GETTING BACK TO OUR BASE OF SUPPLIES:
WHAT THE REVIVAL OF SMALL FARMING
WOULD MEAN TO THIS COUNTRY: BY
EDGAR J. HOLLISTER

Editorial Note.—This is the first of a series of articles relating to practical methods
of fertilizing and cultivating different varieties of soil, planting and harvesting crops
and eliminating the element of waste that now cuts off so much of the profit from
farming, the object being to give as definite an idea of modern methods of farming
on a small scale as we purpose to do of the various forms of handicraft which would
be desirable to carry on in connection with intensive agriculture. Mr. Edgar J.
Hollister, the writer of this series of agricultural articles, has been made a member of
The Craftsman staff for the reason that he is to an unusual degree qualified to supple-
ment the efforts of the editor to create a general movement in the direction of a return
to small farming allied with handicrafts. Mr. Hollister has devoted many years to
acquiring a comprehensive knowledge of the science of plant physiology and soil
physics with a view to determining the effect of environment on different crops. He
has tested by actual practice under widely varying conditions every theory which he
advances, and in connection with this work he has devoted much time to the reclama-
tion of waste land and to colonization where it has been found practicable. He has
carried on this reclamation work in Florida, Ohio, Colorado and Canada, where he
has achieved remarkable results in draining, fertilizing and reducing to cultivation
lands generally supposed to be worthless and in placing upon them people willing and
anxious to undertake farming according to modern methods. Mr. Hollister organized
the Winona Agricultural Institute at Winona Lake, Indiana, of which he was dean
until he abandoned this form of educational work for the larger enterprise of reclama-
tion and colonizing, with which work he is still engaged. He has approached every
problem from the practical side, and his instructions in farming are clear, practical
and easily put into effect by any one who is willing to take a fairly intelligent interest
in the work of bringing forth what the soil has to produce.

ONE of the questions most under discussion today is
the necessity of taking some measure to restore agricul-
ture to its former position as the most important
industry of this country. Our ambition is boundless
and our commercial and industrial expansion has been
phenomenal, but nevertheless we find ourselves at the
present time in the situation of an army which has allow-
ed itself to be cut off from its base of supplies. We have been so intent
upon conquest that we have failed to keep open our line of retreat,—
a fatal oversight in commercial, as it is in military advance. Thus
far, backed by widely varied and generally favorable climates, the
best soils in the world, and abundant production of all the natural
food supplies, we have never had to consider the question of scarcity.
On the contrary, we have not only had enough and to spare for our-
oneselves, but have always been able and ready to go to the relief of other
nations suffering from famine. But now we are confronting the
fact that we shall soon have ninety millions of people to sup-
port and that the price of foodstuffs of all kinds is almost prohibitive,—
not because the market is cornered by trusts or by stock gamblers

267
GETTING BACK TO OUR BASE OF SUPPLIES

in Wall Street or the Pit, but because the sources of supply are too far removed from the commercial centers and production is insufficient for the needs of the population.

Such a state of affairs seems absurd in a country of such vast extent, where the natural resources are almost boundless, but nevertheless it exists, and it has been brought about largely by our own neglect and wastefulness. We have formed our population into a huge army which exists solely for commercial and industrial conquest, and each individual is so bent upon immediate gain that the larger necessity of providing sufficient supplies has been lost sight of. We have allowed ourselves to drift away from our base of supplies, a lack of forethought for which the individual citizen is no less responsible than the leaders of the great organizations who have made possible our commercial prestige.

IN THE beginning the government owned the land, which was granted or sold to the settler. In assuming the ownership and undertaking the cultivation of the land, the settler naturally assumed also the charge of a portion of the source of supplies upon which the whole country depended. Yet, not realizing the larger responsibility he had taken upon himself, the farmer considered only the needs of himself and his family, regardless of the future or of the general welfare. The magnificent trees were felled, and what could not be used for buildings, fences or fuel, was cleared away by fire. The soils were cropped until exhausted, and then, with no thought of care or restoration, were abandoned for other and more fertile tracts which in turn received the same treatment, and so were introduced the wasteful and destructive methods which, carried on by successive generations and practised by a rapidly increasing population, have resulted now in an imminent timber famine, an approaching coal famine, the threatened destruction of our inland water supply and the present scarcity of all food supplies.

