

BOOK II

POPULATION AND SUBSISTENCE

CHAPTER I.—THE MALTHUSIAN THEORY, ITS GENESIS AND
SUPPORT

CHAPTER II.—INFERENCES FROM FACTS

CHAPTER III.—INFERENCES FROM ANALOGY

CHAPTER IV.—DISPROOF OF THE MALTHUSIAN THEORY

Are God and Nature then at strife
That Nature lends such evil dreams?
So careful of the type she seems,
So careless of the single life.

—*Tennyson.*

CHAPTER I

THE MALTHUSIAN THEORY, ITS GENESIS AND SUPPORT

Behind the theory we have been considering lies a theory we have yet to consider. The current doctrine as to the derivation and law of wages finds its strongest support in a doctrine as generally accepted—the doctrine to which Malthus has given his name—that population naturally tends to increase faster than subsistence. These two doctrines, fitting in with each other, frame the answer which the current political economy gives to the great problem we are endeavoring to solve.

In what has preceded, the current doctrine that wages are determined by the ratio between capital and laborers has, I think, been shown to be so utterly baseless as to excite surprise as to how it could so generally and so long obtain. It is not to be wondered at that such a theory should have arisen in a state of society where the great body of laborers seem to depend for employment and wages upon a separate class of capitalists, nor yet that under these conditions it should have maintained itself among the masses of men, who rarely take the trouble to separate the real from the apparent. But it is surprising that a theory which on examination appears to be so groundless could have been successively accepted by so many acute thinkers as have during the present century devoted their powers to the elucidation and development of the science of political economy.

The explanation of this otherwise unaccountable fact is to be found in the general acceptance of the Malthu-

sian theory. The current theory of wages has never been fairly put upon its trial, because, backed by the Malthusian theory, it has seemed in the minds of political economists a self-evident truth. These two theories mutually blend with, strengthen, and defend each other, while they both derive additional support from a principle brought prominently forward in the discussions of the theory of rent—viz., that past a certain point the application of capital and labor to land yields a diminishing return. Together they give such an explanation of the phenomena presented in a highly organized and advancing society as seems to fit all the facts, and which has thus prevented closer investigation.

Which of these two theories is entitled to historical precedence it is hard to say. The theory of population was not formulated in such a way as to give it the standing of a scientific dogma until after that had been done for the theory of wages. But they naturally spring up and grow with each other, and were both held in a form more or less crude long prior to any attempt to construct a system of political economy. It is evident, from several passages, that though he never fully developed it, the Malthusian theory was in rudimentary form present in the mind of Adam Smith, and to this, it seems to me, must be largely due the misdirection which on the subject of wages his speculations took. But, however this may be, so closely are the two theories connected, so completely do they complement each other, that Buckle, reviewing the history of the development of political economy in his "Examination of the Scotch Intellect during the Eighteenth Century," attributes mainly to Malthus the honor of "decisively proving" the current theory of wages by advancing the current theory of the pressure of population upon subsistence. He says in his "History of Civilization in England," Vol. 3, Chap. 5:

"Scarcely had the Eighteenth Century passed away when it was decisively proved that the reward of labor depends solely on two things; namely, the magnitude of that national fund out of which all labor is paid, and the number of laborers among whom the fund is to be divided. This vast step in our knowledge is due, mainly, though not entirely, to Malthus, whose work on population, besides marking an epoch in the history of speculative thought, has already produced considerable practical results, and will probably give rise to others more considerable still. It was published in 1798; so that Adam Smith, who died in 1790, missed what to him would have been the intense pleasure of seeing how, in it, his own views were expanded rather than corrected. Indeed, it is certain that without Smith there would have been no Malthus; that is, unless Smith had laid the foundation, Malthus could not have raised the superstructure."

The famous doctrine which ever since its enunciation has so powerfully influenced thought, not alone in the province of political economy, but in regions of even higher speculation, was formulated by Malthus in the proposition that, as shown by the growth of the North American colonies, the natural tendency of population is to double itself at least every twenty-five years, thus increasing in a geometrical ratio, while the subsistence that can be obtained from land "under circumstances the most favorable to human industry could not possibly be made to increase faster than in an arithmetical ratio, or by an addition every twenty-five years of a quantity equal to what it at present produces." "The necessary effects of these two different rates of increase, when brought together," Mr. Malthus naïvely goes on to say, "will be very striking." And thus (Chap. I) he brings them together:

"Let us call the population of this island eleven millions; and suppose the present produce equal to the easy support of such a number. In the first twenty-five years the population would be twenty-two millions, and the food being also doubled, the means of subsistence would be equal to this increase. In the next twenty-five years the population would be forty-four millions, and the means of subsistence only equal to the support of thirty-

three millions. In the next period the population would be equal to eighty-eight millions, and the means of subsistence just equal to the support of half that number. And at the conclusion of the first century, the population would be a hundred and seventy-six millions, and the means of subsistence only equal to the support of fifty-five millions; leaving a population of a hundred and twenty-one millions totally unprovided for.

"Taking the whole earth instead of this island, emigration would of course be excluded; and supposing the present population equal to a thousand millions, the human species would increase as the numbers 1, 2, 4, 8, 16, 32, 64, 128, 256, and subsistence as 1, 2, 3, 4, 5, 6, 7, 8, 9. In two centuries the population would be to the means of subsistence as 256 to 9; in three centuries, 4,096 to 13, and in two thousand years the difference would be almost incalculable."

Such a result is of course prevented by the physical fact that no more people can exist than can find subsistence, and hence Malthus' conclusion is, that this tendency of population to indefinite increase must be held back either by moral restraint upon the reproductive faculty, or by the various causes which increase mortality, which he resolves into vice and misery. Such causes as prevent propagation he styles the preventive check; such causes as increase mortality he styles the positive check. This is the famous Malthusian doctrine, as promulgated by Malthus himself in the "Essay on Population."

It is not worth while to dwell upon the fallacy involved in the assumption of geometrical and arithmetical rates of increase, a play upon proportions which hardly rises to the dignity of that in the familiar puzzle of the hare and the tortoise, in which the hare is made to chase the tortoise through all eternity without coming up with him. For this assumption is not necessary to the Malthusian doctrine, or at least is expressly repudiated by some of those who fully accept that doctrine; as, for instance, John Stuart Mill, who speaks of it as "an unlucky attempt to give precision to things which

do not admit of it, which every person capable of reasoning must see is wholly superfluous to the argument." * The essence of the Malthusian doctrine is, that population tends to increase faster than the power of providing food, and whether this difference be stated as a geometrical ratio for population and an arithmetical ratio for subsistence, as by Malthus; or as a constant ratio for population and a diminishing ratio for subsistence, as by Mill, is only a matter of statement. The vital point, on which both agree, is, to use the words of Malthus, "that there is a natural tendency and constant effort in population to increase beyond the means of subsistence."

The Malthusian doctrine, as at present held, may be thus stated in its strongest and least objectionable form:

That population, constantly tending to increase, must, when unrestrained, ultimately press against the limits of subsistence, not as against a fixed, but as against an elastic barrier, which makes the procurement of subsistence progressively more and more difficult. And thus, wherever reproduction has had time to assert its power, and is unchecked by prudence, there must exist that degree of want which will keep population within the bounds of subsistence.

Although in reality not more repugnant to the sense of harmonious adaptation by creative beneficence and wisdom than the complacent no-theory which throws the responsibility for poverty and its concomitants upon the inscrutable decrees of Providence, without attempt-

* Principles of Political Economy, Book II, Chap. IX, Sec. VI. —Yet notwithstanding what Mill says, it is clear that Malthus himself lays great stress upon his geometrical and arithmetical ratios, and it is also probable that it is to these ratios that Malthus is largely indebted for his fame, as they supplied one of those high-sounding formulas that with many people carry far more weight than the clearest reasoning.

ing to trace them, this theory, in avowedly making vice and suffering the necessary results of a natural instinct with which are linked the purest and sweetest affections, comes rudely in collision with ideas deeply rooted in the human mind, and it was, as soon as formally promulgated, fought with a bitterness in which zeal was often more manifest than logic. But it has triumphantly withstood the ordeal, and in spite of the refutations of the Godwins, the denunciations of the Cobbetts, and all the shafts that argument, sarcasm, ridicule, and sentiment could direct against it, to-day it stands in the world of thought as an accepted truth, which compels the recognition even of those who would fain disbelieve it.

The causes of its triumph, the sources of its strength, are not obscure. Seemingly backed by an indisputable arithmetical truth—that a continuously increasing population must eventually exceed the capacity of the earth to furnish food or even standing room, the Malthusian theory is supported by analogies in the animal and vegetable kingdoms, where life everywhere beats wastefully against the barriers that hold its different species in check—analogies to which the course of modern thought, in leveling distinctions between different forms of life, has given a greater and greater weight; and it is apparently corroborated by many obvious facts, such as the prevalence of poverty, vice, and misery amid dense populations; the general effect of material progress in increasing population without relieving pauperism; the rapid growth of numbers in newly settled countries and the evident retardation of increase in more densely settled countries by the mortality among the class condemned to want.

The Malthusian theory furnishes a general principle which accounts for these and similar facts, and accounts for them in a way which harmonizes with the doctrine that wages are drawn from capital, and with all the prin-

principles that are deduced from it. According to the current doctrine of wages, wages fall as increase in the number of laborers necessitates a more minute division of capital; according to the Malthusian theory, poverty appears as increase in population necessitates the more minute division of subsistence. It requires but the identification of capital with subsistence, and number of laborers with population, an identification made in the current treatises on political economy, where the terms are often converted, to make the two propositions as identical formally as they are substantially.* And thus it is, as stated by Buckle in the passage previously quoted, that the theory of population advanced by Malthus has appeared to prove decisively the theory of wages advanced by Smith.

Ricardo, who a few years subsequent to the publication of the "Essay on Population" corrected the mistake into which Smith had fallen as to the nature and cause of rent, furnished the Malthusian theory an additional support by calling attention to the fact that rent would increase as the necessities of increasing population forced cultivation to less and less productive lands, or to less and less productive points on the same lands, thus explaining the rise of rent. In this way was formed a triple combination, by which the Malthusian theory has been buttressed on both sides—the previously received doctrine of wages and the subsequently received doctrine of rent exhibiting in this view but special examples of the operation of the general principle to which the name of Malthus has been attached—the fall in wages and the rise in rents which come with increasing popula-

*The effect of the Malthusian doctrine upon the definitions of capital may, I think, be seen by comparing (see pp. 33, 34, 35) the definition of Smith, who wrote prior to Malthus, with the definitions of Ricardo, McCulloch and Mill, who wrote subsequently.

tion being but modes in which the pressure of population upon subsistence shows itself.

