high the farmer's wintry hoard
> Heap high the golden corn!
> No richer gift has autumn poured
> From out her lavish horn!
>
> Let other lands, exulting, glean
> The apple from the pine,
> The orange from its glossy green
> The cluster from the vine;
>
> We better love the hardy gift
> Our rugged vales bestow,
> To cheer us when the storms shall drift
> Our harvest fields with snow.

Some flax was grown for fiber, and a little for seed. There were no regular root crops, though most farms provided a few garden vegetables. Rotation of crops was irregular. The same ground might be planted to corn, or sowed to flax and oats, year after year till "it ran out," then be left to weeds and grass for a few years before being broken up again. Pasture and hay were more important, in general, than cultivated crops, livestock pretty much caring for itself with some slight attention in the coldest

weather. The best New England farmers, particularly those near market towns, as we shall see, farmed differently but the great majority were still, at the end of the eighteenth century, subsistence farmers.

There are, however, various levels of subsistence and the testimony shows that, on the whole, New Englanders lived well. By the middle of the eighteenth century primitive housing had been replaced with decent, fairly commodious and well-appearing structures—the classic white painted wooden houses with green window shutters, surrounded by a neat picket fence also painted white. Clothing and food agreed with the housing. Here we have a sharp contrast to what could be seen in other subsistence farming regions and the reason for the difference is partly in the character of the Puritan founders, but more largely in their organization of church life, education, and local government. The sometimes nagging, but effective social habit of looking after each other's private affairs tended to generalize the best social ideas.

Another powerful influence was the economies these industrious farmers were able to make both on and off of their farms, in non-agricultural ways. By manufacturing woodenware to sell, sending a son into the pinery for a winter in a logging camp, participating in coastal trade, in fisheries, in the adventurous whaling voyages, in peddling goods through the South and West, or becoming drovers, they kept themselves alive and alert, maintaining

a rural morale which was prepared at the proper time for the more profitable farming that was to come.

Appalachia. "To a person who has witnessed all the changes which have taken place in the western country since its first settlement, its former appearance is like a dream, or romance." [14] Thus wrote Joseph Doddridge, in 1824, from the valley of Virginia. Doddridge's father had settled in the western district which was then still disputed between Virginia and the Quaker colony, in 1773.

The geographical region should be known inclusively as Appalachia. From the eastern slopes of the Alleghany mountains in Pennsylvania the so-called Great Valley sweeps southwest across Virginia and West Virginia, embraces parts of eastern Kentucky and of Tennessee, and communicates with the Piedmont or lands east of the Blue Ridge in southern Virginia, the two Carolinas, and Georgia. Included in the area are the loftiest of the eastern mountain ranges, high, narrow and steep intermountain valleys, deep river gorges and beetling cliffs. In general the mountain slopes were heavily forested, with big timber and dense undergrowth. This is the mediating section between the seaboard states and the Mississippi valley, the transitional terrain, joining the East and the West. In Turner's nomenclature, it constitutes "The Old West." He

[14] This is the opening sentence in Joseph Doddridge's *Notes on the Settlement and Indian Wars of the Western Parts of Virginia and Pennsylvania.*

found it was peculiarly the theater of pioneer state making during the Revolutionary era, and that it holds a most important relation to the development of the New West, as well as to the expansion of the seaboard colonies.[15]

A frontier farming region. In another aspect this mediating land was America's western battle front in the age-long contest of her people with the hostile Indian tribes of the interior. That warfare began early in the history of the colonies, it was intensified by the rivalry of English, French, and Spanish, and later by the pressure of settlement toward and through the Ohio river gateway and Tennessee river gateway to the West. The new American republic found herself forced to conquer the country from the Indian allies of the English and the Spaniards. It is not surprising, therefore, that for a hundred years after the Revolution the area was known as the western border, much as in Great Britain the Grampian Hills and the Cheviots for ages marked a borderland between England and Scotland, or the Rhineland between France and Germany. And if Appalachia lacked in border poetry, it was not deficient in more homely forms of the literature of romance. The stories of its heroic pioneers and Indian fighters—its Boones, Kentons, Bradys and Wetzels—stimulated to historical writing if not to balladry. Up to the time the sons and grandsons of those pioneers began going to Oregon and Cali-

[15] See his *The Old West,* which is Chap. III in the *Frontier in American History,* New York, 1921, especially pp. 85–100.

fornia, thereby inditing the new and greater drama of Pacific coast pioneering, the Appalachian frontier continued to be the favored land of the romantic historian.[16]

The Piedmont in Virginia was settled early, and largely from the tidewater and middle sections, the frontiers above the fall line on the rivers being defended by what Virginia lawmakers quaintly called "Warlike Christian men" maintained at colony expense, under the leadership of some distinguished or able commander combining the character of colonizer or trading speculator.[17] Later, with the enormous drift of Scotch-Irish and German settlers south from Pennsylvania, the Piedmont of Virginia, the Carolinas, and Georgia, as well as the Great Valley, became largely settled by people of those derivations who generally could be described as being in poor or middling circumstances. Many were squatters taking advantage of the liberal land laws of Pennsylvania and Virginia to obtain farms in the back country.[18]

A greater New England. It must be clear to the student of American geography that Appalachia,

[16] Doctor Lyman C. Draper, for example, devoted a lifetime to collecting the manuscript memoirs of descendants of the Appalachian pioneers; wrote sketches of many of them, and an elaborate history of their greatest collective achievement, the triumphant defense of the border at King's Mountain against seasoned British troops. The Draper Collections, bound in 565 volumes, are in the Wis. State Hist. Library. They formed one of the bases of the significant work of Prof. Frederick J. Turner.

[17] *Cf.* Alvord and Bidgood, *First Explorations of the Trans-Alleghany Region,* Cleveland, 1912. Introd.

[18] The best summary of this history is in F. J. Turner, *The Old West.*

from the standpoint of the kind of farming which prevailed there in pioneer times, was essentially a greater New England. Western New York and northern Pennsylvania could well be added to the enormous block of the subsistence farming area occupied by Americans in the closing years of the eighteenth century, though the period of transition to general and business farming was in each of those districts exceptionally brief. The Piedmont, the valley of Virginia, and connecting valleys constituted for an entire generation the most characteristic subsistence farming area outside of New England.

Character of the country. Our instinctive belief, however, that the farms of that great region all had to be hewed out of the forest is a mistake. The Piedmont "was a rare combination of woodland and pasture with clear running streams and mild climate." [19] The same remark would describe the Great Valley as it was in the period of its settlement. At an earlier time it seems to have been more densely forested, but the Indians gradually burned so much of the woods that large open spaces, richly covered with grass and peavine, were accessible to the cultivator and grazier. This, taken in connection with the deficiency of good grassland in eastern Virginia, helps to explain the trend toward cattle raising on the frontier where the "cowpens" or stock corrals marked off distances along the north and south

[19] Turner, *The Old West.* See also Alvord and Bidgood, *First Explorations of the Trans-Alleghany Region,* Cleveland, 1912, p. 48 ff.

trails. Small farmers, however, were much more numerous than the owners of large herds. Redemptioners from England, on completing their term of service, went west to take up the small tracts to which they were entitled, adding of course squatter's claims; those from Germany who spent their contract period in eastern Pennsylvania, in Jersey, or "York State," moved west and south; while thousands of Palatines and other Rhinelanders, instead of remaining to swell the number of "Pennsylvania Dutch," formed little colonies in the valley of Virginia, or in the Virginia, Carolina, or Georgia Piedmont where they met and mingled with a double stream of Scotch-Irish, from Philadelphia and from Charleston.

Crops and markets. The large-scale cattle growers must be classed as business farmers to be discussed later. All the balance for a time were subsistence farmers. They produced on their lands all the food required for their families, and for the rest they made out in a variety of ways, some of them laborious enough, to obtain the essential outside supplies. Some raised small fields of tobacco as a first crop on their newly opened lands, and either "rolled" it in hogsheads to a tidewater market, attaching thills to the cask and driving an ox hitched thereto; or they worked their little crop down the stream in small boats. After roads were built into the interior upland, wheat, or the flour from it, made in the numerous little frontier water-driven mills, could sometimes be wagoned to tidewater

when prices were very high, as during the Napoleonic wars. Generally, however, grain would not bear the cost of transportation for which reason the whisky distilled from it often became the sole resource of the westerners as a means of exchange for necessaries to be bought in the seaports. Of this the tragedy of the Whisky Rebellion is the permanent but sad memorial.

The marts of trade were Philadelphia and Baltimore for the Pennsylvania, Maryland, and Virginia frontier;[20] and Charleston or Savannah for the upcountry of the Carolinas and Georgia. The actual pioneers in the several communities were in the habit of making up a train once a year for going to market. All travel was on horseback, and pack horses carried out the furs, the bacon, linen, linsey-woolsey, or whisky to be used in making purchases, while at times livestock was driven along for the same purpose. Salt was one of the most indispensable articles to be carried back, and it cost, in the early period, a good cow and calf per bushel. A pack horse could carry back a two-bushel bag of it. Iron was another prime necessity, also very dear; and gradually, as the settlers' resources of livestock and other products increased, the ever expanding wants of the people gratified themselves with imported stuffs for making their company clothes, buckle shoes, wigs, tea, coffee, and other articles once considered luxuries.

Rapidity of change. But when that stage was

[20] But see "Falmouth and the Shenandoah Trade before the Revolution," *Am. Hist. Rev.*, July, 1935, 693 ff.

reached, it was no longer necessary to join the annual brigade for market. The market had come to their towns and villages, the merchant buying such farm produce and household manufactures as he could resell, and exchanging for them the goods individual farmers required. Furs and skins continued for a long time as an element in this trade, but pork, beef, homecured hams and bacon, honey, butter, cheese, and eggs, gradually dwarfed their significance. At last the extent and variety of farm products that could be sold was such that, while the actual mountaineers lagged permanently behind, the farmers in the more favored districts of Appalachia had clearly passed out of the subsistence and into the general farming stage of development.

How early did this take place? Hear Doddridge, as he describes the region in 1824, representing one (himself) who was brought up there: "The little cabin of his father no longer exists: the little field and truck patch, which gave him a scanty supply of coarse bread and vegetables, have been swallowed up in the extended meadow, orchard, or grain field. The rude fort in which his people had resided so many painful summers, has vanished. . . . Large farms, with splendid mansion houses and well-filled barns, hamlets, villages, and even cities, now occupy the scenes of his youthful sports, hunting or military excursions." [21] Doddridge, who lived near the one great national highway, wrote pridefully of

[21] Joseph Doddridge, *Early Settlements,* Albany, 1879, 59. *Cf.* Buck, S. J., "Frontier Economy in Southwestern Pennsylvania," *Agric. Hist.,* X, No. 1 (Jan. 1936).

the fine roads which had taken the place of the pioneer horse trails, and of the extensive wagon freighting over them; he dilated upon the improvement in housing which, in his view, changed the psychology of the people and, being a clergyman as well as a historian, he emphasized the profound alteration which the progressive amelioration of living conditions, coupled with general education and the influence of organized religion, had produced in the manners and social character of the people. He tells us that when, as a boy of seven, he was sent east from the frontier to attend school, his astonishment was great on finding there were houses in the world not built of logs. Forty years later he is environed with "splendid mansions."

The New West. West of Appalachia lay the vast new agricultural world of the Southwest and the Middle West. Whoever has experienced the thrill of passing the Alleghanies from the East, whether to emerge upon the lowlands of Ohio, Kentucky, Tennessee, or Alabama, will appreciate the difference between the farming opportunity in those fertile, horizon-bounded plains and that of the country to the eastward.

Also, in that region, fruitfulness was but one of many favors conferred by a bountiful nature. Splendid forests alternated with open lands, or neighbored with far stretching praires; tree clad hills and wooded vales diversified the general landscape; springs and streamlets, lakes and rivers guaranteed an abundance of good water. But most important,

in the eyes of the eager homeseeker, the Mississippi river, its principal branches, and the Great Lakes with their eastern connections provided natural systems of transportation always available to those who prudently settled near their borders.

Its abounding resources. And if "angling with a hooke" yielded "a pleasing content" to the maritime New Englander, how much more suitable to the pioneer rangers of a continent was the experience of hunting in the trans-Appalachian West! Buffalo, deer, and bear they had for big game possessing food value as well as a secondary value for pelts. Turkeys, prairie chickens, pheasants, water fowl, and myriads of passenger pigeons enticed the less ambitious sportsman. Streams and lakes teemed with fish, while the fur-bearing animals—beaver, otter, mink, muskrat—excited the trapper's cupidity. Even as Daniel Boone, that mighty hunter, in taking his long look westward from the Alleghanies, pronounced Kentucky "an earthly paradise," so the pioneers who were prospecting for ideal farming situations exulted in the promise of the new land.

Variety in the Southwest. The Southwest was destined to be exploited mainly by the class of business farmers under the resistless impulse of cotton, tobacco, and sugar planting, with negro slave labor. Nevertheless, it too, like New England, Appalachia, and the Middle West, had its subsistence farming stage of pioneering, and there were likewise permanent subsistence farming eddies in the great

onsweeping current of planting history. The squatter erected his rude cabin, or his log house, in the valley of the Tombigbee, the Big Bend of Tennessee river, and the Pearl, just as his forebears had done by the waters of the Yadkin, the Roanoke, or Miller's Run. His patch of corn, his cow, and razor back brood sow were there, as they had been yonder, and as they were to be in all the region north and west of the Ohio, the economic basis of his existence. But, when the claim he located was wanted for cotton growing, by men who felt able to pay ten, twenty, even a hundred times the government price for the rich "buckshot" lands so famous for their cotton, no squatter could withstand the pressure. He either passed on to the farther Southwest—say Missouri, Arkansas, or Texas—moved across the Ohio to get wholly away from the competition with slavery, or slunk back onto the rougher, stonier and thinner soils to persist as a small farmer or as "poor white trash" in a planter dominated world.[22]

The Middle West. The Old Northwest, and its neighbors on the western side of the Mississippi, make up the imperial domain for which the descriptive name Middle West is now the accepted designation. Large enough to embrace the combined areas of France, Germany, Italy, and the historic Austria-Hungary, with something to spare, this country was destined to become the world's greatest single food-producing region through the development within its dozen states of a varied and pro-

[22] Compare F. J. Turner, *The New West,* especially pp. 71–78.

gressive agriculture representing something new and distinctive in rural sociology.

Throughout the region, however, the beginnings of farming were everywhere essentially the same, save in cases where control of capital permitted a deviation from the normal. The man of means could select and buy the land he wanted, build a good home, clear, fence, and break up ground for fields, assemble livestock: in short, make a farm with all its appurtenances, while maintaining himself and family out of previously accumulated funds. To him there was no need of eking out a bare living from the soil, the forest, and the stream. He could begin and continue as a business farmer; and that is what a certain small proportion of the settlers on each successive frontier did, that proportion growing larger as farming encountered the great open prairie.

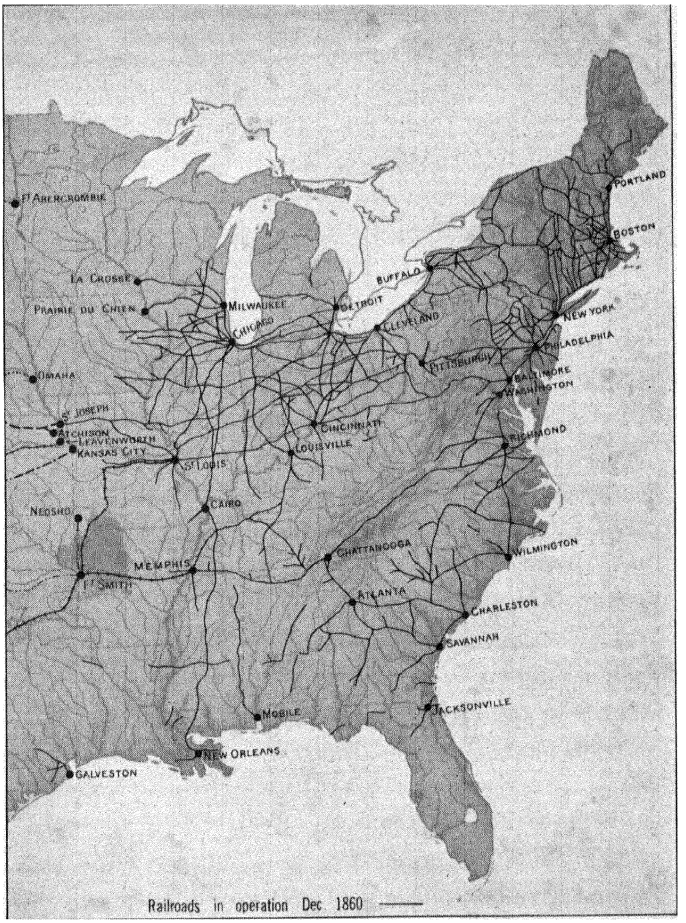
Its typical settler. The average settler, however, was a poor man. If he had the wherewithal to pay for his land, and buy the barest necessaries for taking possession, he was fortunate. Beyond that everything depended upon the vigor and intelligence with which he attacked his problem of living and farm-making; upon his credit with friends in the old home, his business ability, and his "luck." The first couple of years at least were bound to be a time of privation, sometimes of temporary want and of struggle for the elementary requirements, food, shelter, and clothing, without which life on a civilized plane is impossible. But how far beyond those

initial seasons the subsistence farming would have to continue depended on outside help the farmer could command to speed up the process of farm-making, the kind of land he happened to secure, whether open land or forest, and the accessibility of a market for what he could raise on his newly broken-up soil.

Some fortunate districts, of which examples are southern Michigan and southern Wisconsin, northern Illinois, eastern Iowa and eastern Minnesota, favored by both soil and transportation facilities, passed from the primitive to the general farming stage almost unconsciously. In other districts the people experienced long and bitter struggles merely to survive. Except on the poor soils, however, or in out-of-the-way places where they were quite cut off from markets, the transition period to farming for profit was relatively very brief.

The plains and far West farmers. The pioneer on the Great Plains differed from the settler of the nearer West in being wholly dependent upon artificial means of transportation, especially the railroad. Generally, also, he required more capital to make a safe beginning, having to buy many things which older pioneers made from the timber on their claims. Nevertheless, the sod house and sod stable often took the place of the more easterly log structures, thus deferring the expense of permanent building till crops could be raised to pay for materials and labor.

Since, however, the plains farmer operated on a



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larger scale than his ancestors farther east had done, he required more and more expensive equipment, and more stock. The plains, it has been well said, were mastered as an outgrowth of the industrial revolution which gave man the revolving pistol with which to fight the mounted Indian, barbwire to fence the fields, the windmill to pump water, and the self-binder to reap their crops.[23] All of these cost money. But the pioneer of the Great Plains was apt to be an individual who had already gained either property or credit on an older frontier. If not, he was sure to suffer severe privation, or perhaps fail entirely.

Primitive farming in the far western highlands, and in the valleys along the Pacific, varied little from that already described, though the high plateaus were at first occupied by graziers rather than farmers and life in many mountain areas began with mining which provided local markets for farm products, thus enabling farmers to work their way rapidly out of the primitive and into an improved state of agriculture. It is hardly necessary to point out that the American frontier which, through the seeing eye of a Turner, has taught us such important historical lessons, passed away along with the primitive subsistence farming that characterized it.

[23] Walter Prescott Webb, *The Great Plains*. Boston (Ginn) 1931.

Chapter III

BIG BUSINESS FARMING

Woodlands and tobacco. "Woodlands are to a planter in North America what a dunghill is to a farmer in Britain." In such homely phrase does Doctor John Mitchell, whose writings are generally wanting in epigrammatic piquancy, provide the true key to the history of tobacco planting expansion.

When the Virginia or Maryland owner of a hundred head-rights could select 5,000 acres in any of the favored parallel valleys, and many engrossed several times that amount, it followed that the best lands accessible to ports on tidewater were quickly occupied and tobacco growers began looking beyond those limits for fresh planting opportunities.

Passing the fall line into the upper reaches of the valleys, spreading out along the Piedmont, penetrating the so-called Great Valley, a few more decades brought them to that over-mountain region of surpassing fertility and indefinite extent which, unfortunately, was dominated by French forts as a means of controlling the fur trade.

Mitchell's plea for the expulsion of the French from the Ohio and Mississippi country was supported by ample, even verbose, argumentation. It

is, however, epitomized in the words quoted above. Tobacco had proved a profitable staple to Great Britain, justifying her continental colonizing enterprise much as did the production of sugar in the West Indies, rice and indigo in the Carolinas and Georgia. On the other hand, the general farming middle colonies were of comparatively slight utility to the mother country, while fishing and trading New England was a positive detriment except as a source of ship-timber. Tobacco lands east of the mountains had been so largely exhausted, the old planters being forced to adopt an economy dominated by grain raising and livestock, that, from the national point of view, expansion into the farther West appeared imperative.

Land, capital, and labor. A fateful union of woodlands, capital and labor, in the hands of men endowed with business talent, coupled with the guaranteed market in England, made tobacco planting for nearly a century an almost certain road to fortune. The land was cheaply acquired, while capital was of course derived originally from accumulations in England. Labor at first was supplied, in fairly adequate amounts, by indentured white servants, but in the course of the seventeenth century these were gradually superseded by African negro slaves.

Negro slavery was considered more favorable to the planter than contract labor for several reasons. First costs were of course much greater, and insurance against loss during acclimatization, always

a precarious period, was heavy. But once past this danger a likely young negro could be counted on to render uninterrupted service for many years. And such service freed the planter from all the usual vexations involved in contract labor. There were no appearances before county officers to record contracts or their termination, no violations of contract to be investigated by officious magistrates, no hampering restraints on discipline, no expensive settlements with departing servants. Slave labor made all plain sailing provided the slave continued in health and the master could train him to work effectively and docilely.

Some, however, were incapable of learning, some were intractable, some incorrigibly lazy. Besides, there was always the danger that an active field hand might sicken and die, and the equally disturbing prospect that the useless aged might live on indefinitely as their owner's pensioners.[1] So, even when capital owned its labor all was not unalloyed satisfaction on the tobacco plantations from day to day, while the occasional depressions due to falling prices created temporary crises,[2] and epidemics of disease like smallpox or cholera could ruin planters in a few weeks.

Big-business farming results. Tobacco culture,

[1] Philipps, *Life and Labor,* 174–176.

[2] Philipps, *Life and Labor,* Chap. X; Gray, *Southern Agriculture,* I, 474. Jernegan, *Laboring and Dependent Classes,* Chap. I, discusses the effect of low prices for staples in causing diversification in production, the training of slaves along mechanical and industrial lines, and their employment in manufactures.

which was the characteristic planting industry of the seventeenth century, and continued to be the leading type in Virginia and Maryland, save as it was modified by grain farming, was flanked during the eighteenth century by rice planting in the coastal region of the Carolinas and Georgia. This connoted a more intensive system of tillage than that involved in tobacco production. Rice could be grown successfully only on swampy soils, susceptible of being flooded, which at the outset fixed a sharp geographical limitation for that form of planting. Also, the closeness of supervision required emphasized the overseer relationship as it was not emphasized in the tobacco regions, and this, in turn, combined with the malarial character of the terrain, gave rise to absenteeism on the part of owners and their families, who either sought health in the mountains during the hot months and social recreation in the cities, especially Charleston, during the winters, or else fixed their principal residence in the city permanently. In either case the slaves, engaged in the most laborious cultivation, most of the time in water and slime, under the hardest conditions to be encountered in the entire South, were subject to a hired overseer whose leading motive was to show the master a favorable balance sheet.[3]

Indigo planting, introduced by Eliza Lucas, the later Mrs. Charles Pinckney, in the forties of the eighteenth century, was often carried on in con-

[3] Fanny Kemble, *Journal of a Residence on a Georgia Plantation,* 1833.

nection with rice culture. While the latter utilized the swamps, the former might employ the strips of oak land adjacent to the swamps. Slave labor could usually be employed more profitably in a combination of the two than in either form of planting by itself, except where the best uplands favored indigo as a single crop. However, indigo planting declined seriously before the end of the eighteenth century, due to the competition with the East Indies and to the ravages of insect pests,[4] leaving rice the dominant staple of the far South.

Rice and indigo in the South. It was considered, in the eighteenth century, that thirty slaves could be worked to advantage, under a single overseer, on a rice plantation.[5] Thus, the owner of 500 or more slaves, of whom there were examples,[6] could cause them to be distributed among a score of distinct plantations, some of which he might not so much as set eyes upon from one year's end to the other. Indigo planting could be made profitable with a few slaves, the overhead costs being very light, and where carried on separately from rice planting might be under the direct supervision of the owner.[7] But the opposite condition prevailed so frequently that the slavery regime in the lower South as a whole gained an evil repute for harshness as compared with the patriarchal system of Virginia and Maryland.

[4] Philipps, *Life and Labor*, 118–119. *American Husbandry* (by an American), two vols., London, 1775, II, 400 ff.
[5] *Am. Husbandry*, 395.
[6] *Ibid*, 425.
[7] *Am. Husbandry*, 432.

Up to this point we have considered merely the beginnings of the planting type of agriculture, if looked upon from the standpoint of its physical extension, for it was cotton that explains the planting and slave systems of the historic pre-Civil war South. As Dixieland would have it in the days of tension between the sections: "Cotton, not corn, was King." So far as that slogan was true, the development making it so practically all took place in the post-Revolutionary era. A little cotton had been grown earlier, even from the beginnings of colonization, and attention was often drawn to it by the promoters of the doctrine that a diversity of staples would be better than a few, both for the colonies and for England. Cotton usually came into the list of desirable products along with silk, wine, hemp, and flax. But prior to the Revolution it was grown only for the consumption of the home in certain sections, especially the Carolinas.[8]

The cotton which served these domestic purposes was the short staple variety, with clinging green seeds from which the lint could be separated only with a large expenditure of hand labor. It throve both on rich bottom lands and on the uplands, in the appropriate climatic zone, but was economically unfitted to be the basis of a planting regime unless invention should solve the problem of cheaply separating the fiber from the seed.

Sea-island cotton. On the other hand, there was

[8] Philipps, *Life and Labor,* 410. "Cotton will hereafter be a valuable staple."

a long-staple, black-seeded variety of cotton, grown in the West Indies, the fiber of which was easily saved and was also very much more valuable in the market. Seed of that cotton was sent to Georgia in 1787 with the result that a very few years saw it in possession of the coasts and islands of that state and Carolina where it grew to perfection, gaining thereby a commercial status under the name of sea-island cotton. The light sandy soil, long growing season, and salt air of the islands are believed to have been the explanation of the marvellous crops produced, conditions not fully duplicated anywhere else, wherefore the sea-islanders enjoyed a monopoly like that maintained for ages by some of the owners of favored European vineyard lands.

A cotton craze. The profits derived from this aristocrat among the cotton plants [9] in a restricted area, fanned the desire for a cotton-growing regime of unlimited extension through the successful cultivation of the short staple on the uplands of the Old South. Fortunately, at the proper time, the ingenuity of the Connecticut Yankee, Eli Whitney, with the encouragement of General Nathanael Greene's widow, who owned a plantation in Georgia, gave the world the saw-tooth cotton-gin and the revolution was on. The sudden up-curve in cotton production, after the Whitney invention had been perfected and generally employed, marks the be-

[9] Philipps, *Life and Labor,* 92, describes life on the island of Edisto, showing a uniquely prosperous society where, in a good year, the proceeds from the cotton crop amounted to $8,683 per white family.

ginning of an expansion movement which swept first over the southern uplands, then entered the trans-Alleghany and the Gulf plains and, crossing the Mississippi, assimilated the more southern states along the river and the enormous spread of Texas. In the period following the close of the War of 1812, when cotton prices were at the peak, this movement assumed the intensity of a craze, men paying many times the minimum government price for choice cotton lands, and paying likewise prices for negro slaves which were predicated both on their growing scarcity, due to the prohibition of further importations, and on their new economic value as cotton planting hands.

Where the best cotton lands were, there was the largest proportionate slave population, as along the Mississippi river, in the Alabama and Tombigbee peninsula, the Huntsville or Big Bend district on the Tennessee, portions of Texas, Arkansas, and Louisiana. The concentration of slaves, combined with the extent and intensity of the planting business, under overseer dominance, made these the darkest regions of slavery, superseding in that respect the older Carolina and Georgia lowland plantations. Slaves sold "down the river" felt themselves doomed to severest labor, harshest treatment, and most utter helplessness. Nevertheless, economic compulsion caused the benevolent Virginia and Maryland planters to make generous use of that great market for surplus hands.

Sugar planting. Beginning almost coincidentally

with the revolution in cotton growing, there developed, in the gulf lowlands, especially the delta country in Louisiana, a regime of sugar planting which more definitely even than tobacco, indigo, and cotton, was inspired by the planting economy of the West India Islands. It was probably emigrants from San Domingo, expelled by the black rebellion against the French, who began to raise cane sugar in Louisiana, but the origins of the industry are obscure. Though natural conditions, length of the growing season, security against frost, and the relative permanence of the cane plant, are all in favor of the Islands as against Louisiana, yet the richness of the delta soil, and consequent abundance of the yield, with some artificial tariff stimulation, has caused sugar planting to persist and to expand. It is a capitalistic business, more allied to manufacturing than to agriculture, and is carried on under corporate management for the most part.[10]

The foregoing summarizes the principal kinds of business farming which are characteristic of America's southern states. Much remains to be said about the social outgrowths of the planting system and still more about the influence of planting and of slave labor upon the political history of the country. We will find, also, that both the stage of general farming, already adverted to, and that of scientific or professional farming, find illustrations

[10] L. C. Gray, *Southern Agric.*, II, 739–751; Philipps, *Life and Labor*, 119–123; Judah P. Benjamin in Debow's *Rev.*, II (Nov. 1846) 322–345; Dept. of Agric. *Yearbook*, 1923, 151–228.

within the system which began as a purely exploitative enterprise.[11]

Large scale grain cropping. Wheat, the "corn" of Old World commerce, was brought to America by the first colonists and has always been grown for subsistence and for market. As already noted, it did not flourish permanently in southern New England, though in Maine, New Hampshire, and Vermont it was grown successfully, on a moderate scale, till well into the nineteenth century. In the small fenced fields of southern New England and even in the large fields of the three northern states, the wheat crop—or the substitute crop of rye—could be harvested with the average family's labor supply. This was true, particularly after the sickle, reminiscent of the Bible story of Ruth, had been replaced by the grain cradle. With the cradle (a scythe blade in a frame with several parallel wooden fingers), a strong man could reap two acres per day, many experts could reap four acres, and an occasional champion was good for as much as eight acres. The binding was done by a couple of men, boys, or women, who followed the reaper armed with hand-rakes to arrange the grain in bundles, an easy matter, the cradle having laid it straight with heads all one way. Threshing was still as primitive a process as it was when the humane Scripture writer admonished the ancient Hebrews: "Muzzle not the ox when he treadeth out the grain."

[11] For pictorial illustrations see *Yearbook of Agriculture* (1926), 264 ff.

The early failure of wheat crops in eastern Massachusetts, Connecticut, and Rhode Island was ascribed to the black rust or "blast," supposed to have been an infection derived from the barberry bush. However, soil exhaustion and bad tillage seem to have been coincident causes and the cry of the wheat growers, like that of tobacco planters, was always for fresh lands on which wheat grew to better advantage. As early as 1757 the complaint arose in eastern Connecticut: "Many are inclined to remove to new places that they may raise wheat." [12] It was a perfectly normal ambition for free cultivators in a country possessing fresh and fertile lands that could be had for little or nothing. Why labor to restore partly worn out soils in stony New England, when fatter new land on Long Island, in West Jersey, or Pennsylvania was to be had, in more ample tracts, and quite or almost as advantageously located with reference to marketing?

Migrating wheat growers. The American wheat grower, from colonial times, has been a migrant. From southern New England he went to the Delaware or Susquehanna valleys, from there perhaps to western New York. Again the wheat crop failed and a new remove carried him to northern Ohio, Indiana, Illinois, and to southern Michigan and southern Wisconsin. It was a western movement of wheat-growers that largely accounts for the tremendous expansion of northern population taking

[12] Bidwell and Falconer, *Agriculture in Northern United States*, 92, quoting Dr. Jared Eliot.

place between the completion of the Erie canal in 1825, and the beginning of the Civil war. But many of those farmers merely paused to exploit the rich soils for a few years, then passed on into western Iowa, Minnesota, Kansas, Nebraska, the Dakotas. A final trek brought them to the "wheat hills" of the Palouse country of Washington, the Grand Ronde and Wallowa valleys of Oregon. In the 1790's the center of the American flour milling industry was at Wilmington on the Delaware; thirty years later it was at Rochester on the Genesee, with a subsidiary center at Louisville on the Ohio; Milwaukee and Neenah-Menasha rivalled Rochester in the seventies of last century; for many years Minneapolis and Spokane have shared the honors of leadership in the widely severed premier wheat regions of the great plains and the Pacific slope.

It is in no sense fanciful to affirm that the grandsons of men who cradled wheat from twenty-acre Vermont fields in 1835, or from forty or eighty acres on the Genesee, were last year gathering their crops with tractor-drawn combines from five hundred or five thousand acres in the Red river valley, on the upper Missouri, the Walla Walla, or the Umatilla. Since wheat growing meant mining the fresh soils, just as did also tobacco and cotton growing, persistent movement at intervals of a generation or less was a characteristic of the industry.

Early harvesting methods. In its early stages wheat growing was merely a factor in subsistence farming and when that stage had been passed it

might persist as a feature of the mixed or general farming which so commonly supplanted that phase. In such cases the opening of new land on farms long occupied, or the adoption of better methods of tillage such as a rotation including wheat after clover, explain the comparative permanence of the crop. Farmers on the heavily forested lands in southern Wisconsin continued to grow wheat successfully as late as the eighteen nineties, but those on the open lands who made the big wheat crops in the early days because all the good land could be broken up in a few years, were out of the game by 1875. The woods farmers cleared a few acres each year and by the time the new soils were all under cultivation they had learned how to restore the productivity of their partly exhausted lands through fertilization and proper rotation of crops.

We have seen that tobacco and other planters could become business farmers, exploiting the fresh woodlands of the southern states, only because circumstances favored that mode of capitalistic production. The principal items operating to their advantage were cheap land, a labor supply, and a market. Of these the northern wheat grower could also count on the first and the last, but not on the second. The critical stage in wheat production as in wine-making, comes at harvest time. Preparation of the soil can be carried out during a protracted season, the planting of the seed is a process requiring skill but is of comparatively short duration. The growing season, say from April to August,

is a holiday for the one-crop farmer. But when the fields are "white to harvest," then let him beware of slothfulness, indifference, or faulty management.