In the early days, when population was scanty and the natural resources almost untouched, no amount of waste seemed to make much difference. Farming, except to supply local needs, was hardly necessary, as game and fish abounded and it was easy to keep the larder well stocked with very little labor. Later, however, as the land became more thickly settled and the supply of game and fish decreased, more land was put under cultivation, more domestic animals were raised for food, bountiful harvests were reaped for the market as well as for home use and trade at home and abroad grew
swiftly and steadily. Conditions were healthy and prosperous and there was plenty for everyone. The first great change came with the discovery of gold in California in eighteen hundred and forty-nine, when so many of the eastern and middle western farms were abandoned in the rush to the mines. Then the get-rich-quick spirit took possession of the land, and ever since there has been the tendency on the part of young men to leave the farms whenever an opportunity offered to obtain work in a town or city. This movement was accelerated by the Civil War, which drew so heavily on the farming population, and by the rapid development along all lines which came almost immediately after the close of the war. There was a temporary revival of interest in farming just after the war, for the high prices to be obtained for all products encouraged investment in land, but the movement was toward the west, where immense tracts of land could be cultivated on a large scale, and the small eastern farms were either abandoned or left to the older and less enterprising farmers.

Led by the prevailing spirit of ambition to do things in a big way that would show quick and brilliant results, the press, the pulpit and the schools joined in urging the farmers’ sons and daughters to strive for a higher education, holding up as a standard the brilliant successes made by many young people who had left the farms to enter the professions or the race for commercial or political supremacy. This movement, of course, was natural and necessary in the development of a vigorous young nation, but the inevitable result was that the farms were continually robbed of the strength and ability of the younger generation, and that farming gradually fell into disrepute as an occupation fit only for those who were unable to do anything else. The place of our young men was taken by foreigners who came to the farms of this country as to a promised land, but the children of these foreigners also joined in the rush to the cities, for, as they became Americanized, they also became educated away from work and imbued with the desire to get rich as quickly and with as little work as possible.

Also, there entered into the situation the element of exploitation of the land for the greatest immediate gain. Labor-saving machinery was introduced into farming as well as into manufacturing, so that agriculture was generally carried on with the aid of inexperienced foreign laborers who were taught to run the gang plows and the reaping, heading and threshing machines, and had no knowledge or interest beyond doing as they were told and drawing their monthly
wage. The methods of farming by machinery were expensive and wasteful, and the farmer,—or rancher, as he might more properly be called,—too often staked his all and all he could borrow upon the production of some huge crop which would be blighted by flood or drought, or harvested only to be marketed at a loss because of the price of transportation or a deal in stocks. In the west it has not been uncommon for ranchers to pay twelve or fifteen per cent. on loans that were absolutely necessary to provide means for planting or harvesting the crops, and so heavily were their lands mortgaged that often a single failure meant ruin and foreclosure. Yet so possessed was the whole country with the idea that everything must be done on a large scale and with the aid of labor-saving machinery, that men took these tremendous risks and assumed these burdens in the hope of ultimately making a fortune, while the home farms in the east were left uncultivated and in many cases absolutely abandoned, so that thousands of them may now be bought for less than the cost of the buildings.

Under this system of farming real thrift has been impossible. In the early and more primitive days the general abundance made it seem unnecessary, and on the big ranches the methods of agriculture have never taken into account the details of saving and preserving. In nearly all cases most of the elements which make for continued productiveness were, for lack of proper drainage, washed by spring and fall rains down into the streams and lost forever. If the money value of this steady loss could be estimated, the figures would seem almost incredible. Moreover, by persistent neglect on the part of the farmer, this same process of washing away causes an annual loss of millions of dollars in the matter of farmyard manure, so necessary to the productive life of the soil. The amount of annual loss from this item alone is placed by Dr. Wiley of the Department of Agriculture at fifteen dollars for each full grown animal. Conservative farmers who are now beginning to pay some attention to the methods of intensive agriculture estimate the annual loss from this one detail of the general waste at over two hundred thousand dollars for each county in the average farming district.