Thus taking its place in the very framework of political economy (for the science as currently accepted has undergone no material change or improvement since the time of Ricardo, though in some minor points it has been cleared and illustrated), the Malthusian theory, though repugnant to sentiments before alluded to, is not repugnant to other ideas which, in older countries at least, generally prevail among the working classes; but, on the contrary, like the theory of wages by which it is supported and in turn supports, it harmonizes with them. To the mechanic or operative the cause of low wages and of the inability to get employment is obviously the competition caused by the pressure of numbers, and in the squalid abodes of poverty what seems clearer than that there are too many people?

But the great cause of the triumph of this theory is, that, instead of menacing any vested right or antagonizing any powerful interest, it is eminently soothing and reassuring to the classes who, wielding the power of wealth, largely dominate thought. At a time when old supports were falling away, it came to the rescue of the special privileges by which a few monopolize so much of the good things of this world, proclaiming a natural cause for the want and misery which, if attributed to political institutions, must condemn every government under which they exist. The "Essay on Population" was avowedly a reply to William Godwin's "Inquiry concerning Political Justice," a work asserting the principle of human equality; and its purpose was to justify existing inequality by shifting the responsibility for it from human institutions to the laws of the Creator. There was nothing new in this, for Wallace, nearly forty years before, had brought forward the danger of excessive multiplication as the answer to the demands of justice

for an equal distribution of wealth; but the circumstances of the times were such as to make the same idea, when brought forward by Malthus, peculiarly grateful to a powerful class, in whom an intense fear of any questioning of the existing state of things had been generated by the outburst of the French Revolution.

Now, as then, the Malthusian doctrine parries the demand for reform, and shelters selfishness from question and from conscience by the interposition of an inevitable necessity. It furnishes a philosophy by which Dives as he feasts can shut out the image of Lazarus who faints with hunger at his door; by which wealth may complacently button up its pocket when poverty asks an alms, and the rich Christian bend on Sundays in a nicely upholstered pew to implore the good gifts of the All Father without any feeling of responsibility for the squalid misery that is festering but a square away. For poverty, want, and starvation are by this theory not chargeable either to individual greed or to social maladjustments; they are the inevitable results of universal laws, with which, if it were not impious, it were as hopeless to quarrel as with the law of gravitation. In this view, he who in the midst of want has accumulated wealth, has but fenced in a little oasis from the driving sand which else would have overwhelmed it. He has gained for himself, but has hurt nobody. And even if the rich were literally to obey the injunctions of Christ and divide their wealth among the poor, nothing would be gained. Population would be increased, only to press again upon the limits of subsistence or capital, and the equality that would be produced would be but the equality of common misery. And thus reforms which would interfere with the interests of any powerful class are discouraged as hopeless. As the moral law forbids any forestalling of the methods by which the natural law gets rid of surplus population and thus holds in check

a tendency to increase potent enough to pack the surface of the globe with human beings as sardines are packed in a box, nothing can really be done, either by individual or by combined effort, to extirpate poverty, save to trust to the efficacy of education and preach the necessity of prudence.

A theory that, falling in with the habits of thought of the poorer classes, thus justifies the greed of the rich and the selfishness of the powerful, will spread quickly and strike its roots deep. This has been the case with the theory advanced by Malthus.

And of late years the Malthusian theory has received new support in the rapid change of ideas as to the origin of man and the genesis of species. That Buckle was right in saying that the promulgation of the Malthusian theory marked an epoch in the history of speculative thought could, it seems to me, be easily shown; yet to trace its influence in the higher domains of philosophy, of which Buckle's own work is an example, would, though extremely interesting, carry us beyond the scope of this investigation. But how much reflex and how much original, the support which is given to the Malthusian theory by the new philosophy of development, now rapidly spreading in every direction, must be noted in any estimate of the sources from which this theory derives its present strength. As in political economy, the support received from the doctrine of wages and the doctrine of rent combined to raise the Malthusian theory to the rank of a central truth, so the extension of similar ideas to the development of life in all its forms has the effect of giving it a still higher and more impregnable position. Agassiz, who, to the day of his death, was a strenuous opponent of the new philosophy, spoke of Darwinism as "Malthus all over,"* and Darwin himself

* Address before Massachusetts State Board of Agriculture, 1872. Report U. S. Department of Agriculture, 1873.

says the struggle for existence "is the doctrine of Malthus applied with manifold force to the whole animal and vegetable kingdoms." *

It does not, however, seem to me exactly correct to say that the theory of development by natural selection or survival of the fittest is extended Malthusianism, for the doctrine of Malthus did not originally and does not necessarily involve the idea of progression. But this was soon added to it. McCulloch† attributes to the "principle of increase" social improvement and the progress of the arts, and declares that the poverty that it engenders acts as a powerful stimulus to the development of industry, the extension of science and the accumulation of wealth by the upper and middle classes, without which stimulus society would quickly sink into apathy and decay. What is this but the recognition in regard to human society of the developing effects of the "struggle for existence" and "survival of the fittest," which we are now told on the authority of natural science have been the means which Nature has employed to bring forth all the infinitely diversified and wonderfully adapted forms which the teeming life of the globe assumes? What is it but the recognition of the force, which, seemingly cruel and remorseless, has yet in the course of unnumbered ages developed the higher from the lower type, differentiated the man and the monkey, and made the Nineteenth Century succeed the age of stone?

Thus commended and seemingly proved, thus linked and buttressed, the Malthusian theory—the doctrine that poverty is due to the pressure of population against subsistence, or, to put it in its other form, the doctrine that the tendency to increase in the number of laborers must always tend to reduce wages to the minimum on

* Origin of Species, Chap. III.

† Note IV to Wealth of Nations.

which laborers can reproduce—is now generally accepted as an unquestionable truth, in the light of which social phenomena are to be explained, just as for ages the phenomena of the sidereal heavens were explained upon the supposition of the fixity of the earth, or the facts of geology upon that of the literal inspiration of the Mosaic record. If authority were alone to be considered, formally to deny this doctrine would require almost as much audacity as that of the colored preacher who recently started out on a crusade against the opinion that the earth moves around the sun, for in one form or another, the Malthusian doctrine has received in the intellectual world an almost universal indorsement, and in the best as in the most common literature of the day may be seen cropping out in every direction. It is indorsed by economists and by statesmen, by historians and by natural investigators; by social science congresses and by trade unions; by churchmen and by materialists; by conservatives of the strictest sect and by the most radical of radicals. It is held and habitually reasoned from by many who never heard of Malthus and who have not the slightest idea of what his theory is.

Nevertheless, as the grounds of the current theory of wages have vanished when subjected to a candid examination, so, do I believe, will vanish the grounds of this, its twin. In proving that wages are not drawn from capital we have raised this Antæus from the earth.

CHAPTER II

INFERENCES FROM FACTS

The general acceptance of the Malthusian theory and the high authority by which it is indorsed have seemed to me to make it expedient to review its grounds and the causes which have conspired to give it such a dominating influence in the discussion of social questions.

But when we subject the theory itself to the test of straightforward analysis, it will, I think, be found as utterly untenable as the current theory of wages.

In the first place, the facts which are marshaled in support of this theory do not prove it, and the analogies do not countenance it.

And in the second place, there are facts which conclusively disprove it.

I go to the heart of the matter in saying that there is no warrant, either in experience or analogy, for the assumption that there is any tendency in population to increase faster than subsistence. The facts cited to show this simply show that where, owing to the sparseness of population, as in new countries, or where, owing to the unequal distribution of wealth, as among the poorer classes in old countries, human life is occupied with the physical necessities of existence, the tendency to reproduce is at a rate which would, were it to go on unchecked, some time exceed subsistence. But it is not a legitimate inference from this that the tendency to reproduce would show itself in the same force where population was sufficiently dense and wealth distributed with sufficient evenness to lift a whole community above

the necessity of devoting their energies to a struggle for mere existence. Nor can it be assumed that the tendency to reproduce, by causing poverty, must prevent the existence of such a community; for this, manifestly, would be assuming the very point at issue, and reasoning in a circle. And even if it be admitted that the tendency to multiply must ultimately produce poverty, it cannot from this alone be predicated of existing poverty that it is due to this cause, until it be shown that there are no other causes which can account for it—a thing in the present state of government, laws, and customs, manifestly impossible.

This is abundantly shown in the "Essay on Population" itself. This famous book, which is much oftener spoken of than read, is still well worth perusal, if only as a literary curiosity. The contrast between the merits of the book itself and the effect it has produced, or is at least credited with (for though Sir James Stewart, Mr. Townsend, and others, share with Malthus the glory of discovering "the principle of population," it was the publication of the "Essay on Population" that brought it prominently forward), is, it seems to me, one of the most remarkable things in the history of literature; and it is easy to understand how Godwin, whose "Political Justice" provoked the "Essay on Population," should until his old age have disdained a reply. It begins with the assumption that population tends to increase in a geometrical ratio, while subsistence can at best be made to increase only in an arithmetical ratio—an assumption just as valid, and no more so, than it would be, from the fact that a puppy doubled the length of his tail while he added so many pounds to his weight, to assert a geometric progression of tail and an arithmetical progression of weight. And, the inference from the assumption is just such as Swift in satire might have credited to the savans of a previously dogless island, who, by bringing

these two ratios together, might deduce the very "striking consequence" that by the time the dog grew to a weight of fifty pounds his tail would be over a mile long, and extremely difficult to wag, and hence recommend the prudential check of a bandage as the only alternative to the positive check of constant amputations. Commencing with such an absurdity, the essay includes a long argument for the imposition of a duty on the importation, and the payment of a bounty for the exportation of corn, an idea that has long since been sent to the limbo of exploded fallacies. And it is marked throughout the argumentative portions by passages which show on the part of the reverend gentleman the most ridiculous incapacity for logical thought—as, for instance, that if wages were to be increased from eighteen pence or two shillings per day to five shillings, meat would necessarily increase in price from eight or nine pence to two or three shillings per pound, and the condition of the laboring classes would therefore not be improved, a statement to which I can think of no parallel so close as a proposition I once heard a certain printer gravely advance—that because an author, whom he had known, was forty years old when he was twenty, the author must now be eighty years old because he (the printer) was forty. This confusion of thought does not merely crop out here and there; it characterizes the whole work.* The main body of the book is taken up with what is in reality a refutation of the theory which the

* Malthus' other works, though written after he became famous, made no mark, and are treated with contempt even by those who find in the Essay a great discovery. The Encyclopædia Britannica, for instance, though fully accepting the Malthusian theory, says of Malthus' Political Economy: "It is very ill arranged, and is in no respect either a practical or a scientific exposition of the subject. It is in great part occupied with an examination of parts of Mr. Ricardo's peculiar doctrines, and with an inquiry into the nature and causes of value. Nothing,

book advances, for Malthus' review of what he calls the positive checks to population is simply the showing that the results which he attributes to over-population actually arise from other causes. Of all the cases cited, and pretty much the whole globe is passed over in the survey, in which vice and misery check increase by limiting marriages or shortening the term of human life, there is not a single case in which the vice and misery can be traced to an actual increase in the number of mouths over the power of the accompanying hands to feed them; but in every case the vice and misery are shown to spring either from unsocial ignorance and rapacity, or from bad government, unjust laws or destructive warfare.

