



The Agricultural Revolution in New England

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THE AGRICULTURAL REVOLUTION IN NEW ENGLAND¹

THE half-century before the Civil War was, for the farmers of southern New England, a period of great stress. For two or three generations they had been engaged in well-stabilized, self-sufficient agriculture. Then came the development of New England manufactures and the rise of new factory villages and towns which, by creating a new demand for food-stuffs and raw materials, opened a market at the farmers' very doors. Because of the inherent inflexibility of the agricultural industry, the first steps in the transition to commercial agriculture were slow. For a great many reasons it was difficult to leave off farming for a living and begin farming for profit. By 1840 the change was well under way. But just then the building of railroads so cheapened transportation that the New England farmers were exposed to disastrous competition in certain lines from the newer farms in western New York state, and in the Ohio and Mississippi valleys. A reconsideration of his economic problems was now forced on the New England farmer. He had to abandon his attempts to supply the factory population with bread-stuffs, pork, beef, and wool, and had to find new kinds of specialization.

The readjustments in the farm business were made reluctantly, haltingly. Consequently the rural folk did not enjoy the rapid rise in their standard of living which we, at this distance, might have expected. The changes in agricultural technic and in the social life of the rural folk which did result, however, from these two great, new forces, the home market and western competition, were so great and far-reaching that they may well be called an agricultural revolution. It is to a consideration of these changes that the present paper is devoted.

A brief review of the economic situation of the farmers of southern New England in 1810 will furnish a background against which later developments stand out clearly. In Mill's *Principles of Political Economy* we read: "a country will seldom have a productive agriculture, unless it has a large town population, or the only available substitute, a large export trade in agricultural

¹ This paper was read at the Washington meeting of the American Historical Association, December 29, 1920.

produce to supply a population elsewhere.”² Now the farmers in southern New England in 1810 had neither a foreign nor a home market for their products, and the absence of such markets was the determining condition of their economic and social life. They raised no staples which could be exported to foreign markets, and, with the exception of a few small seaport towns, there was no non-agricultural population in New England which could furnish a home market. The results of the lack of markets were: lack of exchange; lack of differentiation of employments, or division of labor; the absence of progress in agricultural methods; a relatively low standard of living; emigration and social stagnation.³

The distinguishing characteristic of farm-life was its economic self-sufficiency. Being unable to sell his products, the farmer was unable to buy from outside. Consequently each farm was a unit or an economic microcosm, producing for itself practically everything that it consumed; food, clothing, furniture, and household- and bed-linen, soap, candles, and a great variety of minor articles. Of course, on farms in the vicinity of the port towns, self-sufficiency was far from complete, and even in the typical rural communities farther inland there was not an entire absence of trade. The country store was a regular feature of village economy, furnishing opportunity, in even the smallest communities, for the exchange of cheese, butter, salt pork and beef, and household textiles in return for salt, iron, sugar, and liquors. In general, however, farming was carried on not as a business, but for the satisfaction of the needs of the farm family.⁴

In the half-century 1810-1860 there took place in New England an industrial revolution, comparable in its significance and in many of its characteristics to the Industrial Revolution in England of the last half of the eighteenth century. On this side of the Atlantic, as on that, power machinery replaced hand-tools, and the processes of manufacture were transferred from the farm-houses and shops of craftsmen to factories. Railroads, furnishing the cheap transportation essential to industrial changes, were rapidly constructed after 1840 and assisted in breaking down the isolation of rural communities.

The rapid increase in the population of southern New England

² Book I., ch. VII., sec. 3, p. 120 (Ashley ed., New York, 1909).

³ See the author's "Rural Economy in New England at the Beginning of the Nineteenth Century", chs. II. and III., *Transactions of the Connecticut Academy of Arts and Sciences*, XX. 241-399.

⁴ *Ibid.*, ch. VI.

is the most obvious evidence of a new economic situation.⁵ To the 811,000 persons living in the states of Connecticut, Rhode Island, and Massachusetts in 1810, there was added before 1860 a round million more, an increase of 130 per cent. in the half-century. Emigration to western states, which had been keeping population stationary before 1810, was checked, and in addition to the natural increase of the native population there was found room for between three and four hundred thousand persons of foreign birth.

The explanation of the growth of population is to be found principally in the rise of manufactures and, to a less degree, in the prosperity of the maritime industries which were themselves stimulated by manufacturing progress. But this is not the place to review the fascinating history of the rise of New England manufactures; for the present we are interested in that branch of industry only through its effects on the life of the agricultural population.

The increase in population was accompanied by urban concentration. In 1810 there were in the three states only three towns containing as many as 10,000 persons: Boston, Providence, and New Haven. Taken together their population was only 56,000, less than seven per cent. of the total population. In 1860 the towns of over 10,000 numbered 26, containing in all 682,000 persons, or 36.5 per cent. of the total of southern New England. The new population was a non-agricultural population, a fact of greatest importance to the farmers, for it meant that now for the first time they had a market for their products, and that market, moreover, was a *home* market.

