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ROOT MATTERS IN SOCIAL AND ECONOMIC PROBLEMS.

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IS THE POVERTY OF THE MASSES A NECESSARY CONCOMITANT OF INCREASED ACCUMULATION OF WEALTH IN THE AGGREGATE ?

All observers are nearly agreed that the accumulation of wealth and wealth-producing power have prodigiously increased within the present century. Of this there can be little doubt. Modern discoveries—as regards the properties of matter, the discovery and development of new lands, the uses of steam, electricity, and labour-saving inventions in every department of social and industrial life—have enormously increased man's power over the forces of nature. With this immense gain of power vast continents of virgin forest and barren swamp have become gardens of plenty. Rivers, mountains, and other formidable obstacles to communication or distribution of products have been bridged or pierced by railways, roads, and other superior means of distribution; and the wide ocean, connecting far distant lands, now forms the easy and open highway of magnificent steamers, which vie in regularity and speed with the railway train in bringing to local markets daily supplies of the fresh meat, fish, fruit, and cereals of lands many thousand miles away. As a natural consequence famines, such as are known to have been so common and so terrible in England in the immediately preceding centuries, are rendered an impossibility.

How is it, then, that we are again brought face to face with the old terrible problems: "The Misery of the Masses," "The Labourer's Struggle for Existence," "The Growth of Poverty," "The Increase of Pauperism and Crime?" If we can judge by the popular literature of the day, the state of the masses in Europe seems to be verging into as hopeless a condition as that which existed prior to the introduction of our vaunted discoveries.

Indeed, one writer, who recently has been heard above all other claimants for reform, confidently affirms that "it is true wealth has been greatly increased, and that the average of comfort, leisure, and refinement has been raised; but these gains are not general. *In them the lowest class do not share.*" He broadly insists that increase in poverty is the constant concomitant of increase in aggregate wealth, and

that this constant "association of poverty with progress is the great enigma of our times." Is it true, as this writer confidently affirms, that with all the advantages which man has gained in his increased and increasing command over the forces of nature, our present civilisation has by its customs and provisions barred the effectual distribution of accumulated wealth; and the only effect produced is that of making the rich richer and the poor poorer?

This cannot be answered effectively without some enquiry into that form of wealth which constitutes man's chief satisfactions.

Are these sufficient in the aggregate to suffice for all, if proper means for effecting distribution were employed, supposing such means were possible? Or is the aggregate supply of primary wants insufficient to provide all needs, even were the most thorough means devised for its distribution?

WANTS OF MAN.

The satisfaction of the wants of man is the mainspring of all his activities. Wants are interminable. Some affect his very existence, while others only concern his greater degree of comfort or happiness. In all enquiries into matters deeply concerning the existence and welfare of man it is well, therefore, to keep these fundamental distinctions clearly in view; for not a few of our misconceptions arise from a failure on the part of social and political economists to establish a satisfactory classification of wants according to their varying importance.

Broadly speaking, these may be divided into three great groups:—

- (1.) Wants Essential to Life Itself.
- (2.) Wants Essential to Comfort.
- (3.) Luxurious Wants.

Whatever eccentricities may be exhibited by isolated individuals at times, it is unmistakable that the fierceness or intensity of the struggle for wants among communities is determined by the *nature* of the wants; and, invariably, so long as the reason of man is preserved, the greater intensity of the struggle—beginning with the most important—is in the order before given, viz.:—

Wants essential to—

- (1.) Life.
- (2.) Comfort.
- (3.) Luxury.

Man can, and, unfortunately, the masses of men are often obliged to, exist without the enjoyment of luxurious wants. He may even be deprived of all wants beyond the *first* group

and still maintain a more or less extended life-struggle with misery of some kind: but if the wants of the *first group* be ever so little curtailed below a certain minimum, he will speedily perish miserably.