A woodland farmer in eastern Wisconsin in 1857, who happened to be a diarist, gives us a full day-to-day account of his harvesting operations. He commenced August 18, "went to cradling with good cheer" but sprained his back and had to quit. However, he was able to obtain help from two neighbors, one to cradle, the other to bind. The third day he had three men at work. The fourth day "rained out" as radio announcers say of ball games. Fifth day, rained out. Sixth day, the cradling went hard for him, but he had two men binding up. Seventh day, it went fine, and two men bound up. Tally, 3595 sheaves. Eighth day, he and another cradled. Two hands bound. All went well. Ninth day, he records, "Finished cutting this morning 10 o'clock. Have now harvested 5365 sheaves of wheat all together. After we got done cutting we commenced hauling in—got in 13 shocks when it commenced raining hard." In three later days he hauled in the balance of his wheat and estimated the crop at 198.80 bushels. Of course it still had to be threshed but that year he bought a four-horse threshing machine for $145 and made a quick job of this process.

Due to the panic, prices broke and at Milwaukee, to which place our farmer had a six-mile haul over execrable roads, he could get only from fifty-five to sixty cents per bushel for his wheat. Such was the

wheat farming of one who as yet was a subsistence farmer with a side line of surveying which brought in a few dollars extra.[13]

A very few wheat growers in early Wisconsin grew a large enough acreage and volume of wheat to be ranked as small business farmers. We have accounts of a few Yankee pioneers who came prepared with the financial means to buy outright, at the land office, four or five hundred acres of open land. On this they set their breaking outfits to work, preparing in a single season from 100 to 200 acres which in the fall or the following spring was seeded to wheat. The harvesting in some cases could be done with the aid of impecunious pioneer neighbors who needed the opportunity to earn some money. The process, however, was expensive, the profits very small. Fortunately, the means of reducing cost of production was already at hand.

In the summer of 1844 two neighbors whose lands adjoined, with ten yoke of oxen and a couple of boys to drive, broke up in a few weeks 200 acres of Rock county prairie which they sowed that fall to wheat. The next year they harvested their crop with a machine in 12½ days and secured 5,000 bushels, a part of which was sold at Racine at 62½ cents per bushel.[14] The entire crop was estimated to be worth, on the farm, $2,500, giving each of the associates $1,250, a very fine income for pioneer farmers.

[13] Diary of Anson Buttles. St. Hist. Library MS.
[14] U. S. 29 Cong. 1 Sess. Sen. Doc. 307 (Ser. No. 475), p. 138. (Patent office report, 1845–46.)

Reaper and twine-binder. The machine these men used was probably that which had been invented by Cyrus Hall McCormick in the middle 1830's and which began to have some vogue in the West a few years later. It was a reaping machine, designed to cut the standing grain near the ground, assemble it on a platform, and allow a man to rake it off in bundles ready to be bound into sheaves. It performed the work of cradler and raker. Later a "self-rake" was invented, and still later, John F. Appleby's twine-binder was attached to most of the reaping machines employed in the Middle West. It was the self-binder which served the bonanza wheat farmers of the Red river valley in the 1870's and 1880's. On the Dalrymple farm, at Casselton, N. D., might have been seen during some harvest periods, sixty self-binders following one another around a seemingly boundless area of wheat.

The combine. But that useful invention, too, was destined to be superseded. J. Fenimore Cooper, on a visit to Prairie Ronde in southern Michigan, in 1847, witnessed the performance of a huge machine, drawn by sixteen or eighteen horses, which attacked the standing grain, severed the heads, threshed, cleaned, and sacked the seed ready for the mill.[15] This was the *combine,* invented by Hiram Moore about 1836, almost contemporaneously with the reaper inventions of McCormick and of Hussey. The combine, though it gathered the cleaned grain of from twenty to thirty acres in a single day, as

[15] Cooper, *The Oak Openings,* first published in 1848.

Cooper tells us, proved not wholly successful in Michigan or in Wisconsin, doubtless because the climatic conditions were unfavorable and also because farms were comparatively small. One of Moore's machines, however, was taken around Cape Horn to California and there in San Jose valley in 1854 it sacked its twenty acres per day. In that dry region of large-scale wheat farming where straw was no object, the combine was appreciated. Various modifications of it were later invented, and for many years it has been the mechanical basis of the business farming whose staple product is wheat.[16]

The combine moved from the West eastward. Having proved its superior economy in California, Oregon, and Washington, it invaded the great plains, displacing the self-binder wherever the wheat farms are of a proper size. It has even done much to revolutionize the size of farms. In the wheat belt the cost of equipment, which means the combine as a unit, together with the plows, harrows, drills, wagons, and—formerly teams, now tractors—was so large that a scope of activities guaranteeing their economical use had to be acquired. At the same time petty wheat farming did not pay in comparison. Low prices destroyed the small grower while the larger grower could survive them. Hence, those in command of the machinery and a reasonable parcel of land always bought out small-scale neighbors till

[16] Moore's invention is described in *Wis. Mag. of History,* XV, 234–243.

they owned as much as their unit of machinery could handle. The quarter section homesteads, in the wheat belts, are no more. But often the pioneer homes, schoolhouses, churches, and even hamlets, are now decaying in an otherwise unbroken expanse of wheat. Farms of one thousand acres or more have been increasing in numbers, despite the steady multiplication of small holdings.

Westward movement of wheat growers. The relation of older wheat growers to the newer generations is nicely illustrated by the case of a Wisconsin farmer who was a very successful wheat grower on a 360 acre farm, producing, however, as his maximum crop, 921 bushels in 1874. To be sure, he was a general farmer, raising wheat as a feature in a well balanced rotation. This farmer's eldest son emigrated in the late 1870's to eastern Kansas where he took up a homestead and afterwards added to his farm by the purchase of adjoining land. According to his father's diary, the Kansas farmer produced in some years 10,000 bushels of wheat.[17] Of course that was a bagatelle as compared with the output of the bonanza farms, but this man was an ordinary farmer not a capitalistic farmer. Multiplying his case by 25,000, which would probably not distort the facts, and we would have a basis for 250,000,000 bushels from that single class of moderate sized, personally conducted farms. Those of two other classes, smaller and larger, could readily have duplicated that figure. As early as 1878 the country produced 420,000,000

[17] Diary of Jacob Baumgartner, MS. St. Hist. Library.

bushels, in 1892 the figure was 516,000,000 bushels, and in 1904 it stood at 552,000,000 bushels.

The wheat harvest under earlier conditions, when self-raking reapers were employed for cutting, called for a large investment in labor. Four persons were usually required to bind after every machine, and in heavy grain an additional person to help in setting up or "shocking" the sheaves, a work to which the binders contributed in spare moments and often in overtime. The twine-binder eliminated the hand-binders, but men were still needed in the field for shocking up after the machine and, inasmuch as the threshing could be most economically done at once on completion of the reaping, the harvest hands of a given locality were to be found following the threshers.

Seasonal labor was relied upon for harvest help. A class of persons of no special training or occupation made a business of following the harvest from the southern grain states to the Canadian border, thereby providing themselves with paying jobs for two or three months. Many of these men were of the "hobo" type, wholly undesirable as house guests on the farms, and yet they had to be fed and cared for by the women of the households except on the bonanza farms where barrack life was the rule.

This constituted a social reason for the introduction of the combine in addition to the economic reasons. With that great machine and plenty of horse or mule power, a very few men could handle an enormous harvest. And, since the forty-horse

combine was too costly for the moderate sized wheat farm, the more recent invention of a truck-borne and tractor-drawn small combine has come in to fill the gap. Now the average wheat-growing family can manage its own harvest, the women hauling the sacked grain to the elevator in preference to caring for strange men in the home. Thus, through invention, have we returned socially to conditions like those of pioneer life, when the farmer, his children and wife might gather the crop from his few arable acres. Machines are the slaves of the wheat farmer.

Future of wheat farming. The question as to the permanence of successful wheat growing on the great plains and the other wheat belts is not a simple one. Certainly the lands of the Red river valley and the Palouse country have shown remarkable staying qualities under the one-crop wheat regime. Also, the better tillage incident to modern business farming on the cheap lands of many districts formerly used for grazing has at least temporarily brought profits. In the depression years, when wheat prices dropped below thirty-five cents per bushel, big operators could still figure a narrow margin of profit whereas the ordinary farmer was sunk. Whether or not the system can maintain itself by rotation, the use of artificial fertilizers, and superior management remains to be determined.

Wheat breeding and the selection of resistant varieties in other lands has brought into the belt of safety vast aggregations of land formerly believed

to be too dry, to lie too far north or at too high an elevation for wheat growing.[18]

Sir William Crookes, who had warned the world of the possibility of a wheat shortage within a few years unless the wasteful system of cultivation were promptly changed to a better one, especially in the wheat producing regions of the United States, left us the following challenge in 1899. He then said: "If at the end of another generation of wasteful culture my forecast is invalidated by the unforeseen I cheerfully invite friends and critics to stone me as a false prophet." [19] The time limit is up, the prophecy invalidated, but the distinguished scientist is out of the range of any stone that might be heaved at him. Those whose ears are properly attuned to the supersensual may perhaps hear him laughing at his foiled critics. If we are to judge of the future in America from what has taken place in older countries, wheat growing will steadily be made more scientific, which means it will cease to be a single crop industry and become, as in France and England, a feature of a well planned rotation. Thus will the acreage be greatly reduced, the yield greatly increased, and doubtless the national needs at least met on a permanent agricultural basis.

Cattle ranching. Primitive subsistence farming, save as it involves the element of migration to new and newer frontiers, has in it little of the romantic,

[18] Paul de Kruif in *Hunger Fighters* describes the great work of Mark Alfred Carleton in finding wheat for America in Russia.
[19] William Crookes, *The Wheat Problem,* London, 1900, XIII.

and the same is true of general farming. In both, the obtruding ideas are of seldom relieved hard work, the daily grind, meager profits, and a dearth of opportunities for relaxation. The business farming so far described affords to persons at the head of the various establishments the satisfactions of controlling their own time and means of gratifying inclinations and desires. But the "hands" on cotton or other plantations, or on the wheat ranch large or small, savored little of the good times their bosses made for themselves.

Cattle ranching is distinguished from other forms of business farming by the fact that it combines fun with work for all concerned, man as well as ranch boss and—rarest of agricultural social phenomena—even for the women of the household.

Early phases. It is a historical axiom that migrating peoples take their domestic animals with them. The Spaniards did so when, under Columbus' leadership, they colonized Hispaniola. Later, spreading over Mexico, Central and South America, Florida, Texas, New Mexico, and California, the herds of Andalusian cattle everywhere outran the rate of population increase, multiplying apace whether on the pampas of Argentina, the mountain pastures of Mexico, the cane-meadows of Texas, or the dry-land ranges of California and New Mexico.

The English colonists, hoping to sustain themselves partly from the spontaneous products of the soil, brought over cattle, sheep, goats, hogs, and horses at the outset of their colonizing enterprizes.

The French likewise, in Canada, Acadia, and the sporadic settlements marking the course and extension of the fur-trade, were always sustained by a variety of livestock. The Dutch in New York, the Swedes in Delaware and New Jersey, were no laggards in their devotion to animal husbandry. Even the Icelandic sagas testify to the bringing of kine to North America by the Scandinavian discoverers of the continent about the year one thousand A.D.

Common sense and common observation suggest that cattle can flourish with no help from man in some situations while in others they will quickly die out. If the coast reached by Leif Ericson had been as favorable climatically and otherwise for cattle as the lands occupied by Spaniards, North America would have been crowded with wild cattle on the arrival of the later European immigrants. If Mexico, Florida and Texas had had as rigorous winters as Acadia or Canada, where would have been the millions of longhorns and the great bands of wild horses that ranged over the American South and Southwest in historic times?

Another general observation is that every favorably conditioned frontier is apt to have a livestock surplus before it can have a surplus of the productions of tillage. We have already seen that even the severe New England winters, while they limited the multiplication of cattle by killing off each year a large proportion of the animals, nevertheless yielded to the ubiquitous subsistence farmer of that region, with slight effort on his part, a cer-

tain resource for leather, for meat, and for merchantable beeves. The business was both small and precarious, and yet, as Whittier tells us, the drovers of New England found limited supplies of animals that differed markedly from "Pharaoh's evil cattle." [20]

When New Englanders drifted west into the milder and more fertile valleys of Ohio, Indiana, and Illinois, cultivating the borders of an almost limitless common, they soon found their herds multiplying naturally to such an extent that cattle driving to the eastern market, to military posts, and to the newer settlements became a feature in what might be called the adventure element in farm life.[21]

But the region of spontaneous livestock development lay in the South rather than in the New England states and their western neighbors. From Maryland to Florida the climate was so genial that, with abundance of land for the growth of pasturage and winter browse, cattle could multiply to any extent with practically no attention from man except such as would insure their safety against wild beasts and piratical men.

The cattle business in those colonies and states was of two kinds, plantation herding and frontier herding. Many of the plantations had attached to them areas of pasture and woodlands—swampy

[20] Whittier, *The Drovers.*

[21] When Wisconsin and southern Michigan were settled by eastern farmers who needed cattle, drovers from southern Indiana, Ohio, and Illinois supplied the deficiency. Cattle, sheep, and horses were "peddled" through the new settlements.

grounds rich in grass, or woods that were open through repeated burnings, where also excellent pasturage was found for cattle and great store of nuts and acorns for hogs. Since only the actual planted areas were fenced, cattle and hogs ranged all the balance of the lands as commons where were found the intermingled herds of several neighbors. This was the beginning of a livestock economy which ultimately became systematized under more or less scientific principles of animal husbandry. Some of the tidewater plantations are said to have maintained herds of 1,000 or over.

The frontier type of cattle raising, however, is of special interest as the parent of the glamorous ranching business of the nineteenth century. Its origins are not known in detail, but no doubt it was similar to the origin of the cattle ranching of the great plains and that on the Pacific coast, both of which grew up in the white light of the nineteenth century. Settlers in the Willamette valley of Oregon in the 1840's, if their claims adjoined the unoccupied lands along the Cascade mountains, or the low grounds along the river, kept cattle which fed on unappropriated pastures and with little or no attention multiplied apace. But, for a start, since it had been impossible to bring enough breeding stock from the states, enterprising settlers had joined together to buy California cattle which were driven north through the mountains. The reservoir of livestock on the California "ranchos," of Spanish creation, was so vast that any desired number could be

had for the northern ranges provided they could be safely transferred through the intervening wilderness. In a few years the mountain valleys swarmed with the wild black longhorns which, when wanted for beef, could be best secured by shooting. They were a menace to travelers, more feared than any of the beasts of the forest except the grizzly bear and, in fact, a famous English botanist, David Douglass, was killed in the Oregon mountains by a bull of that lineage.

Cow-hunts in Virginia and Maryland. In Virginia and Maryland colonies cattle ran wild to such an extent that rules for hunting them during certain open seasons were enforced by law. The chief hunter and his assistant divided the meat, the hide and tallow belonged to the governor or to the king. It was from this large surplus of plantation cattle that were recruited the herds for the distinctively "cow-country" above the tidewater settlements. The use of brands or earmarks as evidence of ownership became universal under legal compulsion, and the annual roundup for branding calves and selecting marketable animals necessitated the erection of "cowpens" which, as soon as the herds began to be driven inland, became a feature of the frontier cattle trails.

The entire southern Piedmont as well as the Great Valley and the valleys opening toward the Ohio were favorite herding regions. The numerous meadows, and the intra-forest peavine openings, afforded luxuriant pasturage where animals could

grow and fatten to an all but unlimited extent. The pioneers of the industry may have established temporary camps for their "cowboys," already so-called in the eighteenth century, but the attractiveness of the country, its excellent farming lands, charming scenery, healthfulness, and the sure and easy profits of the cattle business caused the early creation of regular settlements throughout this upper country. During the Revolutionary war great herds of fat cattle were driven from these choice pasture lands to the markets at Charleston, Baltimore, and New York. Charleston, indeed, had long enjoyed an extensive trade in cattle shipped to the British West Indies.

Piedmont ranchers. There is evidence that many tidewater planters, having learned to depend upon the livestock industry as an essential creator of profits, when their local pasturage resources became restricted sold their plantations and moved to the frontier where their herds could make them wealthy while they prepared new plantations on cheaper lands. This process similarly finds illustration in the far West, for some of the big farmers and cattle raisers of the Willamette, Umpqua and Rogue river valleys, in the sixties and seventies of last century migrated to the high plateaus of eastern Oregon, Washington, and Idaho to become the greatest ranchers in those regions.[22]

[22] William Hanley, for example, went to the Klamath region from Josephine county, where the old Hanley homestead still stands near Jacksonville in the Rogue river valley.

Also, as in the far West, the cattle ranching activity of the Southeast was enlivened and often rendered critical by the incursion of wandering herds of wild horses. These, of course, were of Spanish origin. They had drifted north from Florida just as in the far West Mexico was their point of departure. Hunting, lassoing, and "breaking" wild horses was a feature of frontier adventure generations before Philip Nolan excited the world with his stories of the wild horse bands of Texas.[23]

Virginian "cowboys." That the cowboy of romance should be a Virginian accords with the proprieties of history, for Virginia herders were pasturing the peavine uplands from the last quarter of the seventeenth century. They were driving their herds south to the Carolinas and Georgia along the great cattle trail near the heads of the east-flowing rivers. They were also fighting and "regulating" cattle thieves as they would continue to do for two centuries. Doubtless the early Virginian cowboy was the same clever, charming, resourceful, and at times daredevil rider of the range, who has been depicted with such faithful artistry by Owen Wister.[24]

Ranching regions south and west. We have seen how the southern fringe of the continent—Florida, Texas, New Mexico—became stocked and saturated with Spanish cattle. So great was that surplus it was steadily penetrating new lands, Texans drifting

[23] *Dict. Am. Biog.*, Philip Nolan.
[24] Owen Wister, *The Virginian, a Horseman of the Plains.*

into Louisiana where some of the Acadians became famous herdsmen and cow-operators, spreading into the Indian country of New Mexico, and upward toward the great plains. From California, whose mission herds and Spanish ranchos supplied both Boston traders and English traders with cargoes of hides and tallow,[25] and the Oregon pastures with abundant breeding stock, the American drovers were soon to provide the mining region of the Sierras with beef, and cattle operators of the great basin with the beginnings of a new and far-flung ranching business which was spreading in like manner from Oregon over the inland empire in response to the opening of mining centers in eastern Oregon, Washington, Idaho, Montana, Wyoming, and Colorado.

The day of the cattleman. Thus, when "the day of the cattleman," [26] as the last third of the nineteenth century has been called, opened up, the theater on which he was destined to play his dramatic rôle in American agriculture was already roughly defined. The farming frontier was in that tier of new states west of the Mississippi which were in turn restricted westward at certain points by Indian reservations, and in the beginnings of recently formed settlements in Kansas, Nebraska, and Dakota. However, the major part of the enor-

[25] The classic source for that business is Richard H. Dana's *Two Years before the Mast.*

[26] The book under this title by Ernest Staples Osgood, Univ. of Minn. Press, 1929, is one of the best and most comprehensive treatments of the ranching business.

mous spread of the great plains, or the sub-marginal grassy upland of the far West, extending into and across the Rocky mountains, was open for pastoral exploitation.

Long before the outbreak of the Civil war the great plains and Rocky mountains witnessed the incursion of neat cattle into restricted areas of the buffalo country. Emigrants to Oregon, beginning as early as 1843, drove annually several thousand head, mostly as draft oxen but partly as loose cattle. Of both classes some gave out through worn feet or weakness and had to be left along the trail where soon the occasional trader recruited a herd from which later trains could be supplied both with food and fresh draft animals. The mining centers to a large extent were supplied from near-by ranges where either eastern cattle, western cattle or Texas cattle had been brought to start the herds. From the borders of the farming frontier the herds of range cattle grazed stragglingly out upon the grassy great plains, much as the herds of tidewater Virginia penetrated the Piedmont two centuries earlier. It was the great zone of uplands lying between the settled states of the West and the Rockies.

Texas cattle supply the great plains. The greatest reservoir of cattle for ranching purposes being in Texas, where cow-hunts occurred every spring as the sole means of keeping even a general oversight of their rapidly growing numbers, and Texas experiencing extreme hard times following the war, it was inevitable that cattle from that region should

be drawn upon to stock the more northerly ranges. Railway building into the great plains along the lines of the Union Pacific and the Northern Pacific (later also the Kansas–Pacific) encouraged the hope of a future permanent market for beef cattle, only a few herds of which had theretofore been driven from Texas to Iowa and Illinois. The experience of successive winters, in widely separated districts of the northern grasslands, seemed to prove their availability both for the summer fattening and winter subsistence of range cattle. The "buffalo grass," with which the uplands were covered, had the nutritive qualities of a respectable kind of tame hay. The buffalo herds being destroyed, by keeping stock off a portion of their range in summer that area would provide good winter feed, the entire growth of the season awaiting the cattle, provided it were not covered too deeply with snow, which was seldom the case especially on the higher ridges from which snow was apt to be blown away by the wind.

Thus open-range cattle ranching was seen to be the simplest way to exploit the spontaneous growth of the vast continental uplands. Government owned the land, which made the pastures free. Government was ready to give the rancher a "home-place" for his house, horse-barn, paddocks, and such slight cultivation as would be required. For the rest, he could invest his money in cattle which Texas drovers, or northern buyers of Texas stock, were prepared to sell him. Beginning with a small herd of cows, the poor man could watch his wealth grow year by

year until, if he wished, he could gratify his ambition to cut a figure in finance or commerce. It was not so much a way to get rich quickly as to get rich surely. No ordinary business could compare in profitableness with the open-range cattle business in its halcyon days, say from 1866 to 1885.

The open-range ranching business. During most of that period the ranges were not crowded save in a few localities. The spirit of Abraham in his relations with Lot dominated. When two men found themselves with herds in the identical area they would agree to take either the right hand direction or the left hand direction. The one would graze this river valley, or mountain glen, the other that. The doctrine of "customary range" was widely prevalent. Close herding was not practiced. The range cattle fed where they pleased but came to a definite stream—often a certain place on a certain stream—to drink. Their pasturing range was limited by the distance from water, which could hardly ever exceed ten miles. Commonly it was not over five miles.

Under such conditions three or four well-mounted cowboys could "ride herd" on ten thousand cattle. This meant simply that they circled the range occasionally, prevented small groups of animals from drifting to other ranges, eliminated groups bearing other brands, watched for signs of destructive wild beasts, or of the onset of cattle diseases. Such was the cowboys' work in quiet times. When the spring roundup was on, in May, the story was a different

one. Then the cow hands of associated ranges brought all stock together in an agreed upon area, where those belonging to each outfit concerned caught and branded all calves, identified through their mothers, distributed the "mavericks" or motherless according to established rules, castrated young males, and cut out marketable steers and cows. The roundup cost days of gruelling work, relieved, however, by its social features, which included feasting, frolicking, visiting, racing, lassooing, bronco-busting, hog-tying bulls, and all the rest of the stunts which frontier dramatists have labored assiduously to perpetuate under artificial conditions. Driving the fat cattle to the railroad for shipment brought another period of heavy service for the cowboy, but most of the year, both winter and summer, was marked by an easy riding schedule.

Changes in ranching methods. We have, however, described only one phase of the range business, whose aspects changed with almost kaleidoscopic suddenness. Despite the colossal amplitude of the range country, its area was being contracted by the stupendous post-Civil war movement of farming immigrants into the West, the rapid settlement of Kansas, Nebraska, the Dakotas; and the expansion of agricultural settlement about the mining centers in the Rocky mountains.

The profits of ranching had made of that business a world craze, like the earlier cotton planting, in which Scotch and English financiers vied with Americans for the stakes of success. It was then

the New York Roosevelt and the English Frewens became ranchers. Cattle companies, heavily capitalized, sprang up like mushrooms after a spring rain. The Texas drivers delivered millions of cattle to the northern ranges; other millions of so-called "pilgrims" were brought in by rail from the middle-western farmlands. By 1880 cattle supplies for the newly created or enlarging outfits were becoming scarce, and prices took a sharp advance.

The cattle craze—its explosion. The cumulating difficulty of segregating customary ranges, joined to the invention and cheapening of barbed wire fencing, led to the widespread custom of fencing the adjacent public lands along with the privately owned water rights which reduced the cost of herding and permitted breeding for improvement. Then, in the winter of 1885–1886 came the most memorable disaster of ranching history in a series of snowfalls and blizzards which decimated the ranges and caused an almost universal financial crash among the cattle companies.

The government about that time stepped in to abolish illegal fencing of the range and to protect the increasing number of farmer homesteaders in the range country. The cattle business was again reorganized. Now the ranchers, and ranching companies, were disposed to buy or lease range lands. Wholesale frauds were committed in the process whereby government lands were transferred to private ownership, a story quite on a par with the monopolization of the country's timber lands by a

few great operators. At the same time the ranching regime was changed to respond to the lesson of the terrible winter. The growing of hay, on natural meadow or on irrigated land, and the winter feeding—sometimes also shedding of stock—became a normal practice. Another change was in the more rapid improvement of the range animals. The lanky Texas longhorn now rapidly disappeared and in his place the white faced Hereford became the ubiquitous tenant of the ranges, though the famous "101" still breeds the longhorn for Hollywood's benefit.

More recent stock-ranching. In effect, therefore, the cattle ranch and its picturesque life, with its colorful hero the cowboy, are no more. The ranch has become the large-scale cattle farm, but its owner is still the nabob of the American uplands. He has not forgotten the traditions of the cattle baron. He is still contemptuous of the "hayseed farmer," still mingles on terms of equality with packers, bankers, exporters, and statesmen. His business has made him a type quite as distinctive as the cotton-planter or the bonanza wheat grower. For purposes of drama, indeed, the western cattleman not only tops the cinema market, but he is the theme of the novelist and playwright to a greater extent than any other class of agricultural producer. He is the possibly crude, but free, fearless and self-satisfied continental aristocrat.

Fate of the grasslands. It is today by no means a settled question whether the cattle business is to shrink further or to expand. The terrible droughts

of recent years have induced a reflux of the tide of sub-marginal farmers, latterly aided by government. The sentiment just now—which may prove temporary—would seem to favor restoring the upland grass country to the ranchman. Unfortunately, the grass prospects have been much impaired by the overstocking of the ranges in the past, by cultivation which destroys the native buffalo grass, and by the disastrous dust storms to which widespread cultivation has been contributory. There is some doubt whether range conditions could be effectively restored should all farmers abandon the high, drought-scourged plains, though it is evident that at least the remaining grazing lands are now more apt to be left undisturbed by intruding farmers.

Two generations ago scientists, including the celebrated geologist, John Wesley Powell, who was intimately acquainted with far West conditions, warned solemnly against the agricultural occupation of the plateau country lying west of the one hundredth meridian. The high plains, these men agreed, should remain to the operator in live-stock. The advice went unheeded; but of late its echoes are heard on every side so that, in the long run, the scientists may have the satisfaction of being listened to with respect on that subject.

Sheep. But, even if the high plains shall once more be restored to the pastoral interest, it does not follow that they will be turned over wholly to the cattleman. From the early ranching period the sheep man has disputed the range with the cattle baron and, owing to the natural repugnance of

horned cattle to sheep and the grazing habits of the latter, the contact between the two has usually been hostile. On the whole, it must be recorded, the sheep men have gained the advantage partly because sheep are better adapted to exploit the mountain terrain than cattle.

Great fortunes were made, in the eighties, the nineties, and even later by men who ranged sheep in the mountains of Wyoming, Montana, and Colorado by the herding system. A single herder would be put in charge of a band of several thousand animals destined to a definite general grazing region. The herder lived in a wagon, watched his charges' outward movements during the earlier part of the day, let them return of their own accord to the bedding ground toward evening, and kept a sensitive ear for sounds of disturbance at night. The lambing season, the shearing season, the marketing drive, were the periods of excessive labor for herder, assistants, and owner. For the rest, an occasional change of camping ground relieved the tedium of herding, as did the winter at the ranch house when the sheep were being fed at the sheds.[27]

The increase of the sheep population has been so largely at the expense of cattle that one might be justified in the prophesy that the day of the cattleman is about over, whatever fate may be in store for the natural pasture lands of the West.

[27] Archer Butler Gilfillan, *Sheep,* Boston, Little, Brown, & Co., 1929, is an intimate literary portrayal, by an actual sheep herder, of the sheep business as viewed from the herders' standpoint.

Chapter IV

IMPROVED FARMING

A million independent farm-owning and farm-operating cultivators, scattered over four and twenty states of varying contours, climates, social complexes, and rural traditions, cannot be "hustled." When, therefore, the need of agricultural improvement became acute in the older sections of the country, about 1830, the leaders recognized that there was no royal road to its realization.

Each farmer a distinct problem. In countries whose farmlands are owned by a few score landlords, and by them leased to farmers as in England, East Prussia, and some other European states, the problem of introducing changes in cultivation as they may be needed is far simpler. "In the great days of agricultural progress," says Lord Ernle, "English landlords were the pioneers of improvements or missionaries of science." [1] Such characters practically did not exist in northern America. Instead of reaching a hundred wealthy, intelligent, business-trained persons with their propaganda of better farming and letting them, through the terms of leases, through managerial oversight and the

[1] *English Farming, Past and Present,* 418.

steady exertion of landlord prestige, put the ideas in operation on thousands of farms at a stroke, the American reformers had the task of educating the individual cultivator directly. Here was a challenge. How could it be met?

Robbers and conservers of the soil. It is axiomatic that whatever mitigates the sure disaster implicit in soil exhaustion is an agricultural improvement, but just so long as money was made most rapidly by robbing the soil, exploiters could not be persuaded to become conservators. In the latest settlements, while fields were new and cheap fresh lands still available, interest in improvement was virtually nil. Not until soil exhaustion had gone far enough to threaten the owner's impoverishment would he pause to consider ways of restoring its productive powers. But that condition was always common to large numbers at any given time, and therefore, propaganda was fortunately able to utilize social instrumentalities in operating upon individuals.

An impression has prevailed rather widely that the soil-robber and the soil-conserver were usually distinct types. Sometimes that was true, as the prominence of the professional squatter in some sections of the West attests. James Flint's three grades, however, the backwoodsman, the subsistence farmer, and the capitalist,[2] were not characteristic

[2] *Flint's Letters from America.* Thwaites Ed. 233–234. *Cf.* also J. F. W. Johnston, *Notes on North America,* Boston and Edinborough, 1851, I, 163. And Toqueville, as quoted in E. L. Bogart, *Econ. Hist. of Am. Agriculture,* N. Y., 1923, p. 91.

of all frontiers. That discerning Scotchman was reporting what he saw, and especially what he was told, of the situation in southern Ohio and southern Indiana, a region occupied largely by the Hoosier or Appalachian mountain type. Had he visited the West of thirty or forty years later, he would have seen that a large proportion of the first settlers remained on the land and passed all his grades in succession, beginning as squatters and becoming at last sound, progressive cultivators.

"Men," says Craven, "produce what they can sell and, in the long run, use those methods which yield them the greatest returns." [3] This is not only a correct summary, applicable to every type of farmer, but a wary statement as well. "In the long run" is a phrase which preserves to the "improving" class large numbers whose progressiveness might not otherwise be authenticated.

Types of improving farmers. Taken by and large that class has been composed of what have been called "general farmers," as those seeking profit through diversification, as opposed to the big and little exploiters heretofore described, and it has been recruited from the ranks of the exploiters. The propaganda of farming betterment carried on by agricultural societies, an agricultural press, county and state fairs, farmers' clubs, has been addressed

[3] Avery O. Craven, *Soil Exhaustion in Virginia and Maryland, 1606–1860,* 12. Professor Craven's monograph is one of the best sources upon which to base a history of agricultural improvement in the United States. L. C. Gray, *Agriculture in the Southern U. S.,* and Bidwell and Falconer, *Agriculture in the Northern U. S.* are likewise exceedingly valuable.

on the whole to those who were or were becoming general farmers. Fundamentally, the method was that of exhortation. Farms in the older states were so generally "run down" through generations of soil robbery that community as well as individual solvency depended upon persuading men to farm more intelligently. Of course conversions could not take place till market conditions permitted something other than a subsistence type of farming.

English precedents and preachers of better farming. Early advocates of better farming in this country held up English practices to the emulation of American cultivators. Benjamin Franklin's grandson, for example, took a newly arrived English farmer as his associate and teacher in managing his new six-hundred acre farm near Philadelphia.[4] It was not accidental that a large proportion of the limited space in the first volume of *The American Farmer*[5] was given over to a detailed account of the ruta baga by that fluent and expansive writer the Englishman William Cobbett; that the Englishman John Barney of Port Penn, Delaware, was hailed as the best cattle feeder in the country; that long quotations from Arthur Young were scattered through the various numbers; or that an extended report of the English board of agriculture should provide the first serious discussion of improved dairying.

[4] Bigelow Ed., Franklin's *Works*, IX, 296.
[5] Edited by John S. Skinner, Baltimore, 1819.

With the exception of Jared Eliot, who wrote in the decade 1749 to 1759,[6] employing largely the methodology and the ideas of the English agricultural improvers, the principal writers who influenced American agriculture in the later eighteenth and early nineteenth century were Englishmen.

The most thoroughgoing of these was the anonymous author of *American Husbandry,* published at London in 1775, but written perhaps a decade earlier. This book has been ascribed to Dr. John Mitchell who, though he had lived some years in Virginia, died in London in 1768. There is a possibility that the work as written by Mitchell was actually published under the editorship of Arthur Young.[7] George Washington and Thomas Jefferson both corresponded with Young in the hope of obtaining helpful suggestions, and other contacts between the improvers of the two countries were not lacking. Briefly, American advance in husbandry, conditioned at it was on the one hand by the market for products, on the other was inspired mainly by English examples. Also, as in the older society, the most hopeful contributions toward a better type of farming came at first from the larger and economically abler operators.[8]

John Taylor and Edmund Ruffin. The leading cause of prosperity in the tobacco-growing colonies for about a hundred years had been the excellent

[6] Essays on Field Husbandry in New England.
[7] Letter of Lyman Carrier, 1935.
[8] See Craven, *Soil Exhaustion,* etc. 92 ff. especially 104–105.

market for tobacco in England. The main cause of agricultural decline in the same colonies, during the greater part of the eighteenth century, was the excessively low price of tobacco, together with the import, export, and other charges upon the crop. Planting prosperity meant coining the riches of the soil into money rapidly; loss of prosperity for a time caused still more rapid exploitation of soils in the feverish hope that something might be saved through such processes. It was the drowning man clutching at the proverbial straw.