We must be prepared to find the influence of the home market very small at first. The manufacturing boom of 1807-1815 was followed by a prolonged period of industrial depression after the panic of 1819. The few factories which survived, and the new establishments which were founded between 1825 and 1830, we should now consider insignificantly small. The cotton and woolen mills were the largest, but very few even of them employed as many as 100 persons each in 1830, and the great majority had less than 50 hands.⁶ The new industrial units were not only

⁵ For a fuller discussion of the causes and significance of population changes, see the author's "Population Growth in Southern New England, 1810-1860", *Quarterly Publications of the American Statistical Association*, new series, XV. 813-839.

⁶ See *Documents relative to Manufactures in the United States* (*Ex. Doc.* 308, 22 Cong., 1 sess.), vol. I.

small, they were also widely scattered. In 1840 it would have been difficult to find 50 out of the 479 townships in southern New England which did not have at least one manufacturing village clustered around a cotton or a woolen mill, an iron furnace, a chair factory or a carriage shop, or some other representative of the hundreds of miscellaneous branches of manufacturing which had grown up in haphazard fashion in every part of the three states. In the absence of local concentration of industries, there could be no concentration of the industrial population. Consequently the effects of the home market were spread thin over the entire area, and no single agricultural community received much benefit therefrom.

One of the earliest and most wide-spread effects of the new market was an increased interest in agricultural improvement. A new spirit was stirring among the farmers. They began to feel that they were living in a period of great changes, and they were unwilling to lag behind the age. At just this time the New England farmers were fortunate in having presented to them a form of organization by which the spirit of improvement might be fostered and turned into the most effective channels. I refer to the agricultural societies on the Berkshire plan. First founded in Pittsfield, in 1811, these societies spread into practically every county in southern New England in the next fifteen years.⁷ In contrast to the older societies whose interest in agriculture was largely literary and philosophical, the Berkshire societies were made up of practical working farmers; their work was consequently far more important than that of their predecessors. The older societies had confessed their inability to interest the common farmers in their theories and schemes for improvement. The reason was not far to seek. The working farmer of an inland community could not be interested in schemes to increase production until someone could show him a market for his surplus. But as soon as the home market developed, it was not difficult to stimulate interest in better farming. The new agricultural societies owed their rapid growth and great popularity partly to their success in seizing upon the awakened interest of the farmer, instructing him by pamphlets and addresses, stimulating competition by annual cattle shows and exhibitions of agricultural produce. But their success is also explained by the skill with which

⁷ The early history of these societies is related by Elkanah Watson in his "History of Agricultural Societies on the Modern Berkshire System from 1807 to 1820", printed in *History of . . . the Western Canals in the State of New York* (Albany, 1820).

they satisfied, in their annual gatherings, the farmer's deep-lying need for more social contacts, for closer relations with others in the community.

The immediate practical results of the new spirit were not revolutionary. Most farmers continued on about the same lines, doing somewhat better what they had for many years been doing rather poorly. There was, however, in the first quarter of the century the important change from wooden to cast-iron ploughs which took place with spectacular rapidity. Iron ploughs were practically unknown until 1828 or 1830, and then in a few years everybody had them.⁸ In spreading information about the new implements, the agricultural societies did valuable service, ploughing matches being regular features of their annual exhibitions.

The lighter draft of the new iron ploughs, and of the steel ploughs which succeeded them, made possible the substitution on the farm of horses for oxen as draft animals. The displacement of oxen was well under way in progressive communities by 1840, but was not fully completed until after the Civil War. In fact, remote New England villages are now among the few spots in the United States where an occasional yoke of oxen may still be seen. The Yankee farmer was much attached to his oxen; they were stronger if not so fast as horses; they worked better in rough and marshy ground; and furthermore, they had food value after their working days were over. Besides, sentiment was involved. "The ox was a pioneer with the Pilgrim", we read in one of the reports of the Massachusetts agricultural societies,⁹ and the descendants of the Pilgrims did not willingly abandon the use of the faithful animals. The faster gait of horses made them better adapted not only for ploughing but for the operation of the various new agricultural machines, such as mowing machines and horse-rakes, which were invented between 1830 and 1840. On the small, uneven fields of the New England farms the new machines were at a great disadvantage and consequently were much more slowly introduced than in the states to the west and south. Mowing machines, for example, were still a curiosity in New England at the time of the Civil War.¹⁰

A detailed review of the technical aspects of the revolution in New England agriculture cannot be attempted here. Confining our attention to the broader economic aspects of the transition

⁸ See *New England Farmer*, IX. 114.

⁹ Massachusetts, Secretary of State, *Abstract from Returns of Agricultural Societies*, 1845, p. 67.

¹⁰ Massachusetts, State Board of Agriculture, *Annual Report*, 1856, I. 175.

from self-sufficient to commercial farming, we find increasing specialization of first importance. Adam Smith's familiar phrase, "the division of labor is limited by the extent of the market", finds clear application here. In 1810 farming was practically uniform throughout southern New England. Every farmer distributed his land in about the same proportions into pasturage, woodland, and tillage, and raised about the same crops and kept about the same kind and quantity of stock as every other farmer. There were one or two unique regions, such as the Connecticut Valley, Nantucket, and Cape Cod, but for the most part it made little difference in the character of farming whether it was conducted in one county or in another. But the opportunity of selling farm products in the new home market stimulated differentiation. The market acted as a selective force, tending to encourage in various groups of townships the particular branch of farming for which they were best fitted. In the language of the economist there was developed a territorial division of labor in New England agriculture. The new specialization was of two kinds: (1) determined by location, (2) determined by advantages of natural resources. Let us consider first the specialization determined by location.

