Prince Kropotkin’s Economic Arguments

Although the thought of this Russian writer is familiar to American students of science and not unknown to the legions of readers of current literature existing among us, his statements are of sufficient importance to bear repetition and comment. He deserves to be heard and understood by all who desire to further the real education, progress and prosperity of our people. His words upon the “economy of energy required for the satisfaction of human needs” merit the closest attention from parents who are now meeting the perplexing problem as to how the abilities of their children shall best be employed; nor should these same words interest to a less degree the youth who are advancing to receive the burden of the world’s work.

Prince Kropotkin’s series of essays, now published in book form, under the title “Fields, Factories and Workshops,” were, in the main, previously printed in The Nineteenth Century and The Forum; but as in our large country a few mediums of information cannot accomplish all necessary and desirable results, a brief review of the same work will not here be superfluous. The essays in question are a discussion of the advantages which civilized societies could derive from a combination of industrial pursuits with scientific agriculture, and of brain work with manual labor.

The importance of such a combination, Prince Kropotkin says in his preface, was recognised a half century ago by certain investigators who gave the proposed system various names, such as “harmonized labor,” or “integral education,” and these first advocates of the fertile union of brain and hand pleaded that the greatest sum total of well being can be obtained when a variety of agricultural, industrial, and intellectual pursuits are combined in each community; that individual man shows at his best when he is in position to apply his varied capacities to several pursuits in the farm, the work-
shop, the factory, the study or the studio, instead of being riveted for life to one of these pursuits only.

When viewed from the middle of the nineteenth century such a combination could only be a remote possibility and desideratum, but the Russian author regards the wonderful simplification of the technical processes in both industry and agriculture as a distinct and rapid tendency toward a synthesis of human activities.

The theories of Prince Kropotkin are contained in germ in the statement that his economic ideal is one of a nation supplying its own wants, both as to manufactured articles and as to foodstuffs, the latter to be obtained by a scientific tilling and care of the land which he names "intensive culture." His entire system is therefore one of decentralization, of home-producers and home-consumers; one which he claims would do away alike with the waste of the earth's resources and the waste of time and human energies.

At the beginning of his essay upon the decentralization of industries, the Russian author gives a gloomy though graphic description of the present "division of labor." He pictures the modern ideal of a workman as a man or a woman, a girl or a boy, without the knowledge of any handicraft, without conception of the industry in which he or she is employed; who is only capable of making all day long and for a lifetime the same infinitesimal part of something; who from the age of thirteen to that of sixty pushes the coal cart at a given spot of the mine, or makes the spring of a pen-knife, or the eighteenth part of a pin; who is a servant to some machine of a given description, having no idea how and why the machine performs its rhythmical movements.

Nor would certain economists and political men have this process of specialization stop here. They would divide entire humanity into national workshops or producing centers, the outputs of which have been determined by nature or historical events. As
for instance, according to their theories, the destiny of England is to provide the world-market with cottons, iron goods and coal; that of Belgium to supply woolen fabrics; that of Hungary and Russia to produce corn to feed the manufacturing countries.

This plan having been partially carried into effect, has proven to be discordant with the tendencies of human life. Individuals and nations alike refuse to be specialized. The individual, as Plato affirmed twenty-five centuries ago, is the epitome of the State; each being an aggregate of tastes and inclinations, of wants and resources, of capacities and inventive powers. The same is true of nature herself, for variety is her chief characteristic: a variety manifest in soil, climate and topography which demands a diversity of occupations,—the integration, rather than the specialization of human capacities. Agriculture, affirms Prince Kropotkin, calls manufactures into existence, manufactures support agriculture, and the two activities in combination, or “integration,” produce the most desirable results. He emphasizes the truth apparent to all thinkers, that technical knowledge has become international and can no longer be concealed: which means that each nation to-day may apply the whole variety of her energies to the entire range of industrial and agricultural pursuits. Once again, the author refers to the division of labor as a past stage in the evolution of humanity; proclaiming what he names “integration” as the state toward which the world is tending: a society in which each individual shall be a producer of both manual and intellectual work; in which each aggregation of individuals, large enough to dispose of a certain variety of natural resources, shall produce and itself consume the greater part of its own agricultural and manufactured products.