Only when the decline struck bedrock did improvement begin, because then bankruptcy was the obvious alternative. The advance movement took the form of better tillage, diversification of crops, and closer attention to the business end of farming. Grain raising, especially wheat, was largely substituted for tobacco, deeper and more careful plowing prevented erosion, cattle yarding, with winter feed provided manure which brought up the productivity of the fields.[9]

The sale of lands and slaves reduced many tobacco-planters' holdings to more manageable proportions for supervision. Attention to breeding im-

[9] The prophet and most scientific exponent of the new southern agriculture was John Taylor of Caroline who wrote his *Arator* articles in 1803, the year in which Sir Humphrey Davy delivered his first series of lectures on agricultural chemistry. Taylor apparently knew little or nothing of Davy's subject; but from conversation, reflection and experimentation he learned and taught much about the production and use of manures, about clover as a fertilizer, about careful cultivation and good farm management. He may stand as the type of the earliest scientific or professional farmer in the South.

proved the herds and flocks.[10] A period of good prices for grain during the Napoleonic wars gave a strong impulse to progressive, diversified agriculture which was later interrupted. Around 1820 to 1830 most of the large farmers of Virginia went into bankruptcy. Jefferson did so, Monroe and Madison fared little better. It was the age of the Virginia slaveholder's despair.

Fortunately, thereafter surplus slaves, otherwise a ruinous expense, were rapidly drawn off to the new cotton planting districts and the farms were steadily reduced in area; new transportation facilities, canals, railroads, and wagon roads, cheapened the cost of getting crops to market, thereby compensating for the somewhat low prices. Persistent preaching of better farming methods, and significant new experiments like that of Edmund Ruffin with marl, the use of clover and commercial fertilizers, the importation of blooded stock—all worked together to make the farming of Maryland and Virginia in the twenty years before the Civil war among the best in the United States.[11]

Sporadic improvers in New England. But the surest approach to improved agriculture, for the average farmer, is through better livestock, and in that fundamental department the small farmers

[10] Which, however, were still of inferior quality as late as 1817 if Birkberk's observations are to be regarded as evidence. Morris Birkbeck, *Notes on a Journey in America. Passim.*

[11] This is according to the testimony summarized by Craven in Chapter IV, the Agricultural Revival, 1820–1860 of *Soil Exhaustion,* etc. See also *Georgia Historical Quarterly,* Dec. 1935, article "Agriculture in the Interior."

of New England and the middle states unquestionably took the lead. The farm journals celebrated the achievements of northern feeders of cattle and swine. The editor of the *American Farmer* found that some of the New Englanders raised pigs that would dress 150 pounds at six months, as against the average in Maryland which did not exceed that weight at sixteen months.[12] Some of the best cattle feeders, for many years, were located in the Connecticut valley of Massachusetts where was produced an abundance of hay, corn, peas, oats, and roots for fattening.[13]

The improvement in all lines of agricultural activity in New England followed the development of town and city markets. Commerce carried on from Boston, Providence, New Haven and New York with the West Indian islands during the colonial period had called for the shipment of much meat, wheat and flour, feed grains, potatoes, lumber, and horses. The famous Narragansett pacer stock was actually depleted through the intensity of this export trade.

Magic of the market. But after all, the West India market was distant and the human imagination is weak. Farmers require market benefits that are near and obvious as a stimulus to best endeavor. As the cities grew through commerce and especially through the new manufacturing industry, multiplying their demand for "victuallers" supplies, farmers

[12] *Am. Farmer*, I, 47. See also same, page 23 and 48.
[13] Bidwell and Falconer, 224–225. Also, *Am. Farmer*, I, 197.

accustomed to visit the markets learned the best methods of satisfying that demand with profit to themselves. They supplied pigs fatted in the way that brought the best prices, and they gradually learned to raise the breed of swine that could be grown and fattened at least expense.[14] And, as with hogs, so with cattle. The Brighton market near Boston was visited by farmers and drovers from all sections of New England, giving the same currency to knowledge of preferred types of animals that the modern cattlemen derive from visiting the packing centers of Chicago, Omaha and Kansas City.

A certain degree of specialization was caused by the popularity of active oxen fitted for farm work and woods work. Since the red Devons were preferred for the yoke, and also were good milkers, New England farmers generally stuck to that breed, raised steers, and trained them for service. "New England broke oxen" were auctioned off near Lancaster, Pennsylvania, to the number of forty pair, in August, 1797.[15] Large numbers were employed in the Maine and New Hampshire lumber camps, and thousands of ox-teams bore emigrating families, with sled or with wagon, into western New York, western Pennsylvania, and Ohio. Rhode Island, the lower Connecticut valley, and the towns of northwestern Connecticut excelled in dairying.

[14] *Am. Farmer*, I, 23. The Byfield breed was a New England favorite about 1819. *Ibid*, 48.

[15] B. J. Andrew Frantz, Lancaster Co. Hist. Soc. Papers, 28, 44.

Pennsylvania's good farmers. Perhaps the best general farming of the Revolutionary period was in the neighborhood of Philadelphia, which was an exceptionally good market. An ox weighing 2,884 pounds was reported in Elizabethtown in 1796. The big Pennsylvania barns were used for stabling cattle as well as horses, and all beasts therein were well fed.[16] Cattle feeding as a business was carried on in Lancaster county during the Revolution, the stock cattle coming from Virginia and being destined, when fat, for the American army. Arable lands sown to tame grasses were used for pasturing before the end of the eighteenth century, and during many years of the nineteenth century that district fattened cattle brought in by drovers from Ohio, Kentucky, northern Pennsylvania and western New York, supplying the eastern market.[17] Southeastern Pennsylvania also developed the famous Conestoga horse and the very popular Chester White hog.

The kind of farming which distinguished that and some other eastern areas favored with good markets, at the close of the first quarter of the nineteenth century, was not widely prevalent through the country at large, though the construction of the Erie canal, completed in 1825, opened such enviable prospects to the people of western

[16] "On June 2, 1798, in the Lancaster Journal there appears an advertisement for the sale of a tract of land, adjoining the borough of Lancaster, with a barn containing stabling for a number of cattle." *Supra,* p. 45.

[17] B. J. Andrew Frantz, Lancaster Co. Hist. Soc. Papers, 42, 44, 45.

New York that very rapid improvement, both in tillage and in animal husbandry, took place among them. This so-called Genesee country had long been noted for its wheat crops, which had been marketed at Montreal, Baltimore, or New York. With the opening of the canal New York became a perfect market for that area, and soon western New York gave to the new agriculture some of the proudest and most intelligent farmers of all America.[18]

The Erie canal's influence. But the Erie canal's influence did not end at Buffalo. That work, as its chief architect, Governor De Witt Clinton proclaimed, "married the Lakes and the Ocean," joining the far-extended waters of America's great inland seas to the magnificent harbor at the mouth of the Hudson, so that from Cleveland, Detroit, Mackinac, the later Chicago, Milwaukee, Duluth, and Superior—with scores of lesser lake ports—commerce was attracted eastward to the great and growing Manhattan city.

When Morris Birkbeck, an English farmer, visited America in 1817, traveling through Virginia and by the national turnpike to Ohio, Indiana, and Illinois, he made a shrewd observation about the future of western trade and travel in the remark: "We approximate to Europe as we proceed to the West. The upward navigation of these [western] streams is already coming under the control of

[18] New York ranked first as a producer of beef cattle in 1840. Russell H. Anderson, *Wis. Hist. Mag.*, XVI, 173.

steam, an invention which promises to be of incalculable importance to this new world." [19]

Birkbeck was right in supposing the Mississippi route to Europe would be popularized by the steamboat. Yet, had he passed through New York state instead of through Virginia, and witnessed the active beginnings of canal construction, at the same time studying northern geography, he would not have failed to see a future rival to the Mississippi in this partly artificial transportation system. Moreover, the Erie canal was the effective cause of the era of railway building from the eastern harbors to the West, which in time rivaled both the Mississippi and the Erie canal transportation systems.

Forty years after Birkbeck an Englishman of greater prominence than he, the Hon. James Caird, M.P., examined the prairies of Illinois with an eye to favorable opportunities for agricultural emigrants from Britain. He found Illinois a state "traversed by a most perfect system of railroads, where no settler need be more than ten miles from a station, whose shore is washed by one of those great lakes through which an outlet is found to the Atlantic, and which possesses in the Mississippi itself a vast artery of commerce navigable by steamboats for thousands of miles." [20]

The interval between Birkbeck and Caird wit-

[19] Morris Birkberk, *Notes on a Journey in America,* Phila., 1817.

[20] James Caird, *Prairie Farming in America,* N. Y., 1859. See also P. W. Gates, *The Illinois Central Railroad and Its Colonization Work*, Cambridge, Harvard Univ. Press, 1934, on Caird, 215 ff.

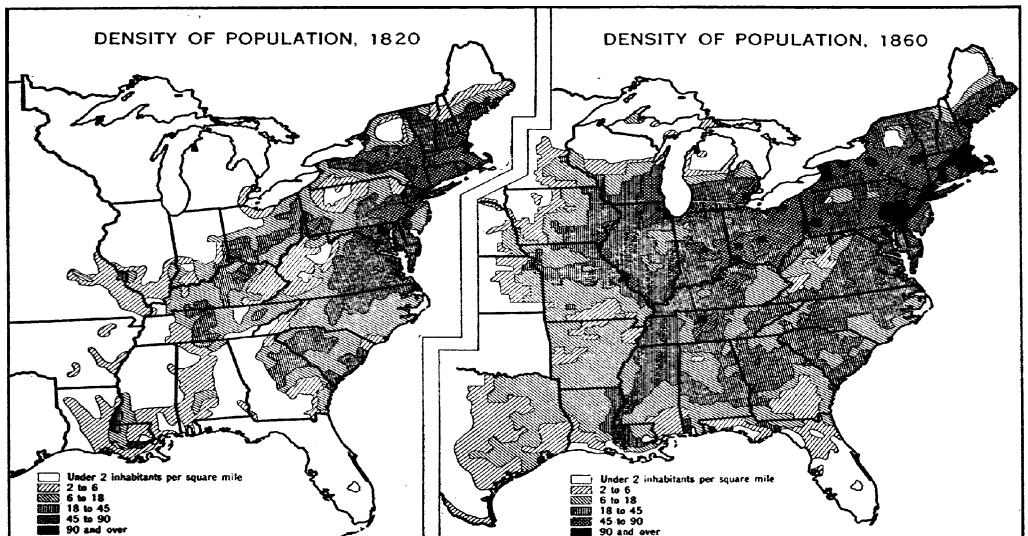
nessed the first transitionary period in American agriculture of the nineteenth century. It was the age of developing industry in the eastern states, the upleap of urban population, the conquest of the rivers by the steamboat, and the opening of the prairies to the farmers by means of the railroad. The population maps of 1820 and 1860 tell the story better than many pages of narrative and description.

Railroads promote marketing. Caird says, what becomes doubly apparent to the student of American geography of that period: "There is a complete organization of markets throughout the country." [21] Indeed, so powerfully had the growth of the older cities and the multiplication of new ones wrought upon the popular mind that Henry Clay was able to preach to an interested constituency the policy and opportunity of providing an adequate "home market" for the products of American agriculture. Nevertheless, the ports opened freely outward, and foreign demand for American breadstuffs was not likely to be cut off so long as only ten to sixteen percent of England's adult population was engaged in agricultural production,[22] and the United States remained the cheapest source of supply.[23]

[21] The remark applied especially to Illinois but was equally true of more easterly states.

[22] Caird, 9.

[23] From the late 1840's, the English food market had been open to Mississippi valley farmers, and in a few years a reciprocal trade in English manufactured goods had developed. See Martin, Thomas P., "Cotton and Wheat, 1846–1852," *Jour. of Southern History,* I, No. 3, p. 292 ff.



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We have reached a time when many thousands of American farmers, widely distributed over the country, were in a condition approximating that enjoyed at an earlier period only by those living near a few of the eastern cities. Since nearly all could reach markets of some kind, farming for profit, in the spirit of business, became a normal substitute for subsistence farming.

Journals, societies, and fairs. The generation 1820 to 1860 was fruitful in means for promoting agricultural improvement, among which one of the most effective was an active agricultural press. The *American Farmer,* edited by John S. Skinner in Baltimore dates from the early months of 1819. The *New England Farmer* followed in 1822, the *New York Farmer,* and the *Albany Cultivator* in the first years of the next decade. In 1840 the *Prairie Farmer* opened its better farming campaign in Chicago, and in 1843 was begun in New York one of the greatest journals of the series, the *American Agriculturist,* rendered famous by the scholarship and the practical farmer-sense of Orange Judd. Before the period closed nearly every state and certainly every distinct farming region had its agricultural journal which appealed to farmers for local reasons, many of them reading also the more general farm periodicals. With practical unanimity the states organized agricultural societies.

Another educational agency of a still more practical kind, fostered by the state societies, was the county and state fairs. These, in the form that now

became prevalent, originated at Pittsfield, Massachusetts, in the exhibition by Elkanah Watson in 1807, of the two Merino sheep he had acquired from Chancellor Livingston. Other shows, featuring all types of farm livestock, also field and garden products and household arts and industries, followed under Watson's inspiration and finally the state of New York made provision for county fairs throughout that state and also a great state fair. The movement spread because times were ripe for it, and so the county fair came to be an all but universal interest of American rural life, a "harvest home" festival attended by careful farmers and careless alike, and teaching through the interest of its diverse exhibits many a lesson which would not have been derived from books and magazines.

Federal and state promotion agencies. It was now, also, that the federal government began to exert itself in behalf of agricultural improvement. The states had already done something, the local communities and private associations still more when, in 1839, the United States Congress voted $1,000 to the patent office for "the collection of agricultural statistics, investigations for promoting agriculture and rural economy." Thereafter, until 1862, the patent office report carried a section relating to farming which afterwards was more adequately represented by reports of the separate department of agriculture. Other agencies, destined also to become institutionalized during the Civil war, were the special schools of agricultural science

so powerfully stimulated through the passage by Congress in 1862 of the Morrill act.[24]

Improved livestock. It was in the years 1818 to 1840 that this country acquired from England the foundation animals of those herds, of choicest strains, which made some of the breeders in New York, Pennsylvania, New Jersey, Kentucky, Ohio, and Illinois almost as celebrated for their Shorthorns as were formerly the Collings brothers, Rev. Henry Berry, and Thomas Bates in England. Purebred Devons were imported by Patterson about 1817. Later came the interest in other beef breeds like the Herefords, which captured the open ranges, the Polled Angus, and Red Polled. Also the breeds developed especially for milk, Ayrshires, Jerseys, and Guernseys. Still later came the now universally popular Holstein-Friesian, brought in from the continent. It is noteworthy that importations during the period we are now studying took hold and flourished, whereas those of earlier dates, of which there were several, especially of Devon cattle, attracted only passing attention.

Sheep and wool industry. A wooded country is notoriously unfavorable for sheep. During the entire period of colonial history little emphasis was placed upon the production of wool except as an element in the prevailing subsistence farming. The household needed a small supply of yarn and for

[24] The service of the Illinois Central Railroad Company in promoting agricultural improvement is brought out in Gates, *op. cit.*, chap. 13.

that reason a few poor or indifferent sheep were usually kept about the farm. There was no such reliance for occasional market surplus upon these animals as there was upon cattle and hogs, though as the West settled up flocks were driven from older to newer regions to be sold for breeding stock to beginning farmers. For meat food the sheep was despised by Yankees though favored by Virginians. Cattle and hogs, in great numbers, were regularly driven several hundred miles to market, sheep were rarely seen on the highways except when they were being "peddled" through new settlements.

It happened, however, that during the Napoleonic regime, Spain was compelled to give up her monopoly in fine-wooled Merino sheep, and from the large importations of Consul William Jarvis in the years 1809, 1810, and 1811 the flock-masters of Vermont, New York, and other states supplied themselves with breeding stock. A few Merinos had previously reached the United States from France, through the efforts of Chancellor Livingston, and a few from Spain by way of Portugal, but the Jarvis Merinos were the founders of the later great flocks. Improved Leicesters, Cotswolds, Southdows, and Shropshires, all English breeds, followed rather than preceded the Merinos, which may be regarded as primary improvers of the American sheep stock.

Woolen mills and Merinos. The sheep industry rested upon the demand for fine wools created by the erection of woolen factories in the years of

partial or complete blockade prior to and during the War of 1812, another illustration of the relation of agriculture to the market. Prices of fine wool skyrocketed, and so did prices of the purebred Merinos. When Livingston could sell his rams at $1,000 apiece, as he did in 1810, a craze is indicated, and that craze went to the usual extremes. Of course, it was the re-establishment of trade with England, and the "dumping" of English manufactured goods at United States ports, which broke the market for fine wool. Merinos, considered wholly unfit for mutton, now became a drug on the market. Mothers no longer named their newborn sons Merino as they did earlier in some instances. Farmers sold their stock at a great sacrifice. Nevertheless, the wool clip of the common sheep of the country had been somewhat benefited by the infusion of Merino blood, and now entered the English breeds to improve further both wool and mutton.

With the firm establishment of American woolen manufactures, under the principle of tariff protection, which was achieved by 1830, the wool industry recovered and within a few years expanded mightily. The region of Vermont and the Berkshires, composed largely of rough pasture lands, was a famous sheep country and long after the heyday of the business had passed, Vermont sheep fanciers were still selling breeding stock to farmers in the western states. Merinos gained a new and more secure popularity in the course of expansion into Kentucky, Ohio, Indiana, Illinois, Michigan, and elsewhere.

As late as 1851, the first state fair of Wisconsin offered prizes for Merino, Saxon, Paular Merino, and cross-breed sheep, as well as for long wools, and middlewools.[25]

The Ohio wool center. In the region just defined, Ohio was the leading wool producer. One half the aggregate number of sheep belonging to the north central states in 1850 were to be found in Ohio and, most intensively, in the eastern portion of that state. The westerners' argument for producing wool instead of grain turned upon the cheapness with which it could be raised, and its lightness and consequent cheapness, in relation to its value, as an article of transport. Naturally, their interest in stabilizing wool prices went far toward making north central farmers tariff protectionists. As showing how effective was western competition in wool growing, it may be pointed out that in the decade 1840 to 1850 the north central states increased their aggregate sheep population more than one hundred percent, while New England and the middle states lost more than three million head in the same period.

Sheep farmers in the West, as in the East, fought shy of the woods. Heavy forests in Wisconsin harbored bears, lynxes, wildcats, and most dangerous of all, timber wolves. All of these were deadly enemies of sheep, wolves being capable of decimating flocks with frightful celerity. Accordingly, the towns or districts where much forest remained had few sheep. The open towns, especially if they contained

[25] *Cf.* Turner, *United States,* 1830–1850, p. 303–304.

high and rough lands, sometimes had many.[26] The high, dry prairies too, were favored by sheep raisers as long as the land was not required for more intensive farming.[27] In the long run, as in England and Scotland, sheep ultimately claimed the rough mountain slopes because they are the most economical exploiters of the grass on such a terrain. Sheep will be found today grazing the steep, grassy "buttes" in Oregon, just as they graze the Eildon Hills above Melrose Abbey in Berwickshire. America's wool supply at present comes largely from the mountain areas, while near the great cities mutton and lamb are in request. Diversification in the sheep industry, to meet varied demands, has long been a powerful stimulus to agricultural improvement.

Swine as mortgage lifters. In addition to sheep, the general farmer gained great advantage from raising swine. Pork and maize, in the form of "hog and hominy," had been the staff-of-life for most families that lived on the subsistence farming plane. The American woods, in partly settled areas, were alive with half-wild "razor-back" hogs which, in many cases, could be secured only with rifle and ball. The forest was as favorable for hogs as it was unfavorable for sheep. Naturally, the general farmer stood for improvement in the stock of swine, though in most parts of the West he began with the rough,

[26] *Wisconsin Domesday Book, Town Studies* (Whitewater Town): also *Winnebago-Horicon Basin* (in press), Chap. XII.
[27] See Caird, *Prairie Farming*, etc., 62–64. Also Schafer, *Agriculture in Wisconsin*, 103.

bony, ill-formed woods creatures, which could be quickly modified by good feeding and judicious breeding. Crossed with the Suffolk, Cheshire, Berkshire, Poland China, Essex or Chester White and kept under favorable farm conditions, a few years served to work a complete transformation in the stock. The rapidity with which pigs multiply made the process of improvement cheap, easy, and rapid. A few dollars would usually buy a well-bred male pig and in a single year the results of the investment would appear. For this reason the propaganda of the farm journals in the interest of improved livestock obtained a quicker response from pork-raisers than from cattle, horse, and sheep raisers.[28]

Hog raising on a business scale, however, like the earlier sheep raising, was one answer to the economic requirement of diversification. When the persistent cropping of the land with wheat became unprofitable, as it always did sooner or later, the farmer either changed his habits, making wheat an occasional crop in a rotation, or else sold to someone who would farm in that better way while he himself went west to exploit another piece of rich virgin soil. A certain proportion always took the second alternative. For example, it was computed that 140,000 persons had emigrated from Ohio, under these circumstances, between 1850 and 1857, and in some of the best wheat growing areas the actual

[28] This was the opinion of Joseph Harris, famed pig-breeder of Rochester, N. Y. See *Harris on the Pig*, 2d Edition, New York, 1889. 247–248.

decline of the agricultural population amounted to six percent, small farmers selling to larger landholders and going west.[29]

It was a process which was repeated on every maturing frontier, but the modification of farm practice which accompanied it varied with the times and conditions. When Vermont Yankees gave up wheat as their main crop, and went by thousands to Ohio, Michigan, Illinois, and Wisconsin, those who remained behind enlarged their farms in order the more successfully to raise cattle, horses, and sheep. When the Genesee country farmers grew restive for the same reason and some followed the same course, the home-staying remnant raised cattle and finally went into co-operative cheese dairying. Eastern Pennsylvanians diversified their crops, raised hay and corn, and fattened cattle bought from western drovers. Ohioans, and other north central farmers, became largely wool growers where practicable until about 1870, when wool growing as a farming interest ceased to be profitable, but the farmers in Illinois and Indiana, also parts of Ohio, fed cattle and hogs, or hogs along with cattle, marketing beef and pork as a substitute for the wheat crop. After about 1870 most districts east of the Mississippi which until then had depended mainly on wheat, by reason of the rust, the ravages of the chinch-bug, and the increasing repugnance of the soil to the wheat plant, were forced to revise their

[29] Caird, *Prairie Farming,* 119. Quoting Ohio State Agricultural Report.

farming practices which had already tended toward diversification.

Beef and pork farming. It was then that beef and pork became major crops on the better western farms. The average subsistence farmer's "cow-brute" herd usually included a few steers that could be sold at a low price to drovers who in turn sold to the cattle feeding farmers farther east. The larger pioneer farmers might have large herds. The improvement of the beef stock on the farms waited on the general introduction of Shorthorn, Devon, Hereford, Angus or Galloway foundation animals, a process which went forward at a rapid rate, after the railroads had opened a western market for fat beeves, particularly in the corn-belt states of Illinois, Missouri, Iowa, Kansas and Nebraska.

There were two ways in which the corn-belt farmer could utilize his crop for the improvement of his land, by buying cattle to feed or by raising the animals on his own farm. The decision as to which method would be followed often turned on whether or not the farm afforded cheap pasturage to a sufficient extent. If it did, the farmer was likely to become a breeder. If not, cattle could be bought and fed in winter only. In either case the farm would benefit from the manure resulting from a winter's feeding.

Whether as feeder or as breeder, the good farmer possesses a distinct and often decisive advantage over the one who is careless or indifferent. If he buys stock cattle he knows the types that can be

fed profitably, and refuses offers of others. As a breeder he insists on foundation animals that will be least liable to produce inferior individuals. His feeding arrangements, shelters, rations, manure conservation are all attended to with care as factors in what is often a business dependent upon close margins. If he makes a money profit however small, his enterprise succeeds because, by husbanding the manure and applying it to his corn and hay lands, he is steadily enriching his farm.[30]

Pigs with cattle. The feeding of hogs along with cattle, a practice as old as American agriculture, continues to be followed by corn-belt farmers. Hogs being good scavengers, they save what cattle would waste. Besides, on the farms that produce much corn, a field can usually be set aside to be "hogged down" when ripe by pigs that are being conditioned for the market, thus saving the expense of harvesting the crop and also the expense of pen feeding. Hogs and cattle, too, will pasture amicably together which is not true of cattle and sheep.

The decade 1880 to 1890 witnessed the phenomenal increase of swine for the country from 47,681,790 to 57,409,583 and of that total, 37,624,632 were in the north central division which included the five states of the Old Northwest together with Minnesota, the two Dakotas, Iowa, Nebraska, and Kansas. The census of 1890 showed an increase in

[30] An admirable survey of the beef-cattle farming of America is by E. W. Sheets, O. E. Baker, C. E. Gibbons, O. C. Stine and R. H. Wilcox in *Agricultural Department Yearbook* for 1921, pp. 227–322.

Illinois since 1870 from 2,703,000 to 5,925,000; in Iowa from 1,354,000 to 8,267,000; in Kansas from 206,000 to 4,023,000; and in Nebraska from 59,500 to 3,815,000. This indicates how the corn-belt states were finding their profit from turning corn into pork, partly in order to save in the freight bill. But even Wisconsin, which is not in the corn-belt, yet was raising considerable of that food cereal, as well as barley and oats, advanced her hog population from 513,000 to 1,348,000.

Markets for pork. For many years, beginning at least as early as 1820, Cincinnati was the "Porkopolis" of the Mississippi valley. Chicago gradually forged ahead, and Indianapolis, Louisville, St. Louis, Kansas City, and Milwaukee shared in the business. Recently many additional pork-packing centers have been created. "Improved farming," as already indicated, was more generally illustrated in the care and breeding of swine than in any other department of farm livestock activity. The agricultural journals multiplied their warnings against slow-maturing breeds, the fairs emphasized the quick growers and easy fatteners. The extra expense and inconvenience of wintering, in the cold northern states, also stressed the economy of early fattening. Farmers could not resist that propaganda. They accordingly competed everywhere for recognition as successful producers of six-months old, or eight-months old swine, the kind that was universally hailed as the "mortgage lifters."

Leasing corn lands. The profits of farming the

corn-belt farms, over a series of years, especially the period from 1900 to 1920, were exceptionally large. Thousands of owners received incomes from their acres which enabled them to live away from the land as retired farmers, entrusting the actual operations to renters or hired managers. The extraordinarily high prices at which corn lands sold is a testimony both to their fruitfulness and to the advanced state of tillage under which they had long been kept. The custom of leasing has in many sections unfortunately marred the outward evidence of the corn farmers' prosperity, yet it is undeniable that much of the improved farming up to the present time is to be found among corn-belt farmers.[31]

The cattle-feeding farmers have always been recognized as exceptional men on account of their adventuresomeness. Purchasing, fattening, and marketing cattle calls for unusual business qualities. The purchasing requires a large credit, shrewd judgment, and good bargaining ability; the marketing, forethought and decision. Feeding calls for the most careful cost accounting. The farmer who can succeed in all of these respects is not apt to fail in his more general farm improvement plans.

Horses. An exciting chapter could be written on the American farmers' activity in raising horses and mules, especially the former. The business was important from several points of view, some of them economic, like the production of farm work horses,

[31] J. Schafer, *The Wisconsin Lead Region,* Chap. XII; Dept. of Agriculture *Handbook,* 1921, 227 ff.

cavalry horses, and draft animals, and others chiefly social like the interest in race horses which began in Virginia during colonial times,[32] extending thence to other southern states, to Kentucky, and finally to the rest of the country. On the whole, however, the raising of horses was either an incidental activity of common farmers, with no special influence upon the quality of the farming pursued; or else of wealthy patrons of the turf or mere horse-fanciers.[33] Horses, indeed, rescued northern agriculture from the slow tempo of ox tillage and travel, the mule performing the like service for the southern planter. As an item in the average farmer's budget, the sale of a young horse or team of horses not infrequently represented most of the year's profits.

The dairying interest. A livestock farming economy which is not only responsible for much of the agricultural improvement in the United States, especially in the past eighty years, but which has given rise to a vast manufacturing and distributing industry, is dairying. Economic revolutions have occurred in many lines since early colonial times, but nothing could be more startling than to compare the Pilgrim's division of the cows, one to every six families, and the present elaborate and complicated arrangements for supplying fresh pasteurized milk to the millions residing in cities from which cows are rigorously barred.

[32] Fairfax Harrison has given us a charming account of the origins of the Virginia racing stock, *Va. Mag. of Hist. and Biography*, XXXV, 329–370 (Oct. 1927).

[33] J. Schafer, *Agriculture in Wisconsin*, 117–121.

The subsistence farmer—or rather his wife or daughter—milked a cow, or several cows, in order to have milk for family use, also butter for the table and possibly a little butter or cheese to exchange for groceries. Pioneer dairy products were prevailingly poor and unappetizing partly because of imperfect equipment, partly by reason of the summer heat which was unfavorable, but largely on account of ignorance on the part of household dairy managers. Nevertheless, certain districts like the Connecticut valley, parts of Rhode Island, and northwestern Connecticut early became famous for the excellent butter and cheese their farmers made and marketed in nearby cities. Where cold springs could be used for refrigeration, butter made during the summer might be salted and packed in firkins, or kegs, and kept sweet until winter when it could be sold at an extra high price, winter dairying being almost non-existent. It was in this way, apparently, that the first real advance was made in dairying.

Origin of farm dairying. A "spring-house," too, made possible the production of a superior quality of butter, from sweet cream, to be sold to discriminating customers during the summer at much above store prices. Many a careful housewife proudly bore her stated weekly supply of golden butter to the homes of prominent villagers—the doctor, judge, banker, etc.—receiving her twenty-five cents a pound cash when the grocer was paying eight or ten cents "in trade." These are illustrations of the ways in which the idea of a definite and dependable income

from dairying may have arisen and caused attention to be paid to the care of cows as an important part of the farm business.

Gradually, dairying on a more or less systematic business basis spread throughout New England, New York, Pennsylvania, New Jersey and in general all farming sections accessible to city markets for butter and cheese. The fresh milk needed by the cities was at first provided by nearby dairies from which delivery could be made once or twice daily. Obviously, the enormous growth of the cities multiplied the demand both for fresh fluid milk and for milk products, with the result that dairying received a stimulation similar to that which affected wheat-farming and meat-farming.

Dairy organization. Dairying, however, lends itself to organization more than most kinds of farming. Without considering the huge milk distribution concerns that now focalize the activities of thousands of farm dairymen, we may remind ourselves of how cheese manufacturing and butter manufacturing have almost abolished the kitchen arts of cheese and butter making.

Cheese factories had their rise in western New York shortly after 1850. They spread rapidly, due to their high utility, soon being found throughout the northern states from New York and Pennsylvania west to the Mississippi. Northern Ohio and Wisconsin, however, and more recently Minnesota, became the chief rivals of New York as a producer of cheese. For many years Wisconsin has stood first

in that industry. The creamery or butter factory, the milk condensing factory, the milk powder or evaporating plant, the ice-cream factory, the chocolate factory are other institutions for drawing to a single center the daily milk product of many farmers and all of the above operate over larger areas than does the neighborhood cheese factory.

Dairy farm incomes. Whatever processing concern or distributing agency takes his milk, the farmer has a definite idea of the gross income he derives from his cows, and a little care will show him which animals are profitable or the reverse. He usually has some notion of the profit he obtains from the business as a whole and has a daily reminder that poor cows do not pay, that good ones do pay; that good care, wise feeding, and gentle treatment will yield a money value, and that foresight in breeding brings exceptional rewards. Questions of forage feeds, silage, pasturage, the kinds of concentrates to use—all must be settled on a sound common-sense basis, or upon the basis of science, if the best returns are to be expected.

Influence on farmers. The dairy farmer receives his pay checks weekly or monthly, thereby freeing himself from the primitive farmer's costly method of credit purchasing. The necessity of a strict attention to his affairs, every day in the year, as William D. Hoard pointed out, reduces his farming to "the same law of success" as any other business. The co-operative phases of butter and cheese manufacturing and of milk marketing impart an im-

portant social relationship to his activities, while science comes into play variously in connection with milk handling. On the whole, dairying is a branch of farming which improves the farmer as well as the farm.

Spread of dairying. Dairying expansion since the beginning of factory cheese making in the eighteen-fifties has been stupendous. Not only has it come to dominate agriculture in most eastern farming sections, due to the enormous demand for wholesome fluid milk, but cheese and butter manufacture or milk production for cities have taken complete possession of several middle western states and flourish sporadically throughout the West. In recent years considerable dairying development has occurred in the cotton-raising South also.

At the present time there are about 25,000,000 cows in the United States, distributed among 4,600,000 farms. These cows are supposed to produce not less than 12,500,000,000 gallons of milk per year. This explains why "The production and distribution of milk and dairy products form the largest industry in the country," and why dairying "is far and away our largest agricultural enterprise." [84]

Dairying therefore has a significant relationship to general business, as well as to the problems of employment, of nutrition, particularly the feeding of infants, and the public health. On the mechanical side modern milk plants reveal in striking fashion

[84] Arthur Pound, *The Atlantic,* November, 1935.

the results of invention. But, after all, the most important incidental result of the spread of dairying over the country is in connection with the conservation and improvement of the soil. It is helping to guarantee the permanence of American agriculture.[35]

Cotton farming—its extent. Since cotton is, and long has been, the greatest commercial crop produced in the United States, one naturally expects to find that much good farming is associated with the business of cotton growing. Unfortunately, the aspect of cotton farming which obtrudes itself is the share-cropping system, one of the social sore spots of American life. Share-cropping accounts for something like twenty-five percent of all American farmers and the characteristically share-cropping districts are the slums of rural America, with a population ill-fed, worse housed, ignorant, diseased and hopeless. A large proportion of the share-croppers are negroes who have exchanged a legal slavery for a type of peonage which is freer but less secure. Owing to the conditions under which they occupy land, they are practically forced to produce cotton almost exclusively, which is the worst possible use of land in the cotton-belt.

