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ART. I.—*The Early Scottish Church; The Ecclesiastical History of Scotland from the First to the Twelfth century.* By the Rev. THOMAS McLAUCHLAN, M. A., F. S. A. S. Edinburgh: T. & T. Clark. 1865.

Iona. By the Rev. W. LINDSAY ALEXANDER, D. D., F. S. S. A. Edinburgh.

LATE researches throw increased light upon the distinction between Celtic and Latin Christianity. They were separated by a boundary of facts, more enduring than the stone wall completed by Severus between the Solway and the Tyne, and warding off from Scotland both prelacy and papacy for more than a thousand years. There is reason to think that before the close of the second Christian century there were "Scots believing in Christ," and that for the gospel they were not indebted to missionaries from Rome. These Scots dwelt in Ireland as well as in Scotland, and there are historic intimations that they received their first Christian teachers from lands where the Greek language prevailed. It was perhaps three hundred years after Christianity dawned upon Scotland, when Ninian was commissioned by Rome as the *primus Episcopus*, "the first bishop to the Picts," and Palladius as "the first

hand every additional fragment, and with impatience that we wait for a new instalment of his great work in the history of the Patriarchates yet to be recorded.

We shall close this article in the words with which Mr. Neale takes leave of his reader, making free to accept them in their best meaning, according to our views, and as really comprehensive of all branches of the church of God.

“And now I pray God to accept this volume as a mite thrown into the treasure-house of preparation for union. The union of the three churches, that second, and even more glorious pentecost, we cannot hope to see; but in the meantime, amidst all the obloquy and disputes, and suspicions and hard words of this generation, it is a blessed and consoling dream which some day will most assuredly become a reality. But a real and true union must not be, like that of Lyons or Florence, the triumph of one party, and the surrender of the other; but an equal assembly, where the problem of orthodoxy on the one side, and catholicity on the other, may be happily and enduringly solved. May God hasten that most glorious day.”

ART. VI.—*Malthusianism.**

THE most general form of this theory is, that the constant relation between the natural increase of population and that of food, is such that the earth's productions necessarily tend to become less and less adequate to the support of its inhabitants. The moral consequences of this view, advocated as it is by a certain school of political economists, and exerting its influence at the present time among a large class of intelligent people, may serve to justify us in submitting it to a critical examination in the pages of a religious periodical. In doing this we shall attempt to show that the theory rests upon speculation and

* The greater part of the materials of this article may be found in Principles of Social Science, by H. C. Carey, 1858; and in A Manual of Political Economy, by E. Peshine Smith, 1860.

analogy, that the facts of social experience are opposed to it, and that its moral consequences are inconsistent with the teachings of the Holy Scriptures. We are persuaded that all this can be shown to the satisfaction of every candid mind.

Before entering upon this examination, however, it should be observed that there is a strong antecedent probability against the truth of this theory. In other words, there are rational grounds for a strong presumption that the Creator, in his infinite fulness of wisdom, power, and goodness, 'whom giving does not impoverish, nor withholding enrich,' has made ample provision for all the necessary wants of his human children; and this presumption is confirmed by the acknowledged fact that all these wants, except that of food, have been provided for with a bountiful liberality. The wants of man may be classified as physical, intellectual, and moral, or spiritual, the classification resting upon that element which predominates in each, because most of them partake to a greater or less extent of all these characteristics. The chief of the physical wants is that of food; of the intellectual, that of knowledge; and the moral or spiritual wants are summed up in that of communion with God. Besides these there is one other original want in man's nature, which is perhaps equally physical, intellectual, and moral, namely, that of communion with his kind—the want of society. Now, for the satisfaction of all these wants, unless that of food be an exception, it is acknowledged that adequate and abundant supplies have been provided. The human powers of procreation are acknowledged to be ample for the supply of all man's want of communion with his kind. In the facts and laws of nature, in the universe of truth, no one has ever anticipated any deficiency for our intellectual wants. In the revelations which God has made of himself in nature, in the human soul, and in his word, we have the source of the most abundant supplies for all our moral or spiritual wants. In fine, with respect to none of the physical wants, except that of food, is any deficiency ever supposed. All analogy therefore seems to warrant us in the expectation that the Creator has provided with equal liberality for this lowest yet most urgent necessity. It seems wholly irrational, and even monstrous, to suppose that an inordinate bounty in supplying man's want of communion

with his kind, should have led him to endow the procreative powers in such excess, that all the treasures of the earth, air, and waters, should be necessarily inadequate to the supply of food; and that an ever-increasing proportion of the human race must annually die of starvation. It seems as if it might be safely affirmed on *a priori* grounds, that a system of social science whose last word is that marriage has been virtually prohibited to the most numerous class of human beings, that charity to the poor is a violation of the laws of God, and cannot fail to increase the evil it is intended to relieve, must be false.

We now proceed to show that the Malthusian theory rests upon speculation and analogy.