In Essex and Middlesex Counties in eastern Massachusetts the advantage of situation in the immediate neighborhood of growing industrial towns, such as Lynn, Lawrence, Lowell, and Boston, had produced by 1840 well-defined specialization in market-gardening and in dairy-farming. Of Middlesex County Henry Colman wrote in 1841:

Though in a great degree in its general aspect unpromising, yet no county in the State is more distinguished for its agricultural improvements than Middlesex. . . . The Capital, with the large towns in its vicinity and the several villages and manufacturing towns in the interior, afford a ready and quick market for all the products of agriculture. This condition determines in a great measure the character of the agriculture of the county—which is confined rather to the production of vegetables, fruits, butter, and articles that find an immediate sale in the towns, than to products on a large scale, to be sold in great quantities or consumed upon the farm.¹¹

An agricultural survey of Rhode Island published in 1840¹² describes the rapid development of intensive agriculture in the towns within market radius of Providence. Marshes were drained, land reclaimed, and record crops of onions, carrots, turnips, and

¹¹ Massachusetts, Commissioner for the Agricultural Survey of the State, *Fourth Report* (Boston, 1841), pp. 194-197.

¹² Charles T. Jackson, *Report on the Geological and Agricultural Survey of the State of Rhode Island* (Providence, 1840).

potatoes were grown. The attention to root crops and the large proportion of farm areas in tillage were unusual in New England. Similar tendencies with less striking results were observed in the neighborhood of Fall River, New Bedford, and New Haven.

The peculiarities of natural resources, chiefly soil and configuration, gave rise to specialization in three branches: (1) the fattening of beef-cattle in the towns of northern Massachusetts in the Connecticut Valley; (2) the cultivation of tobacco on a narrow strip of Connecticut River lowlands extending from central Connecticut to the northern border of Massachusetts; (3) wool-growing in a number of rather widely separated, hilly regions, but principally in the western counties of Massachusetts and Connecticut. The history of each of the three branches of specialized agriculture forms in itself an interesting study, displaying the action of market forces and illustrating the difficulties which prevented the New England farmers from taking full advantage of their new market. But the brief scope of this paper will not permit their consideration here.

To summarize: the home market was the dominant influence affecting New England agriculture from 1810 to 1840. The new market opportunities stimulated a new spirit in the farmers, leading to the introduction of important technical changes; also, specialized, commercial agriculture was developed in well-defined areas.

Now we are prepared to consider the effects of the second great influence, *viz.*, outside competition, chiefly from the West. It would be hardly accurate to fix the beginning of western competition at 1840, for the New England farmers had never enjoyed a monopoly of their market. Even before 1810 the trading and fishing population of the seaport towns had received large supplies of wheat-flour and corn from New York, Pennsylvania, Maryland, and Virginia. The opening of the Erie Canal and the introduction of steam transportation on Long Island Sound and the Connecticut River brought in steadily increasing quantities of food-stuffs for the supply of the new factory villages, so that the establishment of through railroad connection with the West between 1840 and 1850 marked not the beginning, but the culmination of a generation of growing pressure on New England producers from cheaper outside sources of supply.

The influence of the railroads was twofold. In the first place, the trunk-lines laid down between 1830 and 1850, such as the Boston and Albany and the lines running northward from Long

Island Sound, brought in wool, wheat, and pork at prices so low as to discourage home production. And such cheap transportation tended to break down that division of labor which was based on the peculiarities of natural resources. Disaster overtook the new specialized agriculture in two lines, wool-growing and beef-fattening. The railroads brought in the cheaper wools of Michigan, Ohio, and Illinois at a transportation cost of only two or three cents a pound.¹³ The inevitable effect was the decline of wool prices in New England and the rapid abandonment of sheep-raising. The census figures show a general decline in sheep in each of the three states, amounting to a 50 per cent. loss in 1840-1850, followed by a further decline of 35 per cent. in 1850-1860.¹⁴

The check imposed by outside competition on beef-fattening, while not as disastrous as in the case of wool-growing, was nevertheless severe. The shipment of dressed beef in refrigerator cars was of course still unknown, and freight charges were high on the live animals. Consequently a large part of the cattle received from outside came on the hoof from the bordering states, being driven in herds to local markets. In 1840 the reporter of the Brighton market, the most important live-stock market in southern New England, wrote: "About two-thirds of the stall-fed cattle are from this State, the balance principally from New Hampshire, Vermont, and Maine; now and then a lot from New York." In 1854 it was officially estimated that more than half of the beef supply of Massachusetts came from without the state, which meant outside of southern New England, as neither Connecticut nor Rhode Island produced enough for even its own wants. Beef-fattening remained the most important and profitable branch of farming in Franklin County until the Civil War, but it failed to expand with the expansion of the industrial population and with the demand for beef.¹⁵

But the railroads also provided cheaper internal communication, and thus greatly promoted specialization in branches of the

¹³ C. W. Wright, *Wool Growing and the Tariff* (Boston, 1910, *Harvard Economic Studies*, V.), p. 128.