Preserve to man his life, and if needs be he will eagerly exchange for its preservation all his comforts and luxuries. Deny him life, and all the Economist's *wealth of exchange* becomes to him as dross—absolutely valueless. This being so, let us endeavour to investigate some of the more important social problems closely connected with the welfare and progress of man. It is for many reasons necessary at this stage to confine attention to those primary wants essential to life itself; and for greater clearness these may be restricted to that minimum of each great want necessary to maintain the life of each person. The exact minimum of these, whatever their form may be, depends upon the energy destroyed by work, and upon the physical condition of the labourer's environment, and may be stated thus:—

The minimum to maintain existence of

Food.

Shelter.

Rest.

Without a certain minimum of these, man, like all living organisms, must perish inevitably.

DIVISION OF LABOUR—ADVANTAGES AND DEFECTS.

Division of labour necessary to produce necessary satisfactions, and to distribute them in large civilised communities, undoubtedly ensures greater skill, and prevents unnecessary waste of the aggregate time and energy of the individuals. Were it not for this provision no country could sustain the life of large numbers. This division of labour, however, rests upon the tacit understanding that energies in other directions than that of actually producing food may constantly be exchanged for food and other primary wants. Individual societies, communities, and nations are alike in this respect; for no matter the skill, time, and labour proffered or applied for or in the production of other than primary wants, it is necessary that they be constantly exchangeable in sufficient amount to obtain at least that minimum of primary needs from other persons or communities, who, under this system, are supposed to produce a sufficient surplus for the satisfaction of all other members of society not immediately engaged in the production of primary wants. Were it not for this understood assurance, the present civilisation—with special centres of manufactures for

the world at large, its defined local division of labour and individual rights in large areas of land—would be altogether impossible.

Among the conflicting opinions of Political Economists, Socialists, and Communists, there is at any rate this one fundamental point of agreement, *viz.*, that by a proper division of labour or services, the sum total of human satisfactions are greatly superior, and are enjoyed by vastly greater numbers than would be possible to men were each to work in a state of isolation, and each one obliged to attempt to create the whole round of his own requirements. Let us take it for granted, then, that division of services is a necessity; but while so doing let us bear in mind that the greater satisfaction of wants in the aggregate may be attained, and yet owing to an imperfect scheme of distribution a sufficiency, nay, even the minimum of primary satisfaction necessary to maintain life, may fail to reach many; and hence it may appear that much of the idleness, pauperism, crime, misery and death experienced in crowded centres is due to the defects of distribution.

Let us therefore examine this root difficulty, free from the clouds of irrelevant or less urgent considerations. Division of labour without facilities for exchange may render a unit more helpless in such a scheme than he would be in a savage state. Much ingenuity and ability has been exercised by many writers in showing to us, as Bastiat does, the glorious provisions of one of the so-called social harmonies (*Liberty alias Competition*) in preventing monopoly, and in effecting the distribution of wealth. And it may be at once conceded that human society does reap all the advantages claimed on behalf of competition.

The question, however, is not—Does competition effect much good? That may be readily conceded. But confining attention to the minimum of primary wants alone—Do the combined effects of division of services, competition and modes of exchange now existing, provide for the *preservation of due proportions between the different classes of services*, so as to ensure the production of primary needs in sufficiency for the wants of all; and are the means of exchange sufficiently perfect to secure with more or less certainty a due modicum of primary needs to all. In a word, is the “all for each” as effectively complete as the “each for all?”

If this latter provision be defective—and this unfortunately seems too true—can the defects be removed? And if this be impossible—can the evils be minimised to any extent? All possessors of services must be enabled to secure primary wants, or they perish. References to the wide distribution of wealth in exchange or commercial *value*; or to standard

prices or wages—low or high—are utterly misleading. Without the power to acquire, or the actual possession of a due provision of that portion of exchange wealth—not necessarily possessing a high exchange value—the whole aggregate of the remaining part of the world's *wealth in exchange* would be worthless; for it would fail to preserve the life of the man destitute of primary wants. This is the root difficulty; and it is forcibly exemplified in the first notable exchange recorded in sacred history between the typical representative of the hunter of wild animals, and the more skilled and peaceful agriculturist.