Again, in the usual method of preparing the soil for crops, the surface is not made fine enough to produce the best results in the germination of seeds, and so much is lost through an unnecessarily insufficient yield. To this may be added the losses that come from the failure to exercise care and judgment in the selection of good seed
and of the proper varieties to produce the best results in a given soil and climate, the indifferent cultivation and care of the crops up to the time of harvesting, the wasteful methods employed for the harvesting itself, and, finally, the neglect shown in the proper care and breeding of animals. All these elements of waste are apart from the external accidents of drought, disease and parasites, so it is not at all remarkable that the average annual yield of wheat has fallen below twelve bushels to the acre,—a yield that would be still further reduced were it not for the work of the two thousand experts that the government employs to look up new varieties of grain that will better resist drought and disease, to find the most effective methods of fighting insect pests, and to teach the farmer how to bring up the fertility of the land by better drainage, by careful cultivation, by wise selection of seeds and by the rotation of crops that will preserve the productive qualities of the soil.

But the question now is how long these two thousand experts are going to be able to meet the exigencies of the situation unless they are given not only the cooperation of the farmer but of the whole country. We are at present unquestionably passing through an agricultural phase similar to those which have already taken place in England, France and Germany, where between fifteen and twenty years ago the yield had reached a general average of fifteen bushels to the acre. Expert investigation with a view to remedying this condition was at once set on foot. The farmers lent prompt and intelligent cooperation and the work of the experts received the cordial support of the whole people of each nation. The physical and chemical conditions of the soil, which had been exhausted by indiscriminate cropping, had to be built up; a slow process that has taken fifteen years to accomplish. But the result is that now the annual yield in France has increased to twenty-seven bushels per acre and in England and Germany to thirty bushels. The good effects in all three countries are beyond question; especially in France, where the average health of the people has attained a much higher grade, showing the effects not only of better nourishment, but of greater wholesomeness in environment.

The same thing is now being done in this country, which, in spite of its immense wealth and commercial prosperity, is not producing enough to enable its people to obtain sufficient food at prices the working man can afford to pay. During the panic of last October we exulted because, whatever the crisis among the Wall Street magnates, the huge crops of the west were a solid asset that insured the country against any long-continued hard times. It is true that our agricul-
GETTING BACK TO OUR BASE OF SUPPLIES

tural products last year amounted to more than seven billions of dollars; but it is also true that this enormous yield means only eighty dollars’ worth of these products per capita, and that the food supplies for the most thickly settled districts have to be brought from a distance, with all the added cost of transportation and handling, while the lands around our large cities lie idle, a prey to the greed of the speculator in real estate. Even where farms still exist in the neighborhood of the great commercial centers, they are for the most part cultivated only in a half-hearted way pending a rise in land values which may enable the farmer to sell out. The trees remain untrimmed and the fields untilled, while the city markets are supplied with fruits and vegetables brought from a distance in refrigerator cars. Small wonder that the prices of all our food supplies are high and show every indication of going higher.

THE need for economy that confronts us now is not theoretical, but a stubborn fact. We have wasted our resources until the end of our boasted abundance is in sight,—unless measures are taken not only to conserve what we have left, but to produce according to our steadily-increasing need. And the minute we begin to do this in earnest, we begin to get back to the soil,—to the natural base of supplies. The great need today is for more and cheaper farm produce, and there is already setting in a strong movement toward making it possible to obtain it. The great difficulty is that men have largely lost their power to wrest a living from the soil, let alone farming for profit. They have been too long in the factories to be able to cut loose from the pay-roll and go out and set themselves to work as their forefathers did. This lack of resource and initiative, as well as of training, is one of the chief stumbling-blocks in the way of any effective effort to encourage small farming. The other is the lack of capital and the high prices put upon vacant land that is anywhere near the big commercial centers. The moment there is any hint of a demand the speculator in real estate steps in and buys up large tracts which are held for a rise in value. In older countries where the land has long been in possession of the few, it has been thought wise to pass laws whereby the government has been empowered to purchase large tracts from individual owners and resell or lease the land in small parcels to the people who wanted farms. In other instances the people have organized themselves into societies for the purpose of purchasing land to be divided into small farms where they could make homes and so gain a fresh start. Even in this country, in spite of
GETTING BACK TO OUR BASE OF SUPPLIES