As a picture of the present, he quotes from the description of international traffic given by the enthusiastic Neumann Spallart, whom he calls the
statistician and poet of the world-market: "'Why shall we grow corn, rear oxen and sheep, cultivate orchards, go through the painful work of the laborer and the farmer, and anxiously watch the sky in fear of a bad crop, when we can get, with much less pain, mountains of corn from India, America, Hungary or Russia, meat from New Zealand, vegetables from the Azores, apples from Canada, grapes from Malaga', exclaim the West Europeans. 'Already now' they say, 'our food consists, even in modest households, of produce gathered from all over the globe. Our cloth is made of fibres grown and wool sheared in all parts of the world. All races of men contribute their share in supplying us with our staple food and luxuries, with plain clothing and expensive fabrics, while we are sending them in exchange the results of our higher intelligence, our technical knowledge, our powerful industrial and commercial organizing capacities. Is it not a grand sight, this busy and intricate exchange of produce all over the earth, which has suddenly grown up within a few years?""

The comments of Prince Kropotkin upon this quoted passage are most thoughtful and interesting. He claims that economists and politicians in general have mistaken a temporary stage in the evolution of society for a permanent state; that the world-wide existing specialization and division of labor is but a single phase in the consecutive development of nations. To sustain his point he draws illustrations from modern European history. The Napoleonic wars between England and France had, he insists, a foundation much deeper than political causes. They were economic. They were wars for the supremacy of the world market. The victor in the contest, Great Britain, was favored by an era of invention and began to produce in great quantities both improved machinery and manufactured articles. In less than seventy years, says our writer,—from 1810 to 1878,—the output of coal grew from 10,000,000 to 133,000,000
tons; and the exports of manufactured goods from an insignificant figure to 200,000,000 pounds. The tonnage of the commercial fleet was nearly trebled, and fifteen thousand miles of railways were built.

These results were obtained by tyranny and torture exercised over the manufacturing people. Meanwhile, capital accumulated in the hands of the privileged classes to the degree that to-day a person considered rich on the continent appears only as one of modest means in the British Isles. Industrial production was thus monopolized for nearly a half-century by England, at the end of which France, having repaired the injuries to her industries inflicted by the Great Revolution, reasserted herself in the world-trade, becoming stronger and stronger, until she now shows a marked tendency toward becoming a self-supporting country, relying upon a wealthy home market for the sale of her manufactured articles.

Germany, according to our author, has followed the initiative of France: having reorganized her industries since the war of 1870, and having begun her new manufactures at the point at which Manchester arrived only after a century of costly experiment.

And thus the march of industrial progress continues to the eastward, Russia giving certain promise that while remaining an agricultural country, she will expand her industrial powers to the extent of producing in manufactures all that she needs. And this desirable result will be obtained partly through her natural resources, and partly through the efforts of her laborious and intelligent youth, who even now are firm advocates and exponents of technical education, of workmanship combined with science.

The lesson drawn from these economic changes and progress, from this consecutive development of nations, is that the two industrial pioneers, England and France, instead of ignoring facts, should
seek a new direction for their creative genius; that they should utilize both land and industrial power to secure well-being to the entire nation and not to the privileged few.

The tendency toward emancipation from foreign guardianship is everywhere apparent. Italy—in the words of a native economist, a country having neither fuel nor minerals of her own—has developed, within a few years, a notable metallurgical industry. Brazil, doomed by the old economists, to export raw cotton, has recently developed her manufactures to the degree of producing cotton stuffs by millions of yards annually, and in quality equal to the imported article. India also bids fair to produce her own cotton textiles: even now owning, according to the statements of the German chambers of commerce, spinning mills almost rivaling those of the German Empire, and possessing native workmen, whose natural talent is equaled alone by the operatives of Lancashire. Japan has also entered the list of manufacturing nations, with China soon to follow, according to the prophecy of Prince Kropotkin, who builds his statements upon figures rather than fancies. In closing his argument he gives utterance to words which deserve to be quoted, saying: “Industries of all kinds decentralize and are scattered all over the globe; and everywhere a variety, an integrated variety, of trades grows, instead of specialization. Such are the prominent features of the times in which we live. Each nation becomes in its turn a manufacturing nation; and the time is not far off when each nation of Europe, as well as the United States, and even the most backward nations of Asia and America, will themselves manufacture nearly everything of which they stand in need. Wars and several accidental causes may check for some time the scattering of industries: they will not stop it; it is unavoidable. As soon as any industry has taken firm root, it calls into existence hundreds of other trades. . . . This fact is so well understood
that colonization: that is, means to provide markets for manufactured goods—has become the distinctive feature of the last twenty years. . . . But colonies will not help. There is not a second India in the world, and the old conditions will be repeated no more. Nay, some of the British colonies already threaten to become serious competitors of their mother country; others, like Australia, will not fail to follow the same lines. . . . But progress is in another direction. It is in producing for home use. . . . Under the present conditions of labor, the spreading of industries over new fields is accompanied by horrible facts of pitiless oppression, massacre of children, pauperism, and insecurity of life. The Russian Fabrics Inspector’s Reports, the Reports of the Plauen Handelskammer, and the Italian inquests are full of the same revelations as the Reports of the Parliamentary Commissions of 1840 to 1842, or the modern revelations with regard to the “sweating system” at White Chapel and Glasgow, and London pauperism. The Capital and Labor problem is thus universalised; but, at the same time, it is also simplified. To return to a state of affairs where corn is grown and manufactured goods are fabricated for the use of those very persons who grow and produce them,—such will be, no doubt, the problem to be solved during the next coming years of European history.”