However, cotton is produced also by thousands of upstanding American free farmers and it is they who have developed an improved agriculture in

[35] Russell H. Anderson, New York Agriculture Meets the West, *Wis. Hist. Mag.*, XVI, 163–198 and 285–296. Joseph Schafer, *Agriculture in Wisconsin*, Chap. IX. *The Winnebago-Horicon Basin* (in press) Chap. XII.

connection with cotton growing. If, as stated previously, it is axiomatic that soil depletion spells poverty for the farmer, logic requires that farms be managed in such a way as to conserve the soil and its fertility. This cannot be done by growing cotton on the same land year after year without special attention to its fertilization. Besides, from the strictly business end of farming, it is necessary to so plan production as to make the net annual income of the farm as large as may be, consistently with the steady improvement of the land.[36]

Improved cotton farming. Good farmers have solved that problem. They provide for such crops as may be needed to feed livestock and people, and keep the land in good heart—by means of legumes, pasturing and manuring—and after that determine what proportion of the cultivable area can be used economically for the marketable crop. These farmers use vast quantities of commercial fertilizer on their cotton land, grow corn, peanuts, cow-peas and soy-beans, clover and grasses; feed pigs and cattle as well as working horses or mules. Briefly, instead of the single staple they diversify in order to render the growing of the commercial crop most profitable in a permanent agriculture. Their practice is similar to that of the successful general farmer's plan of growing wheat.

Agricultural specialties—tobacco. Thus far the course of agricultural improvement has been de-

[36] See *Agricultural Yearbook* for 1921, 323–406 for a good discussion of the cotton-farming situation.

scribed as connected mainly with what could be called general farming. Cotton culture, to be sure, is an exception to that rule, though as we have seen, the best farming in the cotton area is done by farmers who diversify production to a considerable extent. The same has been true, since early times, in tobacco culture. That business, however, has broken out of its former geographical bounds and is now carried on in several northern states, notably Connecticut in the East and Wisconsin in the Middle West, usually in connection with dairying. A dairy farm of 160 acres, for example, may have growing upon it every season say ten or fifteen acres of tobacco. In such cases the farm livestock supplies the necessary fertilizer. In the specially favorable tobacco regions, however, tobacco is grown much more intensively with the use of commercial fertilizers.

Fruit farming. When we come to fruit growing as a business, or market gardening, not only good farming practice is implied but also the command of a certain amount of science. Co-operation is often resorted to as a means of obtaining the services of scientifically trained supervisors of entire orcharding regions, and to compel all individual orchardists to comply with the supervisor's instructions. Marketing, also, is taken out of the hands of the individual and handled collectively, as is in some instances the actual cultivation of the orchards. On the whole, therefore, these specialties have helped powerfully to educate selected groups

of general farmers to be well-informed and highly skilled representatives of their calling. In fact, so sharply demanding is fruit culture as a business, that only those of somewhat exceptional aptitudes have been able to master its intricacies. The average wheat farmer requires a period of apprenticeship and a large amount of instruction before he is ready to manage a fruit farm. The spread of fruit growing, like that of dairying, has notably advanced farmer-training.

Chapter V

PROFESSIONAL FARMING

The farmer equipped with science wields a practical kind of magic. For thousands of years the cultivation of the soil was a purely empirical activity. "Behold, a sower went forth to sow, and when he sowed some seeds fell by the wayside, and the fowls came and devoured them up; some fell upon stony places, where they had not much earth: and forthwith they sprung up because they had no deepness of earth. And when the sun was up they were scorched, and because they had no root they withered away. And some fell among thorns, and the thorns sprung up and choked them. But other fell into good ground and brought forth, some an hundred-fold, some sixty-fold, some thirty-fold. Who hath ears to hear let him hear."

Scientific magic vs. *tradition.* Disregarding the hazard of birds, the hazard of drought, and the hazard of thorns, all of which are as baleful today as they were when Jesus spoke his fadeless parable, what is to be said of the range of production from seed falling into "good ground?" His "hundred-fold" is seventy percent more than the "thirty-

fold," and forty percent above the "sixty-fold"—why?

Is it that the cut-worms were more destructive in some spots than in others; that the moles traversed a part of the field only; that shade from neighboring woods robbed of sunlight a strip of the growing grain; that some ground was steeper than the rest and lost its humus under the pelting of the "latter rain"; that the lower ground was too wet; the higher too dry; that a fraction of the field had been summer-fallowed, the balance not; that a part had been recently broken up, the rest older cultivation; that some of the soil was clay loam, the rest sandy loam; that a part had too little lime in solution; another part deficient in nitrogen; that some was in want of phosphates? It is astounding how many possible reasons could have existed for the wide divergence in production from ground that was well prepared for receiving the seed.

Chemistry basic in agriculture. To the solution of this latter problem especially, not so much to that of ravenous birds, quick-growing thorns, or blasting heat, science makes its amazing contribution. If agriculture has finally attained a professional status, that happy result is due primarily to the progress of chemistry. And for the application of that science to the growing of plants the modern world is indebted first of all to Sir Humphry Davy whose treatise antedated by half a century the publication of Lavoisier's more accurate and enlightening discoveries. Davy gave lectures on "the con-

nection of chemistry with vegetable physiology" as early as 1803,[1] and ten years later published his *Elements of Agricultural Chemistry,* "the foundation," says Lord Ernle, "on which the science of agricultural chemistry has been reared." Among those who built upon Davy's beginnings may be mentioned the Alsatian experimenter, J. D. Boussingault, who made his farm one of the first and best experiment stations; and after him Justus von Liebig who as early as 1840 wrote on plant nutrition in the very spirit, as was later discovered, of Lavoisier's much earlier demonstrations.[2] In 1843 the famous experimental farm at Rothamsted, England, staffed by the scientific experimenters, J. B. Lawes and J. H. Gilbert, proved the efficacy of artificial fertilizers.

These studies aroused universal interest because the world had been waiting for them. Beginnings along similar lines had long since been made in France, Germany, Austria, Switzerland, Russia, and elsewhere so that the minds of agricultural philosophers were on the stretch to welcome the new conclusions and put them to the test of practice.

Liebig et al in America. In America the interest in improved farming, as we have seen, was stressed by the multiplication of agricultural magazines, state and local societies, county and state fairs, and the feeble beginnings of a national agency for pro-

[1] Baron Ernle, *English Farming Past and Present,* 216–217.
[2] H. W. Wiley, Relation of Chemistry to Agriculture, *Yearbook,* 1899, 220.

moting agriculture and rural life. It was certain that the publication of Liebig's "Chemistry in its Application to Agriculture and Physiology" would stimulate new experimentation, but the agencies for conducting the experiments would have to be created. Americans in general heartily agreed with Liebig, that: "Perfect agriculture is the true foundation of all trade and industry." The scientific-minded among them recognized how dependent upon chemistry was our exact knowledge of soils and manures in relation to growing plants. America, at the middle of the nineteenth century, had no Rothamstead to serve as an experiment station for agricultural research. But her people possessed an abiding faith in the institutions of higher learning, represented by Harvard and Yale, and there was also a ferment of activity and propaganda on the subject of popular education. Each of those colleges maintained a scientific department, and had already given some attention to agriculture. Yale, however, was the first American institution to respond adequately to the demand for a sound course in agricultural chemistry. This it did by creating a chair in that subject, in 1847, for John Pitkin Norton, a disciple of James F. W. Johnston at Edinborough, who had studied in the famous laboratory of the Agricultural Chemical Association, and also that of Johannes Mulder at Utrecht.

Leadership of Yale—Norton. Professor Norton was an enthusiast as well as a scientist. His lectures at Yale attracted able young men, among them

Orange Judd, greatest of America's agricultural journalists in that day, and Samuel William Johnson, who became his own successor. Norton's lectures to farmers in many parts of the East, notably in New York state, represented agricultural extension in its best estate. His book, *Elements of Scientific Agriculture,* had a wide influence especially through its general employment by editors of the agricultural journals. Though his life was short, Norton's service was great and lasting.

Agricultural improvement, however, seemed too exigent an interest to wait upon the slow process of an educational influence broadening down from the colleges. Improvers were impatient people, then as now. The current agitation about the development of common schools and high schools inevitably suggested the widest possible dissemination of agricultural science as a branch of popular education. Scarcity of well prepared teachers, however, the practical requirement of preliminary training, and the necessity of providing laboratory equipment, ultimately restrained the public enthusiasm within more reasonable bounds.

Manual labor schools. Nevertheless, in the manual labor schools, of which numerous examples were to be found in the period 1820 to 1850, some effort was made toward combining scientific instruction with the farm practice of the student boys.[3] One

[3] See Theodore D. Weld, First Annual Report of the Society for Promoting Manual Labor in Literary Institutions, New York, 1833. The society dates from 1831.

of those schools, the Gardiner Lyceum at Gardiner, Maine, may well be regarded as perhaps the earliest form of the agricultural school or college in this country. It was opened in 1823, and at least two of its principals, John H. Lathrop and Ezekiel Holmes, were scholars versed in science and with a deep interest in agricultural improvement. The school was partially supported by legislative appropriations on the understanding that it would impart to the future agriculturist, "a knowledge of those principles of science upon which his future success depends and let him see them reduced to practice"; and would perform "a series of agricultural experiments adapted to the soil of Maine."[4] Lathrop later was chosen president of the University of Wisconsin. Dr. Holmes in 1833 became editor of the *Maine Farmer,* whose influence was widely felt in northern New England. Holmes saw the end of the Gardiner experiment, due to financial distress. He is reported to have conducted a special class in agriculture, and he also had charge of the farm connected with the school on which were kept "superior breeds of animals, improved machinery, and valuable fruits and grains."

Other examples of the development of agricultural schools out of industrial schools were the Agricultural Seminary at Derby, Connecticut, which lasted only one year; the Cream Hill Agricultural School at West Cornwall, Connecticut, maintained from 1845 to 1869; and institutionally much more im-

[4] A. C. True, *History of Agricultural Education,* 36.

portant, the Rensselaer Polytechnic Institute at Troy, New York, founded (1824) to instruct "in the application of science to the common purposes of life." While embracing agriculture in its plans, this institution trended away from that field into engineering, geology, and general chemistry.[5]

Agricultural colleges. The Morrill act. The manner in which the spirit of agricultural science embodied itself for educational purposes was for some years extremely diverse. In order, however, to shorten our account of the rise of agricultural colleges, and to avoid complicating that story overmuch, it will be best to sketch the origin of the Morrill law, the basis upon which these institutions have been developed. The federal grant under this law, it has been well said, "marks the beginning of one of the most comprehensive, far-reaching, and grandiose, schemes for the endowment of higher education ever adopted by any civilized nation."[6]

The putative father of the Morrill law, Hon. Justin S. Morrill of Vermont, in the course of a legislative campaign extending over a number of years, made the ideas underlying the system so thoroughly his own that he forgot the agency of others in bringing them to his attention. Fortunately, the history of the movement has been fully elucidated with the result that, among numerous contributors, one name stands out as pre-eminent—

[5] True, *supra*, 41–43.

[6] Edmund J. James, *The Origin of the Land Grant Act of 1862.* (Urbana, Ill. Univ. Press, 1910. The Univ. Studies, V. IV, No. 1), p. 13.

that of Jonathan Baldwin Turner of Jacksonville, Illinois.[7]

It is possibly significant that Turner was a Yale College man for, at Yale, as heretofore stated, John Pitkin Norton established the earliest collegiate school of agricultural science. However, Turner, in his own right, was an educational thinker who had gradually, in the course of twenty years, worked out a theoretical system of industrial education supported by an idealogy which apparently radiates from Rousseau but emerges directly from an intensely democratic nineteenth century mind.

Jonathan B. Turner. Turner divided society into the professional group, a small class, and the industrial, a very large class, assuming that at the very lowest the latter would be to the former as ninety-five to five, while ordinarily it would be more nearly in the proportion of ninety-nine to one. It is the right of this second class, he argued, to have the same opportunity for cultural development that society has supplied for the first. The professional group has not only institutions, professors, appliances, but "a vast, and voluminous literature that would well nigh sink a whole navy of ships."[8] "But where," he asks, "are the universities, the apparatus, the professors, and the literature specifically adapted to any one of the industrial classes. Echo answers, where? In other words, society has become, long since, wise enough

[7] Edmund J. James, *supra.*

[8] Jonathan B. Turner, *A Plan for an Industrial University,* 1854, 18, 19. Also printed in James, *supra.*

to know that its *teachers* need to be educated; but it has not yet become wise enough to know that its *workers* need education just as much. In these remarks I have not forgotten that our common schools are equally adapted and applied to all classes; but reading, writing, &c are properly no more education than gathering seed is agriculture or cutting ship-timber navigation. They are mere rudiments, as they are called, or means, the mere instrument of an after education, and if not so used they are, and can be, of little more use to the possessor than an ax in the garret or a ship rotting upon the stocks." [9]

The industrial classes, he contended, do not want to embark in a canoe hauled up alongside of the educational ship provided for the professional class. They want a ship of their own, under a sympathetic captain and crew. Given proper training in the science and art of their future pursuits, and equipped with a literature to subserve the needs of occupational students, the industrial classes will be able to attain to the plane of culture that has long been the monopoly of the professional classes. For an education, to the highest degree attainable by the quality of the individual mind, can be secured in connection with the practical pursuits of life, given the essential keys in the way of basic principles. In fact, Turner was convinced that the professional class itself gained cultural distinction *after,* not *in,* college and through contact with practical life

[9] *Supra,* p. 19.

problems considered in the light of the principles learned and the literatures which illustrated and developed them. "What we want from schools," he said, "is to teach men . . . to derive their mental and moral strength from their own pursuits, whatever they are. . . . We wish to teach them to read books only that they may the better read and understand the great volume of nature ever open before them." [10]

His educational philosophy. These quotations show the philosophy, sound or unsound, upon which the promoters of agricultural colleges proceeded. Carried to its logical conclusion, the plan would abolish the so-called common man, giving him scientific education and the ability to gain the culture appropriate to it. Initially, however, it provided an institutional basis merely for the beginning of a system of universal industrial education. Turner believed there should be a central institution at Washington, with an affiliated institution in each of the states. The first he thought had been provided for in the recent bequest of the Englishman, James Smithson, who endowed the Smithsonian Institution. The great series of state institutions would have to be created and he called upon Congress to provide the means for that purpose. Since Smithson's generous endowment was used for other purposes, we must regard the development of the federal department of agriculture as supplying the

[10] From Turner's *Industrial Education* pamphlet of 1853 printed as Appendix C with Edmund J. James's article, *supra*, p. 59.

national co-ordinating center for the proposed system.

At this point the idea of land grants for educational objects, already more than a century old in American practice, reasserts itself. Land grants for schools were made in the English colonies as early at least as the first years of the eighteenth century.[11] The New England idea of school reservations in new townships was adopted as the national policy with the ordinances of 1785 and 1787 and so became generalized. State common school funds were created from the congressional grant of the sixteenth section in each township or, in the younger states, the sixteenth and thirty-sixth sections; and university funds were created from the grant of seventy-two sections, or two townships, to each new state. Congress had control of many millions of acres of land which could be used for all sorts of promotional purposes, and gradually so many demands arose—for canal construction, for railroads, etc.—that some feared the vast federal endowment of land would be squandered, or absorbed in new state developments, with no advantage whatever to the older states and possibly to their detriment.

The political argument. Here, therefore, was an opening for the educational statesman. Requests had already been made for land grants to individual states in aid of agricultural colleges, for example in

[11] J. Schafer, *Origin of the System of Land Grants in Aid of Education*, Univ. of Wis. History Series, Vol. 1, No. 1, Madison, Wis., 1902.

Michigan. But Turner and his coadjutors in Illinois asked for grants to all the states on a proportional basis. Since the older states were equally, with the newer, in need of the means for agricultural and mechanical education, a truly national interest could be aroused by this move, and that is exactly what happened. The leading agricultural journals hailed the Illinois idea; the metropolitan press espoused it; and politicians here and there were not slow to take it up. The Illinois Industrial League, of which Turner was the active head, wisely sought out an eastern man to present the plan in Congress and happily their choice fell upon Justin S. Morrill. From 1856 the campaign in Congress was continuous. Finally, July 2, 1862, Abraham Lincoln, also of Illinois, signed the Morrill act which thereby became law.

When the legislature of Illinois in February, 1853, responding to the demands of the state Industrial League, petitioned for "a law of Congress donating to each state in the Union an amount of public lands not less in value than $500,000, for the liberal endowment of a system of Industrial Universities, one in each state in the Union, to co-operate with each other and with the Smithsonian Institution at Washington, *for the more liberal and practical education of our industrial classes and their teachers,*" [12] it had, in that language, established the norm adhered to throughout the campaign. The act which embodies the answer to that

[12] Edmund J. James, as cited, p. 96. Italics mine.

petition provides a grant of 30,000 acres of land for each senator and representative to which a state is entitled, the lands to be sold in order to establish a permanent irreducible fund, the income of which only should be used by each state claiming the benefit of the act, for "the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislature of the states may respectively prescribe, in order to promote the *liberal and practical education of the industrial classes* in the several pursuits and professions of life." [13] No part of the fund could be used for building, but ten percent might be employed for purchasing land for experimental farms. The states were required to act on the question of acceptance within five years.

Embodying the colleges. In the sequel the state university was designated as the land-grant institution in twenty-two states; twenty states each established a separate land-grant college in addition to a state university; Alaska, Hawaii, and Puerto Rico, territories, maintain land-grant colleges; six states do not provide state universities and of these Connecticut, Massachusetts, Pennsylvania, and Rhode Island maintain land-grant colleges; and Massachusetts, New Jersey, and New York have designated departments of privately controlled in-

[13] Italics mine.

stitutions as land-grant colleges. Massachusetts divides the fund between a college for agriculture at Amherst and one for engineering at Cambridge. The total number of such institutions is now sixty-nine, of which fifty-two are attended almost exclusively by white students and seventeen exclusively by negroes.[14]

So terse a history of the creation of a great system of educational institutions gives a deceptive impression that all went smoothly and with a kind of inevitability. Not so. Effort, struggle, and contention marked every step of the progress both in Congress before the law was enacted and in the states before it could be accepted and put in operation. The Morrill bill was opposed by southern members on the ground that it was unconstitutional, and when passed by a narrow margin in both houses it was vetoed by President Buchanan on that and other grounds.[15] In the midst of the turmoil of the Civil war, when the southern members had withdrawn from the national Congress and that body as well as the executive was in the control of the new Republican party, the land-grant legislation was enacted. And, significantly, it was only one of several far-reaching acts affecting American agricultural history, for in the same year, 1862, was

[14] Of the aggregate number in attendance in 1930–31—180,515 men and 128,877 women—"slightly more than one third" were enrolled in agriculture and mechanic arts courses. These 69 institutions had, in that year, an aggregate income from all sources of $165,000,000.

[15] The veto was recorded February 26, 1859.

passed the Homestead law and also the law creating the national department of agriculture.[16]

The loyal states, to which its benefits were limited, at the time were so preoccupied by the war and so hard-pressed to supply funds for carrying it on, that little could then be done about building the new colleges. Not until the war was over did practical results begin to flow from the Morrill law. The case of Wisconsin may serve to illustrate the procedure in the separate states. The moot question there as elsewhere was whether the grant should be given to an existing institution of higher learning, or be used to develop a wholly new and distinct college. The state agricultural society was instinctively favorable to the second plan and it was only with difficulty that its members could be induced to accept a union of the agricultural college with the state university, which of course would have the advantage of saving money.

Land-grant college problem in Wisconsin. The contest turned on the argument that the grant could be used to compel a reorganization of the so-called university itself, which had been essentially a classical college up to that time, making it over into a true university by stressing general science as well as agricultural science, engineering, and the mechanic arts. Since the secretary of the agricultural society headed the movement, this plan was finally approved, with some doubts and mental reservations,

[16] A. C. True, *History of Agricultural Education,* 95–106.

by the farmers, and the legislature accepted it in 1866.[17]

But the mere formal creation of an agricultural and mechanical institution as part of a reorganized state university did not end the debate as to the best means of promoting agricultural education. For it soon became apparent that the college would educate very few farmers, if any. At Madison the interests of classical studies as a preparation for the so-called "learned professions" continued to dominate as before the reorganization, though a subordinate interest in science and in engineering developed alongside. So utterly was agriculture submerged as to be virtually eliminated as a separate study. The farmers fretted and fumed. They looked to Michigan and saw there a flourishing college of agriculture distinct from the university, to Iowa and saw a similarly successful school of agriculture. They were about ready to insist on a new law, taking the land grant away from the University and creating an agricultural and mechanical college at a distance from Madison when the inauguration by Professor William Arnon Henry, in 1886, of the agricultural short course saved the day for the University.

Making the college a success. The success of the short course and the later dairy course, which took

[17] John Wesley Hoyt, Secretary of the Wisconsin State Agricultural Society and editor of *The Wisconsin Farmer,* was the dynamic agent in bringing this plan forward and in putting it through: *Cf.* J. Schafer, *A History of Agriculture in Wisconsin,* 159 ff.

farmer boys of common school preparation and gave them several winter months' training in elementary agricultural subjects, or in scientific dairying, revealed what was the actual demand among farmers at that time in Wisconsin. Only an occasional student could be persuaded to spend four years in the study of the principles of a subject the practical mastery of which he had already gained through apprenticeship, particularly when it was the almost universal opinion that "anybody can farm" and the contempt for "book farming" was still widely prevalent. Also, the depressed state of agriculture in the seventies and eighties operated to keep students away from the colleges.

Perhaps the popular attitude cannot be better summarized than in an anecdote of "Uncle" Jere Rusk, who was a splendid representative of the best type of the "common people." After his return to Wisconsin from Washington where he served in Harrison's cabinet as the first Secretary of Agriculture, a reporter is said to have remarked to him: "I am told you are now engaged in the pursuit of agriculture?" "Yes," said Uncle Jere, "and that's just it. I used to 'farm' some and made money at it; now I'm engaged in the pursuit of agriculture and can't make ends meet." "High farming" was not the first secretary's forte, nor was it as yet much in vogue among the people.

What the college taught. The simple fact is that the "science of agriculture," as then understood, constituted a body of doctrine which, if spread over

four years of college grade work, made an exceedingly thin course. To be sure, it was flanked with botany, zoology, chemistry, mathematics, English, mental and moral philosophy, astronomy, bookkeeping, physical geography, landscape gardening, civil engineering, physiology, French, etc. In other words, four years work was provided, but only a fraction of this pertained strictly to agriculture. It is obvious that this difficulty would militate against the university-attached colleges, which felt bound to maintain something like the prevailing matriculation requirements, much more severely than against the separate agricultural schools whose managements were freer to fix entrance conditions to suit their social environment. Many of the latter, indeed, for a goodly period of years, were on practically a high school plane.

But, whether of high school or of college grade, the work of the land-grant schools was mainly instructing, not research, save in exceptional cases. These institutions measurably failed in that most important function for which they were created. The difficulty was primarily the qualifications and spirit of the professors, but also the want of enthusiasm on the part of administrations and, of course—a convenient excuse—the excessive teaching load. So, gradually, it became apparent that, if agricultural research was to be effectively promoted, it must be institutionalized; it must be specially endowed, staffed and administered, like the Rothamstead station in England, the German and other

European stations whose work was attracting the notice of American agricultural leaders.

Demand for experiment. At this point, again, the standard universities, Harvard and Yale, set the mark by establishing laboratories for research in agricultural science. The Bussey Institution at Harvard and the Sheffield Scientific School at Yale published bulletins describing results of such researches, and the department of agriculture at Washington, in its annual reports, gave accounts of the work of its chemist, its entomologist, and its botanist—a very small staff, indeed, compared with the present, but destined to enjoy a startlingly rapid expansion.

As Yale college gave the country its first thoroughgoing course in agricultural chemistry in the work of John P. Norton, so it also may be said to have developed the first thoroughgoing agricultural experiment station. At all events, though W. O. Atwater's station was opened at Middletown, Connecticut in 1875, it was removed two years later to New Haven where work along similar lines had already begun in the laboratory of Professor Samuel William Johnson, author of the well known studies on *How Crops Grow* and *How Crops Feed.*

The idea of experiment stations was in the air. It had received much attention at the Washington meeting of land-grant colleges in 1872 where a committee reported in favor of the establishment of such stations and the movement was officially launched. Almost contemporaneously with the

founding of the station at Yale, E. W. Hilgard opened one at the University of California. North Carolina followed; then Cornell University, and thirteen other land-grant colleges created experiment stations.

It was an interest promoted by the agricultural press which published the results of experiments for the benefit of their more intelligent readers; by the agricultural societies, the state and national grange, the colleges, and scientific men everywhere. Moreover, experimentation appealed to legislators as a likely means of securing economic advancement. Reports on experiments in making sugar from sorghum, on silos and ensilage, on the prevention of oat-smut, on feeding pigs, beef cattle and dairy cows, and scores of other practical problems all had a calculable money value to the states.

The Hatch act for experiment stations. Under these circumstances it was natural that Congress should be asked to endow the stations as it had previously endowed the colleges, and by the Hatch act of 1887 [18] that was done, though several subsequent laws have vastly strengthened the original federal grant both directly and through the requirement of conditional grants from the states.

Some of the most productive scientists of the country were sponsors of the experiment stations. Samuel William Johnson, successor to John P. Norton at Yale, was a leader in promoting these institutions. Johnson had been a student under Norton and afterwards spent several years in Germany

[18] Approved by President Cleveland, March 2, 1887.

studying under Erdmann at Leipzig and under Liebig at Munich. Two of his numerous publications, *How Crops Grow* and *How Crops Feed,* were for many years the basis of agricultural-chemical instruction in the colleges. But he was not content merely to investigate and write. He trained other investigators, of whom W. O. Atwater is perhaps the most notable example, he lectured to farmers, and in the winter of 1860 conducted at New Haven what is believed to have been the first Farmer's Institute—a method of making scientific farmers, in a few weeks, out of otherwise well educated and progressive cultivators of the soil. His influence in founding the first regular state experiment station, in Connecticut, was only one evidence of his agricultural statesmanship, for he had a large agency in creating and managing the national system of colleges and stations.

Federal supervision of. Atwater, as is well known, gained international recognition for his fruitful work in calorimetry, but in the humbler fields of food chemistry, as for example the study of maize or Indian corn, he performed a great service to farmers. His conclusion just fifty years ago that leguminous plants have the power and function to fix nitrogen drawn from the atmosphere helped to provide the long-needed scientific basis for the widespread faith in clover as a soil renovating crop.[19] As chief of the office of experiment stations of the

[19] Although the complete demonstration of the relation of the legumes to nitrogen fixation and bacteria remained for Hellriegel to produce in 1886. See Univ. of Wis. *Studies in Science* 5,

department of agriculture, Atwater was for some years in a strategic relation to those institutions enabling him to promote the scientific research to which his life was dedicated. Following him another thorough scholar, scientist and educator, Alfred Charles True, was in charge of that office till our own day, though the office latterly has been called States Relations Service. Like Atwater, he has exerted a great and beneficial influence upon the experiment stations and, through them, upon the entire system of agricultural colleges.

Later appropriations to these colleges under the Morrill act of 1890, the Nelson act, the Adams act, the Smith–Hughes act, and others have expanded the facilities of both the colleges and the experiment stations. They have caused to be developed a complete system of extension teaching that ties to the colleges and stations the farmers of every county, and also provides agricultural instruction to younger pupils through certain classes of high schools. The federal connection with the state schools and stations, and the measure of government control thus exerted over expenditures and consequently over policies, while occasionally resented locally, has on the whole proved beneficial. It has prevented, in a few cases, a threatened misuse of funds, it has served to correlate research projects, and it has supplied through the government's directors, Atwater, True, and their successors wise, consistent advice and encouragement.

Promotion of research. Research, which a dis-

tinguished Briton has called "The fairyland of science" has led through the agricultural experiment stations into strange new worlds. While often starting from points of vantage created for them by Old World investigators, American scientists have not lacked originality as witness the work of Johnson and Atwater, chemists, E. W. Hilgard, geologist and soil expert, H. L. Russell, bacteriologist, L. R. Jones, plant pathologist, and scores of others who might be named. In order to illustrate, from a concrete, definitely co-ordinated project, it is only necessary to indicate American contributions to the subject of nutrition.

One does not get far in the study of that phase of agricultural history before coming upon that unique character, Dr. Stephen Moulton Babcock, dubbed by one eulogist "The laughing saint of science," and by another "Finder of the Hidden Hunger." [20] "Babcock of Wisconsin," says De Kruif, "was first of all modern men to find this hunger that doesn't gnaw at men and beasts but only strikes them down with strange ills, maybe kills them."

Stephen Moulton Babcock. Babcock acquired, as a graduate student in the most authoritative laboratories of Germany, and brought back to New York state, the world's accepted canons of food chemistry. Then he was set the problem of finding out how much of each food element certain cows

[20] President Glenn Frank; Paul De Kruif, *Hunger Fighters,* 267.

were digesting and came suddenly upon a chemical picture which at first confounded him and then provoked him to uproarious mirth. The cows were not digesting anything, so far as his double set of figures for intake and outgo proved. In other words, retort and test tube were no measure of the nutritive virtues of feeds, and so the arrogant German savants, as he would have said, were "all wet."

But this he would have to prove by a printable *reductio ad absurdum,* for surely these were great and honorable men, and his own hitherto revered teachers. Babcock was equal to the occasion, however. He attended the American Chemical Association and there suggested that an excellent ration for a cow, considered solely from the chemical point of view, would be a given quantity of bituminous coal! That settled the negative point and provided a new argument for considering well the common methods men employed on the basis of long tradition, before condemning them as unscientific.

Testing feed for cows. Most important, however, was the question which instantly followed: What is, in reality, good feed for cows? On what one of the plants to which we are accustomed can cows best nourish themselves, whatever chemistry tells us about their food contents? Translated to the Wisconsin station in 1888, Babcock was reluctantly given two cows to feed, one with oats, the other with corn. The oat-feeder promptly died under the experiment; the other was more promptly with-

drawn, compelling him to wait many years before the authorities would consent to place others at his disposal.

Finally, in 1907, at a time when all the world acclaimed Babcock for his wizardry in inventing the milk test and his unequalled generosity in freely giving it to mankind, he could no longer be denied. Moreover, feeding experiments were a much more normal station activity in the early nineteen hundreds than they had been a quarter century earlier. Accordingly, the Wisconsin College of Agriculture segregated sixteen thrifty grade shorthorn heifers, turned them over to Babcock and his aides, Edwin B. Hart and George C. Humphrey, and the great test began.

The classic feeding experiment. Without going into the revealing series of bovine tragedies attendant upon feeding one group of four wheat, another group oats, another corn, and a fourth (as a control) all three of these plants, we can summarize by reporting the positive conclusions. First: wheat, though fed as a complete chemically balanced ration, and in varied forms as whole grain, whole straw, chaffed straw, etc. is a very bad food for cows. Oats, similarly, in a balanced ration, is better but still defective for some reason. The three together, assumed by farmers to be an ideal combination, is equally imperfect when measured by results instead of by laboratory tests. Only one of the four groups of heifers, the corn fed one, throve steadily, produced living, thrifty calves, gave milk

freely, produced another set of thrifty calves and, in short, ran the life cycle in winning style.

Here was a genuine demonstration in nutrition. Indian corn, the yellow variety, is a perfect food for a bovine animal if properly fed as meal, glucose, stover, whole grain. Something was lacking in the wheat diet which made it impossible for the heifers fed upon that plant to bring forth viable calves, despite the moderate thriftiness of the mothers up to the calving crisis. Of the oat feeders' calves three lived but they were not very prosperous, and of those eating the three feeds only one of the four calves lived.

Influence on nutrition history. Vitamins. At last the world knew there was a mysterious something in corn, a mysterious lack of something in each of the other feeds. And now many men in many lands excitedly pushed forward laboratory experiments in the search for elusive nutritional principles. E. V. McCollum of Wisconsin found one of these. Other researchers were making discoveries at about the same time; the philosophy of food, theretofore based on the chemist's calories, now assumed a wholly new aspect in view of the presence or absence of the potent *vitamins* without which rats go blind, Chinese have beri-beri, sailors endure the torments of scurvy, and the childhood of the race is always under the blight of rickets.

Nor are we yet at the end of the researches set in motion by Babcock's discovery of the hidden hunger, of Hart and Humphrey's feeding experiment.

Comes now Harry Steenbock with his elaborate, complicated set of experiments in the feeding of rats which yielded the truly sensational discovery that the ultra-violet rays of the sun generate vitamin D. We now have our breakfast foods irradiated, our milk irradiated, and there has been developed, mainly in recent years, a widespread industry in making sun-lamps to lighten the dark places of the earth. Of course "wonders never cease"; the chain of discovery never has a final link. For our present purpose, however, it is enough to point out that the Steenbock discovery, the McCollum discovery, the striking results in feeding obtained by Hart and Humphrey, all link together and all derive from the doubts and scientific skepticism of Dr. Babcock, the self-liberated disciple of the great German food chemists.

Varied scientific helps to farmers. From what has been said it may be inferred that, if agriculture as carried on in the United States is still often slip-shod and empirical in character, the explanation is to be found in conditions other than the existing means of scientific education. For, as things are now, the individual farmer not only *may* secure help from the varied curricula of the colleges and schools, from county agents, farmer's week conferences, and experiment station or department of agriculture bulletins, and even from the daily and Sunday newspapers, but he can hardly avoid receiving such help. Nevertheless, the question of how rapidly and under what conditions the findings of

the scientist have been put in operation calls for consideration.

Attention was drawn in the previous chapter to the elementary science but advanced agricultural practice of John Taylor of Caroline, Virginia, who may represent one of the earliest professional farming types in the United States, comparable to Jethro Tull in England. But a much more scientific farmer of Virginia in the next generation was Edmund Ruffin of Prince George county who actually went to Davy's chemistry for help in solving the problem of soil exhaustion.

Farmer scientists—Ruffin. Ruffin's success in the application of calcareous manures, especially marl, whose virtues as a corrective of acid soils he demonstrated by means of extensive experiments on his own land, and his persistent preaching about it to farmers, gave him a numerous following and a very widespread influence in the improvement of farming in Virginia. "His monument," it has been said, "is the soil of his own state." [21] Ruffin's essay on calcareous manures, appearing first as a short paper, through several editions grew to a book of 493 pages and was described many years later as "the most thorough piece of work on an agricultural subject ever published in the English language." [22] In 1833 he established the *Farmer's Register,* a profoundly influential journal for the farming of Virginia and Maryland.

[21] Craven, *Soil Exhaustion,* etc., p. 135. Quotation.
[22] Craven, *Soil Exhaustion,* etc., p. 136.

Familiarity with the file of any one of the great farmer's journals, like the *American Agriculturist,* affords some hints about who were applying science in their farm operations. Faithful readers of that magazine during the eighteen sixties and seventies were taught to revere John Johnston, of Geneva, New York, the apostle of tile-draining, top-dressing of meadows, clover, lime and plaster, and of careful, thorough cultivation. It does not appear that Johnston, a Scotch shepherd lad, had much science, and he confessed that his ideas of farming came from his grandfather. His agricultural chemistry was that of the observing cultivator who believes in stable manure and in the demonstrated efficacy of certain well known commercial fertilizers. Probably the student of soil physics had most to learn from Johnston's farming, for he proved, by systematically tile-draining his entire freehold, which grew more valuable year by year, that the thorough underdraining of clay soils greatly improved their texture, in consequence of which their fruitfulness was steadily enhanced.