speculators and syndicates, there is still a large area of unsettled lands in the west and northwest, belonging to the government, which may be purchased for settlement on very reasonable terms, and we have also much land owned by individuals in the southern, north Atlantic and central states which should be purchasable at a figure based on the producing power of the land. But with the lack of concerted action, and with the general desire of working people to remain near the cities, nothing so far has been done toward any adequate solution of the problem.

At present it is almost impossible to purchase a few acres of land within easy reach of any one of the large markets, both because of the element of speculation that is sure to crop up as soon as such a move is made, and also because owners of property would rather dispose of a whole farm of a hundred acres or more than to sell it off in small portions such as a poor man would be able to pay for and to cultivate when he had bought it. So, unless some measures can be taken to open up these lands to occupation, it is necessary to look farther afield to the less thickly settled parts of the country and to turn our attention to making it possible to establish there farms and settlements where people could not only settle in homes and make a living, but also do their part toward re-establishing the national bases of supply.

Yet even to do this would not solve the most serious part of the problem,—the training and equipment of the individual who has long been alienated from the land so that he can produce not only his own food supply but much more by practising agriculture according to modern scientific and economic methods,—an industry which demands resource, intelligence, and, above all, great and constant interest in the work. Under present conditions this might be done in isolated and exceptional cases, but after all it would only be the same thing over again,—the boys and girls would be brought up and educated along lines that would induce them to get away from the farm at the earliest opportunity for what they would regard as a wider and more promising field of endeavor. Then when hard times came they would be just where they are today,—out of employment and separated from the base of supplies. So it has been clear to all who are thinking and planning along these lines that something must be done other than merely putting people back on the land to practice farming as they would any other industry.

It was with this problem in mind that my attention was first attracted to the solution urged by the editor of The Craftsman, in
GETTING BACK TO OUR BASE OF SUPPLIES

his article on "Small Farming and Profitable Handicrafts," published in the April number of this magazine. Enthusiasts for the revival of agriculture have been forced to acknowledge that a great obstacle in the way of it was the fact that all other sources of income would probably be cut off while the land was being brought into bearing, and that, at best, the man or woman used to earning a regular wage would for this reason find farming hard and discouraging at first. Besides, there would also be the lack of diversity of employment, and the enforced partial idleness during the times of the year when the labors of the small farmer are necessarily light. Unless each farm were equipped with greenhouses, cold frames or hotbeds, there must be months when the farmer would be prevented from pursuing his occupation, and to most of them this would mean simply time lost and surplus cash used up for the purchase of necessaries during a time of non-production. The suggestion that some form of profitable handicrafts, in which all the family might share, be introduced in connection with the cultivation of small farms, seems to me to supply the bridge needed to make it possible for the workman to cross the gap between the factory and the farm. More than this, it would mean the interest in varied forms of work that would tend to keep the young people at home, because at home they would find sufficient interest and chance for individual development along any chosen line of industry. In short, the formative years of the boy or girl would be passed under natural and healthy conditions, as free from monotonous drudgery as from unwholesome excitement, in an environment that would tend not only to give each individual a thorough knowledge of how to supply the necessaries of life, but also the qualities of self-reliance and the power of adaptability to any condition in future life, from successful farming up to the highest position within the gift of the people. It would mean that the rising generation would have no reason or inclination to separate itself from the base of supplies, because, in case of failure in other ventures along industrial, commercial or professional lines, the line of retreat would always be kept open by the fundamental knowledge of just how to wrest a living from the soil and also skill in the doing of some form of profitable creative work.

This brief analysis of conditions with regard to the present state of agriculture in this country is intended to be supplementary to the analysis of industrial conditions already made by the editor of The Craftsman, and also introductory to a series of articles on intensive agriculture and practicable methods of reviving interest in small farming.