One of the steps or processes of this problem Prince Kropotkin discusses under the title of “The Possibilities of Agriculture.” He begins by recalling the teachings of the older school of economists and politicians, that overpopulated territories must import food and export manufactured articles; also, that even if it were possible to grow in such regions all the food necessary for their inhabitants, there would be no advantage in doing this, since foodstuffs are obtained most cheaply from those countries which are destined by nature to produce them. To refute the first point, Prince Kropotkin adduces the case of Great Britain, which at present yields
food for one-third only of its inhabitants, and possesses a proportion of only one acre of cultivatable land to each inhabitant, an acreage most insufficient under the present system of agriculture. But hope lies even in these figures; for statistics prove that while in 1853-60 the soil of Britain nourished one inhabitant upon every two acres cultivated, three acres were required for the same work toward the end of the nineteenth century: a fact which argues the decline of agriculture. And such decline has been inevitable, for within the last half-century one-third of the farm laborers of Great Britain have gone to reinforce the artisans of the towns, leaving the fields, in the phrase of a sympathetic writer, "starved of human labor." And now, by the showing of the census returns, only 1,383,000 men and women in England and Wales work in the fields, while more than sixteen millions belong to the "professional, domestic, indefinite and unproductive class." For the recall and the reinforcement of the agriculturists Prince Kropotkin offers a scheme which is to be mentioned later. For the betterment of the results of field labor he urges "intensive culture:" that is, the application of the latest discoveries in biology, chemistry, and science in general to the production of cereals and green crops; such intelligent culture as is found in Belgium, the island of Jersey, the neighborhood of Paris, the irrigated plain of Lombardy, and the "truck" farms of America. At all these points, as is indicated in the essay, life and growth are treated physiologically, and according to the law of the survival of the fittest. Whatever may be the plant, it is treated like an individual, it is developed and trained to highest degree of its possibilities. Nor is there more a question of good or bad lands, since the soil is made: made even in such quantities that in the case of market gardening, it must be removed in part each year,—a fact which in itself creates a source of income for the cultivator. Indeed, the production of soil is so sure and successful that the Parisian market-gardener defies both natural
formation and climatic conditions. It is said of him in pleasantry that he could grow his crops, did he so desire, upon the asphalt of the boulevards, and that he has given to his city "the two degrees less of latitude" after which a noted French scientist spent his days in longing. Prince Kropotkin sums up the accomplishments of this strenuous tiller of the soil by saying that "he supplies the city with mountains of grapes and fruit at any season; and in the early spring he inundates and perfumes it with flowers. But he does not only grow articles of luxury. The culture of plain vegetables is spreading every year; and the results are so good that there are now practical cultivators who maintain that if all the food, animal and vegetable, necessary for the three million, five hundred thousand inhabitants of the departments of the Seine, and the Seine-et-Oise had to be grown on their own territory, it could be produced without resorting to any other methods of culture than those already in use; since these methods have already been tested on a large scale, and have proven themselves successful.