¹⁴ The number of sheep in southern New England reported by the census of 1840 was 871,832; in 1850, 407,150; and in 1860, 264,500.

¹⁵ There were, according to the census of 1840, 558,000 neat cattle in the three states; in 1860 the number reported was 555,000, of which 263,000 were milch cows. It is probable that owing to the increase in milk-farming, the milch cows formed a larger proportion of total neat cattle in 1860 than in 1840. If this assumption is true, then the decline of beef cattle was greater than the above figures would seem to indicate. Relative to population, beef-cattle had declined from 48 per 100 persons in 1840 to 30 per 100 in 1860.

agricultural industry where nearness to the market was the determining advantage. The main lines of railroad were soon supplemented by a close network of branch and local lines. Thus the areas of profitable specialization in market-gardening, fruit-raising, and milk-farming were rapidly widened after 1840. A keen observer of agricultural change in Massachusetts writing in 1850 said: "Probably, in our state, there are now few farms not within ten or twelve miles of a railroad. They are thus enabled to send many articles to market, for which they before had none; while the transit of what they sell and what they consume is wonderfully cheapened."¹⁶ The results of cheap transportation he expressed as follows: "The former vegetable gardens for the metropolis are transformed into houselots, and their substitutes are found in the valleys or on the hillsides of Worcester or Middlesex, while her strawberry beds extend to the banks of the Connecticut."

In the dairy industries, contrasting effects of cheap transportation appear clearly. The production of cheese, for which the western counties of Massachusetts and Connecticut had become famous, declined rapidly between 1850 and 1860, when exposed to the competition of the newly established cheese factories of western New York and Vermont.¹⁷ But in the case of milk, and to a less degree in the case of butter, the absence of modern methods of refrigeration made nearness to the market decisive. The result was a marked increase in dairy-farming in the industrial counties. If reliable statistics were available, I believe we could show an interesting migration of dairy cows from east to west in the years 1820 to 1840 and a re-migration from west to east in the succeeding twenty years.

The full extent of the effects of cheap transportation on New England are not revealed in its effects on specialized agriculture alone. A large proportion of the farmers never went in for specialties. They felt the stimulating effects of the new market, and responded by attempting to increase production in the lines

¹⁶ Charles Theodore Russell, *Agricultural Progress in Massachusetts for the last Half Century*, address before the Westborough, Mass., Agricultural Society (Boston, 1850), pp. 18-19.

¹⁷ In 1850 Connecticut was the fifth cheese-producing state in the Union, being credited by the census of that year with a product of 5,363,000 pounds. Massachusetts produced 7,100,000 pounds. In 1860 the product had fallen to 4,000,000 and 5,300,000 pounds respectively. Litchfield County cheese enjoyed a wide reputation and was sold for high prices in the markets of Boston, New York, and Baltimore. See Connecticut State Agricultural Society, *Transactions*, 1855, p. 327.

of general farming. They continued to keep cattle and pigs for their own supplies of meat and dairy products, hoping for the opportunity to sell a small surplus. The same policy was evident in the crops they raised, chiefly hay, corn, and potatoes. But even the general farmers could not remain unaffected by outside competition. They found their market for beef and cheese curtailed by the same influences which had destroyed the production of these articles in specialized areas. Western pork was making serious inroads into New England markets before 1840. In an agricultural address of 1836 the following statement was made: "Within a few years a mercantile house in Boston purchased in a single season, from the county of Worcester, nearly two million pounds of pork, the growth and produce of that county; and the same house is now employed in obtaining the same article of provision from the West, to sell for consumption in that very county."¹⁸ Importation of improved breeds¹⁹ and the selection of native stock bettered the quality of hogs, making them more valuable as pork-producers, but their numbers decreased rapidly. The census of 1860 showed only 175,000 swine in the three states, where there had been over 300,000 twenty years before.

Hay had always been of great importance in the New England farm economy. Protected by its great bulk from outside competition, this crop showed significant gains both in quantity and quality. The crop of 1860 was 25 per cent. larger than that of 1840, and it was much better hay. Indian corn was at the beginning of the century the backbone of New England agriculture, an unailing food for man and beast. The increased use of wheat bread checked the use of corn meal for human food,²⁰ while its use as a food for cattle and swine was cut down by the falling-off in the production of beef and pork. There was increasing competition

¹⁸ *New England Farmer*, XV. 249.

¹⁹ The introduction of Chinese swine, which Colman considered so important (*Fourth Report*, p. 308), seems to have been the result of accident. Trading ships returning from the East had a few on board which they liberated on making port. See Massachusetts State Board of Agriculture, *Annual Report*, 1854, I. 90-93.