The analogical argument which has exerted the greatest influence in propagating these doctrines, especially during the last quarter of a century, is drawn from the lower organisms, plants and animals. The "struggle for existence" which is constantly going on among them, is exhibited in Mr. Charles Darwin's *Origin of Species*, in elaborate detail. The substance of what he says, however, is contained in the following paragraph:

"A struggle for existence inevitably follows from the high rate at which all organic beings tend to increase. Every being which during its natural lifetime produces several eggs or seeds, must suffer destruction during some period of its life, or during some season or occasional year; otherwise on the principle of geometrical increase, its numbers would quickly become so inordinately great that no country could support the product. Hence, as more individuals are produced than can possibly survive, there must in every case be a struggle for existence, either one individual with another of the same species, or with the individuals of distinct species, or with the physical conditions of life. It is the doctrine of Malthus applied with manifold force, to the whole animal and vegetable kingdoms; for in this case there can be no artificial increase of food, and no prudential restraint upon marriage. Although some species may be now increasing more or less rapidly in numbers, all cannot do so, for the world would not hold them."*

Now this is unquestionably true of all the lower organisms,

* *Origin of Species*, p. 63.

and hence it is inferred that it must be true of the highest, man. But this does not follow. For the advocates of this theory themselves are not ignorant that the argument from analogy can never prove that anything is so; all that it can prove is that something may be so; and thus lead to the inquiry whether it is so or not. If there be in the human world a "struggle for existence" similar to that which reigns among plants and animals, and by which vast multitudes of the feebler organisms must ever be destroyed, it must be proved by other arguments besides this, and beyond any which analogy can furnish. For evidently there may be good reasons why this struggle should prevail in the lower and not in the higher organic worlds. One reason for the creation of vast numbers of the lower organisms, beyond the possibility that they should all live to die a natural death, is obvious, namely, that they are created, plants to supply food to animals and man, and animals for food to man and each other. Here, then, the analogy breaks down upon the very point which it is adduced to establish. For human beings are not created to become food either to one another, or to the animals; but, for aught that appears, to live out the full term of their natural life. The analogy, therefore, does not warrant us to expect anything like so high a rate of natural increase in men as we find in other creatures. Accordingly it is a well established law of the natural development of organic life, that its lower forms increase and multiply with immensely greater rapidity than the higher. A single fish-spawn, *e. g.*, contains literally millions of germs, whilst a human pair can produce only a very few offspring. A similar law in its relations to the supply of food for man and animals had been observed as early as the time of Herodotus, who says, in explanation of the causes which prevented the rapid multiplication of what he calls the "winged serpent" of Arabia: 'I, myself, have observed this law of animal life, that the wise providence of God has made those creatures which are good for food, very fruitful, as the hare; but those which are noxious incapable of rapid multiplication, as the lion.* For these, and many similar reasons, it may be for ought that appears, notwithstanding this analogy, that the human powers of pro-

* Herodotus, book iii. chap. 107, 108, 109.

creation shall be found at last no more than adequate to supply the want of society, and to *replenish the earth and subdue it*.

But Mr. Malthus himself does not base his theory upon this analogy, although it has contributed of late more than all other arguments to its credibility and acceptance. He lays it down as a principle which hardly requires proof,³ that population, when not restricted by external causes, must increase in a geometrical ratio, whilst the production of food can never increase faster than in an arithmetical ratio; viz. the former as 1, 2, 4, 8, 16, &c., and the latter as 1, 2, 3, 4, 5, 6, &c. This principle is assumed by Darwin, and by all the disciples of Malthus, as incontrovertible. We venture to deny it, and to challenge the proof. It rests upon purely speculative and hypothetical grounds. It has never been proved—the proof of it has never been formally attempted—it is incapable of proof. For, in the first place, no portion of the human race has ever been freed from external checks upon the propagation of the species, in order to make possible a determination of the law of its increase in such circumstances. A multitude of powerful restraints upon the natural increase of mankind, such as diseases and war, have always been in operation. These restraints have never been determined in their numbers or efficiency. In the present state of our knowledge they are incapable of being so determined. How then is it possible to establish the law of the natural increase of mankind in circumstances in which they have never been placed? In the second place, no scientific determination has ever been attempted of the law of increase in the production of food of which the earth is capable. The loose and general statements of Malthus himself upon this point, do not even suggest the possibility of a scientific solution of the problem; and what he does say, was in entire ignorance of all the resources of agricultural chemistry, and of the relation of the inexhaustible stores of the atmosphere to the nourishment of organic life. Nor have his disciples contributed anything, strange as it may appear, to supply his deficiencies upon this point. We affirm then that both branches of this fundamental principle of Malthusianism remain to this day unproved, and further, that they are both incapable of proof.

But if it be conceded that the procreative powers of mankind, being conceived of as adequate to populate the whole earth from a single pair, must needs, if unchecked, tend to overpopulation, it does not follow that the check required must come from the want of food. For aught that appears, other checks may continue to prove amply sufficient to keep down population within the limits of the earth's capacities to support it. It will be shown hereafter that this has hitherto been the case in every country of Europe, in which no excess of population has ever yet occurred, but all the want and starvation among the people have arisen from other causes. For aught that appears, these checks may continue to be sufficient to the end of time, and they may increase in numbers and efficiency as population advances. The all-wise Creator, who, by his immutable laws, stored away the coal thousands of years ago to meet the want which should arise from the destruction of the forests, and the rock-oil to be discovered when the whale should have begun to disappear, may have implanted in the human constitution itself, just those checks upon the increase of population, which may hereafter be required, and which shall be developed at the proper time, when all the waste lands of the globe shall be fully occupied and tilled to their utmost capacity of production. Some such pre-arrangement as this is just what we might expect from the Divine wisdom and power and goodness, and it would be in perfect analogy with the wonderful facility which the physical constitution of man has always exhibited in adapting itself to the ever-varying circumstances and conditions of his earthly life.

But the disciples of Malthus shut themselves up within much narrower limits than those which would be allowed them by this principle of the geometrical ratio of the increase of population, and the arithmetical ratio of that of food. In other words, they take much higher ground, by undertaking to show that increase in the production of food can never be so great as that allowed by the arithmetical ratio of Mr. Malthus, except perhaps for a very short time, and in extraordinary circumstances, and that all the resources of emigration, whilst the greatest abundance of unoccupied land remains, are totally inadequate to supply the want of food which arises from over-

population. These statements are founded upon what is called Ricardo's Theory of Rent, in which that author undertakes to explain the reason why land employed in agriculture will pay a rent to its owner. This theory, on account of the use which has been made of it in support of the Malthusian doctrine, requires now to be examined.