Nor what Malthus failed to show has any one since him shown. The globe may be surveyed and history may be reviewed in vain for any instance of a considerable country* in which poverty and want can be fairly attributed to the pressure of an increasing population. Whatever be the possible dangers involved in the power of human increase, they have never yet appeared. Whatever may some time be, this never yet has been the evil that has afflicted mankind. Population always tending to overpass the limit of subsistence! How is it, then, that this globe of ours, after all the thousands, and it is now thought millions, of years that man has been

however, can be more unsatisfactory than these discussions. In truth Mr. Malthus never had any clear or accurate perception of Mr. Ricardo's theories, or of the principles which determine the value in exchange of different articles."

* I say considerable country, because there may be small islands, such as Pitcairn's Island, cut off from communication with the rest of the world and consequently from the exchanges which are necessary to the improved modes of production resorted to as population becomes dense, which may seem to offer examples in point. A moment's reflection, however, will show that these exceptional cases are not in point.

upon the earth, is yet so thinly populated? How is it, then, that so many of the hives of human life are now deserted—that once cultivated fields are rank with jungle, and the wild beast licks her cubs where once were busy haunts of men?

It is a fact, that, as we count our increasing millions, we are apt to lose sight of—nevertheless it is a fact—that in what we know of the world's history decadence of population is as common as increase. Whether the aggregate population of the earth is now greater than at any previous epoch is a speculation which can deal only with guesses. Since Montesquieu, in the early part of the last century, asserted, what was then probably the prevailing impression, that the population of the earth had, since the Christian era, greatly declined, opinion has run the other way. But the tendency of recent investigation and exploration has been to give greater credit to what have been deemed the exaggerated accounts of ancient historians and travelers, and to reveal indications of denser populations and more advanced civilizations than had before been suspected, as well as of a higher antiquity in the human race. And in basing our estimates of population upon the development of trade, the advance of the arts, and the size of cities, we are apt to underrate the density of population which the intensive cultivations, characteristic of the earlier civilizations, are capable of maintaining—especially where irrigation is resorted to. As we may see from the closely cultivated districts of China and Europe a very great population of simple habits can readily exist with very little commerce and a much lower stage of those arts in which modern progress has been most marked, and without that tendency to concentrate in cities which modern populations show.*

* As may be seen from the map in H. H. Bancroft's "Native Races," the State of Vera Cruz is not one of those parts of

Be this as it may, the only continent which we can be sure now contains a larger population than ever before is Europe. But this is not true of all parts of Europe. Certainly Greece, the Mediterranean Islands, and Turkey in Europe, probably Italy, and possibly Spain, have contained larger populations than now, and this may be likewise true of Northwestern and parts of Central and Eastern Europe.

America also has increased in population during the time we know of it; but this increase is not so great as is popularly supposed, some estimates giving to Peru alone at the time of the discovery a greater population than now exists on the whole continent of South America. And all the indications are that previous to the discovery the population of America had been declining. What great nations have run their course, what empires have arisen and fallen in "that new world which is the old," we can only imagine. But fragments of massive ruins yet attest a grander pre-Incan civilization; amid the tropical forests of Yucatan and Central America are the remains of great cities forgotten ere the Spanish conquest; Mexico, as Cortez found it, showed the superimposition of barbarism upon a higher social development, while through a great part of what is now the United States are scattered mounds which prove a once relatively dense population, and here and there, as in the Lake Superior copper mines, are traces of higher arts

Mexico noticeable for its antiquities. Yet Hugo Fink, of Cordova, writing to the Smithsonian Institution (Reports 1870), says there is hardly a foot in the whole State in which by excavation either a broken obsidian knife or a broken piece of pottery is not found; that the whole country is intersected with parallel lines of stones intended to keep the earth from washing away in the rainy season, which show that even the very poorest land was put into requisition, and that it is impossible to resist the conclusion that the ancient population was at least as dense as it is at present in the most populous districts of Europe.

than were known to the Indians with whom the whites came in contact.

As to Africa there can be no question. Northern Africa can contain but a fraction of the population that it had in ancient times; the Nile Valley once held an enormously greater population than now, while south of the Sahara there is nothing to show increase within historic times, and widespread depopulation was certainly caused by the slave trade.

As for Asia, which even now contains more than half the human race, though it is not much more than half as densely populated as Europe, there are indications that both India and China once contained larger populations than now, while that great breeding ground of men from which issued swarms that overran both countries and sent great waves of people rolling upon Europe, must have been once far more populous. But the most marked change is in Asia Minor, Syria, Babylonia, Persia, and in short that vast district which yielded to the conquering arms of Alexander. Where were once great cities and teeming populations are now squalid villages and barren wastes.

It is somewhat strange that among all the theories that have been raised, that of a fixed quantity to human life on this earth has not been broached. It would at least better accord with historical facts than that of the constant tendency of population to outrun subsistence. It is clear that population has here ebbed and there flowed; its centers have changed; new nations have arisen and old nations declined; sparsely settled districts have become populous and populous districts have lost their population; but as far back as we can go without abandoning ourselves wholly to inference, there is nothing to show continuous increase, or even clearly to show an aggregate increase from time to time. The advance of the pioneers of peoples has, so far as we can discern,

never been into uninhabited lands—their march has always been a battle with some other people previously in possession; behind dim empires vaguer ghosts of empire loom. That the population of the world must have had its small beginnings we confidently infer, for we know that there was a geologic era when human life could not have existed, and we cannot believe that men sprang up all at once, as from the dragon teeth sowed by Cadmus; yet through long vistas, where history, tradition and antiquities shed a light that is lost in faint glimmers, we may discern large populations. And during these long periods the principle of population has not been strong enough fully to settle the world, or even so far as we can clearly see materially to increase its aggregate population. Compared with its capacities to support human life the earth as a whole is yet most sparsely populated.

There is another broad, general fact which cannot fail to strike any one who, thinking of this subject, extends his view beyond modern society. Malthusianism predicates a universal law—that the natural tendency of population is to outrun subsistence. If there be such a law, it must, wherever population has attained a certain density, become as obvious as any of the great natural laws which have been everywhere recognized. How is it, then, that neither in classical creeds and codes, nor in those of the Jews, the Egyptians, the Hindoos, the Chinese, nor any of the peoples who have lived in close association and have built up creeds and codes, do we find any injunctions to the practice of the prudential restraints of Malthus; but that, on the contrary, the wisdom of the centuries, the religions of the world, have always inculcated ideas of civic and religious duty the very reverse of those which the current political economy enjoins, and which Annie Besant is now trying to popularize in England?

And it must be remembered that there have been societies in which the community guaranteed to every member employment and subsistence. John Stuart Mill says (Book II, Chap. XII, Sec. 2), that to do this without state regulation of marriages and births, would be to produce a state of general misery and degradation. "These consequences," he says, "have been so often and so clearly pointed out by authors of reputation that ignorance of them on the part of educated persons is no longer pardonable." Yet in Sparta, in Peru, in Paraguay, as in the industrial communities which appear almost everywhere to have constituted the primitive agricultural organization, there seems to have been an utter ignorance of these dire consequences of a natural tendency.

Besides the broad, general facts I have cited, there are facts of common knowledge which seem utterly inconsistent with such an overpowering tendency to multiplication. If the tendency to reproduce be so strong as Malthusianism supposes, how is it that families so often become extinct—families in which want is unknown? How is it, then, that when every premium is offered by hereditary titles and hereditary possessions, not alone to the principle of increase, but to the preservation of genealogical knowledge and the proving up of descent, that in such an aristocracy as that of England, so many peerages should lapse, and the House of Lords be kept up from century to century only by fresh creations?

For the solitary example of a family that has survived any great lapse of time, even though assured of subsistence and honor, we must go to unchangeable China. The descendants of Confucius still exist there, and enjoy peculiar privileges and consideration, forming, in fact, the only hereditary aristocracy. On the presumption that population tends to double every

twenty-five years, they should, in 2,150 years after the death of Confucius, have amounted to 859,559,193,106,-709,670,198,710,528 souls. Instead of any such unimaginable number, the descendants of Confucius, 2,150 years after his death, in the reign of Kanghi numbered 11,000 males, or say 22,000 souls. This is quite a discrepancy, and is the more striking when it is remembered that the esteem in which this family is held on account of their ancestor, "the Most Holy Ancient Teacher," has prevented the operation of the positive check, while the maxims of Confucius inculcate anything but the prudential check.

Yet, it may be said, that even this increase is a great one. Twenty-two thousand persons descended from a single pair in 2,150 years is far short of the Malthusian rate. Nevertheless, it is suggestive of possible overcrowding.

But consider. Increase of descendants does not show increase of population. It could only do this when the breeding was in and in. Smith and his wife have a son and daughter, who marry respectively some one else's daughter and son, and each have two children. Smith and his wife would thus have four grandchildren; but there would be in the one generation no greater number than in the other—each child would have four grandparents. And supposing this process were to go on, the line of descent might constantly spread out into hundreds, thousands and millions; but in each generation of descendants there would be no more individuals than in any previous generation of ancestors. The web of generations is like lattice-work or the diagonal threads in cloth. Commencing at any point at the top, the eye follows lines which at the bottom widely diverge; but beginning at any point at the bottom, the lines diverge in the same way to the top. How many children a man may have is problematical. But that he had two par-

ents is certain, and that these again had two parents each is also certain. Follow this geometrical progression through a few generations and see if it does not lead to quite as "striking consequences" as Mr. Malthus' peopling of the solar systems.

But from such considerations as these let us advance to a more definite inquiry. I assert that the cases commonly cited as instances of over-population will not bear investigation. India, China, and Ireland furnish the strongest of these cases. In each of these countries, large numbers have perished by starvation and large classes are reduced to abject misery or compelled to emigrate. But is this really due to over-population?