²⁰ Regarding the increasing use of wheat flour Colman wrote: "Public manners in this matter have undergone considerable change within the last quarter of a century. Bread made of rye and Indian meal, was then always to be found upon the tables in the country; and, in parts of the state, was almost exclusively used. Wheat flour was then comparatively a luxury. Now brown bread, as it is termed is almost banished from use. No farmer gets along without his superfine flour, his bolted wheat; and the poorest family is not satisfied, without their wheat or flour bread." Massachusetts, Commissioner for the Agricultural Survey of the State, *Third Report* (Boston, 1840), pp. 51-52.

from the South and West. Nevertheless, so well adapted was corn to New England that production actually increased 25 per cent., 1840-1860.

The decline of the potato crop from 9,700,000 bushels in 1840 to 5,600,000 bushels in 1860, a loss of over 40 per cent., was one of the tragedies of the period. The decline seems to have been caused not so much by external competition as by a blight which affected the crops for a series of years before the Civil War. The secretary of the Massachusetts Board of Agriculture wrote regarding potatoes in 1854:²¹ "Most farmers place but very little reliance on this crop. So extensive were the ravages of the disease to which it has been liable for a few years past, during the last season, that it is likely to receive even less attention hereafter, than it has heretofore." He observed that not only had the acreage planted to potatoes decreased, but the yield per acre had declined noticeably. It is interesting to note that the only counties in southern New England which did not show in the censuses of 1850 and 1860 decreased production of potatoes were Dukes and Nantucket, both of which being islands separated by several miles from the mainland seem to have been immune from the ravages of the blight.

The agricultural revolution brought great changes in household economy. In fact the best evidence of the extent and rapidity of the transition from self-sufficient to commercial agriculture is to be found in the decay of the household industries. At the beginning of the nineteenth century, the typical New England farmer was still clad in homespun cloth made from wool sheared from his own sheep, spun, dyed, and woven in his own home by the women of his household. Many other articles of household furnishing such as blankets, towels, and sheets were made by these overworked women. Before the Civil War, however, the household textile industry was transferred entirely to the new factories. The graceful spinning-wheels and clumsy hand-looms were relegated to the attics of the farmhouses, there to accumulate dust and cobwebs until rescued and restored to posts of honor by the antique-collectors of our own generation.

The transfer of the textile industry from farmhouses to fac-

²¹ *Annual Report*, 1854, I. 32-34. In 1851 a reward of \$10,000 was offered for "a sure and practicable remedy" for the blight. The proposals made were summarized in a pamphlet published by the Massachusetts Secretary of State, entitled *Synopsis of . . . Communications on the Cause and Cure of the Potato Rot* (Boston, 1852), which affords an interesting commentary on the state of agricultural science at the time.

ories was an interlocking feature of both the industrial and the agricultural revolutions in New England. Until now the change has been studied chiefly with reference to the growth of manufactures; but from the standpoint of the history of the rural people it is hardly of less importance.

As soon as the cash income could be gained from the sale of wool, pork, butter, and cheese or vegetables, the farmers began to buy goods which they had formerly produced for themselves. The rapidity of the change from homespun to factory-made textiles bears eloquent testimony to the hardship which the household industries had imposed upon the farm women. The coincidence in time and place between the decay of household industries and the rise of the market is striking. The reports of agricultural fairs show that the exhibits of home-made textiles fell off rapidly between 1820 and 1830 in counties where industrial growth and urban concentration were progressing most rapidly. An official report from Connecticut in connection with the census of 1830 stated that "individual and household manufactures are so far abandoned as to be comparatively inconsiderable",²² and in his agricultural survey of certain counties in Massachusetts ten years later Colman speaks of the household industry of that state as "completely destroyed".²³ It seems safe to conclude that by 1860, although the use of homespun fabrics still continued, their further production in farmers' families in southern New England had come to an end.

The significance of the decay of the household manufactures can hardly be exaggerated. Even before the change was wholly completed, its importance was recognized by the leading thinkers of the day. Horace Bushnell said to the Litchfield farmers in 1851: "This transition from mother- and daughter-power to water- and steam-power is a great one, greater by far than many have as yet begun to conceive—one that is to carry with it a complete revolution of domestic life and social manners."²⁴ The prophecy proved true. As self-sufficient farming declined there went with it long-established habits and traditions, not only in the

²² *Documents relative to Manufactures in the United States (Ex. Doc. 308, 22 Cong., 1. sess.)*, vol. I.

²³ A broad generalization which must be qualified. In a number of instances he calls attention to the persistence of self-sufficient conditions in remote townships, but such cases were exceptions, sufficiently rare to deserve especial comment. See *Fourth Report*, pp. 156-157, 178-179; also *Second Report*, p. 61.

²⁴ *Work and Play* (New York, 1881), p. 382.

method of getting a living, but also in ways of thinking and of living. The *mores* of self-maintenance, to use Sumner's phrase, were revolutionized and there followed of necessity a change in the ideas and ideals of the rural folk, in family and in social relations.

The self-sufficient economy emphasized the virtues of self-reliance and independence, of frugality and thrift. As Bushnell remarked, it harnessed together in the productive process all the members of the family, young and old, male and female; it concentrated attention upon the interests of the family group rather than upon the interests of its individual members. The introduction of the cash *nerus*, the selling of certain articles and buying of others, forced the farmers to confront a new set of problems, calling for the exercise of a new set of faculties. Shrewdness in buying and selling must now be added to the simpler qualities of hard work and saving. Farming became a more speculative business, for to the already existent risks of weather conditions was added the risk of price-fluctuations. Thereafter success in getting a living no longer depended on the unremitting efforts of the farm family, aided by Providence, but to a large extent also upon the unpredictable wants and labors of millions of persons in the industrial villages, and in the newer farms to the westward.