In 1815 Mr. Malthus himself published an Essay on the Nature and Progress of Rent. His ideas however upon this subject had been previously broached by other writers on Political Economy. Subsequently they were taken up by Mr. Ricardo, and formulated in a theory with detailed applications. This theory, which has come to be associated almost exclusively with Ricardo's name, presented in his own words, is as follows:

“On the first settlement of a country in which there is an abundance of rich and fertile land, a very small proportion of which is required to be cultivated for the support of the actual population, or indeed can be cultivated with the capital which the population can command, there will be no rent; for no one would pay for the use of land, when there was an abundant quantity not yet appropriated, and therefore at the disposal of whosoever might choose to cultivate it. On the common principles of supply and demand, no rent could be paid for such land. . . . When in the progress of society land of the second degree of fertility is taken into cultivation, rent immediately commences on that of the first quality, and the amount of that rent will depend on the difference in the quality of these two portions of land. When land of the third quality is taken into cultivation, rent immediately commences on the second, and it is regulated as before, by the difference in their productive powers. At the same time the rent of the first quality will rise, for that must always be above the rent of the second, by the difference between the produce which they yield with a given quantity of capital and labour. With every step of the progress of population, which shall oblige a country to have recourse to land of a worse quality to enable it to raise its supply of food, rent on all the more fertile land will rise.”*

* On the Principles of Political Economy and Taxation, by David Ricardo, Esq. London, 1817. Pp. 52—55.

Such is Ricardo's world-famous Theory of Rent which has been vaunted by great authorities as the most important contribution to political economy made since the time of Adam Smith! J. Stuart Mill, one of the latest, and probably the ablest writer on Political Economy that England has produced within this century, speaks of it in the following words: "This general law of agricultural industry is the most important principle in Political Economy. Were the law different, nearly all the phenomena of the production and distribution of wealth would be different." It is necessary to bear in mind these remarkable words. For if it can be shown that there is no such law as this, then the whole system of the English economists, themselves being judges, is overthrown.

The first and most obvious objection to this theory is that it is purely hypothetical and speculative, a pure *a priori* hypothesis, an assumption without the shadow of proof. Its authors and supporters rest it wholly upon the antecedent probability. They assert that men, being rational, would first choose and settle upon the richest lands, therefore they always have done, and will always do so. Not one of them seems ever to have thought of examining into the history of new settlements, to see in what order superior and inferior lands have actually been occupied. Here then is a great system of Political Economy vauntingly based upon a purely speculative notion.

The second objection is, that precisely the opposite of this theory may be made to appear quite as plausible, and, indeed, far more probable, on precisely similar *a priori* grounds. It may be worth while to look at them for a moment.

Let us observe then, that when men come to settle new countries, they are necessarily few in numbers, with little aid from the appliances of civilization. If the first occupancy is by a tribe of savages, which has often been the case, they support themselves by hunting and fishing, after that by pasturage, and either do not till the ground at all, or only in the feeblest manner. In such states of society population is necessarily very sparse. For it has been roughly computed that one-half acre of cultivated land will furnish as much food as eight hundred acres of forest and stream to a community of hunters and fishers. And when cultivation begins under any circum-

stances, farming implements are difficult to be obtained, and are of the rudest construction; whilst the sparseness of the population precludes the massing of numbers and coöperation in great agricultural enterprises. Consequently the first practical question which new settlers have to meet, is not where they can find the deepest and richest soils, but where it is possible for them, with their rude implements and paucity of numbers, to overcome the resistance of nature, and eke out a bare subsistence for themselves and their families.

Now the resistance of nature is commonly greatest where her strength is greatest. Entering a new country, the settlers find a wilderness. Dank and pestilential vapours fill the valleys, whose natural growths are the heaviest timber or impenetrable jungles, the cover of ferocious beasts and noxious reptiles. Here a vast work of clearing and drainage must be done before the soil can be rendered productive. But to this work the forces of the new settler are totally inadequate; and even if this were otherwise, he and his family would probably be cut off the first year by the malaria which floats along the sluggish streams. The next best soils extend for some distance up the sides of the valley and lower slopes of the hills. But here also the timber is too heavy to be cleared away by the new settler's imperfect tools and inadequate force of numbers. Hence, from the necessities of his condition, whatever might be his wishes, he is compelled to pass by these, and to commence the work of cultivation upon the light, thin soils of the upland slopes, where there is no malaria, no heavy timber, nor thick jungle, to be cleared, where no drainage is required, which can be immediately worked with his inadequate force and implements, and which will afford him the speediest though scanty returns—"returns, however, which are immeasurably in advance of all that could be obtained by his savage or nomad predecessors, who roamed over a thousand times greater space, and depastured the natural grasses with their flocks and herds."

"It is the first step which costs." When the new settler's first crop is gathered from his thin soil, he has notwithstanding a store which will last him till the next harvest, and which gives him some leisure to improve his tools. This improvement, and the natural increase of his live stock, render the next year's

labours somewhat more productive. And thus, year by year, he is enabled more thoroughly to till the ground, still further to improve his agricultural implements, to clear more and better land, and extend his plantation. As his children grow up around him, they take part in his labours, and increase his force. By their aid he is now enabled to clear away heavier timber, and thus to bring deeper and richer soil under cultivation. In this way, as population advances, from generation to generation, the progress of settlement and tillage is naturally from the lighter and poorer soils to those which are heavier and richer, down to the swamps and bottoms of the valleys. Thus the richest lands, where the strength and resistance of nature are greatest, where a gigantic work of clearing and draining is indispensable, must needs be the last which are reached, when population has become the most dense, and the appliances of civilization the most numerous and efficient.