Comparing total population with total area, India and China are far from being the most densely populated countries of the world. According to the estimates of MM. Behm and Wagner, the population of India is but 132 to the square mile and that of China 119, whereas Saxony has a population of 442 to the square mile; Belgium 441; England 422; the Netherlands 291; Italy 234 and Japan 233.* There are thus in both countries large areas unused or not fully used, but even in their more densely populated districts there can be no doubt that either could maintain a much greater population in a much higher degree of comfort, for in both countries is labor applied to production in the rudest and most inefficient ways, and in both countries great natural resources are wholly neglected. This arises from no

* I take these figures from the Smithsonian Report for 1873, leaving out decimals. MM. Behm and Wagner put the population of China at 446,500,000, though there are some who contend that it does not exceed 150,000,000. They put the population of Hither India at 206,225,580, giving 132.29 to the square mile; of Ceylon at 2,405,287 or 97.36 to the square mile; of Further India at 21,018,062, or 27.94 to the square mile. They estimate the population of the world at 1,377,000,000, an average of 26.64 to the square mile.

innate deficiency in the people, for the Hindoo, as comparative philology has shown, is of our own blood, and China possessed a high degree of civilization and the rudiments of the most important modern inventions when our ancestors were wandering savages. It arises from the form which the social organization has in both countries taken, which has shackled productive power and robbed industry of its reward.

In India from time immemorial, the working classes have been ground down by exactions and oppressions into a condition of helpless and hopeless degradation. For ages and ages the cultivator of the soil has esteemed himself happy if, of his produce, the extortion of the strong hand left him enough to support life and furnish seed; capital could nowhere be safely accumulated or to any considerable extent be used to assist production; all wealth that could be wrung from the people was in the possession of princes who were little better than robber chiefs quartered on the country, or in that of their farmers or favorites, and was wasted in useless or worse than useless luxury, while religion, sunken into an elaborate and terrible superstition, tyrannized over the mind as physical force did over the bodies of men. Under these conditions, the only arts that could advance were those that ministered to the ostentation and luxury of the great. The elephants of the rajah blazed with gold of exquisite workmanship, and the umbrellas that symbolized his regal power glittered with gems; but the plow of the ryot was only a sharpened stick. The ladies of the rajah's harem wrapped themselves in muslins so fine as to take the name of woven wind, but the tools of the artisan were of the poorest and rudest description and commerce could only be carried on, as it were, by stealth.

Is it not clear that this tyranny and insecurity have produced the want and starvation of India; and not, as

according to Buckle, the pressure of population upon subsistence that has produced the want, and the want the tyranny.* Says the Rev. William Tennant, a chaplain in the service of the East India Company, writing in 1796, two years before the publication of the "Essay on Population:"

"When we reflect upon the great fertility of Hindostan, it is amazing to consider the frequency of famine. It is evidently not owing to any sterility of soil or climate; the evil must be traced to some political cause, and it requires but little penetration to discover it in the avarice and extortion of the various governments. The great spur to industry, that of security, is taken away. Hence no man raises more grain than is barely sufficient for himself, and the first unfavorable season produces a famine.

"The Mogul government at no period offered full security to the prince, still less to his vassals; and to peasants the most scanty protection of all. It was a continued tissue of violence and insurrection, treachery and punishment, under which neither commerce nor the arts could prosper, nor agriculture assume the appearance of a system. Its downfall gave rise to a state still more afflictive, since anarchy is worse than misrule. The Mohammedan government, wretched as it was, the European nations have not the merit of overturning. It fell beneath the weight of its own corruption, and had already been succeeded by the multifarious tyranny of petty chiefs, whose right to govern consisted in their treason to the state, and whose exactions on the peasants were as boundless as their avarice. The rents to government were, and, where natives rule, still are, levied twice a year by a merciless banditti, under the semblance of an army, who wantonly destroy or carry off whatever part of the produce may satisfy their caprice or satiate their avidity, after having hunted the ill-fated peasants from the villages to the woods. Any attempt of the peasants to defend their persons or property within the mud walls of their villages only

* History of Civilization. Vol. I, Chap. 2. In this chapter Buckle has collected a great deal of evidence of the oppression and degradation of the people of India from the most remote times, a condition which, blinded by the Malthusian doctrine he has accepted and made the cornerstone of his theory of the development of civilization, he attributes to the ease with which food can there be produced.

calls for the more signal vengeance on those useful, but ill-fated mortals. They are then surrounded and attacked with musketry and field pieces till resistance ceases, when the survivors are sold, and their habitations burned and leveled with the ground. Hence you will frequently meet with the ryots gathering up the scattered remnants of what had yesterday been their habitation, if fear has permitted them to return; but oftener the ruins are seen smoking, after a second visitation of this kind, without the appearance of a human being to interrupt the awful silence of destruction. This description does not apply to the Mohammedan chieftains alone; it is equally applicable to the Rajahs in the districts governed by Hindoos.*

To this merciless rapacity, which would have produced want and famine were the population but one to a square mile and the land a Garden of Eden, succeeded, in the first era of British rule in India, as merciless a rapacity, backed by a far more irresistible power. Says Macaulay, in his essay on Lord Clive:

“Enormous fortunes were rapidly accumulated at Calcutta, while millions of human beings were reduced to the extremity of wretchedness. They had been accustomed to live under tyranny, but never under tyranny like this. They found the little finger of the Company thicker than the loins of Surajah Dowlah. * * * It resembled the government of evil genii, rather than the government of human tyrants. Sometimes they submitted in patient misery. Sometimes they fled from the white man as their fathers had been used to fly from the Maharatta, and the palanquin of the English traveler was often carried through silent villages and towns that the report of his approach had made desolate.”

Upon horrors that Macaulay thus but touches, the vivid eloquence of Burke throws a stronger light—whole districts surrendered to the unrestrained cupidity of the worst of human kind, poverty-stricken peasants fiendishly tortured to compel them to give up their little hoards, and once populous tracts turned into deserts.

* Indian Recreations. By Rev. Wm. Tennant. London, 1804, Vol. I, Sec. XXXIX.

But the lawless license of early English rule has been long restrained. To all that vast population the strong hand of England has given a more than Roman peace; the just principles of English law have been extended by an elaborate system of codes and law officers designed to secure to the humblest of these abject peoples the rights of Anglo-Saxon freemen; the whole peninsula has been intersected by railways, and great irrigation works have been constructed. Yet, with increasing frequency, famine has succeeded famine, raging with greater intensity over wider areas.

Is not this a demonstration of the Malthusian theory? Does it not show that no matter how much the possibilities of subsistence are increased, population still continues to press upon it? Does it not show, as Malthus contended, that, to shut up the sluices by which superabundant population is carried off, is but to compel nature to open new ones, and that unless the sources of human increase are checked by prudential regulation, the alternative of war is famine? This has been the orthodox explanation. But the truth, as may be seen in the facts brought forth in recent discussions of Indian affairs in the English periodicals, is that these famines, which have been, and are now, sweeping away their millions, are no more due to the pressure of population upon the natural limits of subsistence than was the desolation of the Carnatic when Hyder Ali's horsemen burst upon it in a whirlwind of destruction.

The millions of India have bowed their necks beneath the yokes of many conquerors, but worst of all is the steady, grinding weight of English domination—a weight which is literally crushing millions out of existence, and, as shown by English writers, is inevitably tending to a most frightful and widespread catastrophe. Other conquerors have lived in the land, and, though bad and tyrannous in their rule, have understood and been un-

derstood by the people; but India now is like a great estate owned by an absentee and alien landlord. A most expensive military and civil establishment is kept up, managed and officered by Englishmen who regard India as but a place of temporary exile; and an enormous sum, estimated as at least £20,000,000 annually, raised from a population where laborers are in many places glad in good times to work for 1½d. to 4d. a day, is drained away to England in the shape of remittances, pensions, home charges of the government, etc.—a tribute for which there is no return. The immense sums lavished on railroads have, as shown by the returns, been economically unproductive; the great irrigation works are for the most part costly failures. In large parts of India the English, in their desire to create a class of landed proprietors, turned over the soil in absolute possession to hereditary tax-gatherers, who rack-rent the cultivators most mercilessly. In other parts, where the rent is still taken by the State in the shape of a land tax, assessments are so high, and taxes are collected so relentlessly, as to drive the ryots, who get but the most scanty living in good seasons, into the claws of money lenders, who are, if possible, even more rapacious than the zemindars. Upon salt, an article of prime necessity everywhere, and of especial necessity where food is almost exclusively vegetable, a tax of nearly twelve hundred per cent. is imposed, so that its various industrial uses are prohibited, and large bodies of the people cannot get enough to keep either themselves or their cattle in health. Below the English officials are a horde of native employees who oppress and extort. The effect of English law, with its rigid rules, and, to the native, mysterious proceedings, has been but to put a potent instrument of plunder into the hands of the native money lenders, from whom the peasants are compelled to borrow on the most extravagant terms

to meet their taxes, and to whom they are easily induced to give obligations of which they know not the meaning. "We do not care for the people of India," writes Florence Nightingale, with what seems like a sob. "The saddest sight to be seen in the East—nay, probably in the world—is the peasant of our Eastern Empire." And she goes on to show the causes of the terrible famines, in taxation which takes from the cultivators the very means of cultivation, and the actual slavery to which the ryots are reduced as "the consequences of our own laws;" producing in "the most fertile country in the world, a grinding, chronic semi-starvation in many places where what is called famine does not exist."* "The famines which have been devastating India," says H. M. Hyndman,† "are in the main financial famines. Men and women cannot get food, because they cannot save the money to buy it. Yet we are driven, so we say, to tax these people more." And he shows how, even from famine stricken districts, food is exported in payment of taxes, and how the whole of India is subjected to a steady and exhausting drain, which, combined with the enormous expenses of government, is making the population year by year poorer. The exports of India con-

* Miss Nightingale (*The People of India*, in "Nineteenth Century" for August, 1878) gives instances, which she says represent millions of cases, of the state of peonage to which the cultivators of Southern India have been reduced through the facilities afforded by the Civil Courts to the frauds and oppressions of money lenders and minor native officials. "Our Civil Courts are regarded as institutions for enabling the rich to grind the faces of the poor, and many are fain to seek a refuge from their jurisdiction within native territory," says Sir David Wedderburn, in an article on Protected Princes in India, in a previous (July) number of the same magazine, in which he also gives a native State, where taxation is comparatively light, as an instance of the most prosperous population of India.