Joseph Harris. Of different antecedents was Joseph Harris of Moreton Farm, Rochester, New York, who had enjoyed the inestimable privilege of investigating agricultural problems at Rothamstead, under the inspiration of Lawes and Gilbert. Harris, in the sixties and seventies of last century, wrote for the *American Agriculturist* "Walks and Talks on the Farm." He, also, emphasized tile draining and good cultivation, but discussed fertilizers in a

scientific yet popular manner which farmers could understand. His books on *The Pig, Talks on Manures,* and *Gardening for Young and Old* were valuable contributions to the literature of scientific agriculture in his day.

George E. Waring. Another contributor to the *American Agriculturist,* author of the Ogden Farm Papers, was George E. Waring, whose title of colonel was acquired in the Civil war. Waring by profession was a sanitary engineer, as his lamented death from yellow fever contracted in Havana which he tried to clean up at the close of the Spanish war, proclaimed to the world. But his avocation was farming, the inspiration for which came from the enthusiastic experimenter James Jay Mapes on whose New Jersey farm Waring served his apprenticeship.[23] At an early stage of his farming experience (1853), Waring wrote *Elements of Agriculture,* a new and better edition of which came out in 1868. It was evidently intended to supersede Norton's book and was in fact a compendium of information about such science as farmers had at their disposal in those days. He divided the treatment into five parts or sections —on The Plant, The Soil, Manures, Mechanical Cultivation, and Analysis.

Ogden Farm, of which Waring became manager in September, 1867, was a run-down, wet, unpromising sixty-acre tract lying four miles from Newport, Rhode Island. He took it because he believed

[23] Waring as a young man was placed in charge of Horace Greeley's New York state farm.

it to be the worst farm in the county, with the determination to make it the best one within a period of ten years. His successive numbers in the *Agriculturist* tell the story of his progress step by step. He teaches effectively because of the frank, intimate manner of meeting his readers. At the close of the experimental period he presents his balance sheet. It shows he had not allowed time enough for the results of his methods to mature, but otherwise he proved that "book-farming" could be made a success.

Waring organized the American Jersey cattle club and edited the herd-book. He traveled much in Europe, studying agriculture in England, Holland, France, Germany, and the Channel Islands. His work was that of a private experimenter having a wealthy sponsor and therefore comparable to what scientific managers were doing on some of the great estates in England and elsewhere. The persistent publicising of his experiments was calculated to inspire practical farmers to follow in his footsteps, so far as conditions permitted.

Near-scientific farmers. Is the definition of scientific or professional farmer flexible enough to include practitioners of agricultural science who are not, in the strict sense, scientists? It seems proper to answer this question in the affirmative. If the professional ranks were to be closed with the long-course graduates of agricultural colleges, they would present but a thin and short file in the procession of American farmers. It is well known, however, that

the modicum of science gained in a single winter short-course has led some thousands of young men and women to the enthusiastic pursuit of farming on a thoroughly scientific basis, and the same may be said of many who merely attended a farmer's institute, a farmer's week conference, or who obtained all their help from scientific books and bulletins.

He is a professional farmer who studies to base his operations firmly upon scientific principles, and who succeeds in bringing about thereby a steady improvement of both farm and farmer. Of course farming is an art as well as a science; it is also a business, and a way of life. He who neglects any one of these aspects of his profession cannot be considered thoroughly professional. The pioneer physician might know his *materia medica* by heart. But if he was deficient in practical pharmacology, if he lacked a good "bedside manner," or was socially inept, he was not the best all-round practitioner. But, after all, the scientific aspect is fundamental. Those who would improve the agriculture of any community by teaching bookkeeping to the boys and home-canning to the girls have reason on their side. Yet, even a certified public accountant, or a graduate from a school of domestic economy, would be helpless as a farmer without a knowledge of the principles taught by chemistry, soil physics and bacteriology; by the experimenters in feeding and care of livestock and the growing of the customary farm crops. Science and the scientific attitude of

mind are basic, the other qualifications secondary though by no means unimportant.

Case of the ex-preacher farmer. One example of a self-made scientific farmer, published by the department of agriculture, is interesting enough to describe with some detail because it illustrates what might be called a professional type of small-scale farming. It is an example from eastern Pennsylvania in the eighteen eighties. An ex-preacher, with no previous farming experience, bought a fifteen acre run-down farm near a large city. Like Colonel Waring this man determined to be a book farmer. Like him, also, he resolved to use Jersey cows as the "solvent" of his problem of paying for the property. There was yet a third correspondence between this minister and the distinguished sanitary engineer in that both decided to rely upon stable manure, produced on the farm, for fertilizer, and to produce this under the best conditions by soiling the cows, which never left their stalls in the barn. But, whereas Waring at Ogden Farm built a great cellar for manure, the Pennsylvanian kept his manure cart at the barn door, carried to the field daily and spread upon it every pound of both liquids and solids produced in the twenty-four hours.

After a few years, this ex-preacher, who had a regular market for his milk at the modest price of twenty-five cents per gallon, two miles from the farm, was able to keep thirty head of livestock of which fifteen were cows in full flow, and to provide the roughage from the farm itself for all those ani-

mals. He bought about $650 worth of concentrates during the year and these he nearly paid for through the sale of young stock for breeding. Obviously, here was a professional farmer.[24]

College "recognition" of good farmers. Cases of a similarly scientific treatment of the problems of large farms, where cows are pastured in summer and fed silage with grain in winter; and where pigs are allowed to "hog down" crops of clover, rye, peas and corn because these are economical methods, could be assembled from nearly every state. The agricultural colleges have a custom, in connection with farmer's week programs, of "recognizing" each year a small number of outstanding farmers selected on the score of their professional character. Probably some hundreds, all told, have been thus honored and certified. But many hundreds, indeed thousands, might be classed with these selected ones if some present day Arthur Young were to perambulate the several states calling attention to the farms that give evidence of being managed by scientific farmers.

Science in dairying. It is probable, however, that aside from those who, like orchardists and market gardeners, are coerced to employ science on account of the high valuations of land, the necessity of intensive cultivation and the prompt, effective meeting of the problems of pests, seasonal variations, and market conditions, the most nearly general class of farmers who approach the scientific standard is

[24] Dept. of Agriculture, Farmer's Bulletin 242.

the organized dairymen. As already indicated, dairying proceeds by communities, and where hundreds or thousands of farmers find their problems similar, suggested solutions will also be similar or identical.

Hence, scientific principles of feeding, breeding, handling the milk, disposing of the manure, raising fodder and grain for feed, will pass by a kind of social osmosis throughout the group and the naturally best farmers, reacting to such stimuli, will make themselves masters both of the ideas and of the learning from which they flow.

All this supports, to a certain extent, the theory of Jonathan B. Turner that given an opportunity, men in the industries and agriculture may attain a high plane of culture through the handling of their occupational problems with the aid of appropriate scientific principles and of an appropriate literature. One could doubtless select a group of New York, Ohio, Wisconsin, or Minnesota dairymen who, in their own field, are as cultured and professionally "knowing" as similar groups of lawyers or doctors are in theirs. On the average, these professional farmers would be the better educated men of their class, using the term in its customary connotation, but many exceptions would be found. Some are entirely self-educated in the science their vocation calls for, just as many lawyers of the pioneer days, including Abraham Lincoln, were self-educated both in the law itself and in the literature that threw about them the aura of general culture. Perhaps the

real test of the scientific farmer is his ability independently to apply the principles he has learned by carrying out properly controlled experiments on his own farm, just as the test of professional adequacy in a lawyer is his competency in handling unique cases.

Imitators of scientific farmers. Farming practice tends to become professional, however, not alone through those who are scientific in their own right, but also through others who take their cue from the professional farmers and are wise and careful imitators. We have reached a stage of development in agriculture where scientific principles are no longer pooh poohed as the vagaries of impractical "book farmers," but are almost everywhere respected for what they can help men to achieve in the way of solid advantages. Hence the need of exhortation is no longer so urgent as of yore. Leaders now can lay down demonstrated principles and coolly challenge farmers to disregard them at their peril. With only a single real "professional" in a given community, the farming of the entire neighborhood may yet exhibit many of the acknowledged professional traits.

Herein lies one of the significant present day opportunities of the state colleges and experiment stations. They will be able to make only a certain gradually increasing proportion of the farmers professionals, because only a part of them will be able to master the science upon which professional farming depends. Nevertheless, having the confidence

of the farming community, these institutions, staffed with county agents and having other means of appealing to the public, can often put into nearly universal operation principles and policies they deem of importance to the agriculture of the state.

Their importance. When the onset of the severe drought of 1934 occurred, it became clear to the scientific men at one state experiment station that a widespread and tragic shortage of forage was sure to ensue. This calamity they set themselves to avert. Emergency crops could still be planted that would yield a supply of winter feed to take the place of the hay and oats which were already doomed to failure. The work, however, had to be organized and the college made itself the medium for procuring the soy-bean seed, the rape seed, the Sudan grass, etc., which farmers would have to plant forthwith in order to save their dairy herds. The national seed-relief co-operating, in a few weeks the effects of the campaign were already apparent on literally thousands of farms, where emergency fodder crops were growing; and, as a direct consequence, the herds emerged on the pastures the following spring in practically normal condition.

This noteworthy work of safeguarding the livestock interests of a leading dairy state obviously could not have succeeded save for the state-wide organization of agricultural extension through the county agents, and the help of the seed-relief administration. But neither could it have succeeded through the professional farmers alone if the balance

had lacked confidence in the wisdom of the advice emanating from the college and station. The professional farmers are a contingent, the near-professional an army.

Chapter VI

SOCIAL TRENDS IN RURAL LIFE

An English view of American society. "Witness the United States of America," wrote the gentle Dean of Carlisle about a century ago, and he continued: "Let any thoughtful observer consider the traits of character that distinguish these children of our fathers from Englishmen of the present day, and the probable causes of the difference. We are apt enough, indeed, to ridicule as foibles, or to censure as faults, their national peculiarities—their deviations from our habits. But it would be wiser and worthier of us to trace them to their causes, and to add the result of our inquiry to our stock of legislative experience. We sent them forth, poor and struggling only for the means of subsistence. Is it we that should taunt them with becoming a money-making, trafficking people? We severed the humble from the nobles of our land and formed the embryo of a plebeian nation. Is it we that should find fault with their extravagant abhorrence of rank, or their want of high breeding and gentle blood which we so sparingly bestowed on them? We gave for the new community only some of the ingredients that enter into our own. Can we wonder at the want

of resemblance, and of congenial feeling which has been the result?" [1]

Noble blood sparingly supplied. The passage just quoted merits more thoughtful consideration than, from its tone, it is likely to command among most Americans. We should at least recognize that, in his assumptions respecting the elements passing into colonial emigration the distinguished churchman made a guess that has been partly confirmed by the best modern research.[2] The only question about his substantive statement turns on what the descriptive word "humble" connotes. If it is merely a foil for "nobles" and means every class below the aristocracy, we can have no quarrel with him, for it is certain that noble blood was, as he says, but "sparingly" supplied to the colonies. If, however, the word humble is used in its commonly accepted sense of lowly in station and in spirit, we must enter an exception, for all the colonies received numbers of English settlers who were no less stiffnecked and arrogant than the aristocrats at home.

There were among the planters of Virginia, the congregation leaders of New England, the patroons of New Netherlands, the Quakers of Pennsylvania, and the Catholics of Maryland, men of enterprise, wealth, and spirit, who were doubtless as promising

[1] From an Essay on Colonization by Dr. Hinds, quoted in Edward Gibbon Wakefield's *Art of Colonization,* London, 1849, p. 112.

[2] See, for example, T. J. Wertenbaker, *The First Americans,* and J. T. Adams, *Provincial America.*

material for a new world aristocracy as had been for the old world the Saxon merchants who, by thrice faring overseas at their own charge, might become "thaneworthy," or the roistering Norman men-at-arms who helped Duke William subjugate and tyrannize over the successors of the Saxon aristocrats. And those two groups are venerated sources of one of the world's universally acclaimed aristocracies.

How aristocracies are created. To the historically minded, if not to the obsequious genealogist, there is a natural history of aristocracies no less than of peasantries. And, so far as existing nations are concerned, their ladder of ascent has been primarily wealth, principal sources of which have been commerce, in its varied aspects, and land. Military prowess, political and miscellaneous public service have usually been but stepping stones to the attainment of that wealth which is the true pillar of the noble estate. Was not the breadth of their land holdings the basis of the distinction between *greater* and *lesser* barons in mediaeval England, with all that this involves in the history of British institutions?

The truth seems to be that any society which affords scope for individual initiative, will eventually develop an aristocracy if its institutional pattern provides for such a social order. If not, there is at least sure to be an unofficial approximation to it in a limited group of families set off from the generality by one or other of several distinctions, the most

usual and permanent being an affluence of hereditary possessions. Intellectual achievement, or distinguished public service may to some extent serve as substitutes for wealth.

The American merchant class. America during the colonial period honored the successful merchant even as did Saxon England when society by positive law encouraged him to hope for promotion to an exalted social rank. Though the colonial merchant could not be ennobled save by the royal intercession, he was yet able, in many cases, to amass the wealth which would have supported noble rank. The great merchants of the North, indeed, of whom John Hancock at the time of the Revolution was the type, affected fine raiment, had splendid equipages, built handsome houses, amassed rich furniture and plate, and procured family portraits. They assumed the leadership in local and colonial affairs, and occupied the highest seats in church and assembly. Their sons were privileged in the colleges, their daughters were the reigning belles of their communities.

We speak of America as opportunity and artlessly translate the phrase only affirmatively, as affording unusual chances for advancement in economic and social well-being. In reality, however, opportunity has been a two-edged sword, involving alternatives as sharply contradictory as the Puritan's choice of "God or the devil," the chances of failure being balanced against the chances of success. The frontier, in that respect, always presented a set of new,

untried conditions, promising extraordinary rewards to those possessed of answerable gifts. The weak, the indolent, and those who were too deeply routinized to permit of new adaptations, were sure to injure themselves therein.

All the more strenuous, therefore, were the efforts of those exceptional individuals who became founders of the colonial great fortunes—the shipowners, the fur-trade organizers, the merchant planters, and certain obscure men of no capital but of dauntless heart and physical prowess who matched their powers against a resisting but fecund nature and wrested prosperity from her.

Social basis of the planter aristocracy. It was the two last named groups, merchant planters and able workers, that figure prominently in the creation of the class of big-business farmers. The myth of an imposing cavalier immigration into the tobacco colonies has been exploded and it is now known that the first successful planting society was prevailingly of middle-class origin. Indeed, it has been shown that some of the prominent Virginia leaders in the seventeenth century were men who had come to the colony with little or no capital, in given instances even as indentured servants. It was the development of the slave-trade, insuring a cheap and steadily augmenting labor supply, joined to cheap fresh lands and business ability, that gradually segregated a group of great planters who stood out from the mass as did the great barons in England. This was the so-called planting aristocracy,

and its origin is seen to differ little from that of the leading northern merchants.

The multiplication of great plantations prior to the Civil war came about, as we have seen, through the expansion of cotton culture. And cotton growing, as a money-making craze, attracted all kinds of persons possessed of means or credit to buy land and slaves. Nevertheless, while the best of the southern aristocracy is thought to have persisted in the old tobacco colonies of Virginia and Maryland, and in portions of the Old South, still the social history of the Southwest by 1860 could present rival groups.[3] It was a Mississippi cotton planter, Jefferson Davis, upon whom the entire Confederacy reposed its hopes during the Civil war and, while conflicting opinions will always be held as to his statecraft and political morality, no one, native or foreigner, who had the privilege of his acquaintance ever suspected that he was not a gentleman of "high breeding."

Spread of the planter social ideals. Ideals propagate themselves most freely on a plastic society, making the ascent from obscurity to a worthy distinction a comparatively simple transition. Social standards, during Colonial times, were English, and

[3] As early as 1835 J. H. Ingraham, see *The Southwest by a Yankee,* Vol. II, *passim,* found much to praise in southwestern planting society. *Cf.* Carl Russell Fish, *The Rise of the Common Man, passim.* Also, James D. Davidson, Diary of a Southern Journey, *Jour. of Southern Hist.,* Vol. I, No. 3. "The southerners are too much occupied with cotton and money to think about politics," p. 857 (Nov. 1836). "The southern gentleman is an improvement upon the old Virginian gentleman," 360.

there were also connections between American families and the English squirearchy, occasionally with the lesser nobility. When the anonymous writer of *A Perfect Description of Virginia,* in 1649, called special attention to "worthy Captaine Mathews," a man of middle class origin, he was at pains to point out that: "He married the daughter of Sir Tho. Hinton." The country gentleman in England was the social pattern for the great planters at least until the Revolution. Thereafter the planting aristocracy was self-sustaining, new men looking to the old established houses for their models of social life.

Some astonishing transformations of character and manners resulted from the striving of obscure persons for recognition by the planting society. Andrew Jackson, son of poor Scotch-Irish parents but not for that reason humble in spirit, underwent an epic struggle to tame his impetuous, rebellious nature into social conformity. He might have been a brawling, scuffling, gouging "hill-billy." He became, through the ambition to amount to something socially and politically, not only a successful farmer and planter in the economic sense, but—with occasional lapses from grace—also a planting aristocrat whose deportment was no less courtly than that of the Jeffersons, Lees, and Pinckneys of the older planting regime. His home, his furniture, his hospitality, his turnouts, ranked with the best in the class to which he instinctively aspired and into which his talents forced a way;

and his dueling pistols are to this day a joy to behold.

Another instance is Henry Clay, orphan son of an impecunious Baptist preacher gifted with a mellifluous voice. The "Mill boy of the Slashes," became both a leading statesman and a planting aristocrat in Kentucky as did Jackson in Tennessee. Clay's dominance of Whig party politics is only partly explained by his intellectual superiority and thrilling oratory. To a high but undetermined degree it was due to the princely bearing and the charm of manners which authenticated his membership in the highest social class of the ante-bellum South, for "manner," it has been well said, "is one of the fine arts."

New planters of the Southwest. "A plantation well-stocked with hands," says Ingraham, writing in 1835 about the Southwest, "is the *ne plus ultra* of every man's ambition who resides at the south." [4] He observed in the neighborhood of Natchez, Mississippi, that many young men from the East, not a few of them New Englanders, in coming to the Southwest immediately cast about for a cotton plantation. Professional men abandoned the law, medicine or theology to plant cotton. Farmers from the North would be farmers no more. Merchants abandoned the counting house for the sunny fields. Even mechanics dreamed of the time when fortune should favor them with land and negro slaves to raise cotton. "Cotton and negroes are the constant

[4] *The Southwest,* II, 84.

theme—the ever harped-upon, never worn out subject of conversation among all classes. . . . Not till Mississippi becomes one vast cotton field will this mania, which has entered into the very marrow, bone and sinew of a Mississippian's system, pass away. And not then, till the lands become exhausted and wholly unfit for further cultivation." [5]

The planters in that comparatively new section of the cotton belt were already, to a large extent, men of wealth, which is not remarkable when a man could buy land and slaves on credit and within three years pay off all indebtedness and even add materially to his possessions. Ingraham, who though a New Englander is not an impartial observer, found them both intelligent and aristocratic, manifesting a refinement and elegance indicative of the high breeding which, at that very time, the Dean of Carlisle assumed to be absent from American society even in its best estate. Other visitors to the Southwest about the same time were less favorably impressed.[6] We must remember, however, that this was a parvenu planting society, of so recent creation that many had not had time to build their hoped-for mansions, but continued to live in the primitive log-houses or in flimsy, hastily erected frame structures.

The "best" southern aristocracy. To find the

[5] *Supra*, 86.

[6] *Cf.* Harriet Martineau, *Society in America*, London, 1837, II, 142 ff. The story told of a New Orleans mistress of slaves by Fanny Kemble, *Retrospect of Western Travel*, N. Y., 1838, I, 263 ff., shows an exceptional but possible case of ill-treatment of slaves by brutal owners.

southern aristocracy at its best in that era one must go to Virginia, Maryland, South Carolina or Georgia. There were to be seen the great houses, splendidly appointed, the staff of negro house servants well-trained, polite and efficient, the slave craftsmen—weavers, shoemakers, blacksmiths, carpenters, boat-builders; also hostlers, coachmen, gardeners, nurserymen—in addition to and superior to the gangs of "field-hands."[7] The planter's wife was the manager of the complex household, the master governed the "yard-folks," the overseer the field-gangs. Able managers secured, in what must seem to outsiders a motely crew of dependents, such perfect organization as to command effective service from all except the occasional recalcitrant.

Moreover, whatever the evils of slavery, and they were fundamental, the vast majority of planters commanded their people's affection as well as loyal service. The songs white composers have ascribed to the plantation negroes are often apocryphal in fact and alien in spirit. But when Stephen Foster wrote

> "Down in the corn-field
> Hear that mournful sound
> All the darkies am a-weepin',
> Massa's in the cold, cold ground,"

he captured a genuine surge of negro sentiment. The devotion of the blacks, particularly house-servants

[7] See the description of a Mississippi plantation of 1845 in *Solon Robinson, Pioneer and Agriculturist,* I, 455 ff. Indiana Historical Bureau, Indianapolis, 1936.

and yard hands, to their "wite-folks" in the tragic days of the Civil war would be proof of the absence of any widespread feeling of hostility between master and slave.[8] These facts have a bearing upon the reality of an aristocratic social system in the South, but no relevancy to the question of the permanent economic soundness or the political and ethical justification of slavery.

Leadership of planters. In the first thirty-six years of the constitutional period Virginia, "mother of presidents," gave to the nation its chief executive in eight of the nine quadrennial elections. And each of the four gentlemen whom the people honored with two consecutive terms was a great planter or a planting aristocrat. If in the cases of Jefferson and his satellites, Madison and Monroe, that should appear to involve a contradiction, he being best known as the father of American democracy, it must be remembered that aristocracy conferred no privileges demanding class solidarity for their defense but left every man free to espouse whatever political philosophy he might choose. Aristocracy was a purely social distinction based upon wealth and those graces of character and intellect for the development of which wealth supplied an opportunity but no guaranty of results. Not every wealthy planter was esteemed an aristocrat, any

[8] The story *Uncle Lige,* by Jeanette Ritchie Haderman Walworth, as printed in Stedman and Hutchinson's *Library of American Literature,* IX, 463–468, gives a charming picture of the fidelity to their family of the yard-folks during the most trying days of the war.

more than every Junker is accounted a gentleman, for in some instances nature and nurture had neglected to co-operate with economics to produce the proper combination of social qualities.

During the period of the so-called "Virginia dynasty" of presidents, in which American democracy was established, the government of the country in all its branches was dominated by the aristocratic element. "Nobility," says Bagehot, "is the symbol of mind. It has the marks from which the mass of men always used to infer mind, and often still infer it."[9] That may explain, in some measure, the confidence which the people reposed in those who, to them, if not to the world at large, represented the aristocracy of their day.

Truly, as the brilliant British essayist just quoted puts it: "An old lord will get infinite respect." The great planters ruled the southern states at all times and the nation at most times down to the Civil war. This has often excited astonishment in view of their numerical inferiority and the political thralldom in which they, as the reigning slaveholders, held the great, non-slaveholding majority of voters. The anomaly was often pointed out as, for example, in Helper's *Impending Crisis*,[10] but aristocratic control continued until after the war had destroyed the slaveholders and thus permitted the rise to power of different social elements, regimented

[9] Walter Bagehot, *The English Constitution*, Appleton, 1907, p. 158.

[10] H. R. Helper, *The Impending Crisis of the south: and how to meet it*, N. Y., 1857.

by politician leaders.[11] The Tillmans, Bilbos, and Heflins of our own era would have been nearly impossible in the politics of the ante-bellum South. So long as the people had the opportunity to vote for a class of men whom they not only respected but revered, and who stood for democratic principles, the merely clever politicians had no chance.

Other landholding aristocrats. It is not to be inferred, from the above, that American social aristocracy connected with landholding was exclusively confined to the South. The patroon estates along the Hudson, with their wealthy, dignified and respected Dutch families, connected with commercial and professional notables in the city, supplied a controlling element in New York politics for many years. The power of Alexander Hamilton came originally from such a connection. John Jay, who believed "that those who own the country are the most fit persons to participate in the government of it,"[12] was another of the aristocracy's representatives. General Philip Schuyler, one of the great landlords on the Hudson, was Hamilton's father-in-law, and Stephen Van Rensselaer, the greatest land-owner of all America, was his brother-in-law. The Livingston family, who espoused the Jeffersonian political philosophy, were likewise among the landed aristocrats and extremely influential in Republican politics.

[11] Which confirms a pregnant phrase of Lecky's in *Democracy and Liberty*, I, 142.

[12] Dixon Ryan Fox, *Aristocracy in the Politics of New York*. Columbia Univ. Studies in Hist. &c., V. 86, p. 9.

Not all the rural gentry of the North, however, had received their landed endowment during colonial times. The rage for speculation at the Revolution and later brought into existence a number of great estates some of which have persisted to this day. Perhaps the most notable example of these in New York is that of the Wadsworths in the Genesee valley. It was created by James Wadsworth, a Vermont immigrant whose property—practically all in land, listed at $1.00 per acre—was taxed in 1800 at a valuation of $34,500. That, roughly, describes the acre extent of his holdings at the time. The Wadsworth family did not drift west with the wheat-grower tide, but as far-sighted, skillful landlords, controlled the improvement of their properties through a system of leasing similar to those by which English landlords coerced farmers to adopt a regime of improvement.

As great landed proprietors, this family has participated extensively in public affairs, one of the pioneer's sons becoming a general in the Civil war, a grandson having been a prominent United States senator, and still a leading figure in Republican politics. Incidentally, the aristocratic Wadsworth family is connected, by the marriage of the pioneer's daughter, Elsie, to Sir Charles Augustus Murray, with one of the noble houses of Great Britain.[18]

Why not a wheat aristocracy? An inquiry of some interest is why bonanza wheat-growers have not,

[18] See the author's essay, "Lands Across the Sea" in *Wis. Mag. of Hist.*, XIII, 417–429.

like tobacco and cotton planters, established themselves as a rural aristocracy. Some of those in California, the Palouse country, the Red river valley and other portions of the great plains assuredly gained wealth through their operations, yet nothing suggestive of the planting social pre-eminence is observable among them. Individual wheat-growers have, of course, commanded general respect as men, but not as aristocrats.

The reasons are probably to be found partly in the precariousness of the business, its migratory character, dependence upon artificial transportation systems, and upon an impermanent labor supply. In most sections of the United States the big-business wheat-grower knew himself to be a temporary exploiter of a tract of farm land barricaded against expansion by neighboring owners so that the chances of large profits in that location could be his but a few years at best. Under those conditions there was no temptation to erect a mansion on the wheat lands, and surround himself and family with the evidences of wealth and the amenities appropriate to social leadership among which would be a staff of permanent house and yard servants. Considering the short period of his probable stay, it was hardly worth while for the big grower to live differently from his neighbors, the small growers, who meant to retain their farms and adapt their farming to new conditions when wheat should fail them.

Wheat is an excessively bulky product as compared with tobacco or cotton and therefore the

wheat-grower is much more dependent upon transportation facilities than is the tobacco or cotton grower. With cotton selling at fifteen cents a pound the charge of one cent for getting it to market was not excessive. But when a bushel of wheat weighing sixty pounds and selling at seventy-five cents had to pay approximately half that amount in transportation charges, the grower found difficulty in figuring any profit whatever. Moreover, for many years the railroad companies serving the wheat-growers were utterly capricious in their freight charges, or rather followed the principle of charging what the traffic would bear, which left the growers at their mercy.[14] The novels of Frank Norris comprising "the epic of the wheat," *The Octopus* and *The Pit,* are the best literary embodiment of that phase of American agricultural history.

Machines instead of workers. The bonanza wheat farmers in the days of horse and mule power were obliged to employ a limited number of permanent "hands" to care for the stock. That force, supplemented with groups of seasonal laborers, prepared the ground, seeded and reaped the grain. The use of the combine reduced largely the need of seasonal help in harvest, and the tractor has done away with the livestock, reducing the force to a smaller group of machine operators. The gang-plows are now generally drawn by tractors, also the harrows, drills and rollers, as well as the combines. Thus a few

[14] See John D. Hicks, in *Surveys of Culture in the Middle West.* N. Y. and London, 1934, p. 89.

men, boarded on the farm or near it—with autos to run back and forth they need not remain strictly on the farm since no livestock is there demanding their regular care—can do the work with the requisite machine equipment. An overseer or foreman may live in a very unpretentious house on the farm.

Owner's freedom of movement. The owner, however, is much more likely to be living in some city or village remote from the wheat ranch which he can visit, if he chooses, during the two short periods of intensest and most critical activity, seed-time and harvest. There is positively no occasion for him to be on the ground during the balance of the summer and, of course, the winter can be spent where and as he chooses. Thus, the great wheat-growers may perhaps cut a figure as directors of banks or warehouses in the cities, or even as merely opulent residents like the prominent merchants of the town. But they fail wholly to impress society in what it would seem ought to be their natural position as aristocratic rural leaders. The most characteristic wheat-growing regions, indeed, have been condemned as areas devoid of any normal rural society. In them barbarism is nearer the surface than aristocratic refinement.[15]

Despite his widespread cinema reputation for crudeness, the above statement will not apply to the western cattleman. Keeping livestock is a more personal business than growing wheat, owners' re-

[15] See J. Schafer, *A History of the Pacific Northwest,* N. Y. (Macmillan), 1918, 298–299.

sponsibilities infinitely sharper and more continuous. Accordingly, these men have usually lived on the ranches. They were, however, so isolated that no thought of the necessity of exceptionally good living was likely to disturb their complacency; a comfortable house, with a few conveniences and luxuries, making altogether a high class "camping place," being an adequate equipment for a family which rarely expected to remain permanently cut off from the social advantages to be found in cities or in denser settled regions.

Cattle ranches and cattle farms. "Neighbors!" retorted a Wyoming ranchman in 1900 to the suggestion that such social disiderate seemed few and far between: "You don't want neighbors. If your nearest neighbor is forty miles away your cattle and his will graze where they please and there'll never be any trouble. And, if you want to go visiting, you can get on a horse and ride forty miles as easily as five." Thus isolation was positively a desirable condition, which there was no effort to overcome but rather the reverse. Nevertheless, the complete absorption of the grass-lands, by purchase or by the ownership and fencing of water privileges, the coming of the auto which called for the making of roads, and the growing of winter forage by means of irrigation—all of these have tended to transform the cattle ranch into the great cattle farm, to force the ranches closer together and cause the rancher to look upon his business as permanent. The result is better houses, barns, and garages; house servants,

and in short the external symbols of gentle living. The big cattle farmers, and big sheep farmers, when not mere corporation managers, are probably destined to form a distinct and leading element in the rural society of several western states. We already hear much about "dude ranches" which are the symbol of a new rather than an old ranching life. They combine with the freedom and heartiness of the old, the conveniences, luxuries—in short the amenities—of modern city living. But that is not what was meant by the slave-holding planter aristocracy.

Farmers as "laborers." One of the most revealing sources for the study of social history is the manuscript census, which describes sketchily every family head and names each member of the family group, giving age and place of birth together with occupation if there was one. The head, who was normally the party interviewed by the census-taker, may be said to have painted his own portrait which, sometimes, turned out to be an unintentional caricature. For example, while there is probably no instance of a land-owner placarding himself as an aristocrat (Americans being proverbially modest) one can turn to the name of a Wisconsin resident who in 1860, despite his ownership of 240 acres of land of which 80 was under cultivation and tilled by his own hand, recorded himself as a "farm laborer."

This, to be sure, was a technical error, but it is not without significance for it shows that independent farmers could unconsciously identify them-

selves with the laboring class which in all old world societies was accounted not only distinct from but lower in the social scale than the class of land-owners. "Who are the laboring people of the North?" asked Webster in his seventh of March speech, and answered: "They are the whole North. They are the people who till their own farms with their own hands; freeholders, educated men, independent men. . . . If they are not free-holders, they earn wages; these wages accumulate, are turned into capital, into new freeholds, and small capitalists are created."

If the development of a limited social aristocracy, based on wealth and culture but devoid of special privileges, is one important feature of American agricultural history, the creation of a vast society of free land-owning farmers made up of all European and American types but fitting into none of the old world classifications, is a yet more important social outcome of that history. The average ruralite is not a landlord, living off the rents paid him by actual cultivators for the use of portions of his estate. He is not a peasant who feels degraded by the fact of his dependence upon a landlord. Nor, in any strict sense, is he a "farmer" of the modern English type, representing capital, skill, and management, but not the ownership of land, though he often possesses similar personal qualifications for carrying on the business of agricultural production. He has been called a "peasant-proprietor"; but the typical European peasant is not a proprietor and

the typical American landed proprietor is not a peasant.

The American farmer is first of all a free citizen of the republic, clothed with every political and legal right pertaining to those we have segregated as a social aristocracy. Like them, too, he obtains his living from land he owns in fee-simple. Also, like them, the amplitude of his income depends very largely upon personal management coupled with the extent of his investment. Here, however, the similarity ends and differences begin. The aristocrat's ideal of a life for himself is to be a man of culture, sustained by a generous income produced by the labor of others under his management or oversight. The farmer's ideal of a life for himself is to be a productive laborer on his own land with a view to obtaining as good a living as such labor, joined with management, will yield.

His hopes, indeed, may compass a situation that will ultimately relieve him of most, or all, of the heavy personal labor perhaps through the employment of "hired hands," possibly through a more complete equipment of labor-saving machinery. But, in the majority of cases, the American farmer expects to wear the working man's garb and to continue personally active in the affairs of his farm until old age or decrepitude shall compel him to desist. Then, as he is apt to put it, he "sits on the verandah" and watches others do the work, or he sells his farm and moves to town. He has been a "worker" all his days; not a "farm laborer" as that

term is properly understood, but yet a laborer on his own farm.