Such, in brief, is the *a priori* argument which is opposed to Ricardo's theory. Certainly it is no less probable than that which it is adduced to refute; and a system of social science of an entirely opposite character, might be as legitimately built upon this foundation as the English system is built upon their theory. But whatever is worthy of the name of science can make no further use of such speculations than to raise from them the inquiry, whether the conclusions to which they point are true or not? And this question must be settled by an appeal to the facts of the case. Hitherto we have only one *a priori* theory set off against another. It is necessary now to inquire further, what has been the history of new settlements? Do the facts of the case show that they have first been made on the richer or poorer soils; and have increasing populations proceeded from the former to the latter, or from the latter to the former?

Mr. Henry C. Carey was the first writer who undertook to submit Ricardo's theory to the test of facts. In this part of his Principles of Social Science, he has given us a vast historical induction; in the course of which he traces the history of new settlements in the United States and their territories, in Mexico, the West Indies, South America, Canada, Great Britain, France, Germany, Italy, Greece, and other countries. It is impossible

to do any sort of justice here to this splendid historical argument. It should be read and studied by every one in the author's own words. A few well-known facts, however, may be mentioned as examples.

In England those parts of the country which in the days of Richard *cœur de lion* were forests and swamps, are now under the highest and most productive cultivation. The morasses of South Lancashire, which had nearly swallowed up the army of William the Conqueror, are now among the most productive lands of the kingdom. The Lincoln Fens, which Cromwell undertook to drain by the labour of his Dutch prisoners, and failed, together with the border countries between England and Scotland, which two centuries ago were the haunt and refuge of the bold moss trooper, are now drained by wind and steam hydraulics, and are proverbial from their fertility. Everywhere the lands most recently brought under cultivation are those which have required the heaviest outlay of capital, especially in the form of machinery, to reclaim them. A considerable portion of such lands were totally irreclaimable until the invention of the steam engine. Even in the prairies of the United States and Territories, where there is no jungle nor timber, it is found that the lighter soils are first occupied, and the deepest at a later period of settlement. Thus, in the Report of the American Pomological Society, 1849, it is stated that "many small tracts known as wet prairie fifteen years ago, and *rejected by the first settlers*, are now brought under cultivation. . . . To constitute dry prairie it must be rolling. Between the waves of this great ocean . . . are the sloughs, *the terror of the early emigrant, and the most valued possession of his successor*. . . . These sloughs are the drains of the dry prairie. . . . The soil of the dry prairie is from twelve to eighteen inches deep in this region; the wet prairie in general much deeper; and the alluvion (of the river bottoms) as in all countries of irregular and often astonishing depth." In general, we find at the present time that the best lands are not cultivated except where population has become dense. Where it is sparse, tillage recedes from the river banks, and runs along the crests and ridges of the hills. The old roads wind from hill top to hill top; regardless of the increased distance

and of the toil of ascent and descent. They connected the scattered villages and sparse settlements. The modern railway on the other hand connects great cities. It plunges through forests and swamps, wholly or comparatively destitute of population, which, however, soon follows its course. The jungle and timber are cleared away; the swamps are drained; villages, towns, and cities spring up along its line; and now at last the best lands are brought under cultivation.

The result of this whole argument is, that Ricardo's theory of the occupation of land will not stand the test of the facts of history. Its precise contrary is true; viz., that the poorer lands have in general been first occupied; and that increasing populations have almost or quite uniformly advanced from the poorer to the richer soils.

This conclusion is confirmed, and the Malthusian doctrines still further refuted, by another class of facts of still greater significance. These are brought to bear immediately upon the question, whether increasing populations have actually produced a decreasing proportion of food for each mouth, as required by Ricardo's theory? And here we undertake to show from various considerations, but especially from statistical tables, that precisely the opposite of this is true.

Ricardo's theory, then, as applied by himself and others, gives us the following procedure and results. Suppose a colony of one hundred persons in families to settle in a new country, they choose first, of course, the best portion of the land. This yields them for the first crop, say, 1000 bushels of wheat, ten bushels for each person. In twenty-five years, say, the population will have doubled, requiring them to cultivate a double portion of the land. The latter part of this must be of inferior quality to the former. It produces, say, 900 bushels, giving for the whole crop 1900 bushels, which yields but $9\frac{1}{2}$ bushels for each person. In another twenty-five years the population doubles again, and now amounts to four hundred persons, requiring double the amount of land, the addition being of a still inferior quality. The whole crop now amounts to 3500; and this yields but $8\frac{3}{4}$ bushels for each person. Another twenty-five years, population doubled again, amounting now to 800, and the whole crop gives but $7\frac{3}{10}$ bushels to each person. Thus

we have a constantly decreasing proportion of food for each mouth as population advances. But all this is upon the supposition that each person of the 800 occupies as much land as each of the 100 did at first; so that the population has not increased in density at all. But now if the land be limited from any cause, so that each person of the increased number cannot obtain as much land as his ancestors each occupied, this decreasing proportion of food for each person is necessarily and greatly accelerated, and still further by the tendency (assumed by these writers) of cultivation to exhaust the natural fertility of the earth. Such are the inevitable and acknowledged consequences of the theory.

Now upon examination of the facts of the case, no such consequences appear in the history of increasing populations, but the contrary, namely, that increasing populations produce an ever-increasing amount of food for, and actually distribute it normally to each mouth, and that the densest population known in Europe is consequently and actually in the best economical condition. Here also Mr. Carey has a vast and splendid induction of facts; only a few of which can be mentioned as examples of the whole.