† See articles in "Nineteenth Century" for October, 1878, and March, 1879.

sist almost exclusively of agricultural products. For at least one-third of these, as Mr. Hyndman shows, no return whatever is received; they represent tribute—remittances made by Englishmen in India, or expenses of the English branch of the Indian government.* And for the rest, the return is for the most part government stores, or articles of comfort and luxury used by the English masters of India. He shows that the expenses of government have been enormously increased under Imperial rule; that the relentless taxation of a population so miserably poor that the masses are not more than half fed, is robbing them of their scanty means for cultivating the soil; that the number of bullocks (the Indian draft animal) is decreasing, and the scanty implements of culture being given up to money lenders, from whom “we, a business people, are forcing the cultivators to borrow at 12, 24, 60 per cent.† to build and pay the interest on the cost of vast public works, which have never paid nearly five per cent.” Says Mr. Hyndman: “The truth is that Indian society as a whole has been frightfully impoverished under our rule, and that the process is now going on at an exceedingly rapid rate”—a statement which cannot be doubted, in view of the facts presented not only by such writers as I have referred to, but by Indian officials themselves. The very efforts made by the government to alleviate famines do, by the increased taxation imposed, but intensify and extend their real cause. Although in the recent famine

* Prof. Fawcett, in a recent article on the Proposed Loans to India, calls attention to such items as £1,200 for outfit and passage of a member of the Governor General's Council; £2,450 for outfit and passage of Bishops of Calcutta and Bombay.

† Florence Nightingale says 100 per cent. is common, and even then the cultivator is robbed in ways which she illustrates. It is hardly necessary to say that these rates, like those of the pawnbroker, are not interest in the economic sense of the term.

in Southern India six millions of people, it is estimated, perished of actual starvation, and the great mass of those who survived were actually stripped, yet the taxes were not remitted and the salt tax, already prohibitory to the great bulk of these poverty stricken people, was increased forty per cent., just as after the terrible Bengal famine in 1770 the revenue was actually driven up, by raising assessments upon the survivors and rigorously enforcing collection.

In India now, as in India in past times, it is only the most superficial view that can attribute want and starvation to pressure of population upon the ability of the land to produce subsistence. Could the cultivators retain their little capital—could they be released from the drain which, even in non-famine years, reduces great masses of them to a scale of living not merely below what is deemed necessary for the sepoy, but what English humanity gives to the prisoners in the jails—reviving industry, assuming more productive forms, would undoubtedly suffice to keep a much greater population. There are still in India great areas uncultivated, vast mineral resources untouched, and it is certain that the population of India does not reach, as within historical times it never has reached, the real limit of the soil to furnish subsistence, or even the point where this power begins to decline with the increasing drafts made upon it. The real cause of want in India has been, and yet is, the rapacity of man, not the niggardliness of nature.

What is true of India is true of China. Densely populated as China is in many parts, that the extreme poverty of the lower classes is to be attributed to causes similar to those which have operated in India, and not to too great population, is shown by many facts. Insecurity prevails, production goes on under the greatest disadvantages, and exchange is closely fettered. Where the government is a succession of squeezings, and secu-

urity for capital of any sort must be purchased of a mandarin; where men's shoulders are the great reliance for inland transportation; where the junk is obliged to be constructed so as to unfit it for a sea-boat; where piracy is a regular trade, and robbers often march in regiments, poverty would prevail and the failure of a crop result in famine, no matter how sparse the population.* That China is capable of supporting a much greater population is shown not only by the great extent of uncultivated land to which all travelers testify, but by the immense unworked mineral deposits which are there known to exist. China, for instance, is said to contain the largest and finest deposit of coal yet anywhere discovered. How much the working of these coal beds would add to the ability to support a greater population, may readily be imagined. Coal is not food, it is true; but its production is equivalent to the production of food. For, not only may coal be exchanged for food, as is done in all mining districts, but the force evolved by its consumption may be used in the production of food, or may set labor free for the production of food.

Neither in India nor China, therefore, can poverty and starvation be charged to the pressure of population against subsistence. It is not dense population, but the causes which prevent social organization from taking its natural development and labor from securing its full return, that keep millions just on the verge of starvation, and every now and again force millions beyond it. That the Hindoo laborer thinks himself fortunate to get a handful of rice, that the Chinese eat rats and puppies, is no more due to the pressure of population than it is due to the pressure of population that the Digger Indians live on grasshoppers, or the aboriginal inhabitants of Australia eat the worms found in rotten wood.

* The seat of recent famine in China was not the most thickly settled districts.

Let me be understood. I do not mean merely to say that India or China could, with a more highly developed civilization, maintain a greater population, for to this any Malthusian would agree. The Malthusian doctrine does not deny that an advance in the productive arts would permit a greater population to find subsistence. But the Malthusian theory affirms—and this is its essence—that, whatever be the capacity for production, the natural tendency of population is to come up with it, and, in the endeavor to press beyond it, to produce, to use the phrase of Malthus, that degree of vice and misery which is necessary to prevent further increase; so that as productive power is increased, population will correspondingly increase, and in a little time produce the same results as before. What I say is this: that nowhere is there any instance which will support this theory; that nowhere can want be properly attributed to the pressure of population against the power to procure subsistence in the then existing degree of human knowledge; that everywhere the vice and misery attributed to over-population can be traced to the warfare, tyranny, and oppression which prevent knowledge from being utilized and deny the security essential to production. The reason why the natural increase of population does not produce want, we shall come to hereafter. The fact that it has not yet anywhere done so, is what we are now concerned with. This fact is obvious with regard to India and China. It will be obvious, too, wherever we trace to their causes the results which on superficial view are often taken to proceed from over-population.

Ireland, of all European countries, furnishes the great stock example of over-population. The extreme poverty of the peasantry and the low rate of wages there prevailing, the Irish famine, and Irish emigration, are constantly referred to as a demonstration of the Malthusian theory worked out under the eyes of the civil-

ized world. I doubt if a more striking instance can be cited of the power of a preaccepted theory to blind men as to the true relations of facts. The truth is, and it lies on the surface, that Ireland has never yet had a population which the natural powers of the country, in the existing state of the productive arts, could not have maintained in ample comfort. At the period of her greatest population (1840-45) Ireland contained something over eight millions of people. But a very large proportion of them managed merely to exist—lodging in miserable cabins, clothed with miserable rags, and with but potatoes for their staple food. When the potato blight came, they died by thousands. But was it the inability of the soil to support so large a population that compelled so many to live in this miserable way, and exposed them to starvation on the failure of a single root crop? On the contrary, it was the same remorseless rapacity that robbed the Indian ryot of the fruits of his toil and left him to starve where nature offered plenty. A merciless banditti of tax-gatherers did not march through the land plundering and torturing, but the laborer was just as effectually stripped by as merciless a horde of landlords, among whom the soil had been divided as their absolute possession, regardless of any rights of those who lived upon it.

Consider the conditions of production under which this eight million managed to live until the potato blight came. It was a condition to which the words used by Mr. Tennant in reference to India may as appropriately be applied—"the great spur to industry, that of security, was taken away." Cultivation was for the most part carried on by tenants at will, who, even if the rack-rents which they were forced to pay had permitted them, did not dare to make improvements which would have been but the signal for an increase of rent. Labor was thus applied in the most inefficient and

wasteful manner, and labor was dissipated in aimless idleness that, with any security for its fruits, would have been applied unremittingly. But even under these conditions, it is a matter of fact that Ireland did more than support eight millions. For when her population was at its highest, Ireland was a food exporting country. Even during the famine, grain and meat and butter and cheese were carted for exportation along roads lined with the starving and past trenches into which the dead were piled. For these exports of food, or at least for a great part of them, there was no return. So far as the people of Ireland were concerned, the food thus exported might as well have been burned up or thrown into the sea, or never produced. It went not as an exchange, but as a tribute—to pay the rent of absentee landlords; a levy wrung from producers by those who in no wise contributed to production.

Had this food been left to those who raised it; had the cultivators of the soil been permitted to retain and use the capital their labor produced; had security stimulated industry and permitted the adoption of economical methods, there would have been enough to support in bounteous comfort the largest population Ireland ever had, and the potato blight might have come and gone without stinting a single human being of a full meal. For it was not the imprudence "of Irish peasants," as English economists coldly say, which induced them to make the potato the staple of their food. Irish emigrants, when they can get other things, do not live upon the potato, and certainly in the United States the prudence of the Irish character, in endeavoring to lay by something for a rainy day, is remarkable. They lived on the potato, because rack-rents stripped everything else from them. The truth is, that the poverty and misery of Ireland have never been fairly attributable to over-population.

McCulloch, writing in 1838, says, in Note IV to "Wealth of Nations:"

"The wonderful density of population in Ireland is the immediate cause of the abject poverty and depressed condition of the great bulk of the people. It is not too much to say that there are at present more than double the persons in Ireland it is, with its existing means of production, able either fully to employ or to maintain in a moderate state of comfort."

As in 1841 the population of Ireland was given as 8,175,124, we may set it down in 1838 as about eight millions. Thus, to change McCulloch's negative into an affirmative, Ireland would, according to the over-population theory, have been able to employ fully and maintain in a moderate state of comfort something less than four million persons. Now, in the early part of the preceding century, when Dean Swift wrote his "Modest Proposal," the population of Ireland was about two millions. As neither the means nor the arts of production had perceptibly advanced in Ireland during the interval, then—if the abject poverty and depressed condition of the Irish people in 1838 were attributable to over-population—there should, upon McCulloch's own admission, have been in Ireland in 1727 more than full employment, and much more than a moderate state of comfort, for the whole two millions. Yet, instead of this being the case, the abject poverty and depressed condition of the Irish people in 1727 were such, that, with burning, blistering irony, Dean Swift proposed to relieve surplus population by cultivating a taste for roasted babies, and bringing yearly to the shambles, as dainty food for the rich, 100,000 Irish infants!

It is difficult for one who has been looking over the literature of Irish misery, as while writing this chapter I have been doing, to speak in decorous terms of the complacent attribution of Irish want and suffering to over-population which is to be found even in the works

of such high-minded men as Mill and Buckle. I know of nothing better calculated to make the blood boil than the cold accounts of the grasping, grinding tyranny to which the Irish people have been subjected, and to which, and not to any inability of the land to support its population, Irish pauperism and Irish famine are to be attributed; and were it not for the enervating effect which the history of the world proves to be everywhere the result of abject poverty, it would be difficult to resist something like a feeling of contempt for a race who, stung by such wrongs, have only occasionally murdered a landlord!