Continuing his argument, the essayist confesses that even here he does not find his ideal agriculturist; for the Frenchman thus employed, has no time in which to live the life of a human being; devoting, as he does, his entire time, together with prodigies of labor, intelligence and imagination to the manufacture of soil and the protection of plant-life by providing moisture and an equable temperature. To some degree the pains of this laborer are lost, since the first essential, the soil,—can be made as well by machinery as by hand: an aid and alleviation of which the agriculturist would avail himself, if a right social and political organization prevailed to prevent fraud in the manufacture of fertilizers, and excessive profits in the production of implements. Were such organization in force, and were agriculturists everywhere sufficiently enlightened to discard tradition for the latest results in invention and science, each country of the tem-
perate zone would easily—at least, such is the opinion of one who bases his belief upon facts and statistics—supply its own foodstuffs, both vegetable and animal; satisfying the needs of all in spite of teeming population.

This plea for "intensive agriculture" is no Utopian, impossible scheme. Rather it contains elements of certainty, as may be proven by a comparison between the farms of different regions of our own country, in which the average crop of the chief wheat-growing States of the West is from eleven to twelve bushels the acre, while thirty to forty bushels on the same area are produced by intensive farming in some of the Eastern States, where the soil is the work of man's hands.

In this system of culture the Russian finds the refutation of Malthus's so-called "Principle of Population" which has directed for three generations the current of economic thought by the assertion that the poverty of the many is not due to institutions, but that it is a natural law as fixed as are the governing principles of the natural world. Malthus wrote in the eighteenth century that population increases too rapidly and that "the new-comers find no room at the feast of nature;" that there exists but a limited and insufficient supply of the necessities of life. This theory superficially showing an affinity with certain of Darwin's ideas, and thus apparently gaining scientific sanction, has long justified the wealthy classes and deprived the poor of hope; while both possessors and dispossessed have alike believed that a population which should double each thirty years would soon be confronted by a lack of the necessities of life.

The rapid increase of industrial wealth, through the development of steam and electrical power, has latterly somewhat shaken the Malthusian doctrine, since it is a rate of growth which no increase of population could reach; but economists still maintain that the surface of the soil, as well as the productive power of
the earth, is limited; therefore that the danger is not averted by the rise of the new agents. Confronting theory with fact, Prince Kropotkin cites the case of France, whose peasant cultivators, within the last century, have nearly doubled the area given up to wheat, and have increased almost fourfold the returns from each acre; while, at the same time, the population has increased but forty-one per cent., facts which show that the ratio of increase of the wheat crop has been six times greater than the ratio of increase of population. Farther on, the essayist recommends the horticultural, that is, the individual or "pedigree" treatment of cereals, by means of which the product of a wheat or barley field is multiplied to an almost incredible degree. The treatment, as described, consists of two processes: a process of selection, in order to create new varieties of cereals, similar to the breeding of new varieties of earth; and a method of immensely increasing the crop from each grain by planting each seed separately and wide apart, so as to provide room for the development of the young plants which, under the old system of broad casting seed, are stifled and deteriorated, like human life under the tenement system.