Upon this point we have the best statistical information of the progress of population and economic improvement in France. Let us take the interval between Louis XIV. in the year 1700, and Louis Philippe, 1840, one hundred and forty years. For this period, M. de Jonnès, the head of the statistical bureau of the government, has compiled statistical tables, which give us the following among a vast number of other most interesting facts. 1. The whole population of France nearly doubled, lacking but three millions of it, in one hundred and forty years. 2. The whole crop or product of food nearly quadrupled in the same time. Consequently a population twice as dense has produced four times as much food, and twice as much for each mouth. But it is of importance also to know how this increased product of food was actually distributed, and what was the condition of the labouring poor during this time. In 1700 then we find from these tables that the landlords and capitalists received for their share of the whole product, full two-thirds, or twice as much as the labourers, the

actual tillers of the soil, whilst in 1840 the labourers received three-fifths of the whole, or fifty per cent. more than the landlords and capitalists. This however does not indicate that the landlords received less in absolute amount; for so great was the increased production during this period that two-fifths of the whole in 1840 was far greater in absolute amount than two-thirds in 1700. For notwithstanding, or rather, because, the labourers were so much better paid, the absolute amount that remained to be distributed among the non-agricultural portion of the people had increased one hundred and twenty-seven per cent., whilst those among whom it was distributed had increased only one hundred per cent. Again, the whole cost of cultivating the soil of France increased during this period more than seven times; the proportion of this, which was paid in wages, was nearly doubled; the proportion for each individual nearly trebled; and the daily wages received by each individual of the agricultural families was nearly quadrupled. In the meantime the cost of wheat, taken as an index of the expense of living, had increased about thirty sous per bushel, or less than one-eighteenth of its value. And, again, the wages of an agricultural family per year in 1700 was one hundred and thirty-five francs, whilst the cost of wheat enough to give them bread was two hundred and fifty-four francs, leaving a deficit for them to make up with acorns, chestnuts, and such materials, one hundred and nineteen francs. In 1840 the wages of such a family was five hundred francs, whilst the cost of wheat enough to give them bread was two hundred and fifty-six francs, giving an excess of wages over the cost of bread, for clothing, and other necessaries, two hundred and forty-four francs. Thus it appears that under Louis XIV. the rural population of France wanted bread half the time. Intermediate statistics show that under Louis XV. they had bread two days out of three; under Louis XVI. three days out of four; and under the Empire and Louis Philippe, they had bread every day, and a constantly increasing surplus of wages for clothing and other necessaries. It is true indeed that during all this time they had food and clothing, such as they were, those of them that survived starvation. But their bread was made of inferior grains, chestnuts, acorns, fern, and worse materials; nor could

they obtain enough even of such wretched means of subsistence to prevent multitudes of them from perishing. One of the ministers of Louis XV., in 1739, says: "At the moment when I write, in the month of February, with appearances promising a harvest, if not abundant, at least passable, men die around us like flies, and are reduced by poverty to eat grass." The Duke of Orleans carried a loaf of fern bread into the king's council to show his majesty what his subjects lived upon. Few persons are aware of what wretched food the masses of the people of Europe lived upon in "those good old times."

In these tables, moreover, we have compared the more with the less populous portions of France, with precisely similar results. We cannot go over the details. They show a constantly increasing proportion of food produced for, and actually distributed to each mouth, as the population increased in density; and a decreasing proportion as it became more sparse. Thus, in the words of a French Economist: "If we compare together the ten most populous and the ten least populous departments, it appears from official statistics that in the former the yield for each person is more in quantity, and better in quality, to the extent of thirty per cent. in weight of grain, than in the latter; and there is a similar disproportion in all other products of the soil besides grain." In other words, there was produced in the portions of France where the population was more dense at least a third more food for each mouth, than in those where the population was more sparse.

With respect to the other states of the continent and to Great Britain, we have not such precise statistical results; but we have a body of general facts which necessarily involve similar conclusions; and some of these facts are more significant than any yet given.

Thus the following statements are taken from Adam Smith, although some of them are sufficiently known to all readers of general history. "Under the feudal governments the tillers of the soil were commonly bondsmen, or tenants at will. Both their persons and services were at the disposal of the feudal lord, who supplied all the little capital employed; to whom therefore all the produce belonged. But in the present state

of Europe the share of the landlord seldom exceeds a third, sometimes not a fourth part. Yet the rent of lands (that is the share of the whole produce received by the landlords) in all the improved parts of the country, has tripled and quadrupled in absolute amount since the ancient times; and this third or fourth part received by the landlords, is, it seems, three or four times greater than the whole formerly was. Rent, though in the progress of improvement it increases in absolute amount, diminishes in proportion to the whole produce of the land." Now then the other two-thirds or three-fourths of the whole produce, which does not go for rent, remains to be divided between the farmer and the labourer; and this must be four or five times greater than the whole amount was formerly, whilst the population of no country in Europe is three times as great as it was five hundred years ago.

From the statements of Mr. Malthus himself, forty years after Adam Smith, it would appear that the whole amount of the produce of the soil of England, and the proportion of it enjoyed by the labourers, had still further increased during that period of rapid improvement. "According to the returns lately made to the Board of Agriculture, he says, the average proportion which rent bears to the whole produce seems not to exceed one-fifth; whereas, formerly, the proportion amounted to one-fourth, one-third, or even two-fifths. Still, however, although the landlord has a less share of the whole produce, this less share, from the very great increase of the whole, which has arisen in the progress of improvement, yields a larger quantity." Now if one-fifth was at this time greater than two-fifths had been formerly, the whole produce was more than doubled; and of this whole, four-fifths went to the labourer and farmer. All this in the face of what his own theory required. How this difficulty is disposed of we shall see hereafter. It is not the least wonderful thing connected with this whole subject.