Whether over-population ever did cause pauperism and starvation, may be an open question; but the pauperism and starvation of Ireland can no more be attributed to this cause than can the slave trade be attributed to the over-population of Africa, or the destruction of Jerusalem to the inability of subsistence to keep pace with reproduction. Had Ireland been by nature a grove of bananas and bread-fruit, had her coasts been lined by the guano-deposits of the Chinchas, and the sun of lower latitudes warmed into more abundant life her moist soil, the social conditions that have prevailed there would still have brought forth poverty and starvation. How could there fail to be pauperism and famine in a country where rack-rents wrested from the cultivator of the soil all the produce of his labor except just enough to maintain life in good seasons; where tenure at will forbade improvements and removed incentive to any but the most wasteful and poverty-stricken culture; where the tenant dared not accumulate capital, even if he could get it, for fear the landlord would demand it in the rent; where in fact he was an abject slave, who, at the nod of a human being like himself, might at any time be driven from his miserable mud cabin, a houseless, homeless, starving wanderer,

forbidden even to pluck the spontaneous fruits of the earth, or to trap a wild hare to satisfy his hunger? No matter how sparse the population, no matter what the natural resources, are not pauperism and starvation necessary consequences in a land where the producers of wealth are compelled to work under conditions which deprive them of hope, of self-respect, of energy, of thrift; where absentee landlords drain away without return at least a fourth of the net produce of the soil, and when, besides them, a starving industry must support resident landlords, with their horses and hounds, agents, jobbers, middlemen and bailiffs, an alien state church to insult religious prejudices, and an army of policemen and soldiers to overawe and hunt down any opposition to the iniquitous system? Is it not impiety far worse than atheism to charge upon natural laws misery so caused?

What is true in these three cases will be found upon examination true of all cases. So far as our knowledge of facts goes, we may safely deny that the increase of population has ever yet pressed upon subsistence in such a way as to produce vice and misery; that increase of numbers has ever yet decreased the relative production of food. The famines of India, China, and Ireland can no more be credited to over-population than the famines of sparsely populated Brazil. The vice and misery that come of want can no more be attributed to the niggardliness of Nature than can the six millions slain by the sword of Genghis Khan, Tamerlane's pyramid of skulls, or the extermination of the ancient Britons or of the aboriginal inhabitants of the West Indies.

CHAPTER III

INFERENCES FROM ANALOGY

If we turn from an examination of the facts brought forward in illustration of the Malthusian theory to consider the analogies by which it is supported, we shall find the same inconclusiveness.

The strength of the reproductive force in the animal and vegetable kingdoms—such facts as that a single pair of salmon might, if preserved from their natural enemies for a few years, fill the ocean; that a pair of rabbits would, under the same circumstances, soon overrun a continent; that many plants scatter their seeds by the hundred fold, and some insects deposit thousands of eggs; and that everywhere through these kingdoms each species constantly tends to press, and when not limited by the number of its enemies, evidently does press, against the limits of subsistence—is constantly cited, from Malthus down to the text-books of the present day, as showing that population likewise tends to press against subsistence, and, when unrestrained by other means, its natural increase must necessarily result in such low wages and want, or, if that will not suffice, and the increase still goes on, in such actual starvation, as will keep it within the limits of subsistence.

But is this analogy valid? It is from the vegetable and animal kingdoms that man's food is drawn, and hence the greater strength of the reproductive force in the vegetable and animal kingdoms than in man simply proves the power of subsistence to increase faster than

population. Does not the fact that all of the things which furnish man's subsistence have the power to multiply many fold—some of them many thousand fold, and some of them many million or even billion fold—while he is only doubling his numbers, show that, let human beings increase to the full extent of their reproductive power, the increase of population can never exceed subsistence? This is clear when it is remembered that though in the vegetable and animal kingdoms each species, by virtue of its reproductive power, naturally and necessarily presses against the conditions which limit its further increase, yet these conditions are nowhere fixed and final. No species reaches the ultimate limit of soil, water, air, and sunshine; but the actual limit of each is in the existence of other species, its rivals, its enemies, or its food. Thus the conditions which limit the existence of such of these species as afford him subsistence man can extend (in some cases his mere appearance will extend them), and thus the reproductive forces of the species which supply his wants, instead of wasting themselves against their former limit, start forward in his service at a pace which his powers of increase cannot rival. If he but shoot hawks, food-birds will increase; if he but trap foxes the wild rabbits will multiply; the honey bee moves with the pioneer, and on the organic matter with which man's presence fills the rivers, fishes feed.

Even if any consideration of final causes be excluded; even if it be not permitted to suggest that the high and constant reproductive force in vegetables and animals has been ordered to enable them to subserve the uses of man, and that therefore the pressure of the lower forms of life against subsistence does not tend to show that it must likewise be so with man, "the roof and crown of things;" yet there still remains a distinction between man and all other forms of life that destroys

the analogy. Of all living things, man is the only one who can give play to the reproductive forces, more powerful than his own, which supply him with food. Beast, insect, bird, and fish take only what they find. Their increase is at the expense of their food, and when they have reached the existing limits of food, their food must increase before they can increase. But unlike that of any other living thing, the increase of man involves the increase of his food. If bears instead of men had been shipped from Europe to the North American continent, there would now be no more bears than in the time of Columbus, and possibly fewer, for bear food would not have been increased nor the conditions of bear life extended, by the bear immigration, but probably the reverse. But within the limits of the United States alone, there are now forty-five millions of men where then there were only a few hundred thousand, and yet there is now within that territory much more food per capita for the forty-five millions than there was then for the few hundred thousand. It is not the increase of food that has caused this increase of men; but the increase of men that has brought about the increase of food. There is more food, simply because there are more men.

Here is a difference between the animal and the man. Both the jay-hawk and the man eat chickens, but the more jay-hawks the fewer chickens, while the more men the more chickens. Both the seal and the man eat salmon, but when a seal takes a salmon there is a salmon the less, and were seals to increase past a certain point salmon must diminish; while by placing the spawn of the salmon under favorable conditions man can so increase the number of salmon as more than to make up for all he may take, and thus, no matter how much men may increase, their increase need never outrun the supply of salmon.

In short, while all through the vegetable and animal kingdoms the limit of subsistence is independent of the thing subsisted, with man the limit of subsistence is, within the final limits of earth, air, water, and sunshine, dependent upon man himself. And this being the case, the analogy which it is sought to draw between the lower forms of life and man manifestly fails. While vegetables and animals do press against the limits of subsistence, man cannot press against the limits of his subsistence until the limits of the globe are reached. Observe, this is not merely true of the whole, but of all the parts. As we cannot reduce the level of the smallest bay or harbor without reducing the level not merely of the ocean with which it communicates, but of all the seas and oceans of the world, so the limit of subsistence in any particular place is not the physical limit of that place, but the physical limit of the globe. Fifty square miles of soil will in the present state of the productive arts yield subsistence for only some thousands of people, but on the fifty square miles which comprise the city of London some three and a half millions of people are maintained, and subsistence increases as population increases. So far as the limit of subsistence is concerned, London may grow to a population of a hundred millions, or five hundred millions, or a thousand millions, for she draws for subsistence upon the whole globe, and the limit which subsistence sets to her growth in population is the limit of the globe to furnish food for its inhabitants.

But here will arise another idea from which the Malthusian theory derives great support—that of the diminishing productiveness of land. As conclusively proving the law of diminishing productiveness it is said in the current treatises that were it not true that beyond a certain point land yields less and less to additional applications of labor and capital, increasing

population would not cause any extension of cultivation, but that all the increased supplies needed could and would be raised without taking into cultivation any fresh ground. Assent to this seems to involve assent to the doctrine that the difficulty of obtaining subsistence must increase with increasing population.

But I think the necessity is only in seeming. If the proposition be analyzed it will be seen to belong to a class that depend for validity upon an implied or suggested qualification—a truth relatively, which taken absolutely becomes a non-truth. For that man cannot exhaust or lessen the powers of nature follows from the indestructibility of matter and the persistence of force. Production and consumption are only relative terms. Speaking absolutely, man neither produces nor consumes. The whole human race, were they to labor to infinity, could not make this rolling sphere one atom heavier or one atom lighter, could not add to or diminish by one iota the sum of the forces whose everlasting circling produces all motion and sustains all life. As the water that we take from the ocean must again return to the ocean, so the food we take from the reservoirs of nature is, from the moment we take it, on its way back to those reservoirs. What we draw from a limited extent of land may temporarily reduce the productiveness of that land, because the return may be to other land, or may be divided between that land and other land, or, perhaps, all land; but this possibility lessens with increasing area, and ceases when the whole globe is considered. That the earth could maintain a thousand billions of people as easily as a thousand millions is a necessary deduction from the manifest truths that, at least so far as our agency is concerned, matter is eternal and force must forever continue to act. Life does not use up the forces that maintain life. We come into the material universe bringing nothing; we take

nothing away when we depart. The human being, physically considered, is but a transient form of matter, a changing mode of motion. The matter remains and the force persists. Nothing is lessened, nothing is weakened. And from this it follows that the limit to the population of the globe can be only the limit of space.

Now this limitation of space—this danger that the human race may increase beyond the possibility of finding elbow room—is so far off as to have for us no more practical interest than the recurrence of the glacial period or the final extinguishment of the sun. Yet remote and shadowy as it is, it is this possibility which gives to the Malthusian theory its apparently self-evident character. But if we follow it, even this shadow will disappear. It, also, springs from a false analogy. That vegetable and animal life tend to press against the limits of space does not prove the same tendency in human life.

Granted that man is only a more highly developed animal; that the ring-tailed monkey is a distant relative who has gradually developed acrobatic tendencies, and the hump-backed whale a far-off connection who in early life took to the sea—granted that back of these he is kin to the vegetable, and is still subject to the same laws as plants, fishes, birds, and beasts. Yet there is still this difference between man and all other animals—he is the only animal whose desires increase as they are fed; the only animal that is never satisfied. The wants of every other living thing are uniform and fixed. The ox of to-day aspires to no more than did the ox when man first yoked him. The sea gull of the English Channel, who poises himself above the swift steamer, wants no better food or lodging than the gulls who circled round as the keels of Cæsar's galleys first grated on a British beach. Of all that nature offers them, be

it ever so abundant, all living things save man can take, and care for, only enough to supply wants which are definite and fixed. The only use they can make of additional supplies or additional opportunities is to multiply.

But not so with man. No sooner are his animal wants satisfied than new wants arise. Food he wants first, as does the beast; shelter next, as does the beast; and these given, his reproductive instincts assert their sway, as do those of the beast. But here man and beast part company. The beast never goes further; the man has but set his feet on the first step of an infinite progression—a progression upon which the beast never enters; a progression away from and above the beast.