It is clear that, in the long run, the transfer of the production of textiles from the farmhouse to the factory must have been of advantage to the rural population. Production was far more effectively carried on in the factories, so that eventually the farmers got more goods for a given amount of labor by concentrating their efforts on purely agricultural operations. But only in the long run were the advantages of the change clearly apparent. In the meantime, during the twenty or thirty years of transition, there were a number of discouraging difficulties. There was first of all the problem of finding a new employment for the farmers' wives and daughters. Remarks such as the following show how this problem was presented:²⁵

It is a deceptive and dangerous economy, which induces a farmer to buy all his woollens of the manufacturer, merely because he can buy them cheap—cheaper even than he supposes he can make them at home. . . . While the farmer is buying at the store, what he could make at home, . . . the members of his family, whose labour could produce the same articles, are unemployed, or employed to little or no purpose.

Colman, who was a clergyman as well as an agriculturist, speaks

²⁵ *New England Farmer*, VIII. 126.

with regret in several instances of the decline of the household manufactures because the "healthy exercise of domestic labour" has been exchanged for "the idleness and frivolities of pride and luxury";²⁶ and again, emphasizing the economic rather than the moral aspects of the problem, he speaks of the "internal resources of the farmer" having "dried up".²⁷

Anyone familiar with the exhausting toil of the farm women of the earlier years might have remarked that they had well deserved a rest. But habit and tradition, and economic pressure as well, decreed otherwise. The traditional Puritan ethics required all to be producers and none merely consumers. No one knew what evil work the Devil might find for idle hands, especially if these hands were women's.²⁸ Moreover, even with improved agricultural technic, the income from a New England farm was meagre, and the wants of the farm family were expanding rapidly. The urban population were establishing a new and higher standard of living; the farmers' daughters wanted better clothes, and pianos like those of their city cousins.

The problem of finding new employment for the farm women was solved in two ways: (1) by their leaving the farms and taking employment in the rapidly growing urban centres, either in factories, or as school teachers, or in domestic service; (2) by the introduction of new industrial occupations in the home. We know how important was the migration of the farmers' daughters to Lowell, Lawrence, and Fall River in the years around 1840, furnishing an indispensable labor force for the new factories, and it would be interesting to trace their fortune further, but we are concerned here chiefly with those who stayed on the farms. The employments to which the latter now turned their attention were the sewing of shoes, the plaiting and sewing of straw and palm-leaf hats and bonnets, and the production of men's ready-to-wear clothing. An extreme example of the efforts to utilize the surplus labor force on farms is seen in the misguided attempts to hatch silk-worms and produce reeled silk.

²⁶ *Second Report*, p. 138.

²⁷ "In the changes which, since the introduction of extensive manufactories of cotton and woolen among us, have taken place in our habits of domestic labour, some of the internal resources of the farmer have dried up, and new occasions of expenditure introduced." *Fourth Report*, p. 181.

²⁸ In Wilder's *History of Leominster* (Fitchburg, 1853), p. 29, we find the fear expressed that the farmers' daughters will not only lose skill "but they will have more time to be idle, and thus will be less fit for good and profitable wives".

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Most of the employments enumerated above were not new. The farm women had long been making their own bonnets and their husbands' and fathers' shirts and underclothes, but whereas formerly such articles were produced principally for home consumption, after about 1830 or 1840 they were produced principally for sale. The organization of production was what is known to economists as the commission system, a transitional stage between household and factory production. The employer was a merchant who provided the straw, cloth, or parts of shoes. He also undertook to dispose of the finished product, paying the workers on a commission basis.

In the making of shoes, the most important of these domestic manufactures, the men were also employed. In some townships in Massachusetts a very large proportion of the population was actively engaged in shoe-making. In 1837, in the town of Grafton for instance, 1400, or almost one-half of a total population of 2950, were officially reported as making shoes.²⁹ A writer in the *New England Farmer* said that the industry in that place "is a domestic manufacture, chiefly carried on by men at their own homes, with their own means, where their labors and those of their families alternate with the care of their gardens and farms, promoting wealth and furnishing recreation".³⁰ Of Essex County, where the farmer shoemakers were most numerous, Colman wrote: "Farming in this county is scarcely pursued as a distinct or exclusive profession; but as subsidiary to some other business or pursuit."³¹

The farmers carried on a wide variety of quasi-industrial pursuits, by-industries which in some cases were more lucrative than agriculture. Building operations in the growing industrial communities demanded sand, stone, and timber. Besides these, the farms furnished to the city-dweller enormous quantities of firewood and charcoal, the products of the winter months. The Yankee had long been famous as a whittler and in these years he turned his experience in wood-working to good account. The extent and variety of the wooden wares produced in some of the more remote communities is astonishing. In various towns in Franklin County there were made, in 1855, surgical splints, faucets, canes, washboards, rolling-pins, pill-boxes, shingles, scythe-snaths, lemon-squeezers, towel-rollers, twine-reels, match-boxes, brooms,

²⁹ Massachusetts, Secretary of State, *Statistics of Certain Branches of Industry* (Boston, 1837).