In like manner, Mr. Senior, one of the ablest of this school of Political Economists, in 1836, thus estimates the improvements which had taken place in England and the southern parts of Scotland in the preceding sixty years: "Population

doubled, wages of labour more than doubled, rent nearly trebled."

These are examples of a vast multitude of facts which have been adduced in disproof of Ricardo's theory that increasing populations produce a decreasing quantity of food for each mouth; and these are crowned by one acknowledged fact, which we claim is not only sufficient of itself to overthrow the theory, but also the whole system of Political Economy which is built upon it. Far the most populous country of Europe is Belgium; and it is an undisputed fact that the economic condition of the people in that country is the best in Europe. There is hardly any such thing as pauperism, or distress from the want of food. The country produces more than enough for all its inhabitants, and large quantities of food are constantly exported. This one undisputed fact amounts, as we claim, to a demonstration that there is no such thing as over-population in Europe; and that wherever there is pauperism, or distress from want of food, as in England and Ireland, it arises from other causes, namely, false and wrong social arrangements. For during the Irish famine itself, in which perhaps a million of human beings perished from starvation, the exportation of food in large quantities from that country, was constantly going on. It was not that Ireland did not produce food enough for its inhabitants, that they perished; it was because they had nothing to buy it with: and the reason of this was simply the want of a sufficiently diversified industry. Into the discussion of this point, however, we cannot enter in this article.

Here now the question arises, how do the Malthusian Economists deal with these facts? And the answer is that they frankly admit the most significant of them, and undertake to reconcile them to their theory. Some quotations to this effect from these writers have been already given. Thus Mr. Senior in 1836: "Since the beginning of the eighteenth century, the population of England has about doubled; the produce of the land has certainly tripled, probably quadrupled." Mr. McCulloch also says: "Let any one compare the state of this, or any other country of Europe, with what it was three hundred, or one hundred years ago, and he will be satisfied that prodigious advances have been made; that the means of subsistence have

increased much more rapidly than population; and that the labouring classes are now generally in possession of conveniences and luxuries that were formerly not enjoyed by the richest lords." This is not true of the present condition of the people; for it leaves out of view the enormous increase of pauperism in England during the last thirty years, under the influence of her wrong social arrangements, by which the natural distribution of the wealth created has been prevented, so that it has been more and more concentrated in the fewest possible hands. But it would be easy to multiply to any extent similar quotations.

These admissions, however, as was said, the Malthusians do not understand to invalidate the *a priori* theory to which they have been so long and so fully committed. They believe in the doctrine that one theory is worth a thousand facts; and if the facts cannot be made to square with the theory, so much the worse for the facts. Thus Stuart Mill, admitting that the facts of *modern times* are against the theory, goes on to say: "This, however, does not prove that the law of which we are speaking, does not exist; but only that there *is some antagonizing principle at work, making head against the law.* Such an agency there is in habitual antagonism to the law of diminishing returns from the land . . . it is no other than *the progress of civilization*" (sic). But he comes to the conclusion that this law constantly operating, must in time produce its due effect, notwithstanding this "antagonizing principle." So, also, Mr. McCulloch: "From the operation of fixed and permanent causes, the increasing sterility of the soil is sure in the long run to overmatch the improvements that occur in machinery and cultivation."

These statements seem to us little less than prodigious. For here it is conceded that this boasted law does not hold good in an advancing civilization. Here it is admitted that for more than two centuries of the most rapid increase of population ever known, the progress of civilization has been more than a match for this law. What then becomes of it in the past if, in the human race, taken as a whole, civilization has always been advancing? and what becomes of it for the future, if civilization should continue to advance? Certainly the former of these suppositions

has never been disproved; as certainly the latter is incapable of being disproved. Here, then, this boasted law of "the increasing sterility of the soil," is conceded to be no law at all of the actual facts, but something which might, could, would, or should be a law, if it were not for the progress of civilization! A great system of political economy vauntingly based upon a purely speculative notion, which confessedly ignores the progress of civilization! Is this anything less than prodigious?

It must, however, be observed further, that upon this theory it is impossible to explain or to understand how civilization should ever have made any progress. For in the case already given of one hundred settlers on the best land of a new country, if we allow that eighty of them might be sufficient to work the soil, that would leave twenty of their number to make and improve tools, machinery, and other appliances, to attend to the education of the youth, and other such necessities of civilization. Now at every advance which they make to poorer soils, they must needs occupy a greater proportion of land, because it becomes poorer and poorer, in order to produce a sufficiency of food; and this necessitates that a constantly increasing proportion of their numbers should devote themselves to tillage, leaving a constantly decreasing proportion to apply themselves to the production of tools, &c., whilst the population constantly becomes more and more sparse. At first then they have eighty out of the hundred for other necessary purposes of civilization besides tillage; at the second stage they will have but fifteen to the hundred; at the third, ten; and soon none at all. Every human being must work in the fields to procure a bare subsistence; this soon fails, and the feebler begin to die of starvation. Thus at every successive stage of the relatively decreasing returns from the land, we find less and less force and time available for study, invention, and improvement in general, that is to say, for the progress of civilization. How then is it possible that civilization should ever have made any progress? According to this theory it must have been always and everywhere declining with ever-increasing human misery. But because it is impossible to deny that in some circumstances progress has been made, at least during the last two centuries in Europe, these writers are forced to treat the progress of

civilization as an accident, which is subject to no law, and admits of no explanation. And this, forsooth, they call "Social Science."