The demand for quantity once satisfied, he seeks quality. The very desires that he has in common with the beast become extended, refined, exalted. It is not merely hunger, but taste, that seeks gratification in food; in clothes, he seeks not merely comfort, but adornment; the rude shelter becomes a house; the indiscriminating sexual attraction begins to transmute itself into subtle influences, and the hard and common stock of animal life to blossom and to bloom into shapes of delicate beauty. As power to gratify his wants increases, so does aspiration grow. Held down to lower levels of desire, Lucullus will sup with Lucullus; twelve boars turn on spits that Antony's mouthful of meat may be done to a turn; every kingdom of Nature be ransacked to add to Cleopatra's charms, and marble colonnades and hanging gardens and pyramids that rival the hills arise. Passing into higher forms of desire, that which slumbered in the plant and fitfully stirred in the beast, awakes in the man. The eyes of the mind are opened, and he longs to know. He braves the scorching heat of the desert and the icy blasts of the polar sea, but not for food; he watches all night, but it is to

trace the circling of the eternal stars. He adds toil to toil, to gratify a hunger no animal has felt; to assuage a thirst no beast can know.

Out upon nature, in upon himself, back through the mists that shroud the past, forward into the darkness that overhangs the future, turns the restless desire that arises when the animal wants slumber in satisfaction. Beneath things, he seeks the law; he would know how the globe was forged and the stars were hung, and trace to their origins the springs of life. And, then, as the man develops his nobler nature, there arises the desire higher yet—the passion of passions, the hope of hopes—the desire that he, even he, may somehow aid in making life better and brighter, in destroying want and sin, sorrow and shame. He masters and curbs the animal; he turns his back upon the feast and renounces the place of power; he leaves it to others to accumulate wealth, to gratify pleasant tastes, to bask themselves in the warm sunshine of the brief day. He works for those he never saw and never can see; for a fame, or maybe but for a scant justice, that can only come long after the clods have rattled upon his coffin lid. He toils in the advance, where it is cold, and there is little cheer from men, and the stones are sharp and the brambles thick. Amid the scoffs of the present and the sneers that stab like knives, he builds for the future; he cuts the trail that progressive humanity may hereafter broaden into a highroad. Into higher, grander spheres desire mounts and beckons, and a star that rises in the east leads him on. Lo! the pulses of the man throb with the yearnings of the god—he would aid in the process of the suns!

Is not the gulf too wide for the analogy to span? Give more food, open fuller conditions of life, and the vegetable or animal can but multiply; the man will develop. In the one the expansive force can but extend

existence in new numbers; in the other, it will inevitably tend to extend existence in higher forms and wider powers. Man is an animal; but he is an animal plus something else. He is the mythic earth-tree, whose roots are in the ground, but whose topmost branches may blossom in the heavens!

Whichever way it be turned, the reasoning by which this theory of the constant tendency of population to press against the limits of subsistence is supported shows an unwarranted assumption, an undistributed middle, as the logicians would say. Facts do not warrant it, analogy does not countenance it. It is a pure chimera of the imagination, such as those that for a long time prevented men from recognizing the rotundity and motion of the earth. It is just such a theory as that underneath us everything not fastened to the earth must fall off; as that a ball dropped from the mast of a ship in motion must fall behind the mast; as that a live fish placed in a vessel full of water will displace no water. It is as unfounded, if not as grotesque, as an assumption we can imagine Adam might have made had he been of an arithmetical turn of mind and figured on the growth of his first baby from the rate of its early months. From the fact that at birth it weighed ten pounds and in eight months thereafter twenty pounds, he might, with the arithmetical knowledge which some sages have supposed him to possess, have ciphered out a result quite as striking as that of Mr. Malthus; namely, that by the time it got to be ten years old it would be as heavy as an ox, at twelve as heavy as an elephant, and at thirty would weigh no less than 175,716,339,548 tons.

The fact is, there is no more reason for us to trouble ourselves about the pressure of population upon subsistence than there was for Adam to worry himself about the rapid growth of his baby. So far as an in-

ference is really warranted by facts and suggested by analogy, it is that the law of population includes such beautiful adaptations as investigation has already shown in other natural laws, and that we are no more warranted in assuming that the instinct of reproduction, in the natural development of society, tends to produce misery and vice, than we should be in assuming that the force of gravitation must hurl the moon to the earth and the earth to the sun, or than in assuming from the contraction of water with reductions of temperature down to thirty-two degrees that rivers and lakes must freeze to the bottom with every frost, and the temperate regions of earth be thus rendered uninhabitable by even moderate winters. That, besides the positive and prudential checks of Malthus, there is a third check which comes into play with the elevation of the standard of comfort and the development of the intellect, is pointed to by many well-known facts. The proportion of births is notoriously greater in new settlements, where the struggle with nature leaves little opportunity for intellectual life, and among the poverty-bound classes of older countries, who in the midst of wealth are deprived of all its advantages and reduced to all but an animal existence, than it is among the classes to whom the increase of wealth has brought independence, leisure, comfort, and a fuller and more varied life. This fact, long ago recognized in the homely adage, "a rich man for luck, and a poor man for children," was noted by Adam Smith, who says it is not uncommon to find a poor half-starved Highland woman has been the mother of twenty-three or twenty-four children, and is everywhere so clearly perceptible that it is only necessary to allude to it.

If the real law of population is thus indicated, as I think it must be, then the tendency to increase, instead of being always uniform, is strong where a greater popu-

lation would give increased comfort, and where the perpetuity of the race is threatened by the mortality induced by adverse conditions; but weakens just as the higher development of the individual becomes possible and the perpetuity of the race is assured. In other words, the law of population accords with and is subordinate to the law of intellectual development, and any danger that human beings may be brought into a world where they cannot be provided for arises not from the ordinances of nature, but from social mal-adjustments that in the midst of wealth condemn men to want. The truth of this will, I think, be conclusively demonstrated when, after having cleared the ground, we trace out the true laws of social growth. But it would disturb the natural order of the argument to anticipate them now. If I have succeeded in maintaining a negative—in showing that the Malthusian theory is not proved by the reasoning by which it is supported—it is enough for the present. In the next chapter I propose to take the affirmative and show that it is disproved by facts.

CHAPTER IV

DISPROOF OF THE MALTHUSIAN THEORY

So deeply rooted and thoroughly entwined with the reasonings of the current political economy is this doctrine that increase of population tends to reduce wages and produce poverty, so completely does it harmonize with many popular notions, and so liable is it to recur in different shapes, that I have thought it necessary to meet and show in some detail the insufficiency of the arguments by which it is supported, before bringing it to the test of facts; for the general acceptance of this theory adds a most striking instance to the many which the history of thought affords of how easily men ignore facts when blindfolded by a preaccepted theory.

To the supreme and final test of facts we can easily bring this theory. Manifestly the question whether increase of population necessarily tends to reduce wages and cause want, is simply the question whether it tends to reduce the amount of wealth that can be produced by a given amount of labor.

This is what the current doctrine holds. The accepted theory is, that the more that is required from nature the less generously does she respond, so that doubling the application of labor will not double the product; and hence, increase of population must tend to reduce wages and deepen poverty, or, in the phrase of Malthus, must result in vice and misery. To quote the language of John Stuart Mill:

"A greater number of people cannot, in any given state of civilization, be collectively so well provided for as a smaller.

The niggardliness of nature, not the injustice of society, is the cause of the penalty attached to over-population. An unjust distribution of wealth does not aggravate the evil, but, at most, causes it to be somewhat earlier felt. It is in vain to say that all mouths which the increase of mankind calls into existence bring with them hands. The new mouths require as much food as the old ones, and the hands do not produce as much. If all instruments of production were held in joint property by the whole people, and the produce divided with perfect equality among them, and if in a society thus constituted, industry were as energetic and the produce as ample as at the present time, there would be enough to make all the existing population extremely comfortable; but when that population had doubled itself, as, with existing habits of the people, under such an encouragement, it undoubtedly would in little more than twenty years, what would then be their condition? Unless the arts of production were in the same time improved in an almost unexampled degree, the inferior soils which must be resorted to, and the more laborious and scantily remunerative cultivation which must be employed on the superior soils, to procure food for so much larger a population, would, by an insuperable necessity, render every individual in the community poorer than before. If the population continued to increase at the same rate, a time would soon arrive when no one would have more than mere necessaries, and, soon after, a time when no one would have a sufficiency of those, and the further increase of population would be arrested by death."*

All this I deny. I assert that the very reverse of these propositions is true. I assert that in any given state of civilization a greater number of people can collectively be better provided for than a smaller. I assert that the injustice of society, not the niggardliness of nature, is the cause of the want and misery which the current theory attributes to over-population. I assert that the new mouths which an increasing population calls into existence require no more food than the old ones, while the hands they bring with them can in the natural order of things produce more. I assert that, other things being equal, the greater the population, the

* Principles of Political Economy, Book I, Chap. XIII, Sec. 2.

greater the comfort which an equitable distribution of wealth would give to each individual. I assert that in a state of equality the natural increase of population would constantly tend to make every individual richer instead of poorer.

I thus distinctly join issue, and submit the question to the test of facts.

But observe (for even at the risk of repetition I wish to warn the reader against a confusion of thought that is observable even in writers of great reputation), that the question of fact into which this issue resolves itself is not in what stage of population is most subsistence produced? but in what stage of population is there exhibited the greatest power of producing wealth? For the power of producing wealth in any form is the power of producing subsistence—and the consumption of wealth in any form, or of wealth-producing power, is equivalent to the consumption of subsistence. I have, for instance, some money in my pocket. With it I may buy either food or cigars or jewelry or theater tickets, and just as I expend my money do I determine labor to the production of food, of cigars, of jewelry, or of theatrical representations. A set of diamonds has a value equal to so many barrels of flour—that is to say, it takes on the average as much labor to produce the diamonds as it would to produce so much flour. If I load my wife with diamonds, it is as much an exertion of subsistence-producing power as though I had devoted so much food to purposes of ostentation. If I keep a footman, I take a possible plowman from the plow. The breeding and maintenance of a race-horse require care and labor which would suffice for the breeding and maintenance of many work-horses. The destruction of wealth involved in a general illumination or the firing of a salute is equivalent to the burning up of so much food; the keeping of a regiment of soldiers, or of a war-

ship and her crew, is the diversion to unproductive uses of labor that could produce subsistence for many thousands of people. Thus the power of any population to produce the necessaries of life is not to be measured by the necessaries of life actually produced, but by the expenditure of power in all modes.

There is no necessity for abstract reasoning. The question is one of simple fact. Does the relative power of producing wealth decrease with the increase of population?