Reason for the "worker-farmer." The conception that an owner of land who was not a peasant might, without loss of respectability till his own acres, originated in the necessities of pioneering, for the Cincinnatuses of old had been forgotten. The colonists had to work in order to live. They could easily obtain the ownership of land, but a labor supply was a different problem. There was in general no working class whose labor could be commandeered and so every man had to "pitch in," as the saying was, and perform his own tasks of tillage. Only in a few localities and at intervals were conditions changed by the importation of numerous indentured servants and afterwards negro slaves, the latter constituting one main support of the planting aristocracy. Until the arrival of negroes to the saturation point, even the planters often tilled their own fields with family labor.[16]

In the subsistence farming stage which nearly all communities passed through, rapidly or slowly, farm labor was prevailingly that of the family itself. Exceptional jobs requiring a larger force were done co-operatively with neighbors on the "exchange of works" basis. A good illustration is the building of the new settler's log-house. This brought together a group of men large enough to accomplish the work in two days at most, falling the trees, shaping the

[16] T. J. Wertenbaker, *Patrician and Plebeian in Virginia,* 151 ff. J. T. Adams, *Provincial Society,* 88.

logs, notching and pinning the joints, framing doors and windows, splitting "shakes" for the roof, whipsawing plank or hewing puncheons for the floor and loft, and building a chimney with fire-place. It was an event that assembled the entire countryside, but if, as sometimes was the case especially in the Southwest, one of the neighbors happened to be a slave-owning planter, he was sure to bring some of his servants to contribute their labor while he himself, with hands neatly gloved, refrained from touching ax or trowel.

Frontier social dynamics. "Our early history," says Turner, "is the study of European germs developing in an American environment. . . . The wilderness masters the colonist. It finds him a European in dress, industries, tools, modes of travel and thought. It takes him from the railroad car and puts him in the birch canoe. It strips off the garments of civilization and arrays him in the hunting-shirt and the moccasin. . . . Before long he has gone to planting Indian corn and plowing with a sharp stick. . . . In short, at the frontier the environment is at first too strong for the man. He must accept the conditions which it furnishes or perish, and so he fits himself into the Indian clearings and follows the Indian trails. Little by little he transforms the wilderness but the outcome is not the old Europe, not simply the development of Germanic germs. . . . The fact is that here is a new product that is American."

This passage in the well-known essay on *The Sig-*

nificance of the Frontier in American History, penned in 1893, has become one of the foundation principles in historical interpretation. One has to emphasize the point that frontier necessity taught the importance and the dignity of sheer labor to all—those who were new to the idea of personal exertion as well as those to whom labor has always seemed the primal curse of man. Professor Paxson suggests that the frontier may have contributed a kind of "inverted democratization that worked by leveling the exceptional man down rather than by lifting the common man up." [17] There is a truth concealed in that remark, but the apprenticeship to actual physical labor can hardly be said to have lowered the real dignity of the exceptional man, while the fact of working side by side with him did unquestionably help to remove from the mind of the common man the incubus of the old world conception that labor was essentially degrading toil.

The dignity of labor. To that new psychology the speculative factor in American farm-making contributed a powerful impulse. The professional squatter, whose chosen vocation was that of hunter, set his rifle against a tree and spent some weeks of glorious summer industriously clearing, fencing, planting, and building a cabin, heroically withstanding meantime the temptations of the forest trails because he anticipated a large profit from his enter-

[17] F. L. Paxson, A Generation of the Frontier Hypotheses, *Pacific Hist. Rev.,* March, 1933 (II, 34–51).

prise. The improving farmer justified both his continuous labor and his investments by the expectation that his farm would one day have a value greater than the expenditures upon it. The exploiter spent his land and his labor in making money fast. Each type of farming economy, when free from the influence of slavery, or its substitute indentured servants, emphasized the importance of personal labor, thereby dignifying it.

The farmers of America have ever gloried in the thought that they, as a class, cleared the forest and "made the wilderness to blossom as the rose." They read with a thrill of self-conscious pride that "Labor drives the plow, and scatters the seed, and reaps the grain."

Rewards of labor. Men of every class and condition became farmers in America, and all, with the exceptions noted above, if they had not known the virtue of physical labor, learned it in the new land. But they had their reward forthwith and in ample measure. "Little children here," wrote a Puritan leader from New England in 1630, "by setting of corn can make much more than their own maintenance." "A poor servant here, who is to have no more than fifty acres can afford to give more timber and wood for fires than many a nobleman in England can afford to do. Here is good living for those who love good fires." And at the period of the Revolution a Pennsylvania farmer wrote of the rural settler: "Here the rewards of his industry follow with equal step the progress of his labor. . . .

From involuntary idleness, servile dependence, penury, and useless labor, he has passed to toils of a very different nature, rewarded by ample subsistence."

The democratic spirit. And this laboring, well-fed and well-warmed cultivator of the soil was democratic in spirit. Harriet Martineau pointed out, with pride, that every man in the American towns was an independent citizen, every man in the country a "land-owner." "The bulk of the inhabitants of this vast wilderness," wrote the English farmer, Morris Birkbeck, of settlers in southern Indiana, "may be fairly considered as of the class of the lowest English peasantry, or just emerging from it. But in their manners and morals, but especially in their knowledge and proud independence of mind, they exhibit a contrast so striking that he must indeed be a *petite maitre* traveler, or ill-informed of the character and circumstances of his poor countrymen; or deficient in good and manly sentiment, who would not rejoice to transplant into these boundless regions of freedom the millions whom he has left behind him grovelling in ignorance and want." [18] And James Flint about the same time reports from the same region: "The American farmer, it must be observed, is commonly the proprietor of the land he occupies; and in the *hauteur* of independence is not surpassed by the proudest freeholders of Great Britain." Lecky uses a memorable phrase when he calls the New Englanders of the

[18] *Journey,* 111.

Revolutionary period "hard, stubborn, and indomitably intractable." This describes a vast section of the American ruralites having an English inheritance, and it may seem a bit strange that those whom Kipling might think of as "the lesser breeds" developed under frontier farming conditions a very similar spirit.

When the present-day critic of the Turner hypothesis denies that there is a fundamental difference in spirit between the European proletarian and the American frontiersman, he disregards the balance of testimony of European travelers, many of whom were impressed, like those just quoted, with the presence in the latter of a quality which was described at the Revolution as a "fierce spirit of independence." That spirit had developed in the seaboard colonists, to the distress and discomfiture of the mother country, and when the newly established states found themselves settling down under more conservative traditions, eastern Americans, in turn, were shocked to find the same spirit among the then frontiersmen.

Typical rural frontier leaders. Samuel Bowles and Schuyler Colfax, at the close of the Civil war, discovered Jesse Applegate, living in the secluded Umpqua valley of western Oregon. He was an American type of which Sam Adams of Boston was perhaps the best illustration in 1776. There were keen, logical minds and capacious intellects, resting upon an English social inheritance, as did Applegate, that like him were the immediate product of

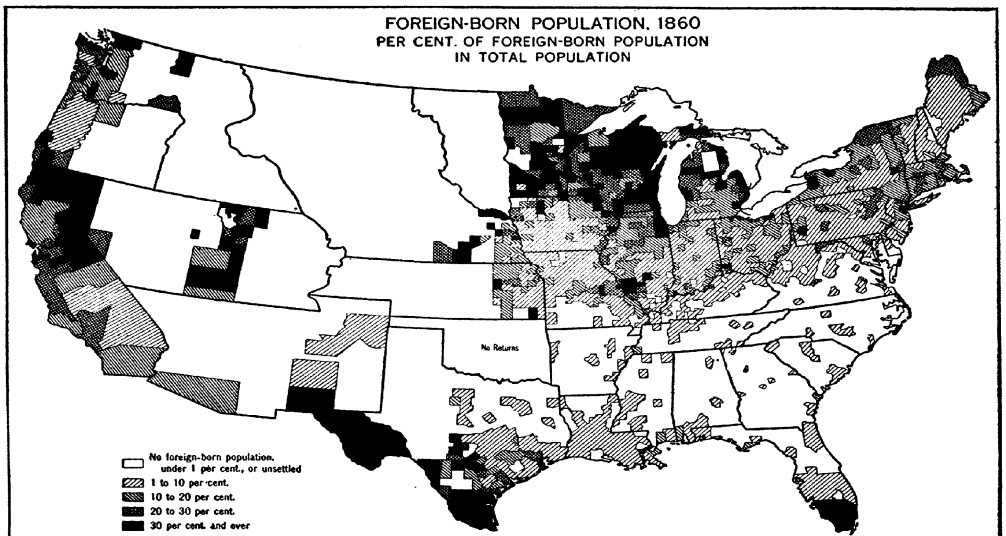
two generations of far-west pioneering. There were, likewise, men of European birth and nurture, incorporated in every frontier society, who were fully competent to uphold such principles of old world culture as were fitted to survive in the new and simpler environment.

Rural America was not devoid of notables, who were not always duly appreciated. At the close of the Revolutionary war that brilliant and cultured scion of a French-Swiss noble family, Albert Gallatin, fixed his residence on a landed estate in western Pennsylvania. Frederick Hecker, of a noble German house, a powerful advocate and orator, fleeing his homeland as a proscribed revolutionist, settled on a fine farm near Summerville, Illinois, raised splendid livestock and during the electoral campaigns made Republican voters out of erstwhile German Democrats. Thure Kumlien, scientist, graduate of the University of Upsala, opened a farm near Lake Koshkonong in Wisconsin, where he reared a family, studied birds, corresponded with European savants on botanical subjects and received visits from the scientists of the Smithsonian Institute. In the lower Missouri valley near Augusta, was a colony of "Latin farmers," the leader among whom was a theologian and professor from Darmstadt. He lived, said Carl Schurz, not "elegantly, but cleanly—no carpets, but beautifully scoured floors; no upholstered furniture, but tables spread with fresh white covers, with books upon them." [19]

[19] Carl Schurz, letter of July 8, 1867, *Intimate Letters.*

Foreign-born intellectuals and craftsmen. This list could be indefinitely extended. Highly educated and cultivated Europeans were to be found in every community, attracted by the same opportunities for making or sustaining fortunes that were also drawing Americans of every class to those regions. From the standpoint of numbers, however, a much more important meliorating influence was the immigration of well-trained and personable European craftsmen. Some of these, to be sure, went into the towns where they quickly improved the prevailing quality of the service of such skilled workers as blacksmiths, wheelwrights, tailors, carpenters, cabinet makers, millers and locksmiths. But many came to America to acquire land. They might work for a time in the towns but soon they were found on the farms and it should not be surprising that they were among the best, most careful and effective farmers.

The peasant type. Notwithstanding what has just been said about notables and trained craftsmen, the foreign immigration into western states, as into the colonies, was made up for the most part of the poor and lowly. European peasants in the new environment, however, quickly became transformed into independent American farmers. A few years ago a brilliant professor of history in one of the great eastern universities, a man of courtly manners and gallant aristocratic bearing, had been designated for obvious social reasons to sponsor a dinner of women's patriotic organizations. In the



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course of conversation, his neighbor on the right, the charming "daughter" of one of the early wars, innocently inquired: "Professor ——, are you a member of the S. A. R.?" (Sons of the American Revolution). "Oh, no," was the unhesitating reply, "I belong to the S. I. F." "Oh," said the lady, and relapsed into a thoughtful silence. Curiosity, however, would not be denied and in a few moments she remarked: "I don't seem to remember what S. I. F. stands for." "Sons of the Irish Famine," answered the professor, which had to suffice though it was obvious that the poor lady was little wiser than before.

The Irish. The immigration into America from both ends of the Emerald Isle was, with exceptions, a peasant movement and it is of course one of the oldest, beginning well down in colonial times. But the mass transfer of young peasants to the new world came in the nineteenth century and affected profoundly the process of western state-making. Being poor and also unskilled as a rule, those immigrants generally began their American life as common laborers, digging the canals, grading the railroads, helping on farms and in the homes. A large proportion of them remained in eastern cities, fitting themselves into the life as best they could, and soon participating actively in municipal politics. But a vast number, in the aggregate, went west and settled on farms, sometimes making up entire rural communities. From those communities have come, in the course of a century, as many able

priests and bishops, lawyers, college professors, physicians, and, of course, politicians as any other social stock has produced from similar numbers. And, while there is apparently a considerable vestige of permanently unprosperous Irish through the countryside, the proportion of successful farmers among them is perhaps as high as among the native Americans of English stock. With the impulse afforded by America's free lands and high wages, the native gifts of the Irish racial character have had their chance to flower.

The Germans. German immigrants have also been prevailingly of peasant origin, though with a decidedly larger admixture of trained craftsmen.[20] The Germans also gave to the United States a social element, of very special value, in the considerable group of political refugees known as the forty-eighters among whom were Carl Schurz, Hecker, Sigel, and many others of similar cultural strains. The forty-eighters, as newspaper editors, professional men, musicians, playwrights, and politicians performed yeoman service as leaders of the German masses in the several states, thus aiding them to realize their cultural opportunities. But the German peasants were generally such intelligent, industrious farmers that economic prosperity, on a plane wholly new to them, furnished a powerful impulse upward in the social scale. The German-owned farms of America have probably sup-

[20] That fact was established for certain typical Wisconsin areas by a hand count of census descriptions. See *Winnebago-Horicon Basin* (in press), especially chapter X.

plied more than their numerical proportion of scholars to the present generation.

Cornish and others. And where, today, shall we look for the descendants of those Cornish miners who, driven from their shafts and galleries by economic pressure in the 1830s, came over to dig for lead and zinc and to make farms in Illinois, Iowa, and Wisconsin? One of them, typical of a large number, has just retired from a long and distinguished service as dean of a leading mid-western graduate school. The Welsh, established early as farmers in eastern Pennsylvania, have likewise endowed the Middle West with some of the most scientific cultivators and stock breeders. Their sons grace the professions, and advance the torch of learning.[21] But a similar statement can be made also in regard to Scandinavian, Bohemian, Dutch, Belgian, Polish, and other European immigrant farmers. Some groups, especially the Irish and the Germans, being early on the ground, enjoyed certain advantages over the later comers. But up to a very recent period, the immigrants of whatever origin have found opportunity for rapid social development based upon the cultivation of cheap lands on America's varied frontiers.

Social results of the "mixing bowl." The question naturally arises, what of the net social result of such intermingling of stocks and languages? It cannot be denied that America has had her periods

[21] Louis R. Jones, for example, is one of the world's leading plant pathologists.

of trepidation in contemplating the rapid incursion of non-English elements. These doubts began far back in colonial times. A classic expression of them is that of Benjamin Franklin, writing a quarter century prior to the Revolution.[22] He was frightened lest Pennsylvania, "founded by the English, become a colony of aliens, who will shortly be so numerous as to Germanize us, instead of our anglifying them, and will never adopt our language or customs any more than they can acquire our complexion." He would have preferred to exclude all "blacks and tawnys" and increase "the lovely white and red. But," he adds almost apologetically, recognizing that his prejudices are involved, "perhaps I am partial to the complexion of my country, for such kind of partiality is natural to mankind."

Nordic propaganda. We may conveniently date the series of Nordic propagandists from Franklin. He has many successors and doubtless the end is not yet, for historically almost every succeeding generation had its anti-foreign movement manifesting itself in alien and sedition acts, in a know-nothing nativist party, an American protective association, or a latter-day Ku-Klux-Klan. Linguistic non-conformity, which along with the non-English color scheme was Franklin's chief complaint against the industrious, wealth-producing German husbandmen of Pennsylvania, has been only one of the

[22] Observations Concerning the Increase of Mankind and the Peopling of Countries, 1751. *Works of Benjamin Franklin,* Bigelow Edition, 1887. II, 233–234. See also letter to Peter Collinson, *ibid.,* 291–299 (May 3, 1753).

points of attack against immigrants. In nearly all later agitations the disturbing religious issue was either an avowed or secret dynamic influence. The anti-Catholic inheritance from English puritanism conceals an explosive principle which it has been difficult to control. It erupts in all kinds of unexpected ways.

Massed and dispersed immigrants. The greatest unifier of diverse elements, next to the fact of the foreigners' immersion in American conditions compelling economic and social readjustments, has been the public school conducted in the English language. The establishment of English schools among the Germans was one of Franklin's suggestions for saving Pennsylvania socially. He also thought it important to distribute German immigrants more widely among the English instead of permitting them to mass in distinct communities as they naturally tended to do.[23] Throughout American history the colonization of foreign groups in particular areas has raised a social problem, and such areas are fairly numerous.

No massing of congenial groups was possible where a rush for the lands of a newly opened district took place. And, even when there was no rush but only a normally rapid movement of settlers, the keenness of the competition for the better locations prevented massing. A given section of 640 acres might well be owned, after the land sale, by four or five persons, one of them a Yankee, another an

[23] Letter to Peter Collinson.

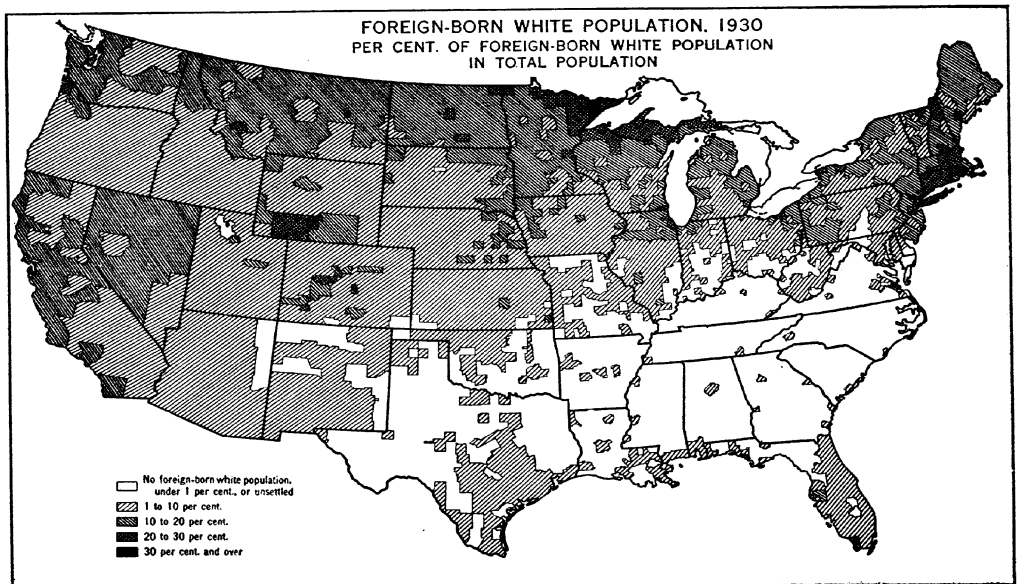
Irishman, another a German, and a fourth a Scandinavian. In that way the frontier served to mingle the various types together, rendering easier the process of assimilation—for in most places the American element, after all, was most numerous as well as spiritually dominant.

However, in certain situations the land itself selected the settlers. Openlands, for example, were the more attractive to Yankees possessed of some capital or credit which would enable them to break up large tracts promptly in order to raise wheat. Accordingly, the openlands of some of the western states were generally taken by Yankees in the first instance, though later they might be sold as made farms to foreigners. On the other hand, the heavily wooded lands, especially if they lay near means of communication like the Great Lakes or the Mississippi, were quite likely to be taken up by foreigners, notably the Germans. That fact, coupled with a planned colonization such as Birkbeck and Flower conducted in Illinois, resulted in scattering over the West a group of foreign-immigrant colonies. But the original settlements of Germans, Scandinavians, Bohemians, Dutch, Belgians, all tended to expand later by the process of replacing American, English, Canadian, or Irish families who were glad to sell out and go west.

Effects on "Americanization." The public school. Except in the massed centers, foreign agricultural settlers offered but slight resistance to the process of Americanization. And in such centers the schools

gradually overcame such resistance as the inertia of habit created. The children learned English in school and spoke it in the home. The parents, knowing the advantage both to the younger members of the household and to themselves, of a command of the language of the country, learned it also, sometimes at the cost of painful effort. But the first generation required tender treatment. For example, the school authorities of Wisconsin, during some years, permitted certificated teachers who were Germans to conduct the public schools of exclusively German districts in the German language, trusting to the teaching of English as a subject of study gradually to win the children to its daily use, and that plan proved reasonably successful.

Persistence of racial purity. Various studies made in Wisconsin tend to show that ruralites of distinctive origins—whatever may be true of those in towns and cities—do not readily amalgamate through intermarriages. The number of inter-racial unions in a given county has been relatively insignificant. The rule is for Irish to marry Irish, Germans Germans, English English, even to the second American generation. The several race elements tend to persist in their purity long enough to permit a gradual approximation to the social type all are striving toward, namely, that of the socially acceptable American citizen. In other words, the human ingredients which go into the mixing-bowl, diverse in origin and still showing appreciable variations, are in character far removed from the postulated



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"raw materials" of our "melting-pot" theorists. On the one hand, the American is no longer the hard, unimaginative, unsympathetic Yankee, passionately intolerant of foreigners, but a man whose temper has been modified and horizon widened through neighboring with other descriptions of men and women. On the other hand, the European in the mixture has ceased to be a "foreigner." He has become the bearer of many of the standard social qualities of good Americans without having discarded all the valuable traits appropriate to his particular lineage.[24]

The net result is undeniably a diverse citizenship from the standpoints of linguistic origins, racial customs and peculiarities, wealth, and cultural traditions. It is, and will long remain, for the trained observer, a simple matter to analyze a spontaneous gathering, say for political purposes, into its elements, distinguishing old line Americans, second generation Englishmen, Irishmen, Germans, Scandinavians, Bohemians, Poles and Dutchmen in the same assemblage. Yet the observer who would judge solely from the forms of speech used, the ideas presented, and the ideals or objects contended for, might discover in such an assembly no racially determined line of cleavage whatever, though he would be quick to detect religious and economic groupings.

The language handicap. English training. The non-English speaking foreigners originally were at

[24] *Cf.* J. Schafer, *The Wisconsin Lead Region,* 248.

a disadvantage in American society due to the mechanical difficulties with the official language, and one suspects that their children also, for the same reason, have fallen somewhat below the possibilities warranted by native endowment. In other words, a more perfect flowering of talents would probably have occurred if school training for them had been in their native speech instead of an alien language. But the social disadvantages of a polyglot linguistic equipment must have been very great so that, on the whole, America should be well content with the results of her policy of securing unity of language through the public school. She has not, however, made sufficient allowance for the relative difficulties those of non-English inheritance are obliged to overcome in being restricted to the English language. Justice to them demands that their English training shall be carried far enough to enable them to use the language with the ease and the touch of artistry that comes natural to equally acute minds with whom it is native. But time is working its magic. As the second American generation of originally non-English speakers appears on the stage, substantial equality in the use of the language of Shakespeare is seen to have been somehow attained.

Social laggards. Prospects. It would be absurd to deny that, even on the farms of America, not to mention certain socially chaotic large cities, are to be found multitudes of cultural laggards. The peasant spirit here, as elsewhere, manifests some-

thing of that sullen resistance to an uplift impulse which is the normal attitude of those who have persisted as a down-trodden class in Europe for a thousand years. Nevertheless, under American rural conditions, so many individuals have already overcome the handicap of that inheritance, so general is the disposition to profit by the educational opportunities open freely to rich and poor, that barring the catastrophic social dislocations incident to war, revolution, or the doom of all farmers which some predict, the attainment of a new and higher cultural plane for all seems assured.

Chapter VII

POLITICAL TRENDS IN RURAL LIFE

A rural democracy. "This nation," says J. F. Jameson, "came to be marked by political institutions of a democratic type because it had, still earlier, come to be characterized in its economic life by democratic arrangements and practices . . . America stood committed to economic democracy, which meant, in a country so occupied with agriculture, to the system of landholding which the classical economists called 'peasant proprietorship,' the system of small holdings where landowner, capitalist or farmer, and laborer are all one, the owner of the land supplying the capital and working the fields with his own labor and that of his family." [1]

The history of the way land passed from the federal and state governments, or from great proprietorships, into the hands of operating farmers, proves that agricultural democracy was a fact in the North and West, and a potent influence elsewhere, before the outbreak of the Revolution. That is why the remaining old world restrictions on freehold tenure, such as quit-rents, entail, primogeni-

[1] *The Am. Rev. Considered as a Social Movement, Princeton,* The Univ. Press, 1926, p. 41–42.

ture, and forest rights, were so promptly abolished after the break with England. The Revolution also cancelled the land-claims of tory proprietors to the extent of millions of acres, to the ultimate enlargement of the already great society of small holders though with a certain temporary encouragement of speculative middlemen.[2]

The shot heard round the world. It is now known historically, not only poetically, that it was the "embattled farmers" and not the merchants, who "fired the shot heard round the world." It was they, supported by laborers and small people of the towns, who supplied the man-power in the movement for independence, while the capitalistic class of merchants stood prevailingly on the opposite side or tried to remain neutral.[3] After the Revolution the farmers for some years were firmly in the saddle, being the popular influence behind the continental congress and the articles of confederation.

It was the demonstrated inefficiency of the articles, coupled with the excesses of Massachusetts farmers in their conflict with the capitalist class, that created an opportunity for the latter to score in the making of a new constitution. The political movement of 1785 and 1786 had for its object to amend the articles of confederation in certain respects, especially to enable the government to raise

[2] D. W. Brogan, "The Rise and Decline of the American Agricultural Interest," *The Economic History Review,* April, 1935.

[3] *Cf.* Arthur M. Schlesinger, *The Colonial Merchants.* Columbia Univ. Studies in History, 78, Chap. XV. Especially pp. 593 ff.

money by uniform duties on imports, to regulate commerce with foreign countries, and between the several states.

Shays' Rebellion. Into the negotiations of state leaders on these high issues broke the clangor of Shays' rebellion in western Massachusetts, an event which struck George Washington at Mt. Vernon with amazement and awe. It was reported to him the malcontents proposed to "annihilate all debts, public and private," have agrarian laws and an unfunded paper currency. The cause of the explosion was the hopeless indebtedness of farmers and their inability, owing to capitalistic opposition, to secure the relief they wanted through the issue of paper money. Besides, they had grievances against courts and lawyers on account of the heavy costs of foreclosure proceedings.

If western Massachusetts had had a more successful agriculture, her farmers need not have despaired of paying their debts, for at the very time they were rebelling under Shays and Shattuck, the farmers of Pennsylvania were prospering. Their wheat, a good crop, wrote Franklin, was bringing eight shillings and sixpence per bushel in hard money.[4] He adds: "Our working people are all employed and get high wages, are well fed and well clad . . . Our wilderness lands are daily buying up by new settlers, and our settlements extend rapidly to the westward. European goods were

[4] Letter to William Hunter, Nov. 24, 1786. Bigelow, *Works of Franklin,* IX, 348.

never so cheaply afforded as since Britain no longer has the monopoly of supplying us. In short, all among us may be happy, who have happy dispositions; such being necessary to happiness even in paradise."

Probably Pennsylvania farmers had been less headlong about going in debt during the period of inflation. In Massachusetts old-time restraint had been largely put aside and "an undue use of articles of foreign growth and manufacture" was the result.[5] In a word, they had forgotten that they were merely subsistence farmers. In addition, the farmers felt that the mercantile class, while contributing to their distress by promoting luxurious living, failed to pay its fair share of the taxes to meet the public debt.[6] An issue was thus raised which pitted country against city once more and that in precisely the manner which was destined to become orthodox in history—the hard-working farmer, ruined by debt, fighting the ogre of capitalism, "the money power."

Political division. The reformers who strove to make a new constitution and to get it adopted had the active support of the mercantile or capitalist class not only in Massachusetts but throughout the country. The Shays rebels, on the contrary, in the Massachusetts ratifying convention were bitterly hostile. The agricultural class away from the sea-board, where it was influenced by the better

[5] G. R. Minot, *Shays' Rebellion,* Worcester, 1788, p. 173.
[6] Mason A. Green, *Springfield, 1636–1886,* 310.

markets created by commerce, either opposed the new constitution or insisted on various amendments guaranteeing personal rights and privileges. While that instrument contained some important compromises, it was felt to be more favorable to merchants than to farmers. The Revolution had seemed just the reverse, so the score thus far was even.[7]

Farmer and capitalist each had a powerful champion in Washington's administration, but the contest which ensued over governmental policies between Jefferson and Hamilton left the latter victorious. With the president's favor and a congress pledged to strong government, Hamilton was able to create the kind of fiscal arrangements that pleased the capitalist class and attached them strongly to the federal government. The acts included funding the national debt, assumption and funding of the state debts, establishment of the national bank, a protective tariff on imports, and excise duties.

For a time Hamilton had almost a clear field, the members of congress having been chosen in most cases because they were in favor of a government that could act with vigor; but gradually the friends of the agricultural classes became alarmed and set about the task of stirring up the natural opposition to the commercial and monied beneficiaries of the Hamiltonian system. It was in this

[7] Orin G. Libby, *Distribution of the Vote on the Adoption of the Constitution,* Madison, Wis., 1894.

way that political parties became formally organized under the constitution.

The two parties. Writing during Washington's second administration, from which he had detached himself, Thomas Jefferson concludes a discourse on the subject of political partyism in these words: "Two parties then do exist within the United States. They embrace respectively the following descriptions of persons. The anti-republicans [or Federalists] consist of 1. The old refugees and tories. 2. British merchants residing among us, and composing the main body of our merchants. 3. American merchants trading on British capital. Another great portion. 4. Speculators and holders in the banks and public funds. 5. Officers of the federal government with some exceptions. 6. Office-hunters, willing to give up principles for places. A numerous and noisy tribe. 7. Nervous persons, whose languid fibers have more analogy with a passive than active state of things.

"The Republican part of our union comprehends 1. The entire body of landholders throughout the United States. 2. The body of laborers, not being landholders, whether in husbanding or in the arts."

Their origin. To the sage of Monticello the origin of this division of the people seemed sun-clear. From being confirmed admirers of the British constitution the Revolution had made the American people, with certain exceptions, republicans. Their first constitution, however, the so-called articles of confederation, adopted when feeling against every-

thing British ran highest, proved too extreme in its republicanism and democracy. Gradually, the major portion of the people saw the need of amending it into a more workable government. The "monocrats," as he called them, the pro-British remnant, refugees and pretending patriots, preferred to keep the articles until the complete breakdown of government should throw the country back into the hands of Britain.

These elements failed, the new republican constitution was adopted (though not without certain twists to the right for which the monocratic minority was responsible) and the new and designedly stronger government went into effect. Now the monocrats saw their chance. Since, naturally, the men elected to the first congress were predominantly favorable to strong government, they hit upon the plan of administering the new system in ways that would make it as nearly like the English as possible in order, ultimately, to have monarchy restored. They therefore funded the national debt so as to make it perpetual, they created a national bank, and, in a word, deliberately fostered a money power and based the administration upon its support.

By the time the third congressional election came around, the masses of the people had come to understand these tendencies, and the result was the return of a large majority of genuine republicans to the House of Representatives. The Senate changing only every six years, it would take longer to rectify its politics, but the operation of time was certain

to make that house republican also. Of course, the monocrats had control of the courts, and they were intrenched in the public offices.

This, in brief, is Jefferson's history of American politics during, let us say, twenty years, from 1775 to 1795. It is obviously rationalized to suit his views and propagandist purposes. But it serves to explain his analysis of political parties, and affords a background for considering the farmers' part in realizing the aims he placed before them.[8]

The farmers in politics. Jefferson, like every other successful politician of democratic proclivities, understood the farmer mind. It must have issues presented to it in dramatic form in order to make a sufficiently powerful impression. Once fully engaged, emotional obsession would be sure to carry thought over into action, which is what the politician wants. It was true, as Lecky said of revolutionary New Englanders, that farmers tended to be "hard, stubborn, and indomitably intractable" but, as he also pointed out, they had strong natural intelligence, a fair general education and "many of the qualities of a ruling race." The inertia inherent in the rural psychology once overcome, farmers were as ready to go for radical action as any other social class.

How far Jefferson may have been sincere in his contention that a conspiracy was afoot to restore monarchy, we may never know. It is plain, however, that the idea was perfectly adapted to make the desired appeal to the farmers, who since the

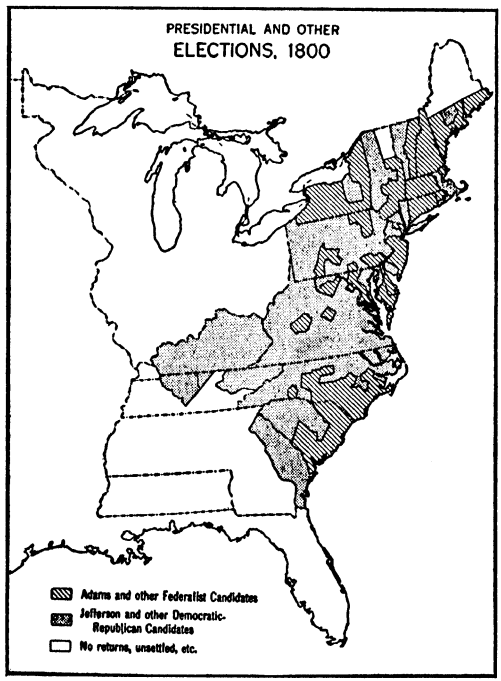
[8] Jefferson's *Writings* (Ford's Ed.) VII, 47–48.

outbreak of the Revolution feared and hated monarchy while in commercial and monied circles such aversion to it as had existed gradually wore away. The farmer holds his fire longer than other classes by reason of his isolation.

Jefferson's program. But, with the threat of monarchy to alarm him into giving close attention to issues, Jefferson could easily prove to the farmer that his interest lay not in a perpetuation of the public debt, but in a determined effort to pay it off, thereby lifting from his shoulders the annual interest charge; not in a protective tariff that would add to the price of manufactured goods he had to buy, but in the freest interchange of his farm productions for the manufactured goods offered by foreign countries in payment; not in a burdensome army and navy, but in "peace, commerce, and friendly intercourse with all nations, entangling alliances with none."

Jefferson's program made a tremendous appeal to farmers of all classes, southern planters and northern small cultivators alike, and although the canvass of 1796 yielded him only a very large minority of the electoral vote, he was so confident in the correctness of his judgment that a vast majority of the farmers were with him in spirit that he went right on with plans of organization. Fortunately for him, the Federalists were unwise enough to pass the alien and sedition acts attacking the principles of free speech and free press, constitutional guarantees to which farmers were firmly attached. All this

helped to confirm their suspicion of a monarchical conspiracy and made them more amenable to the Jeffersonian propaganda. The election of 1800 there-



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fore was a complete triumph for the Virginia philosopher, an absolute vindication of his judgment in relying upon farmer support.

The "Revolution" of 1800. The farmers of America had enacted what is widely recognized as a political revolution. With Washington and Adams at the helm of state, there had been in fact not the slightest danger of a sudden shift to monarchy. It was well known, however, that Hamilton preferred the English government to any other, that he tried to engraft some of its principles upon the constitution, and that—believing the constitution as adopted to be "a frail and worthless fabric—" he proceeded as secretary of the treasury to administer it into a more coherent political system, particularly through attaching to the central government, in interest, most of the country's wealthy men. In a sense, therefore, Jefferson's analysis, while faulty in detail, held enough truth to give it standing in political discussion.