“ . . . And Esau was a cunning hunter, a man of the field: and Jacob was a plain man dwelling in tents. . . . And Jacob sod pottage: and Esau came from the field and he was faint: And Esau said to Jacob, Feed me, I pray thee with that same red pottage, for I am faint. . . . And Jacob said, Sell me this day thy birthright. And Esau said, Behold I am at the point to die, and what profit shall this birthright do to me? And Jacob said, Swear to me this day; and he swore unto him: and he sold his birthright unto Jacob. Then Jacob gave Esau bread and pottage of lentiles; and he did eat and drink, and rose up and went his way; thus Esau despised his birthright.”—(Genesis xxv., 27-34.)

It is fortunate for Esau that he had the power of effecting an exchange, and that, notwithstanding the exorbitancy of the seller's terms, he had no hesitancy in exchanging (or despising as it is stated) the less needful wants for the more pressing or primary; for in the trial of Job's integrity and fortitude it is affirmed, with truth, that skin for skin, all that a man hath will he give for his life.

Unfortunately for the working class breadwinner, his only birthright is physical power and manual skill, and although these are all he can offer for his life needs, he cannot always as a competitor effect the necessary exchange; and too often he, and those depending upon him, travel the swift road to beggary and death.

Thus there are still defects, whether remediable or otherwise, in the present civilisation, so long as these fundamental necessities of a power to exchange with primary wants are imperfect, *e.g.*: certain divisions of humankind are not directly engaged in producing primary wants *for themselves*. They are mostly engaged merely in rendering more or less skilled services, in return for tokens (money or other medium) understood to have at least the power of effecting corresponding *definite supplies* of primary wants. But this division has another difficulty.

The actual owner of the power (rich capitalist) to effect the production of things which may be exchanged for a

corresponding quantity of primary wants, may in all likelihood be able to effect such exchanges; but the poor capitalist, the possessor of the power of mere services, such as the navy, the house servant, the blacksmith, may often be unable to exchange his services towards the production of these very things; and under such conditions as the needful, exchange cannot be effected, the unemployed wage-earner in the division of human labour must be supported by drawing upon a more or less limited surplus previously earned; failing that he must either borrow, take the risk of violent means to secure primary wants, be fed by private or public charity, or die of starvation.

This, then, is the problem of problems of the present day. References to current high rates of wages, the low prices of provisions, or the increasing aggregate value of wealth in exchange, do not always disclose this skeleton in the social cupboard. When the ship of society is barred into many more or less water-tight compartments the ship itself may not founder, although one or two minor chambers be damaged and water-logged, and their contents destroyed. If the larger and more important chambers, however, be destroyed the whole ship may founder, and those who may effect escape may be small indeed. This allegorical picture must not be pressed too hard. It may be sufficient, however, to draw attention to a dangerous side of the division of labour composition of modern society.

But, says the theorist: True, his services were shut out by over-competition in that particular place or in that particular occupation; but if he only knew at that moment that by transferring his services to other employments, or to the same occupation in another place, the balance of service for service would be adjusted, and the life of himself and his dependants would be saved. Ah, if he only knew! But the possession of knowledge is in itself practically a form of wealth, and that he did not possess any more than he did the necessary capital to acquire the necessary skill in the new occupation calling for services, or in the necessary capital to transfer himself and his household to a great distance where his own special skill was then in demand. We may therefore summarise the difficulties lying at the root of all social problems as follows:—

- (1.) All breadwinners and their families to maintain existence must possess primary wants, whether they can effect exchange of services or not.
- (2.) Many breadwinners—whether due to lack of knowledge or inability to change their occupations or locality—cannot obtain employment, and therefore cannot effect exchange.

- (3.) Such of the latter as by former misfortunes have been deprived of every form of wealth in exchange, must beg or steal from public or private resources, or die of starvation.