The facts are so patent that it is only necessary to call attention to them. We have, in modern times, seen many communities advance in population. Have they not at the same time advanced even more rapidly in wealth? We see many communities still increasing in population. Are they not also increasing their wealth still faster? Is there any doubt that while England has been increasing her population at the rate of two per cent. per annum, her wealth has been growing in still greater proportion? Is it not true that while the population of the United States has been doubling every twenty-nine* years her wealth has been doubling at much shorter intervals? Is it not true that under similar conditions—that is to say, among communities of similar people in a similar stage of civilization—the most densely populated community is also the richest? Are not the more densely populated Eastern States richer in proportion to population than the more sparsely populated Western or Southern States? Is not England, where population is even denser than in the Eastern States of the Union, also richer in proportion? Where will you find wealth devoted with the most lavishness to non-productive use—costly buildings, fine furniture, luxurious equipages, statues, pictures, pleasure

* The rate up to 1860 was 35 per cent. each decade.

gardens and yachts? Is it not where population is densest rather than where it is sparsest? Where will you find in largest proportion those whom the general production suffices to keep without productive labor on their part—men of income and of elegant leisure, thieves, policemen, menial servants, lawyers, men of letters, and the like? Is it not where population is dense rather than where it is sparse? Whence is it that capital overflows for remunerative investment? Is it not from densely populated countries to sparsely populated countries? These things conclusively show that wealth is greatest where population is densest; that the production of wealth to a given amount of labor increases as population increases. These things are apparent wherever we turn our eyes. On the same level of civilization, the same stage of the productive arts, government, etc., the most populous countries are always the most wealthy.

Let us take a particular case, and that a case which of all that can be cited seems at first blush best to support the theory we are considering—the case of a community where, while population has largely increased, wages have greatly decreased, and it is not a matter of dubious inference but of obvious fact that the generosity of nature has lessened. That community is California. When upon the discovery of gold the first wave of immigration poured into California it found a country in which nature was in the most generous mood. From the river banks and bars the glittering deposits of thousands of years could be taken by the most primitive appliances, in amounts which made an ounce (\$16) per day only ordinary wages. The plains, covered with nutritious grasses, were alive with countless herds of horses and cattle, so plenty that any traveler was at liberty to shift his saddle to a fresh steed, or to kill a bullock if he needed a steak, leaving the hide, its

only valuable part, for the owner. From the rich soil which came first under cultivation, the mere plowing and sowing brought crops that in older countries, if procured at all, can only be procured by the most thorough manuring and cultivation. In early California, amid this profusion of nature, wages and interest were higher than anywhere else in the world.

This virgin profusion of nature has been steadily giving way before the greater and greater demands which an increasing population has made upon it. Poorer and poorer diggings have been worked, until now no diggings worth speaking of can be found, and gold mining requires much capital, large skill, and elaborate machinery, and involves great risks. "Horses cost money," and cattle bred on the sage-brush plains of Nevada are brought by railroad across the mountains and killed in San Francisco shambles, while farmers are beginning to save their straw and look for manure, and land is in cultivation which will hardly yield a crop three years out of four without irrigation. At the same time wages and interest have steadily gone down. Many men are now glad to work for a week for less than they once demanded for the day, and money is loaned by the year for a rate which once would hardly have been thought extortionate by the month. Is the connection between the reduced productiveness of nature and the reduced rate of wages that of cause and effect? Is it true that wages are lower because labor yields less wealth? On the contrary! Instead of the wealth-producing power of labor being less in California in 1879 than in 1849, I am convinced that it is greater. And, it seems to me, that no one who considers how enormously during these years the efficiency of labor in California has been increased by roads, wharves, flumes, railroads, steamboats, telegraphs, and machinery of all kinds; by a closer connection with the rest of the world; and by the number-

less economies resulting from a larger population, can doubt that the return which labor receives from nature in California is on the whole much greater now than it was in the days of unexhausted placers and virgin soil—the increase in the power of the human factor having more than compensated for the decline in the power of the natural factor. That this conclusion is the correct one is proved by many facts which show that the consumption of wealth is now much greater, as compared with the number of laborers, than it was then. Instead of a population composed almost exclusively of men in the prime of life, a large proportion of women and children are now supported, and other non-producers have increased in much greater ratio than the population; luxury has grown far more than wages have fallen; where the best houses were cloth and paper shanties, are now mansions whose magnificence rivals European palaces; there are liveried carriages on the streets of San Francisco and pleasure yachts on her bay; the class who can live sumptuously on their incomes has steadily grown; there are rich men beside whom the richest of the earlier years would seem little better than paupers—in short, there are on every hand the most striking and conclusive evidences that the production and consumption of wealth have increased with even greater rapidity than the increase of population, and that if any class obtains less it is solely because of the greater inequality of distribution.

What is obvious in this particular instance is obvious where the survey is extended. The richest countries are not those where nature is most prolific; but those where labor is most efficient—not Mexico, but Massachusetts; not Brazil, but England. The countries where population is densest and presses hardest upon the capabilities of nature, are, other things being equal, the countries where the largest proportion of the produce can be devoted to luxury and the support of non-pro-

ducers, the countries where capital overflows, the countries that upon exigency, such as war, can stand the greatest drain. That the production of wealth must, in proportion to the labor employed, be greater in a densely populated country like England than in new countries where wages and interest are higher, is evident from the fact that, though a much smaller proportion of the population is engaged in productive labor, a much larger surplus is available for other purposes than that of supplying physical needs. In a new country the whole available force of the community is devoted to production—there is no well man who does not do productive work of some kind, no well woman exempt from household tasks. There are no paupers or beggars, no idle rich, no class whose labor is devoted to ministering to the convenience or caprice of the rich, no purely literary or scientific class, no criminal class who live by preying upon society, no large class maintained to guard society against them. Yet with the whole force of the community thus devoted to production, no such consumption of wealth in proportion to the whole population takes place, or can be afforded, as goes on in the old country; for, though the condition of the lowest class is better, and there is no one who cannot get a living, there is no one who gets much more—few or none who can live in anything like what would be called luxury, or even comfort, in the older country. That is to say, that in the older country the consumption of wealth in proportion to population is greater, although the proportion of labor devoted to the production of wealth is less—or that fewer laborers produce more wealth; for wealth must be produced before it can be consumed.

It may, however, be said, that the superior wealth of older countries is due not to superior productive power, but to the accumulations of wealth which the new country has not yet had time to make.

It will be well for a moment to consider this idea of

accumulated wealth. The truth is, that wealth can be accumulated but to a slight degree, and that communities really live, as the vast majority of individuals live, from hand to mouth. Wealth will not bear much accumulation; except in a few unimportant forms it will not keep. The matter of the universe, which, when worked up by labor into desirable forms, constitutes wealth, is constantly tending back to its original state. Some forms of wealth will last for a few hours, some for a few days, some for a few months, some for a few years; and there are very few forms of wealth that can be passed from one generation to another. Take wealth in some of its most useful and permanent forms—ships, houses, railways, machinery. Unless labor is constantly exerted in preserving and renewing them, they will almost immediately become useless. Stop labor in any community, and wealth would vanish almost as the jet of a fountain vanishes when the flow of water is shut off. Let labor again exert itself, and wealth will almost as immediately reappear. This has been long noticed where war or other calamity has swept away wealth, leaving population unimpaired. There is not less wealth in London to-day because of the great fire of 1666; nor yet is there less wealth in Chicago because of the great fire in 1870. On those fire-swept acres have arisen, under the hand of labor, more magnificent buildings, filled with greater stocks of goods; and the stranger who, ignorant of the history of the city, passes along those stately avenues would not dream that a few years ago all lay so black and bare. The same principle—that wealth is constantly re-created—is obvious in every new city. Given the same population and the same efficiency of labor, and the town of yesterday will possess and enjoy as much as the town founded by the Romans. No one who has seen Melbourne or San Francisco can doubt that if the population of England

were transported to New Zealand, leaving all accumulated wealth behind, New Zealand would soon be as rich as England is now; or, conversely, that if the population of England were reduced to the sparseness of the present population of New Zealand, in spite of accumulated wealth, they would soon be as poor. Accumulated wealth seems to play just about such a part in relation to the social organism as accumulated nutriment does to the physical organism. Some accumulated wealth is necessary, and to a certain extent it may be drawn upon in exigencies; but the wealth produced by past generations can no more account for the consumption of the present than the dinners he ate last year can supply a man with present strength.

But without these considerations, which I allude to more for their general than for their special bearing, it is evident that superior accumulations of wealth can account for greater consumption of wealth only in cases where accumulated wealth is decreasing, and that wherever the volume of accumulated wealth is maintained, and even more obviously where it is increasing, a greater consumption of wealth must imply a greater production of wealth. Now, whether we compare different communities with each other, or the same community at different times, it is obvious that the progressive state, which is marked by increase of population, is also marked by an increased consumption and an increased accumulation of wealth, not merely in the aggregate, but per capita. And hence, increase of population, so far as it has yet anywhere gone, does not mean a reduction, but an increase in the average production of wealth.

And the reason of this is obvious. For, even if the increase of population does reduce the power of the natural factor of wealth, by compelling a resort to poorer soils, etc., it yet so vastly increases the power of the human factor as more than to compensate. Twenty

men working together will, where nature is niggardly, produce more than twenty times the wealth that one man can produce where nature is most bountiful. The denser the population the more minute becomes the subdivision of labor, the greater the economies of production and distribution, and, hence, the very reverse of the Malthusian doctrine is true; and, within the limits in which we have reason to suppose increase would still go on, in any given state of civilization a greater number of people can produce a larger proportionate amount of wealth, and more fully supply their wants, than can a smaller number.

Look simply at the facts. Can anything be clearer than that the cause of the poverty which festers in the centers of civilization is not in the weakness of the productive forces? In countries where poverty is deepest, the forces of production are evidently strong enough, if fully employed, to provide for the lowest not merely comfort but luxury. The industrial paralysis, the commercial depression which curses the civilized world today, evidently springs from no lack of productive power. Whatever be the trouble, it is clearly not in the want of ability to produce wealth.

It is this very fact—that want appears where productive power is greatest and the production of wealth is largest—that constitutes the enigma which perplexes the civilized world, and which we are trying to unravel. Evidently the Malthusian theory, which attributes want to the decrease of productive power, will not explain it. That theory is utterly inconsistent with all the facts. It is really a gratuitous attribution to the laws of God of results which, even from this examination, we may infer really spring from the mal-adjustments of men—an inference which, as we proceed, will become a demonstration. For we have yet to find what *does* produce poverty amid advancing wealth.