The whisky insurrection. If the troubles of 1786 in Massachusetts had tended to arouse the farming class politically, those of 1794 in western Pennsylvania produced a much more profound and universal impression of danger upon the rural mind. The new constitution authorized congress to "Lay and collect taxes, duties, imposts and excises . . ." Everybody knew the excise laws would be unpopular in the United States as they had always been both in the mother country and in the colonies. In the congressional discussion the prediction was uttered that such a tax would "convulse the nation." [9] But

[9] An. of Cong., II, 1790; as quoted by C. A. Beard, *Economic Origins of Jeffersonian Democracy*, 249, n. 1.

Hamilton made the excise duty on whisky a feature of his general financial policy and secured its enactment into law.

The tax on whisky and on farm stills bore grievously upon the farmers west of the mountains because they had no opportunity to market grain except in the form of distilled spirits. In response to protests from several state legislatures, and from public gatherings in the West, the duties were lowered and the tax removed from small stills. Yet, since whisky was worth not more than a shilling a gallon, in western Pennsylvania, a tax of seven cents was deemed a monstrous evil which free Americans ought not to endure. Another grievance was that tax-evaders were taken from their homes to Philadelphia for trial.

So fierce was the popular opposition to the whisky tax in four western Pennsylvania counties that Hamilton persuaded Washington to send an army into that region to enforce the law and arrest violators, as well as put down insurrection. Hamilton accompanied that army of 15,000 men on its march to Pittsburg in late autumn, 1794. They marched, wrote Jefferson caustically, "against men at their plows," [10] having found no one in arms to oppose. Though about three hundred persons were arrested, many of them sent to Philadelphia to languish in jail for several months, only two were convicted of serious offenses and those Washington pardoned.

Hamilton was doubtless not wholly mistaken in

[10] Jefferson's *Writings* (Ford Ed.), VII, 42.

believing that the duty on whisky could not be collected through the local courts. On the contrary, he was probably right, for no jury of western men would convict a distiller of a crime when they could not regard his act as criminal. But to give the country such an object lesson in the functioning of strong government as the march of the fifteen thousand implied was, to say the least, risky. The constitution, as he contended, gave the executive the right to employ military power to "enforce law" as well as to "put down insurrection." If that right had been appealed to during the existence of the eighteenth amendment, the government would have required troops in every city and county of the land. Obviously, the army did not stop "moonshining," which goes on to this day in the mountains of Appalachia.

We are not compelled to regard Jefferson's view of the war as correct because Hamilton overshot the mark. He declared Hamilton to be "the servile copyist of Mr. Pitt," making alarms, insurrections, and plots against the constitution for the sinister purpose of "strengthening the government and increasing the public debt." Hamilton undoubtedly exaggerated the need for an army of invasion, Jefferson exaggerated the peaceful and law-abiding character of the western farmers. It is not hard, however, to see which one of the two statesmen would gain the sympathy of those people and all others situated even remotely as they were. This helps to explain the eagerness with which farmers all over the coun-

try rushed to the support of Jefferson in the election of 1800. They had been roused from their lethargy and were now prepared to take their place in the political battle lines.

Triumphant republicanism. Jefferson's administration brought republicanism into national affairs with a parade step. The story got around, to the joy of the farmers, that on the day of the inauguration he rode his horse into Washington, hitched him, and walked to the capitol to take the oath of office. The latter part of that legend is true: he walked from his boarding house with several friends, his predecessor, instead of driving with him from the White House as at present, having rumbled off at daybreak in his coach for Boston. The inaugural address, however, emphasized simplicity strongly enough to have justified any Cincinnatus story his friends cared to publish.

"I know, indeed," said Jefferson, "that some honest men fear that a Republican government cannot be strong; that this government is not strong enough . . . I believe this, on the contrary, the strongest government on earth. I believe it the only one where every man, at the call of the law, would fly to the standard of the law, and would meet the invasions of the public order as his own personal concern. Sometimes it is said that man cannot be trusted with the government of himself. Can he then be trusted with the government of others? Or, have we found angels in the form of kings to govern him? Let history answer this question."

His profession of faith included "economy in the public expense, that labor might be lightly burdened; the honest payment of our debts and sacred preservation of the public faith; encouragement of agriculture, and of commerce as its handmaid; the diffusion of information, and arraignment of all abuses at the bar of public reason; freedom of religion; freedom of the press; and freedom of person under the protection of the habeas corpus, and trial by juries impartially selected. These principles," he continued, "form the bright constellation which has gone before us, and guided our steps through an age of revolution and reformation. The wisdom of our sages, and blood of our heroes, have been devoted to their attainment. They should be the creed of our political faith, the text of civic instruction, the touchstone by which to try the services of those we trust; and should we wander from them in moments of error and alarm, let us hasten to retrace our steps, and to regain the road which alone leads to peace, liberty, and safety."

With these sentiments, calculated to encourage his friends and conciliate his enemies, the farmers' first president took command of the government. During his eight years in office Jefferson never forgot that it was the great agricultural majority which he represented directly.[11] He wanted to pay off the

[11] It has been charged, see for example, H. Agar, *Land of the Free,* that he did nothing to undo the work of Hamilton, but at the moment little could be done. He determined to pay the national debt as rapidly as possible and to liquidate the bank on the expiration of its charter. He also reduced the army and navy to save costs.

public debt in order to lighten their taxes, to reduce the army and navy to the lowest defense terms for the same purpose; he bought Louisiana because farmers would some day want that country for agricultural expansion, and it was needed for defense; and he went to almost any lengths to preserve peace, knowing that wars bring bankruptcy in their train.[12]

Jacksonian democracy. Jefferson's successors in the presidency, Madison and Monroe, were like himself representatives of the planting class and both commanded the support of the farmers, together with a growing constituency among capitalists, party federalism having gone on the rocks. But, John Quincy Adams, despite his formal acceptance of republican principles, was allied in spirit with federalism particularly in pressing for public improvements like roads, harbors, lighthouses, and educational foundations, all of them consumers of funds tending to increase the public expenditure. The national debt had grown enormously due to the War of 1812, and it remained for Andrew Jackson, the uncompromising champion of agriculture and labor, to pay it off.

Jackson also checkmated capitalism by destroying the second national bank, created during Monroe's administration to help restore order in the country's finances which the war had disorganized. He fostered expansion by removing Indian tribes to the west of the Mississippi, and planned annexations

[12] *Cf.* Charles A. Beard, *Economic Origins of Jeffersonian Democracy,* N. Y., Macmillan, 1915. *Passim.*

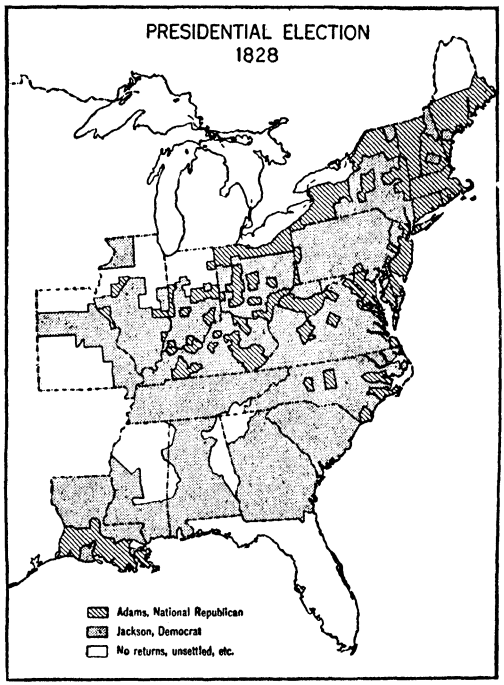
of territory in the Southwest and along the Pacific. He checked appropriations for public improvements.

Jackson was a fiery nationalist. In the spring of 1830 the political atmosphere was surcharged with rumors that South Carolina was about to nullify the tariff acts, and it was known that Calhoun, who was vice-president, was the head nullifier. At the annual Jefferson dinner, April 15, Jackson startled the company of leading Democrats when he rose and proposed the toast: "Our federal union, it must be preserved." Calhoun followed, but with less fire and emphasis, proposing: "The Union, next to our liberty most dear! May we all remember that it can only be preserved by respecting the rights of the states and distributing equally the benefit and burden of the Union." Here was the line of cleavage in the Democratic party. Jackson was prepared to hang nullifiers as traitors; the spokesman of South Carolina regarded nullification as a means of preserving the rights of states within the union.

The farmers of America have never forgotten Andrew Jackson's nationalism or his anti-monopoly leadership. It is sometimes facetiously remarked that in secluded mountain valleys they are still voting for him. He embodied the farmer spirit in politics more perfectly than any other president the country has had, and that despite the fact he was a slave-holding planter.

Planters in politics. The attachment of the southern planters to the Jeffersonian party at the outset

was logical and in the highest degree significant, for the planters came to be one of the most powerful agrarian interests the world has ever known. The



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country dominated by them was imperial in extent, and varied in topography,—low, maritime plains, diversified uplands, and broad, fertile river valleys.

"In the factor of climate," says Turner, " 'The South' includes the various zones between the latitude of Philadelphia and the southern extremity of Florida—zones that range from a characteristically northern climate to a semi-tropical one." [13] From Pennsylvania's southern boundary and the Ohio river southward, over a belt averaging some two hundred miles wide, the leading industry was tobacco growing, tempered by the addition of grains and livestock. This belt embraced the homes of the two opposed planter-politicians, Jackson and Clay. A second zone, embracing southern North Carolina, the whole of South Carolina, the coasts and red hills of Georgia, and sweeping westward over southern Tennessee, Alabama, Mississippi, Louisiana, Arkansas, Texas and southern Missouri constituted the world's colossal cotton field. Included areas of rice and sugar lands, important in themselves, were so minute in comparison with those devoted to the dominant fiber plant as to modify only slightly this generalization.

Staple crops and foreign markets. The crops raised on the plantations were world staples. The vast bulk of the cotton had to be marketed abroad, mostly in England. Tobacco had always depended upon that market, and rice was shipped to nearly all the countries of Europe. In a word, the South, as her spokesmen have never permitted the nation to forget, was an exporting section dependent for her prosperity upon the advantageous exchange of

[13] F. J. Turner, *The United States, 1830–1850.* Pp. 144–145. N. Y., Holt, 1935.

her agricultural products for the manufactured goods her people required for a civilized life.

By the year 1824 the South produced 800,000 bales of cotton of which the American spindles demanded only a tithe. Three fourths of the aggregate production was taken by England and from it was made most of the cotton goods she supplied to the world at large. She sent to the United States an amount which required in the making five eighths as much raw cotton as was processed by all the American mills. The balance of her imports was paid for by sending back a great variety of manufactures for southern consumption, among which woolens were an important item. Tobacco, cotton, and rice made up $28,500,000 of a total domestic export of $47,000,000, and cotton alone accounted for $20,400,000 of that huge sum. Since these exports were matched by an equivalent volume of imports, which it was to the interest of the exporting area to bring in as nearly free from duty as possible, it is hardly a matter for speculation what attitude the South would be forced to take on the question of a protective tariff.

Southern "common people." Here it is necessary to point out that the South, in its agriculture, was far from being made up solely of plantations. Her people included the planting class of aristocrats, to be sure, but there was in the region a "common people" as well.[14] The vast majority at all times,

[14] Julia A. Flisch, *The Common People of the Old South.* Am. Hist. Assn. Annual Report, 1908, I, 133–142. *Cf.*, however, Robinson, D. M., *From Tillman to Long,* reported on in *Am. Hist. Rev.*, April, 1936, 448–449.

and especially during the period before 1830, was composed of yeomen, small farmers and mountaineers. Geographically, the coastal plain and the tide-water sections of the river valleys, were occupied largely by planters. Intervalley uplands, the extensive piedmont area, and, in fact, the entire old Appalachia, supported a general farming and stock-raising population which as yet was comparatively free from the influence of slavery.

Accordingly, at the year 1816, the South was not a unit in its social organization or its economics, and when the protective tariff bill of that year came up for a vote in congress, the tide-water representatives voted against it; but John C. Calhoun, the leader of up-state or piedmont South Carolina, championed the measure. Calhoun also voted for the rechartering of the national bank and supported the bonus bill for promoting internal improvements. In a word, his politics at that time were distinctly and actively nationalistic.

Cotton and planter politics. To understand the change which came over the spirit of Calhoun's politics in the course of a decade, it is only necessary to recall the enormous spread of the cotton and planting industry during the interval between the close of the War of 1812 and the year 1824. As a boy on his father's farm, John Calhoun had labored in the fields alongside of their one negro boy, Sawney. Later the Calhoun family became extensive cotton growers. So did many of their neighbors of the piedmont, while small farmers sold to the larger

and drifted west either to start plantations in the limitless southern interior or to become farmers in the non-slave region north of the Ohio. The plantation, in short, extended its influence over the entire South and, while the planters always remained a minority of the population, they succeeded in practically unifying southern sentiment on most public questions.

It is a commentary on the political sagacity, tact, and democratic spirit of the planting aristocracy that, with rare exceptions, men of their class were empowered to represent the entire complex agrarian interest of the South in national politics, and as men devoted to agriculture they were frequently relied upon by the West as political allies.[15]

Southern planter statesmen. That representation was of the highest order of ability. The great planters who commanded the votes of farmers large and small, of craftsmen and shop-keepers, professional men, merchants, and aristocrats like themselves were generally men of distinction. Planters as a rule being well educated, since the nominations for the highest offices were customarily controlled by their own class, only those of pronounced fitness through training or experience were apt to be brought forward.

It was doubtless with a view to public service that so large a proportion of the planters became lawyers, and so many lawyers became planters. At all events,

[15] Compare Solon Justus Buck, *The Agrarian Crusade.* New Haven, 1920, p. 24.

it was the usual thing to select congressmen and senators from the planter class and those thus selected were preponderantly men trained in the law.

The southern representatives and senators were not inferior mentally to the choicest specimens from the commercial centers, while these usually had an acknowledged prestige among northern leaders. Men like Rufus King, Webster, Van Buren, William L. Marcy, William H. Seward, Millard Fillmore, and James Buchanan certainly bulked no larger in the national councils than did James Madison, John Randolph, Henry Clay, William H. Crawford, John C. Calhoun, Robert Y. Hayne, and Jefferson Davis. All of the first list were lawyers and of the second all but two. John Randolph "abandoned law for gaiety," as he said, and Jefferson Davis enterd the field of statesmanship from that of war—or more correctly, from that of cotton, for he had left the army and had been a planter for some years before entering public life.

These are men whose names spring to the mind by reason of their pre-eminence. If one were to take a more inclusive roll from the North and compare it with one of equal length from the South, he would probably find fewer men of ordinary mentality in the second than in the first. To put it differently, the agrarian element in the South, enjoying the leadership of the planting aristocracy, was rather more ably represented than the farmers of the North, who had to rely mainly upon local attorneys or, as

frequently happened, small-scale politicians to maintain their interest on the national stage.

Under these circumstances, it was natural that occasions for alliance between the West and the South should occur and the history of political parties, from the days of Jefferson to the Civil war, is punctuated with dramatic illustrations of the way that relationship between the sections affected national politics. Nor is it necessary to close the book at the Civil war, for West and South have frequently acted in concert on agrarian questions since that period.

The unified South. The South, however, after its practical unification under the impulse of cotton planting, which fixed the character of her economics, developed a psychology which was more purely and determinedly agrarian than that of the rapidly changing West, whose affinities came to be increasingly with the industrial Northeast. In other words, the West became the battlefield on which the political South and the political North fought out their differences.

Those differences were fundamental. The North, influenced by finance, and by manufacturing under a protective system, became more and more Hamiltonian in spirit; in fact "out Hamiltoned Hamilton": the South, devoted more and more to staple production depending upon European markets, while professing adherence to Jeffersonian principles, actually pushed these to radical extremes, as in the nullification movement.

The tariff act of 1824 may be taken to mark the point of transition in the South from old-fashioned Jeffersonian democracy to a new view designed to protect the South's peculiar interests which were fundamentally economic but also possessed, in African slavery, a sensitive social factor. The tariff bill was designed to increase duties on cottons, woolens, iron, and some other imports. It held out the promise of direct benefits to wool-growing and hemp-growing farmers, and through the "home-market" argument of Henry Clay, captured the solid support of the West. It naturally commanded the support also of the Middle Atlantic states, and of the manufacturing portion of New England. The shipping interest, however, was still the stronger in that section, so New England's vote was divided, the major part going for free-trade rather than protection. The South, apart from Kentucky, Missouri, and Tennessee in the western section, and Maryland in the east, that is, the "border" states, voted solidly against the tariff bill.[16]

Hayne on the tariff of 1824. In the great debate on that bill no single argument, even that of Webster, who spoke at that time for free-trade or commercial New England, was more searching, thorough, and scholarly than that of Robert Y. Hayne of South Carolina who presents the case of the South more fully than any other speaker. Holding it to be self-evident that "a duty imposed on foreign articles for

[16] Except one vote out of 22 cast by Virginia. See the table in Turner, *Rise of the New West,* 241.

the express purpose of protecting domestic manufacture is a tax on the consumer," Hayne contended that the South, exporting $28,500,000 of the nation's $47,000,000 worth of exports and importing an equivalent amount of foreign goods, was not only paying the major part of the expenses of government, but was contributing millions to enrich the northern manufacturers. To him the modern slogan "the foreigner pays the tax" would have seemed sheer nonsense.

But that was not all, nor the worst of the effects of that bill. "It threatens us [the South]," he said, "with the total loss of our market for cotton, rice, and tobacco. . . . I will borrow the language of a learned writer on this subject and say, 'let gentlemen look to it—they are not threatening us with a system of unjust taxation merely—but with the annihilation of our staple commodities; not with taxation but destruction.' . . . if we do not buy British manufactures she cannot be our customer for the products of our country."

The South Carolina senator added the prophecy, now so amply fulfilled, that the beneficiaries of the protective system would never be satisfied until the government had prohibited the importation of every article capable of being produced at home; that is, until all foreign commerce shall be shut off. He expected to see the time when manufacturers would occupy seats in the senate and they would be sure to demand a monopoly of raw material at their own prices. Hayne lacked the humor to look at home

and recognize that, since planters occupied so many congressional seats at the time, they also might be suspected of seeking the interest of their own class.[17]

Hayne's speech was in excellent temper; he made no threats, but warned that the South at the earliest opportunity would move to repeal the tariff act if it should be adopted, as he expected it would be. He did not predict nullification, which came only six years later. It was John Randolph of Virginia who played the fire-eater on this occasion. "If, under a power to regulate trade," he cried, "you prevent exportation; if, with the most approved spring lancets, you draw the last drop of blood from our veins; if, *secundem artem,* you draw the last shilling from our pockets, what are the checks of the constitution to us? A fig for the constitution! When the scorpion's sting is probing to the quick, shall we stop to chop logic?" [18] In another generation the spirit of that protest would dominate the entire South.

Compromise of 1850. The tariff, tinkered once more in 1828, set off such an eruption in the nullification movement that the planting class were as deeply stirred by it as the western farmers had been by the whisky insurrection. A tariff compromise, engineered by Clay and Calhoun, made an unquiet peace. But, by that time the issue of slavery vexed the relations of the two great sections, gradually

[17] The speech is in Annals of Congress, 18th Cong., 1st sess., I, 618 ff.

[18] Quoted by Turner, *Rise of the New West,* 241–242.

making the farming anti-slavery West suspicious of the planting South. Both sections wanted expansion, but one sought new areas for slave labor, the other for free farmers. The stormy debates over these issues reached their climax in the so-called "compromise" legislation of 1850 when the South's view was stated most clearly by John C. Calhoun, the erstwhile nationalist and later architect of the nullification doctrine. The aged South Carolinian, hero of a hundred senatorial battles, had risen from his death-bed for the occasion and even so he was too weak to read the speech himself. What he had written, however, with the solemnity of a Hebrew prophet was tremendously impressive, however faulty in both history and logic.[19]

His leading thought was that the constitution had been made by and for a nation half slave and half free. But, he contended, "the equilibrium between the two sections, in the Government as it stood when the Constitution was ratified and the Government put in action, has been destroyed." The address is often referred to as the speech on the *Equilibrium*. Calhoun asserted that in 1790 there had been equality in the number of states that had slaves and that had no slaves, practical equality in population, complete equality in the Senate and nearly complete equality in the House. Much of this is very loose history.

The equilibrium. Contrasting the situation with that of half a century later, he found that non-

[19] See his speech of March 4, 1850.

slaveholding states were already in a majority of one and threatening to bring in California, their population was nearly two and a half millions greater than that of the slave states, their congressional representation in a majority of fifty, and their relative weight in the election of president still greater. In a word, the North was in control in Senate, House, and administration. The South had become definitely and unalterably a minority section, subject to whatever fate the majority should at any time be minded to impose. In effect, the South was politically enslaved. Her old time political importance was destroyed.

"Had this destruction been the operation of time," he said, "without the interference of Government, the South would have had no reason to complain; but such was not the fact. It was caused by the legislation of this Government, which was appointed as the common agent of all, and charged with the protection of the interests and security of all." That hostile legislation, he pointed out, embraced acts excluding the South from a large part of the federal territory, enumerating among such acts the Ordinance of 1787, the Missouri Compromise, and the act creating the Territory of Oregon. The recent acquisitions from Mexico were still in dispute, the North contending that the South should be excluded "from every foot of it." In that case the non-slave section would have arrogated to itself, in the aggregate, three fourths of the common territory of the federal union.

The tariff again. The South's second major grievance was that the government, deriving its revenue mainly from import duties, had steadily drained the life-blood from the South because it had been the exporting section of the union and had most of the duties to pay on imports brought in in exchange for the tobacco, cotton, and rice exported.

A federal tyranny. Concentration of power in the general government, through encroachment on the reserved rights of the states was the third count against the dominant partner in the constitutional system. The central government's claim of the right to decide all questions as to the extent of its own powers by its own instrument the supreme court; the claim of a right "to resort to force to maintain whatever power it claims against all opposition"; —these two claims, if made good, rendered the northern-controlled government, with respect to the South, an unlimited tyranny. "What was once a constitutional federal republic, is now converted in reality," says Calhoun, "into one as absolute as that of the Autocrat of Russia, and as despotic in its tendency as any absolute government that ever existed."

It is not necessary to project ourselves more deeply into the discussion as presented in this great effort of the dying leader, whose every word passed as gospel with the controlling element of the South. Northern leaders had no difficulty in exposing fallacies in his reasoning and presenting Calhoun's own record in rebuttal. But his was the voice of the

agrarian South in 1850, and it was stridently aggressive.

The remedy? The conclusion being reached that the national government is a tyranny, Calhoun could expect no safety in future for the minority section, the more so because of the North's ever-growing hostility to its "peculiar institution," African slavery. The union, he held, was in imminent danger. Many bonds, social, religious, commercial had already snapped. The political bond might be the last to break but break it would, unless radical curative measures were applied.

In order to save the union the North must agree to cease agitating the slavery question, and to render up honestly the fugitive slaves. By amending the constitution, the North could restore the equilibrium which the government, by the weight of northern power destroyed, and restore to the South her original equality in the union. "The South asks for justice," he said, "simple justice, and less she ought not to take. She has no compromise to offer but the constitution; and no concession or surrender to make."

Calhoun's discussion of the slavery issue, in the latter part of his address, is of a nature to prove that this had become by 1850, in the minds of the southern leaders, the paramount question. We must remind ourselves that the whole great debate was over the compromise measures designed to settle the problems that emerged after the close of the Mexican war, all of which involved the slavery issue:

The admission of California as a free state; the organization of a New Mexican territory without mention of slavery; compensation to Texas in rectification of her boundary with New Mexico; abolition of the slave-trade in the District of Columbia; and lastly, granting to the South an effective fugitive slave law.

Aftermath of compromise. It is well known how these compromise measures failed in practice, how the slavery expansion issue became complicated by the Nebraska act, the Dred Scott decision, and the springing into power of a new sectional party of northern manufacturers and farmers, allied to prevent a further extension of slavery and favoring the protective-tariff system always regarded as inimical to the South's prosperity. On the other hand, we have the slavery-imperialism of southern leaders like Jefferson Davis,[20] and the various provocative episodes which deepened the hostility of large sections of northern opinion to the southerners even as the North's agitation of the slavery question and her refusal to enforce the fugitive slave act intensified the hostile feelings of the South.[21] The explosion came at last in the form of a calamitous Civil war between an agricultural area devoted to staple productions with slave labor, and a region representing commercial, industrial, and general

[20] William E. Dodd, *Statesmen of the Old South,* Macmillan, 1911. Jefferson Davis.

[21] See a summary of this subject in Webster's seventh of March speech (1850) which was largely a reply to Calhoun who spoke March 4, 1850.

farming interests all united in opposition to slavery.

Causes of the farmers' political crusade.[22] Fortunate was it for the South, as a country crushed by an exhausting four years' war, followed by more than a decade of "reconstruction," that great planters had been numerically but a small portion of her population. As we have seen, the vast majority at all times had been common people and it was these elements upon whom fell the task of saving the South's agriculture after the war. The great planters were ruined, financially and politically. Many leading families were virtually wiped out. Their pauperized and proscribed remnants either fled, mainly to northern cities, or suffered a painful social reclassification. The reign of carpetbagger and "scalawag" left deep scars on the social body as well as on the political and economic life of the South.

Lands of the great plantations were generally sold for a song, either to northern businessmen and speculators or to the neighboring small farmers. The labor system being revolutionized as a result of slave emancipation, farms had to be tilled by their white owners, by the aid of hired negro labor, or rented either to whites or to negroes. In the gradual settlement of affairs it was found that large holdings could be utilized with most immediate profit under the "share-cropping" system, while

[22] The best, most thorough and illuminating treatment of this whole subject is in John D. Hicks, *The Populist Revolt,* U. of Minn. Press, 1931. An admirable brief summary of the same topic is in the older book, *The Agrarian Crusade,* by S. J. Buck, Yale Univ. Press, 1911.

the small farms, as before the war, were generally operated by owner-managers, often with hired help instead of the former slave help. An influx of northern farmers, attracted by the high price of cotton, mingling with the southerners, did something to dislodge the obsession that a white man could not work in the cotton fields. The influence of new machinery was in the same direction. Southern farming, for all these reasons, began to take on some of the features that characterized northern agriculture.

Share-croppers. Yet, great differences persisted and these were exaggerated by the chaotic post-war conditions. Fundamentally, the South remained a one-crop farming region while the older states of the North were diversifying their agriculture. The sudden shift from slave labor to free labor not only failed to promote improvement through change to a more rational tillage but, on account of the prevalence of the share-cropping plan, the single staple crop, cotton, became a veritable incubus of southern farming. The tenant was always in debt to the merchant and was not permitted to raise other crops which might improve his land. He must buy all supplies including commercial fertilizer at excessive prices from his merchant backer and must sell him his cotton at the lowest price. Cotton alone could pay his debts and cotton he must raise. The share-cropper, in a word, has a tread-mill existence. No longer a bond slave, he is in most respects a serf, though enjoying the right to run away from the land which supplies his meagre living, and,

on the other hand, being subject to eviction at the end of any crop year.

The white farmers of the South suffered from the lack of credit facilities only less than the black share-croppers. The prevailing method of financing their operations, till toward the close of the century, was through the merchants who thereby controlled all purchases and charged heavily for services rendered. Briefly, an uneconomic merchandizing and banking system hung like a pall over southern farmers.

Transportation and prices. To this disadvantage was added the heavy cost of transportation, due in part to the inefficient railroad system of that region as compared with the North, and in part to the general railroad policy of the times. As a cap-sheaf for his varied miseries, the southern farmer continued to feel the injustice of the protective tariff which added to the cost of all his imports while his productions—all exports—had to be sold in a free-trade market.

The post-war scarcity prices for cotton lasted only a short time. Then set in a general persistent and fateful decline which, in the period of 1894–1897 became less than six cents. Southern farmers, long before that point was reached, were in despair. They had nothing to look forward to but universal bankruptcy. Taxes were necessarily high if the destruction due to the war was to be repaired, and reconstruction orgies of expenditure made them needlessly heavy. Yet they felt that, at the same time,

the financial system of the country, based on gold, was punishing them still farther through the appreciation of that metal.

Farming the dry plains. The sympathy between South and West in pre-war times, which often led to common action in politics, had been seriously disturbed when the two sections parted company over the slavery question. Since the war, however, another West was building up between which and the South similarity of economic and social problems finally created bonds of sympathy that led to practical co-operation in politics. The vast plains west of the Missouri, penetrated by speculative railroads whose profits depended on bringing in settlers at the most rapid rate possible, literally sprang to a new life between 1866 and 1886. The plains and plateaus of Kansas, Nebraska, western Iowa and Missouri, Dakota, Montana, Wyoming, and Colorado received farming settlers by the hundred thousands, all bent on growing wheat and corn and all dependent for every pound of freight, sent or received, upon the railroads. And these railroads charged "what the traffic would bear."

The myriads who went west in the heyday of homesteading because "Uncle Sam is rich enough to give us all a farm" were greedy for the wealth to be extracted so easily from the ready-to-plow openlands. They needed financing and eastern investors eagerly sent bags of money to be exchanged for mortgages on western farms. Pre-emptions had to be paid for, houses built, machinery purchased,

stock acquired or improved. But riches were just ahead, so why not borrow the limit and live well while treading the road to opulence! The subsistence farming idea was with these people very much in abeyance.

Unfortunately, the road to riches had many a turning. Grasshoppers ate up the crops. Hot winds blasted them. Chinch bugs killed the wheat in the milk stage. Finally a decade of drought years depopulated whole counties and reduced whole states.

Railroad vs. *farmer.* Those who remained, occupiers of the better lands in the more favorably located districts, struggled against fearful odds to maintain their hold on farms into which had gone the labor and sacrifice of the family. That struggle, all too often unavailing, embittered an entire generation of American farmers scattered over an area larger than Europe. They could raise wheat and corn more cheaply than any other farmers of the whole world. But to what end if freight charges left their corn so worthless that it was more profitable to burn it for fuel than to haul it to market; if wheat which cost fifty cents a bushel to grow had to be sold for forty-five cents.

Here, again, because the surplus wheat had to be exported, the market price was fixed in Liverpool as was the price of cotton. On the other hand, the farmer's cotton goods, woolens, iron, lumber, shoes, even the coffin in which he was to be buried, paid a protective duty to an American manufacturer, or else paid a tribute to some monopoly. That at least

is the way the situation impressed the poor farmers of the big, attractive, but cruel open plains. Meantime his mortgage was growing heavier year by year, as the value of gold, in terms of products, appreciated.

Discontent and ruin. The western farmer, like the southern farmer, became desperate and for essentially the same reasons. He felt that "every man's hand"—the merchant's, the money lender's, the elevator manager's, the railroad director's, the manufacturer's, and even the statesman's—was against him. Thus far, his hand had not been against others. His vote, in the main, had continued to swell the Republican majorities to which he had begun to contribute before the war as a friend of human liberty, and during the war because that was the party of the Homestead act, of Lincoln and of his eastern creditors and customers. He had often doubted the virtue of the protective tariff as a remedy for agricultural distress, but his party and financial backers had been for it and these wise men should know best. Certainly he favored building up as much of a home-market as possible, and felt benefited, he knew not exactly why, by every new industry that came to the nearest city. He had been told that the price of wheat was low because too many and too great wheat fields had been opened suddenly, both by extension of cultivation everywhere and the creation of new transport facilities. That might be true. He was only certain that the interest on his loan would devour the profit

on his wheat crop and that the mortgage holder would surely foreclose and take his all. When a western congressman computed a profit to the Dakota farmer at forty cents per bushel for wheat, that farmer vented upon the upstart both wrath and ridicule.[23]

Political remedies. No! He would never win solvency by raising forty-cent wheat. In fact, he would never save himself except by drastic measures. Debts must be scaled down; interest rates must be reduced; the means of making reasonable loans must be improved. Briefly, the fundamental question, as in western Massachusetts a century earlier, in western Pennsylvania a few years later, in the cotton South at that very time—the fundamental question was one of *finance.*

That the economics of finance is one of the most complicated of problems the world now agrees. In the last decade of the nineteenth century eastern people, who mistook unreflecting party orthodoxy for financial wisdom, abused those of the West and South as hair-brained cranks because they were not orthodox. The latter were not necessarily right, but they at least exercised their brains on the financial problem. Possibly, like a child that falls into deep water, they instinctively made the very motions which insured their drowning in the unfamiliar element. However, having learned the art of social co-operation through the grange, the farmers' union, the alliance, and other farmers' movements begin-

[23] The farmers called him "forty-cent Johnson."

ning about the close of the war, the stage was set for one of the most widespread "adult education" campaigns in the history of any nation.

Farmers take to study. Farmers, their wives and grown children, traversing the dusty or muddy prairie roads with team and wagon, would meet one afternoon a week at a designated farmhouse and spend several hours in discussion under such leadership as the community might afford. Of course, it was propagandist study, not scientific graduate-school investigation. What these people wanted was to learn to master the arguments on their side! Why should the government issue legal-tender money direct to farmers, at a low interest rate, secured by land, instead of permitting national banks to issue it on their government bonds at a high rate? Why should the government own and operate the railroads, and open to entry the millions of acres of land bestowed as a bonus upon the railroad companies? Why should monopoly be curbed and how would the lowering of the tariff help? Since silver had always been equal to gold as a basic money-metal prior to "the crime of '73," and since there was apparent need of a larger supply of basic money, why should not the free-coinage of silver at the old ratio of sixteen-to-one be resumed?

Had the agricultural depression in the West and South been a temporary or short-lived phenomenon, the agitation would doubtless have evaporated. But ten years is a long time, long enough to ruin a generation, and the generation which came on the stage

after the close of the Civil war had no mind to allow itself to sink into virtual serfdom. Since the only way to help themselves was through politics, they combined for political action. The resulting Populist party gave the reigning politicians the third great scare of the century, the first being the triumph of Thomas Jefferson in 1800, the second that of Andrew Jackson in 1828. The revolt of the South in 1860 was a movement more sinister than a political scare.

Populism—its achievements. While they did not actually carry a presidential election, the Populists did win a temporary balance of power in congress and, in a fusion with the silver-Democrats in 1896, they barely missed sending William Jennings Bryan to the White House. Their real triumph, however, lay in compelling the liberalization of the policies of both great parties. The Bryan Democracy became the more effective Wilson Democracy, which gave the country banking reform and other benefits. The Republican party largely deserted to Theodore Roosevelt in 1912, on a platform featuring many Populist ideas, some of which it has retained.