In concluding his essay upon the possibilities of agriculture, the scientific economist is grimly humorous when he says: "The obstacles against 'intensive culture' are not in the imperfections of the art of husbandry, or in the unfertility of the soil, or in climate. They are entirely in our institutions, in our inheritances and survivals from the past—in the 'Ghosts' which oppress us." But again, he strikes a high note of hope and optimism in the words: "Our means of obtaining from the soil whatever we want, under any climate and upon any soil, have lately been improved at such a rate that we cannot yet foresee what is the limit of productivity of a few acres of land. The limit vanishes in proportion to our better study of the subject, and every year makes it vanish farther and farther from our sight."
Once again the essayist insists that this intensive agriculture of which he is so fervent an advocate could not make the tiller of the soil a slave, as is now the case with the skilful farmers of France, or the Channel Islands, and even in America. The remedy which he proposes for the present evil is a return to that union of the farm with the workshop which existed prior to the development of machinery. And in his belief the dissensions between labor and capital which now agitate the economic and social world must be ended by a speedy combination of agriculture with industry, by a rural manufacture which shall supply the wants of the million, and shall infuse a new interest in the lives of countless families and individuals who are now made hopeless by the monotony of a single and exacting labor. He would not, as might be inferred, displace the factory with its facilities for rapid production, but he regards the extension of small industries as an economic necessity dependent upon large enterprises. He argues that each new factory calls into existence a number of workshops, partly to supply its own needs, and partly to submit its produce to a further transformation; also, that each new industry, however important its destiny, passes through a preliminary process before arriving at the factory stage; again, that the number of these rising industries stands in proportion to the inventive genius of the peoples among whom they are developed; finally, that the factory stimulates the birth of small trades by creating new wants, as is instance in the effect of the cheap production of cottons, woolens, paper and brass, which has filled our households with things made from them and quite largely of very recent invention. For examples of small industries Prince Kropotkin turns to France, a country which he considers as successful in this department of labor as in highly developed agriculture. In this connection he makes the interesting comment that small industries—at least such as are essentially good and useful—do not disappear at the establishment of
the factory; but rather modify and adapt themselves to
the new conditions, precisely after the manner of organ-
isms in the natural world. This fact is especially notice-
able in the hill country about Lyons, where, within the
past thirty years, the small industries have undergone a
thorough transformation, preserving their original finan-
cial importance, but altering largely their products: in this
way showing the advantages of the union of agriculture
with craftsmanship as well as the creative genius of the
Gallic race; making credible also the popular opinion that
France, if the mass of her people be considered, is the
richest country of Europe. To the assiduous practice of
small industries is also attributable to the position of the
Parisian workmen, who have a higher intellectual devel-
opment than the artisans of any other European capital,
and whose powers are used constantly to produce new
designs and to perfect technical methods. But as the
ideal tiller of the soil is not realized in the alert, laborious
and intelligent market-gardener of the suburbs of Paris,
no more is the ideal craftsman incarnate in one who prod-
igally spends his delicate manual skill at the bench of an
ill-lighted workshop within the walls of the same over-
crowded city. According to Prince Kropotkin, the ideal
artisan can develop only under condition that his work-
shop be carried into the field, that his capacities be "inte-
grated," so that he may use at will his brain and his hand;
that he may labor alternately in his field and in his cot-
tage; that he may not be the slave of a certain section of
his brain or of a single set of muscles.

The integral education dis-
cussed in the last chapter of Prince Kropotkin's treatise,
is a scheme for the training of a youth, by which the in-
dividual, man or woman, at the age of twenty, might be
fitted easily to earn a competence from the exercise of
some manual trade or art; which trade or art would be
acquired not to the detriment, but rather to the advantage
of intellectual development, through provision being made
for the more natural and rapid acquirement of the sciences and mathematics. This education, or leading out of human powers, would be accomplished by the cooperation of the brain, the eye and the hand. It would create a society in which producer and consumer should no longer be separate and hostile forces, but should be joined in one and the same individual. Such education at once scientific, artistic, technical, and industrial, would conserve and augment the energy required for the satisfaction of human needs. And as an example of its workings, we might see the discoverer or inventor, the civil engineer, and the artisan combined in one man capable of piercing the secrets of nature, of applying what he has found to practical uses, and of fashioning the apparatus by which his discovery or invention is made to supply a real need, or to increase comfort and happiness. By such means would the productiveness of labor be immensely increased, and work itself be rendered easy and pleasant, since every task would be thoroughly understood as to its purpose and relative importance.

It is the plea of the Russian economist that the school and the factory or workshop should be regarded as a single place of training and culture, and that in the decentralization of industries—which is the spontaneous expression of our times—the factory and the workshop should be set within the fields and at garden gates. There men and women would not be driven by hunger, but rather they would be attracted to a place where, aided by the motor and the machine, they would choose that branch of usefulness which best suits their inclinations.

Such are in brief the theories advanced in "Fields, Factories and Workshops," and here almost quoted in the words of the author. But to appreciate the enthusiasm and optimism of these arguments a personal contact with the work is essential. The book is not one to be avoided by those who distrust Uto-
pias and Ideal Republics. It is based upon facts, and proceeds with scientific reasoning to justifiable conclusions. It does not deny the statement to-day heard on all sides: "It is good to be rich." It modifies the assertion by a higher and finer knowledge. It teaches that men in order to be rich need not take the bread from the mouths of others, but that there is possible a society in which men, by the work of their hands, their own intelligence, and the aid of machinery already invented and to be invented, may themselves create all imaginable riches.

"Each nation her own agriculturist and manufacturer, each individual working in the field and in some industrial art, each individual combining scientific knowledge with the knowledge of a handicraft, —such is, we affirm, the present tendency of civilized nations."

*Prince Kropotkin, in "Fields, Factories and Workshops,"* Page 6.