³⁰ XV. 57.

³¹ *First Report, Agriculture of Massachusetts* (1838), p. 14.

broom-handles, and penholders.³² All of these were made for sale, either in the cities or in the Southern states. Partly they were made by farmers in small shops on their own premises, and partly in small factories utilizing a small water-power, where the farmers worked intermittently in the winter and between seasons. The numerous by-industries carried on by the New England farmers and by their wives and daughters provided an important supplement to the farm income. The prosperity of many communities out of reach of the market influence can be explained only by the existence of these quasi-industrial pursuits.

The general impression remaining after a careful survey of New England agriculture in this period is not one of great achievement or striking progress. There was undoubtedly prosperity in certain areas and probably a higher standard of living for the rural population as a whole. But somehow we cannot escape the feeling that the New England farmers had not lived up to their opportunities. Often in the comments of the best-informed contemporary observers we find frank dissatisfaction.³³ They refer to the prevailing condition of agriculture as "common, irregular, rag-weed farming, helter-skelter farming", they condemn the "niggardly, shiftless, and slovenly manner in which the business of the farm is conducted", painting realistic pictures of poor crops, inconvenient houses, falling walls, and denuded hills and undrained swamps, debts, mortgages, and foreclosures.

In the transition period there was little uniformity in agricultural conditions. In a single county we might find, so one writer tells us, "every system of farm management practised that has ever been followed since the days of Noah". In every community there were a few progressive farmers, but often in close proximity, perhaps on the next farm, there would be tumble-down buildings and a general slovenly appearance. The great majority of farmers were between these extremes. They were not badly off; their hundred acres were all paid for, and perhaps they had laid aside a little for a rainy day. They kept four or five cows, a yoke of oxen, a horse, some pigs. They sold a little butter, a little rye, a little pork, a pair of calves, possibly a little cider and a cord or two of wood, yielding a total money income of four or five hundred dollars. When out of this they had paid a hired man for services in planting and haying, the grocer, the tailor, and the

³² Massachusetts, *Statistics of Industry*, 1855.

³³ For example, the address of Donald G. Mitchell before the Connecticut State Agricultural Society in 1857. *Transactions*, 1857, pp. 95-116.

shoemaker, the blacksmith, and taxes, there was very little left over.³⁴

There is an old French proverb which runs, "Tout comprendre c'est tout pardonner", and perhaps when we understand and fully appreciate the difficulties and discouragements which the New England farmers of this period had to face, and the doubts and fears which harassed them, we shall be inclined to judge that they did well, rather than poorly. Changes in farming are always slower than in other industries because of the stronger hold of traditional habits. Rural folk tend to be conservative. It is harder for them to get out of the rut of the good old ways. Moreover, they lacked knowledge, for notwithstanding the educational services of the agricultural societies and of the farm papers, there was still much uncertainty on even such a familiar subject as the proper methods of planting and cultivating corn. Superstitions regarding the influence of the moon still lingered in the minds of intelligent persons.

The farmers suffered from the lack of consistent leadership. They got advice from all sides, but much of it was conflicting. Only rarely do we find before 1840 frank and clear-sighted recognition of the necessity of giving up the old-style, self-sufficient farming;³⁵ for the most part the orators of the day at agricultural fairs were content to be followers rather than leaders of public opinion. They advised their hearers to continue to raise everything they needed "to eat, drink or wear". "The first of all rules in domestic economy", says Colman, "as far as the actual wants of his family are concerned, is for the farmer never to go abroad for what he can produce at home."³⁶

An important difficulty was the farmers' lack of business experience. Commercial farming involved the selling of crops and the buying of supplies. The markets for agricultural produce were still unorganized, the phenomena of price fluctuations unfamiliar.³⁷ In buying machinery and commercial fertilizers the farmers were often the victims of sharp practices, and such experiences made them more reluctant than ever to invest their money in these very desirable improvements.³⁸

³⁴ *Ibid.*, pp. 98-99.

³⁵ See address of William Buckminster before Middlesex Society of Husbandmen and Manufacturers, 1838, in *New England Farmer*, XVII. 113-114.

³⁶ *Agricultural Addresses at New Haven, Norwich, and Hartford, Conn., at the County Cattle Shows in the year 1840* (Boston, 1840), p. 38.

³⁷ Well illustrated by the experiences of the cattle raisers of Franklin County, Mass. See *Fourth Report, Agriculture of Massachusetts*, p. 84.

³⁸ See reports of Professor S. W. Johnson on analysis of commercial fertilizers, in *Transactions of Connecticut State Agricultural Society*, 1859.