Here then we recall the words of perhaps the very ablest expounder of this system of notions and fallacies, J. Stuart Mill. "This law is the most important position in political economy. Were the law different, nearly all the phenomena of the production and distribution of wealth would be different." The law is different—there is no such law; it is purely imaginary. The precise contrary is the law of the facts of the case. New settlers begin with the lighter soils, that are the most easily worked. The proper culture of these tends to enrich and not to impoverish them. As population and force increase, and tools and other appliances are improved, the settlers advance to soils of superior strength and fertility, which are more difficult to be cleared and worked. Whence an increase of food for each individual; increased proportion of their numbers released from the work of tillage, and enabled to apply themselves to study, invention, and general improvement to all that belongs to an advancing civilization. This is the law of the facts of the case. Therefore "nearly all the phenomena of the production and distribution of wealth" are different from the exhibition made of them in English Political Economy. In fact this whole system is simply the blossom and fruit of English institutions, the worst economic arrangements to be found anywhere except on heathen ground. Malthusianism is nothing else but the attempt to justify theoretically these institutions and social arrangements, with all their consequences of pauperism and starvation.

There are two points which have not been noticed in the preceding review, and which can only be glanced at now.

The first of these is, that when these writers speak of "the law of the decreasing fertility of the soil," they do not simply mean that men occupy ever poorer and poorer lands as population increases, but in addition to this, that the constant tendency of agriculture, upon the whole, is to exhaust the soil of its natural fertility. They assume that land has a certain natural amount of productive power, and that this is constantly, upon the whole, in a process of exhaustion. They are

either ignorant of, or they have a sublime contempt for, all inquiries into the sources from which the earth derives its fertility, and all the results of agricultural chemistry. Now these inquiries and results have poured a flood of light upon this whole subject, showing us that the earth relies for her fertility chiefly upon the atmosphere, and that the atmospheric supplies are inexhaustible. Thus we know now that the growths of the earth on an average take from the soil not more than two-tenths of their substance; full eight-tenths are drawn directly from the atmosphere. Whence every crop, as it is consumed, deposits something less than eight-tenths of its weight in the soil, which was not there before. And it makes little difference how it is consumed, provided it be not burnt up; when all that was taken from the atmosphere escapes back into it again in a free state. But when it is consumed in any other manner, as there is still some tendency to this escape, the amount deposited in and retained by the soil is less than eight-tenths, perhaps five or six. In this way the soil of the western prairies has been formed, and made what it is, and is constantly rising, viz., by the annual decay, perhaps for thousands of years, of the natural grasses produced upon it. Hence it is the natural tendency of the increase and multiplication to any extent of organic beings, both plants and animals, and of their decay, to enrich the earth, taken as a whole, and not to impoverish it, as these writers suppose. Whenever a portion of the soil is thus impoverished, it is by the remorseless removal and consumption of its growths away from it, and making no proper returns. Otherwise the tendency of agriculture is rapidly to enrich the soil year by year. And thus this element of the Malthusian "law of the increasing sterility of the soil" is found to be no law at all of the actual facts; but the reverse is true.

The second point which has been omitted, respects the normal relation between the increase of population and that of wealth in civilized countries. The later English Economists lay it down as a principle that the increase of wealth in any country is measured by the rate per cent. interest which money commands. They do indeed qualify this statement by such general additions, as that the government must be liberal, and property well secured. But they apply it without qualifica-

tion to their own country, France, Germany, the United States, and Canada. There is not indeed, as usual, the least foundation for this notion; as Adam Smith would have taught them, if they had not utterly repudiated the authority of their great master. For he says that "the rate of interest is naturally low in rich countries, and high in poor countries; and it is always highest in the countries that are going fastest to ruin." But this is characterized by Mr. McCulloch as a most erroneous statement, and he adds, "we have no hesitation in laying down as a principle, which holds good in every case, and from which there is really no exception, that if the governments of any two countries be equally liberal, and property in each equally well secured, their comparative prosperity will depend upon their rate of profit," *i. e.*, upon the different rates per cent. interest which money commands in those countries. The truth is, however, that in all industrial countries, where money is borrowed for investment in productive enterprises, the rate at which wealth increases is far greater than that which money commands. We cannot stop to prove this, except to observe, that it was the application of this erroneous measurement to the increase of wealth in this country, which led the English people into those false estimates into which they fell, of our financial ability to meet the expenses of the late civil war.

But now let us assume this wholly inadequate standard of measurement for the increase of wealth and compare it with the increase of population. The highest rate of the increase of population known in any country, is that in which it doubles every twenty-five years. This is less than three per cent. per annum. But three per cent. is a very low rate of interest. It averages four or five in England, France, and Germany; it is seven in this country. Yet at three per cent. wealth doubles in less than twenty-three years. So that at this extreme high rate of the increase of population, and this extreme low rate of the increase of wealth, the latter would always keep in advance of the former. Where the rate of profit is five per cent. wealth would amount to nearly three and a half times the original sum in twenty-five years; while population could not be more than doubled. In another twenty-five years, population would be doubled again, but wealth would be more than ten times as

great; giving to each of the quadrupled population nearly three times the quantity of useful things that was enjoyed by each when the population was less by three-fourths. Now the increase of population in such old and well-peopled countries as England and Holland has hardly ever been greater than at the rate of one per cent. per annum; whilst the rate of profit has averaged from three to five. In such countries an increase of two per cent. in wealth would always keep it in advance of population. But the actual increase of wealth in such countries for the past two hundred years has been nearer ten or fifteen or twenty per cent. than four or five; and in the present state of the world, wealth of whatever kind can always be converted into food.

Here then we have another proof that the distress from want of food in England and other industrial countries has literally nothing to do with overpopulation; but is wholly due to other causes, chief among which is a totally inadequate system of the distribution of the wealth that is produced.

We come now, in conclusion, to consider some of the moral consequences of this theory, which have been reserved to the last on account of their superior weight with those who do not claim to be experts in social science.