Chapter VIII

THE OUTLOOK FOR FARMERS

A quarter century of change. Theodore Roosevelt, in submitting to congress the report of his Country Life Commission, February, 1909, wrote: "Judging by thirty public hearings to which farmers from forty states and territories came, and from 120,000 answers to printed questions sent out by the Department of Agriculture, the Commission finds that the general level of country life is high compared with any previous time or with any other land."

Making due allowance for the imperfections of the evidence on which the statement was based, and the circumstance that it was intended for public consumption, it summarized fairly the considered appraisal of farm conditions by a group of men who ranked high among students of the rural life problem. While both the time allowed them and the funds provided were too limited to permit of a thoroughgoing, scientific survey, it would not have been easy to pick seven men who were better equipped to gain valuable views from the very general inquiry they were able to make.[1]

[1] Liberty Hyde Bailey, of Cornell, was chairman of the Commission. The other members were Kenyon L. Butterfield, Henry Wallace, C. S. Barrett, Gifford Pinchot, Walter Hines Page, and W. A. Beard.

The verdict is couched in relative, not absolute, terms; the commissioners represented ideals of life for the farming community which as yet had been realized by only a small minority of American farmers. Great numbers, they found, had incomes that were quite too small to serve as the basis for a good life, and other multitudes did not know how to live well even with an adequate income. Their second summary, covering shortcomings, is therefore rather more significant than the first. They say: "The farming interest is not, as a whole, receiving the full reward to which it is entitled, nor has country life attained to anywhere near its possibilities of attractiveness and comfort."

Farm prosperity. When this report was written, American farmers were in the enjoyment of that full tide of prosperity which began in 1897 following a quarter century of hard times. Farm prices had been going up either because of settled monetary policy, as some held, because of a new flood of gold from Alaskan and Klondike mines, or for those and other reasons.[2] At all events, farmers were considered so prosperous that the value of farm lands—all land in farms—had risen during the decade 1900 to 1910 from an average of $19.30 per acre to $39.50 or slightly more than 100 percent.[3]

This shows, to be sure, that farm land was be-

[2] New mining processes, like the cayanide process, were perhaps equally important with new sources of gold supply; and still other causes of prosperity have been pointed out.

[3] *Cf.* Statistical Abstract of the United States, 1914, pp. 119, 122.

ginning to have a scarcity value, but there is no scarcity in an article that people do not want, and they wanted farms because farming in that period was profitable. Moreover, it continued to be profitable—very profitable—for another full decade. During the years of the great war, 1914 to 1919, the growing of nearly all food and fiber crops, at war prices, while much more expensive than formerly, made farming more profitable than it had ever been.

As a natural consequence, land prices rose to unheard-of heights. During the summer of 1919 good cornland in Iowa and Illinois was selling freely at $300 per acre and many farms brought $350. Some went to $400 and even $600 per acre. Similar if not equal prices prevailed in other states. Wheat farmers, cotton farmers, dairy farmers, all had their too brief year of jubilee when they knew themselves to have come into their own once more. Thousands sold out, taking part payment down with a mortgage to secure the major part of the purchase money. They expected to live at their ease, depending for income upon the interest and installment payments agreed upon.

The agricultural depression. Then, in the summer of 1920, all prices of farm produce dropped to about one half what they had been. The purchasers of farms at the inflated war prices were crushed. So were their backers, the local banks, among which, beginning in 1921, the country experienced an "uninterrupted sequence of failures" so that, by 1929, 5,515 fewer banks existed than there had been in

1920.[4] Country banks literally fell by the hundreds and along with them fell thousands of farmers.

We think of the great depression as beginning with the securities crash of October, 1929. But the farmers of America had already experienced nine years of ruinously low prices when that calamity broke upon the cities, a period nearly as long and more universally destructive than the drought and grass-hopper era in the far West which ushered in the Populist crusade. Some states and regions were harder hit than others, and in general the foresighted "good farmer" who owned his land and kept out of debt was safe, though even he had no chance to make money. On the other hand, those whose farms were mortgaged, a steadily mounting proportion, found it increasingly hard to pay both interest and taxes, more and more of them going into bankruptcy every year.

Psychological effects. Episodes from our earlier history show what conditions favor an uprising of the rural masses. Shays' rebellion, the Whisky insurrection, the revolt of the planting South, and the later populism were all movements in which debt and hard times, coupled with real or fancied grievances, caused social explosions. Surely it is not surprising that this latest distressful period should have given rise to farm holiday associations, which was an attempt to boycott the city users of general farm products; and to strikes for the purpose of getting

[4] *Recent Social Trends,* 2 vols. McGraw-Hill, New York, 1933, p. 262.

better prices for milk. One phase of the farmer protest took the form of nullifying court decrees ordering the sale of farm property to satisfy mortgage foreclosure judgments. In numerous instances neighboring farmers assembled at the premises and, forcibly preventing free bidding, caused the property to be knocked down to one of themselves for a mere song to be then turned back to the original owner. Country people have long memories, or else like occasions suggest like reactions. They may have harked back to the pioneer land-claim days when, in order to eliminate the speculator, claimants united to prevent free bidding at the land offices and secured for each his chosen claim at the minimum government price. The Shays rebels, too, were bent on preventing their fellows from being sold up, but they had had no such experience as the western claim-makers. Their method, a doubly dangerous one, was to prevent the sitting of the courts. Our present-day rural malcontents never went to that extreme, though a group of over-excited farmers in Iowa on one occasion did lay violent hands upon a judge.

The great mass of American farmers condemned such excesses. No class of people is more devoted to law and order, and the disturbances we have described were the acts of what the late Theodore Roosevelt would have called "the lunatic fringe." They show, however, what was the drift of popular sentiment and we may be sure that where one farmer was ready to resort to discreditable methods,

a hundred were wrought-up to seek redress of grievances by peaceful means, even if these might be considered radical. The political approach to the solution of their problem, as in the Populist period, was the one the great majority of farmers favored and, as in the earlier case, the question of party was submerged in the deeper question of whether farmers could manage to survive as freemen under American conditions.

Pessimistic views. Nor was it only farmers who, in the bitterness of defeat and the seeming futility of efforts for relief, indulged these gloomy forebodings. One prominent historian concluded a calm and philosophical analysis of the problem with this carefully considered statement: "The time may come when the rigid demands that consume the surplus will leave to the working farmer who makes it as little freedom as he had in feudal France, and as unsafe an existence as the slave possessed upon the estates of ancient Rome. The American farmer has assumed too completely that his scale of life is a necessary and eternal matter . . . And no program based upon the assumption that the American farmer type can be made to last forever can be anything but a misleading disappointment if the facts should establish it that the food producer, by the nature of his job, has always lived on the margin of subsistence and always must." [5]

[5] Frederick L. Paxson, *The Agricultural Surplus: a Problem in History.* Agricultural History VI, No. 2, April, 1932.

Whether food producers in the past, except in the United States, have always lived at the subsistence margin is a question for history; whether they "always must," as the author quoted seems to assume, is a problem mainly outside the domain of history—a problem of economics. It is on all fours with the earlier problem of the subsistence wages of labor which early nineteenth century economists so confidently settled, on the basis of a supposed natural law, only to be proved wrong when labor itself, under the impulsion of democracy, began organizing to secure a larger share of the industrial product.

Cause for pessimism: the share-croppers. Abundant cause for pessimism existed when the above sentiment was uttered, at the close of the year 1931. The country was almost at the nadir of its collapsed and ruined economy, both agricultural and industrial. More than a fourth part of the farmers, by count, the southern share-croppers, had fallen back into the same state of wretchedness and peonage in which Populism had found them and into which a few warming rays of the later prosperity had penetrated. Most of these people, of whom one-third are negroes, the balance whites, were still growing cotton as in the eighties and nineties of last century and they are so bound by contract and by debt to the owners of the lands they till that they must go on helplessly, growing little beside cotton year after year. Their income, recognized by the Country Life Commission as being quite too small to provide a decent living, is believed to

be, on the average, hardly $200 per family. And since their landlords commonly maintain commissary stores from which they are obliged to buy all supplies, at exorbitant prices, even that pittance is further reduced in its buying power.

It is manifestly impossible to regard American farm conditions as other than precarious as long as the share-cropping system holds sway over the lives of so large a proportion of the nation's farmers. The remedy proposed, by social-minded southern leaders, is for the national government to acquire the lands from present owners and parcel them out, on the homestead principle, and upon easy terms, to the cultivators.[6]

The real American farmer. But the southern share-cropper is not the normal American farmer. He is one of the bitter fruits of Civil war and reconstruction, engrafted upon the deformed stem of slavery. It was slavery that created the "poor white" class from which the share-croppers are mainly recruited; because it made labor seem degrading to white men, and it was the breakup of slavery that released negroes for the new form of unfree life to which the share-cropper has been condemned. This type of farmer, to a large extent ignorant, vicious and diseased, if not in his utter hopelessness completely apathetic to life, constitutes one of the major social problems of America. All ranks and conditions of people are concerned in its solu-

[6] C. T. Carpenter, *King Cotton's Slaves*, Scribner, Oct. 1935. *Cf. America's Capacity to Consume*, Table, p. 173.

tion. It is no more exclusively a farm problem than the emancipation of women from sweat-shop conditions is purely a labor problem. Nor do the share-croppers represent the American farming class more fully than slum garment piece-workers represent American labor. The one, like the other, is a phenomenon quite out of harmony with the ideals and the deeper trends of American life.

The real American farmer—the farmer of tradition and of daily observation everywhere in the northern states and over great areas of the South, we cannot too often repeat—is in the truest sense a free man.[7] His essential character remains unchanged by the vicissitudes of "hard times," either those of the late nineteenth century or those of the present generation. The verdict of Theodore Roosevelt's commission, in 1909, that this farmer was in better case than he had been "in any previous time" was not a false judgment, and it encourages the hope that he will weather future depressions without suffering a serious loss of morale.

Conditions of co-operation have changed. But, while this farmer remains as determined a freeman as ever, the conditions under which he lives have become, in the past quarter century, much more favorable to united action among farmers in behalf of their own class. In 1909 it was still felt that the farmer was the "separate man," suffering through

[7] In 1930 there were 1,720,961 "full owners" (owning entire farms) in the northern states and 1,190,683 in the southern states. In the North 56 + per cent were owners, in the South 36 — per cent.

the fact that he stood alone while other classes, particularly the industrial, organized to secure their common interests, discriminated against him. The farmer was helpless for the very reason that emphasized his independence, because he was isolated. Co-operation with his fellows could occur, as it did in the nineties, but only at a heavy sacrifice of time, effort, and patience.

When city dwellers sense a grievance that ought to be removed, someone with a voice of authorative sound calls a meeting at Carnegie Hall, or its equivalent, all who are interested attend, speakers discuss, and the assembly passes resolutions, raises funds, appoints committees, in short, does what may be necessary in the circumstances. But farmers, in a like case, have first to overcome the initial difficulty of getting together. The Populists did this by driving with team and wagon, often many miles over dusty or muddy roads, and at best they were able to assemble in a given spot only a few hundred souls. To a great extent final actions had to be taken by thinly attended representations of local groups.

All this has profoundly changed since 1896; indeed a new age of communication has been inaugurated since the Country Life Commission, in the hearings conducted in 1908 and 1909, learned about the farmers' eagerness for good roads, the extension of rural free mail delivery, and the parcel post. Adding these to what they already had in the railway, telegraph, and telephone, and superadding the radio receiving apparatus, we bring the farmers'

equipment for communication down to the moment.

Good roads—how secured. One of those hoped-for benefits, good roads, has been realized almost miraculously, and obviously, no single social improvement equals this in its influence upon farm life. Americans whose memories reach back to the nineties of last century will recall how farm homes in most states were beleaguered by mud several months in the year, and that in dry weather, what with sand, dust, ruts, erosions, and hills hardly a single ten mile stretch of country road was at all points suited to the hauling of heavy loads or to moderately fast driving. Local control made anything like uniformity, or the application of scientific knowledge, in building and upkeep of highways impossible. With only local exceptions, America, from this viewpoint, was a land cursed with universal obstacles to communication from which the farmers suffered most.[8]

Academic consideration of road improvement we always had, from the days of Macadam and Telford, and in the eighties writers on civics made that subject a major topic for class discussion.[9] But the dynamics of the subject entered by a different route. There was a league of American wheelmen, or bicyclists whose far-roving members at annual gatherings told of the delights of wheeling in England, France, the Black Forest, and elsewhere in Europe.

[8] Of course, the railway and telegraph systems were relatively perfect, so that communication over great distances was perhaps simpler than in other lands.

[9] See, for example, Jesse Macy, *Our Government*, 1886.

In 1892, at the Chicago World's Fair meeting, these wheelmen organized the National League for Good Roads.[10]

Fortunately, not long thereafter the American world began to ride in motorized vehicles running, as did the bicycles upon pneumatic tires. It is hardly an exaggeration to say that chief credit for the wizardry with which the bad roads of yesterday were exchanged for a system which today yields to the tourist nearly a million miles of hardsurfaced highways must go to the inventors and manufacturers of automobiles, particularly the inexpensive kinds. To be sure, everybody helped—the farmer who had produce to market, the merchant who wanted his trade, the politician who wanted his vote, and the banker interested in finance. Legislatures reformed the road laws radically, state engineers took charge of building, counties initiated patrols for the constant repair and upkeep of roads. Property owners were willing to pay taxes so long as they saw material advantages flowing from the road building activity.

Once a large proportion of the people in any state had become "motor-minded" in this specialized sense, it became a simple matter to raise money for good roads through motor licenses, a tax on gasolene, or by means of loans. In a word, the users of improved highways have generally been willing to pay for building and maintaining them, especially the roads that are of local importance. At the same time,

[10] Frederic G. Young, *Tendencies in Road Legislation,* Univ. of Oregon, 1905.

the federal government has contributed from its treasury hundreds of millions for the trunk lines which now bind all parts of the nation together—roads like U. S. highway 10, which connects Detroit, Michigan, with Seattle, Washington, and U. S. 20, begun at Boston in the "effete East" and terminated for the present at Caspar, Wyoming, the wildest of the "wild West," the place where the Virginian killed Trampas, according to the popular cowboy story of Owen Wister. But the greatest of all is U. S. 40, which joins New York harbor on the Atlantic to the Golden Gate on the Pacific, three thousand miles to the westward. Pouring out billions in the form of concrete for the making of roads, America has achieved in a single generation a transformation such as no other nation has accomplished in a similar period.

Their effect on the farmer. Good roads and universal motoring have made over many features of farm and country life. They have altered space relations fundamentally, bringing farmers closer together, and closer to towns, cities, churches, granges, picnic grounds and parks. They have multiplied many times the average farm family's travel range, thus enriching life in various ways. To be sure, this generally beneficent new agency has seriously injured many local villages, and has eliminated the hamlets as trading points for a limited countryside. It has caused the dismantling of a multitude of the country churches by making the more distant larger towns accessible for trade, worship, and

recreation. However, the change from rural to village or city church may perhaps make possible the very advance in the religious influence that reformers hoped would be brought about by strengthening the rural churches. It has caused a notable shift villageward in school matters.

Motor freighting, or trucking, has brought about changes almost as great as motor travel. It has served the farmer well by reducing the cost of marketing fruit and vegetables, swine, milk, and even cattle. But, among new transportation problems, it menaces the railways because country roads being now fit to bear heavy freight traffic, truck lines can successfully compete with railroads for short hauls and medium-length hauls; for some purposes, long hauls. With passenger business cut down by cars and buses, and freight by the trucks, the erstwhile arrogant but highly efficient public carriers are now in a precarious condition. It is a strange commentary on the tricks fate can play with men and institutions to find that the federal government, which in the seventies, eighties, and nineties was being so piteously importuned to come to the aid of the poor farmer against the oppressive railroad, is now being implored to save the poor railroad. The persistent depression is of course a major factor in the railroad's present plight, but the motor car and truck, together with good roads, have inaugurated a wholly new phase in transportation history which time alone can fully elucidate.

If it is difficult to describe, for those of a later

era, the full meaning of the change in the externals of farm life, due to good roads and motorization, the change in its spirit can only be imagined. But the realization that the old isolation has been overcome, and that the farm, once fixed in the monotonous, work-a-day open country, has virtually shifted to town or city suburb; the feeling that the possession and use of a car democratizes the thronging life of the highway; above all, the ability at long last to shop where he likes, and to take vacations at points remote from home, amid new scenes and different people—all these ideas and reflections must have produced a subtle change in the farmer's psychology. If, as some have observed, the farmer today resembles the villager more closely than before and the villager the city man, motor car and good roads should have much of the credit.

No doubt evils as well as benefits have resulted. The general banishment of the horse from the highway by motor vehicles and the tractor's limiting of his use in the field, have deranged the farmer's production schedule and his markets. The unwise financing of motor cars and tractors has contributed to the failure of thousands of farmers. The new car, in far too many instances, has proved a destructive temptation to the young. But, in addition to other advantages, it has made country boys and men mechanical and given country girls and women a new feeling of independence. Above all, good roads and the motor car have reduced, almost to the vanishing point, the farmers' difficulties of united action

due to isolation. One does not exaggerate in saying that county meetings today are but little more difficult to reach than school district meetings were thirty years ago; and farmers in most states think nothing of driving to the state capital or, from many parts of the country, to Washington.

Other modernizing influences. Highway development is not the only means by which during the generation the farmer's life has been modernized. His common-school has been "redirected and vitalized" to some extent, particularly through the considerable progress in consolidation of districts, and union of rural schools with village schools. A vastly larger proportion of farmers today have had the equivalent of high school training than was true a quarter century ago, library service has partly caught up with rural needs and, due to the federal appropriations under the Smith-Hughes act, many high schools, in addition to the sixty-nine agricultural colleges, are now providing instruction in agriculture. More important as yet is the instruction of active farmers through the college and experiment station administered by a federally financed extension force in every county of every state. Through these means, the farmer's week gatherings, the farm bureau, or grange, the personal conferences with the county agent and the federal and state farm bulletins, the farmer of today is virtually certain to keep somewhere near the firing line in regard to public affairs affecting his class.

Will the farmer fight? Considering the new background of farm life resulting from the recent social movements here noted, there would hardly seem to be imminent danger of the American farmer permitting himself to be enslaved. When even the down-trodden share-cropper of the South can respond to leadership like that of the truculent but virile, able and clamorous Huey Long, whose now vacant dukedom will doubtless be usurped by another, the case of the upstanding free farmers north and south cannot be quite desperate. One can at least infer from the political movements among them, induced by the agricultural depression, that the old freemen's fighting spirit has suffered no paralysis. While the farmer is a law-abiding citizen, there is a limit to his patience as recent events have shown, and in political battle-array he is no longer negligible. For, partyism rules his conduct less and less, and his self-helpfulness has increased incalculably through the new means of association with his fellows. Let us see how the farmer, thus newly implemented for political conflict, has up to now dealt with the most complicated farm problem this country has had to solve since the time, more than a century ago, when Henry Clay in the days following the Napoleonic wars, advocated his American System.

The surplus. The modern farm problem was precipitated by the deflation of prices after the peace. It was evident, of course, that the expansion of the cultivated area by nearly 50,000,000 acres, that took

place under the reign of high prices during the war years, had had much to do with the price drop after the war. But it had been a simpler matter to expand than it proved to be to contract. Growing-pains have their compensation while compression is merely a painful process. Having broken up pasture and meadow land, or cleared forested acres at heavy cost on the assurance that "food will win the war," farmers naturally wanted to continue to use that land for cropping.

This meant great surpluses in crops grown most intensively during the war, cotton, wheat, corn and hogs, and the problem forced upon legislators by farmers was to find some way of dealing with this surplus that might save them from a ruinous price for their entire crop. In plain English, the farmers asked for laws that would give them a profitable price for what they produced on excessively high priced land with high cost labor.

McNary-Haugen bill. The first answer was the McNary-Haugen bill, an extremely complicated piece of legislation designed to maintain, at a level high enough to pay profits on production, the prices of such portions of basic crops like wheat as are sold to supply the home market. This would be done by impounding the surplus of any such crop, selling it abroad at the world price, and taking an "equalization fee" from those profiting from the higher home market price to make up the difference to exporters. The bill was discussed and modified at several sessions, but it was in this form when it passed con-

gress the first time in the session of 1927 and was vetoed by President Coolidge.

In his veto message the President said: "The bill will not succeed in providing a practical method of controlling the agricultural surplus, which lies at the heart of the whole problem. In the matter of controlling output, the farmer is at a disadvantage as compared with the manufacturer. The latter is better able to gauge his market, and in the face of falling prices, can reduce production." He pointed out that the bill not only would have no agency in reducing production but, by raising prices would stimulate further over-production. Other objections, constitutional and practical, were both numerous and searching, but the above quotation indicates that the President was armed with the central economic argument to prove the measure unsound and unworkable.[11]

The Federal Farm Board. A detail of this proposed plan, brought forward politically as of major importance, the Federal Farm Board, whose function was to secure "orderly marketing" and "price stabilization" of farm productions, was later passed into law and signed by President Hoover June 15, 1929. The law was intended, as stated in section 1, "to promote the effective merchandizing of agricultural commodities in inter-state and foreign com-

[11] For a full discussion of the subject in all its phases see James E. Boyle, *Farm Relief,* New York (Doubleday), 1928. An appendix presents a brief discussion of the Export Debenture plan of farm relief proposed as an alternative to the McNary-Haugen bill but lacking in popularity.

merce, so that the industry of agriculture will be placed on a basis of economic equality with other industries . . ." The Board was to accomplish the desired result by minimizing speculation, preventing inefficient and wasteful methods of distribution, encouraging producers to organize effective associations and—significantly: "by aiding in preventing and controlling surpluses in any agricultural commodity, through orderly production and distribution, so as to maintain advantageous domestic markets and prevent such surplus from causing undue and excessive fluctuations or depressions in prices for the commodity." [12]

The Board did promote co-operation in buying and selling, but the only comment on its operations that is needed to prove its failure as respects the control of the surplus would be a schedule of prices of farm productions during the period from 1929 to 1933. Even that is superfluous, for everyone remembers the dark days of the marketing season of 1932 when wheat brought the farmer thirty-five cents per bushel, corn six to ten cents, live hogs three cents per pound, cotton five or six cents per pound. The Board learned, what economists had foretold, that "orderly marketing" is no remedy for a high cost surplus—that the crop itself, not the method of its sale, determines its value. In other words, as long as an actual surplus exists, no merchandizing hocus-pocus can seriously affect prices.

[12] A full discussion of the law is in Stokdyk and West, *The Farm Board,* N. Y., 1930.

The New Deal. The latest attempt to improve the farm situation is the agricultural adjustment act approved May 12, 1933, the formal creation of the Roosevelt New Deal Congress, but the actual proposal of Henry A. Wallace, secretary of agriculture.[13] The theory of the act is that a disparity existed between prices of farm products and prices of industrial products which put the farmer at a disadvantage and limited his buying power. This indirectly affected other classes. It reduced industrial employment, "disrupted commerce, and weakened the nation's credit structure."[14] The disparity occurred, as the sponsor of the measure contends, for a reason which President Coolidge so clearly stated in his message vetoing the first McNary-Haugen bill, because "in the face of a decreased market, agriculture did not bring its production down as rapidly as industry did."[15]

In order to bring production into harmony with the practical demand, the act gave the secretary of agriculture power to lease and take out of production land enough to remove the surplus of given crops, like cotton, wheat and corn. He might and did buy and slaughter pigs and brood sows to reduce the pork crop, and bought dairy products to be consumed by persons on the relief rolls. As in the case of the McNary-Haugen plan, or any of the others, the cost of the adjustment operations,

[13] The paternity of the idea is generally ascribed to W. J. Spillman.

[14] Report of the Secretary of Agriculture, 1933.

[15] *Ibid.*

which is very large, falls upon the ultimate consumer.

Criticism of the triple "A." The policy and working of the act, being flatly contrary to American tradition, have called out much criticism. People read of the killing of young pigs with horror. They condemn a policy which aims to produce scarcity when millions in this country and in other countries are crying for food. More than all, probably, they criticise the method of securing results which is to line up the farmers—"regiment" is the term of reproach used—by contracting with each to limit his crop, to plant this or that on the unused ground or to let it grow up in weeds. It is also argued that, by limiting crops customarily sold abroad in large part, this nation is in effect encouraging similar production in other countries which will thereby supplant us in the world market.

The last named argument applies with special force to cotton, the cultivation of which is reported to be expanding in Brazil, India, Egypt, and elsewhere in a proportion exceeding that of the American crop limitation. Whether a longer experience with such a policy will prove this a fatal defect remains to be seen. We have, however, still to learn whether an act of this general character can be squared with the constitution for the A. A. A. has been declared to be violative of the instrument.[16] Meantime, whatever objections one may feel or express, one thing is in its favor: It seems to have

[16] In an opinion handed down January 6, 1936.

worked as intended. It has actually been a factor in raising prices of the farmer's produce and improving his relative economic position in society.

Defense of production limitation. The larger question of policy, as would be expected, is answered differently by different classes and parties. The farmer, naturally, wants his better prices if they enable him to make a larger net income, even though, like any manufacturer, he dislikes to limit his production. To the complaint of consumers he replies that, for many years, farm prices had been out of harmony with prices of the industrial products the farmer had to buy, at the cost of at least sixty percent of his normal income, and now that he begins to receive a more nearly fair proportion of the national income, the other elements of the population should not begrudge it to him—especially since, in effect, according to the men now in charge of political affairs, it enables him to prime the pump of the nation's prosperity.

The farmer also uses another argument. If the creation of artificial scarcity in farm economy is immoral, so is the creation of artificial scarcity in an industrial economy. The latter we have had with us ever since the inauguration of the federal government in the protective tariff laws. These laws were intended to create an artificial scarcity by cutting off a part of the supply—namely, that part which would naturally come in from other countries—in order to raise prices for the benefit of the American manufacturer. Even Hamilton, father of the pro-

tective system, admitted "that measures which serve to abridge the free competition of foreign articles have a tendency to occasion an enhancement of prices." [17] If, therefore, the "general welfare" justified the guaranteeing of prosperity to manufacturers, the general welfare will also justify the attempt to make farmers prosperous. In the one case as in the other, the benefits are widely diffused through the community.

It is also argued that, aside from tariff-created scarcity and partly through its influence, trusts and monopolies have grown up to such an extent that they now control virtually all lines of industrial production, and that the creation of artificial scarcity is the approved method of maintaining profits or checking losses among all such concerns. The manufacturer's method of reducing output, however, is to turn off a part of his workers while the farmer, using mainly family labor, has to support his labor force in bad times as well as good. If, through easy combination, industries may create scarcity, says the farmer, surely the farmer, whose ability to combine is far weaker, should not be denied that privilege.

The home-market once more. For almost the first time in a century, America has experienced a widespread sentiment favoring a self-sufficing national economy. Henry Clay's "American System," proposed in 1824 to solve the problem of marketing America's surplus agricultural products, which went begging after the close of the Napoleonic wars,

[17] Report on Industry and Commerce, *Works*, III, 351. He contends, however, that "the fact does not uniformly correspond with the theory."

seems less bizarre today with the farm population less than half its then proportion and with the doors of foreign trade barely ajar. Far-reaching readjustments would be called for were a strict "home-market" policy to be enforced, and doubtless it would cause much suffering among farm people, at least for a time. The situation would appear to call for international accords, monetary and commercial, and a freer interchange of goods with other nations rather than exclusive reliance upon the home market. That such a policy is comprehended in the New Deal as it affects agriculture may not only be inferred from utterances of Secretary Wallace, the President, and other leaders, but though halting and perhaps not too promising quantitively, such efforts are at least begun in our recent trade agreements with Belgium, Brazil, Canada, and other countries.

The farmer as a favor-hunter. The emergence of the farmer among the groups demanding and receiving government favors, such as we have described, injects a new factor into American politics whose importance cannot be over-estimated. It will certainly result in making the rural element a more coherent and effective body. Organization for a wheat reduction program, a cotton reduction program, or a corn-hog program involves a previously undreamed-of activity for bringing farmers together.[18] School district, township, county, state,

[18] "Even though," says Professor B. H. Hibbard, "such coming together is thus far co-operating with the government rather than with one another." See, for example, Corn-Hog Administration in Iowa, by Richard H. Roberts, in Iowa Jour. of Hist. & Politics, Oct. '35.

and national meetings are needed to perfect such programs. Leaders are found on every plane who thereafter function with more confidence and individual farmers become readier to co-operate in large general undertakings. The automobile and good roads render conventions and conferences accessible to ever larger representations of farmers, and the radio practically removes all limits from leadership.

Up to this point the effect is beneficial. The evil is in the dangerous addition to the already vast horde of expectant waiters upon government bounty. If the end result is to be a good one, it will probably be on the principle that fevers must run their course before they can be cured. It is barely possible that largess to farmers, as one of the last classes of society to gain such favors, may call sharp enough attention to questionable trends that have persisted for many years to persuade society to make profound changes all along the line. Indeed, report has it that western farmers are raising a fund to fight the protective tariff in case the agricultural adjustment act shall be declared unconstitutional, though the idea has not been mooted since the supreme court's decision.

The farmer and democracy. If a canvass of world history suggests to some that the farmer is fated to become the servile dependent of other social classes, a study of American history, including its agricultural phases, affords a much more hopeful outlook. Recognizing in farm life the persistence of serious defects, it shows these undergoing a gradual if slow

change for the better and glimpses forces in action calculated to produce cumulative good effects.

Such a study, indeed, reveals agriculture as one of the main supports of American democracy because it is an occupation embracing millions of freemen who own property and cultivate land on a somewhat equal basis. The principal differences in the farming body itself are regional, rather than intimately social. The southern share-croppers have no contact with northern dairymen or western fruit, wheat, and cattle growers, and they enter into our discussion as a suppressed population definitely fixed geographically, who constitute a stubborn national problem which, however, is not necessarily insoluble. The situation is not like that in the labor section of society, the other very large democratic group, where there exists a noticeable social stratification based on specialized occupations and skills.

It is true that the successful cattle-rancher despises the sheep-rancher and boasts of being at world's remove from the "hayseed-farmer." There are also grades of material prosperity among northern farmers which are partly regional, and partly local from farm to farm. For example, the farmers of California, in 1930, were receiving incomes nearly six times as large per capita as the farmers of Iowa. This was due, of course, to extraordinary circumstances. Within a given locality, however, while some farmers may be accounted "rich" and others "poor," there are no economic cleavages like those setting off a group of millionaire or multi-millionaire

business-men from ordinary trades people conducting small personal concerns.[19]

Family farm the ideal. Agriculture, in a word, tends toward the golden mean in material well-being. A farm represents a "living," which may be better or worse depending mainly on the character of the farmer, but neither an actual nor a potential modern "fortune." In extent, the family-sized farm is the American ideal and means in effect that the owner and his son or sons can perform the actual work of tillage, the female members of the household smoothing the way by providing home comforts, assisting about chores, or in field and meadow as pressure of work may dictate. Hired men are rather the exception than the rule in this typical agriculture. So far as they are employed, it is usually with the instinctive purpose of raising the labor force to the normal family plane rather than in the hope of abnormally expanding the business beyond the family-farm norm.

The process of adding "field to field," so frankly condemned in holy writ, while common enough, is still not the rule. It appeared most strikingly in the wheat belts where a revolutionary change in machinery favored a change from family-size farming to big-business farming; and in certain districts drought or grasshoppers induced the emigration of

[19] See H. G. Moulton, *Income and Economic Progress,* Brookings Institution, Washington, 1935. Especially pp. 36–40. And *Capacity to Consume,* p. 45 and App. A. table No. 17, p. 173. "Out of 15 billion dollars of individual savings in 1929, as much as 13 billions were made by 10 per cent of the population." *Income* &c, p. 40.

farmers whose lands were then reincorporated in the big cattle ranches. For the most part, however, farming progress has taken the form of more intensive tillage of moderate-sized holdings rather than of expansion through the acquisition of neighboring properties.

A good argument could be made for a more rapid change in the size of farms to accommodate them to the requirements of economical management, and there is every reason to anticipate numerous shifts of that kind as a result of the persisting depression.[20] Tractor cultivation lends itself better to large holdings than to small. Nevertheless, so deeply implanted are the farm corner-stones, that tractor-associations among neighbors are possibly more likely to be hit upon for solving the economic problem than the obliteration of farm boundaries.

The family farm, outgrowth of land policies and conditions of labor scarcity, has enshrined itself in American sentiment. Like all other institutions, it is subject to change under the impact of social and economic forces. So long, however, as it retains its present hold upon the people of this country, America will possess a very large social class who are not "dollar mad"; a class which, if it shall learn its full opportunities for wholesome, healthful, and delightful living, may in the future as in the past helpfully influence the national ideals. For it must not be

[20] See the author's address on the subject: *Some Enduring Factors in Rural Polity*. Agricultural History, VI, No. 4 (Oct. 1932).

forgotten that some 40,000,000 people still depend directly upon the farms of the country.

Faith that the farm will hold its historic place as a laboratory for the production of worthy citizenship is strengthened when we contemplate the measure of achievement in twenty-seven years. Of the good things urged by the Country Life Commission, better schools are manifestly coming, health conditions improving, and cheap electric power for farmers is at hand. Given a new lease of prosperity and the future is assured.

Culture and agriculture. Those thinkers who are able to distinguish between "culture" and "polish" detect, in the signs of the times, a new interest in rural life as the best embodiment of native Americanism. They find that artists are staging a "revolt against the city," [21] that some writers who had succeeded in the great metropolis New York, realizing that the creative spirit would function better elsewhere, are dispersing to their native places in the South and West. They recognize that what is called "civilization" and "society" in the great cities, motivated primarily by wealth, has more affinity to alien Europeanism than to what is historically American. It has been called, not inaptly, colonialism—that is, the apeing of older and more authentic metropolitan life.[22]

[21] *Cf.* Grant Wood, *Revolt against the City*, Clio Press, 1935, who contends that "the American artist need no longer turn to Europe for training and inspiration, and the middle western artist will find his true subject matter near at home."

[22] Herbert Agar, *Land of the Free*. Boston (Houghton) 1935.

As opposed to the great city's mad pursuit of wealth and the things an excess of wealth has made fashionable, the small city, town, village, and the countryside, dominated up to now by a rural psychology, still retain the old primal American virtues: a sense of human values, neighborliness, morality, and religion. The country people are not yet generally blasé, but reflect that buoyant spirit which comports with genuine independence, creative activity, and self-respecting industry. The farmers, from this point of view, are the hope of the nation's future as they have been the chief dynamic force of our country's past.

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