Then, also, they lacked capital, not only for permanent improvements, but also for running expenses. The farmers at a distance from their markets usually sold their pork, butter, cheese, and grain between January and April. Very few had sufficient working capital to support their families and pay for hired labor for nine months in the year. Hence they could often employ only half as much labor as could have been profitably used. Their supplies they got from the country store-keepers on credit, paying high interest rates in the shape of advances over cash prices.³⁹ Banking facilities were no better adapted to the needs of the farmers than now. The complaint of those days that banks existed for the benefit only of merchants and manufacturers sounds strangely modern. Bankers were feared and distrusted, and the farmer was advised to "shun the door of a bank as he would an approach of the plague or cholera".⁴⁰

The disturbing effects of western competition I have already mentioned, showing how the farmers had hardly entered upon their new business experience when the flood of competing products forced them to seek new lines of specialization.

I have reserved to the last what seems to me the most depressing and disastrous of all the hindrances to progress in agriculture: this was the wholesale desertion of the farms by the younger generation. Not only the farmers' daughters, but their sons as well, were leaving their homes throughout this period to seek their fortunes as clerks and factory operatives in the growing urban communities. The boys who wanted to pursue agriculture went West, although the lure of that region was not nearly as strong as in the generations before 1820. The kind of farming their fathers were carrying on seemed to promise nothing but "a fixed, dull round of listless toil". Besides having the idea that farming was bound to be unprofitable, the younger generation was oppressed with a growing sense of social inferiority to the city population. A writer in the *New England Farmer* about 1840 says:

Every farmer's son and daughter are in pursuit of some genteel mode of living. After consuming the farm in the expenses of a fashionable, flashy, fanciful education, they leave the honorable profession of their fathers to become doctors, lawyers, merchants, or ministers or something of the kind.⁴¹

The tendency to leave the farms deprived the farmers of their

³⁹ *Fourth Report, Agriculture of Massachusetts*, pp. 182-183.

⁴⁰ *New England Farmer*, XIII. 368; XVII. 78.

⁴¹ *New England Farmer*, XVII. 406. See also *Transactions of Connecticut Agricultural Society*, 1856, pp. 396-400.

only available labor force, at a time when cheap and reliable labor was particularly necessary if they were to take full advantage of the new market opportunities. But the ultimate effects of the rural exodus were of greater importance. The best human material was selected out of the country; the best brains and the boldest spirits went to the cities. To the more timid and the slow and the plodders was left the great task of carrying forward the agricultural revolution.⁴² Shall we wonder that they failed to realize its full possibilities?

It should now be clear that in the fifty years before the Civil War, New England was making great strides in social evolution. Into the space of less than two generations had been compressed momentous changes—the transition from self-sufficient to commercial agriculture, and from household manufactures to the factory system—changes which in England and on the Continent of Europe had been spread over centuries. As in the case of organic evolution, so in the evolution of New England society, there was constantly progressing differentiation. Out of the simple rural communities which comprehended the bulk of New England life at the beginning of the nineteenth century there unfolded a varied urban, industrial life. The germs of manufacturing which had been developing in the farm household now split off as independent occupations. Farming itself became varied by the adaptation of its various branches to the soil and location of particular regions. The market worked as a selective force. Under its influence good land became more sharply differentiated from poor land. The poor land, even in entire farms, was abandoned to grow up to woods, while the farmers' efforts were concentrated on the best fields.

The differentiation of occupations led to a differentiation of customs and habits of life between rural and city folk. The urban population began to wear a different kind of clothes, to live in a different kind of houses from those of their country cousins. They began to think and talk differently, and eventually they began to look down upon the farmers as a backward race. Within the cities the factory system produced further differentiation between capitalists and laborers. The gulf was widened when the Irish

⁴² "There is need for more brain put to the farmer's work. . . . Wit, ingenuity, shrewdness, tact, seem to gravitate, all of them, into other pursuits, into cities, into shops, into courts, into pulpits; and the dullest of the sons takes the farm. I dislike to say it. I dislike to say it all the more, because it is so true." From the address of Donald G. Mitchell, *Transactions of Connecticut State Agricultural Society*, 1857, p. 108.

arrived to swell the ranks of unskilled labor, adding to the economic conflict divergences of race and religion.

It was a time of storm and stress for both urban and rural New England. Men's minds and hearts in city and country alike were deeply stirred by a series of remarkable intellectual and social movements. In politics, Republicanism triumphed over Federalism; in religion, the struggles of Unitarians and Trinitarians for domination shook the established Congregationalism; a vigorous temperance reform swept through the rural communities; the anti-slavery movement foreshadowed the Civil War.⁴³ Leadership in reform naturally came from the cities, but the strength of these movements and the measure of success they eventually attained depended upon the active response and hearty support of the countryfolk. One may not be ready to subscribe to a strict economic interpretation of history, and yet may recognize the inevitable connection between the changes in the external conditions of New England and the changes in its inner spirit. The New England farmers had been awakened; they had been encouraged, disturbed, disappointed, and perplexed. But most important had been the awakening, the preparation of their minds for the reception of new ideas.

PERCY W. BIDWELL.

⁴³ Professor Turner has described these reform movements in chapter II. of his *Rise of the New West* (New York, 1906). In a recent paper, "Greater New England in the Middle of the Nineteenth Century" (*Proceedings of the American Antiquarian Society*, new series, XXIX. 222-241), he relates "the changes of these revolutionary decades" to emigration to the West, showing how the democracy and optimism of the new region reacted on literature and politics in the older parent communities.