The first of these is, that all attempts to relieve the distresses of the poor by poor-laws, charitable institutions, and charity in general, are contrary to the laws of nature, and cannot fail to increase and aggravate the evil which they are intended to mitigate. Mr. Malthus himself, being a clergyman of the Church of England, could not indeed tell us in so many words, that we must never give a shilling to a starving beggar; but he develops in detail the consequence from his doctrines above stated, and leaves us to apply it for ourselves. He tells us that every increase of food thus supplied to the poor, stimulates the increase of population; and every increase of population increases the evil of pauperism. The necessary effect of this doctrine in hardening the hearts of the rich against the poor, is obvious. It brings man's noblest sympathies into direct conflict with his social duties, which, of course, require him to do all he can for the mitigation of distress, consequently never to bestow charity. For every act of charity increases

the amount of human destitution and misery. This surely must be a detestable doctrine to all who have human hearts.

The second of these consequences is that, according to this theory, a very large proportion of mankind must be deprived of the blessings of marriage, and of the family. This consequence is frankly avowed by Mr. Malthus and his followers. They exhort the poor to abstain from marriage, as their only hope of escaping starvation. It is appalling to contemplate the practical results which must follow such a violation of the laws of nature. For if there is anything certain it is that the well-being of mankind can never be generally realized out of the marriage relation. What would men become but for the purifying influence of women in married life, and what without the educating, ennobling influence of the family! Impurity, more wide spread and desolating than any ever known, except on heathen ground, would be the result. Promiscuous intercourse, from which a large portion of mankind, as it would seem, have slowly emerged, would return with all its horrors. We do not hesitate to affirm that if the advice of these writers should be followed, that the work of two thousand years of Christian civilization would be undone. The world would be engulfed in perdition.

The third moral consequence of this theory is, that it tends to promote all those abominable means of frustrating the natural course of nature in the production of human offspring, and even infanticide itself, which have prevailed so extensively among the heathen, and which, from the influence of this theory, are now returning with a dreadful significance among us. Upon this point Dr. Nathan Allen of Lowell, Massachusetts, has given us some alarming statistics, drawn from the registration of births and deaths in that state.* From this we learn that there has been among the native New England people, for many years, a steady decline both in the number of children to each family, and in the number of births relatively to the number of deaths. Formerly the general average of children to a family was from eight to ten. In one small town there were at one time ten hundred and forty-three children in ninety families, between eleven and twelve to each family. The present generation averages not more than three children to a family. In

* See a communication to the *New York Observer*, October 4th, 1866.

1864 the deaths among the American population of the State exceeded the births by nine thousand. In Boston alone the deaths exceeded the births by fifteen hundred and two. Again, for any community to be in a prosperous condition with respect to the increase of its numbers, the annual birth-rate must be at least as one to thirty of the adult population; whilst that of the American population in Massachusetts is less than as one to sixty. In fact this glorious old Puritan stock is disappearing from New England under this process, at an appalling rate. Much of this is, no doubt, due to the fact that so many of the young people, especially the young men, emigrate to the new states of the West. But this fact can have no bearing upon the decrease of the number of children in each family. In the words of Dr. Allen: "What cause, or causes, could ever possibly bring about such disastrous results? . . . The whole explanation may be summed up briefly under two heads: 1. *The physical degeneracy of women*: and 2, the settled determination among a large portion of them in married life *to have no children, or a very limited number*. . . . No language, he adds, can adequately portray the terrible effects which have already resulted from these violations of law; and no imagination can fully comprehend the nature or extent of the disastrous consequences which are yet to follow in the same train." In addition to this, the extent to which infanticide is now prevailing among the labouring poor of England, is known to be so great that the statistics are kept as much as possible from the public. The intelligent London correspondent of the *New York Times* of December 27, the day on which this is written, says: "Wife-killing is one of the most common crimes in England, next to infanticide, which has become so much a custom as scarcely to be considered a crime."

Now all these abominable practices and their results, are in perfect accordance with this theory. For it teaches us that the one great thing to be avoided for the welfare of the human race, is the increase of population. If children are born, in natural numbers, the greater portion of them must perish from starvation. It is a mercy, therefore, to prevent them from coming into the world, or if they must come, to remove them as early as possible. If these views should once come to con-

trol the action of legislators, it is easy to predict that infanticide will cease to be a punishable crime, and will be regarded as a praiseworthy act, as it has always been among the most degraded of the heathen.

The last consequence of this theory is, that it subverts all faith in the Holy Scriptures. Its teachings are diametrically opposed to those of the word of God. God has given the express command to the human race to *be fruitful and multiply and replenish the earth*; and this command is communicated in the form of a Divine blessing. These authors teach us that the natural increase of population is the greatest curse of humanity; and enjoin upon a large proportion of mankind to avoid marriage, and to frustrate their natural fertility. God has placed all men in families; these men would deprive a large proportion of mankind of the blessed influences of the family. God has enjoined charity to the poor; here we are taught that it is a curse, which can never fail to increase the evil it is intended to mitigate. God has forbidden murder; infanticide is the legitimate and inevitable practical consequence of this theory.

ART. VII.—*The Rejection of Christ by the Jewish Rulers and People.*

WE propose in this article, to inquire into the causes of the rejection of Christ by the Jewish rulers and people; to exhibit the principal occasions when this was publicly and decidedly done; and to present the evidence they possessed of the truth of his character, and of the validity of his claims.

From whatever point of observation this rejection is viewed, it stands out boldly as one of the most remarkable phenomena in the religious history of man. It presents the case of a nation, decided in their religious convictions, rigorous in their religious observances, members of the true church of God, and enjoying the full and clear light of his written word, struck, individual cases excepted, with total moral and spiritual blind-