Thus it is shown that one of the great economic harmonies in *competition*, while it effects much good in distributing wealth and breaking down monopolies and privileges, and in enlarging the domain of community in the enjoyment of the gratuitous products of nature and invention, it also, as one of the mills of God, directs its force terribly on the mere monopolists of bone and muscle; competition grinding them smaller and smaller as its force is augmented by increasing numbers.

FURTHER DIFFICULTIES CONNECTED WITH THE DIVISION OF LABOUR—ALLOCATION.

One of the most formidable difficulties connected with the division of labour is *allocation*; for it is evident that if in the technical training of the young due regard be not paid to the chances of finding employment in the service to which the future breadwinner aspires, disaster or a disappointed life may be the result. This, being a relative matter, applies to a small community as well as to a large one. Few take into consideration that there is a natural law in operation which as surely determines the numbers required for each great class of employment as do the natural laws which locally determine the times and relative heights of the tide. No social advancement by means of the higher education of the people can ever alter the relative numbers of the various branches of human service; and should it be thought possible that the education of the masses exerts any influence in the nature of its training in disturbing the necessary proportions of each great group of services upon which our lives and our civilisation depends, it would certainly prove that the general spread of higher education was a curse and not a blessing.

Services would never become a marketable commodity of value in exchange if it were not for wants. Kinds of services, therefore, must be exactly proportionate to kinds of wants. The wants which demand the expenditure of the greater amount of labour must necessarily absorb the greater amount of persons requiring employment without regard to their capacities, attainments, or personal desires; and, so far as the mass of human beings are concerned, there is no choice.

The great wants, food, clothing, and shelter, are by far the greatest factors in the determination of the aggregate numbers that must be employed if the wants are to be satisfied. The same three great wants also determine the necessary amount and proportions of capital, machinery, and land to be employed,

together with the necessary proportion of labourers for each kind of occupation which directly or indirectly is somehow utilised in the production of the said three great wants.

It is true the strict average proportions of the various classes of labour machinery may not be found to be quite the same in each country; but this does not affect the aggregate of all countries. It is not absolutely necessary that the manufactures and agricultural industries of any one country should preserve the world's strict average proportions to each other, so far as that one country is concerned, so long as it is free to make necessary exchanges with other countries for disposing or making good their respective local surpluses and deficiencies. Nevertheless, countries confined to the production of their own wants—or, what is the same, the world as a whole—must preserve the strict average proportion and quantity of labour and machinery in the production of those three great wants which are the mainsprings of all human activities and efforts. It is necessary, therefore, to make a very wide net to obtain approximate information with respect to the amount and due proportions of all kinds of services employed in the production of the whole round of wants of each country. It is unfortunate that figures relating to the occupations of all countries are not accessible, but reference to the ascertained occupations of Australasia, United States of America, British India, and seven principal States of Europe, embracing 433 millions of people, and representing all climes and all forms of industry, afford a basis wide enough to secure very accurate information.

The figures contained in the following table of classified occupation of these countries afford valuable information with regard to the definite proportions of the division of labour engaged in the production of human wants:—

From this table we learn that all people are divided into two important groups:—*Viz.*, breadwinners, representing about 44·2 per cent. of all persons, and non-breadwinners or dependants, composed mainly of wives and children, representing 55·8 per cent. of the total populations. Thus it appears that the wants of all must be provided by the service of less than half the total number of those who consume wants. The proportions of the breadwinners necessary to effect this service are as follows. That is to say, for every 100 persons engaged in services of exchange value there must be on the aggregate the following proportions nearly:—

PERCENTAGE PROPORTION.				
Agricultural and Pastoral services	...			52·5
Industrial services	...	...	...	30·1
Domestic services	...	...	...	6·8
Commercial services	...	...	...	5·2
Professional and other undefined services				5·4
Total				100·0

It will be seen that the simple services of the agriculturist and herdsman are by far the most important (52·5 per cent.), and that the next in importance are the industrial services, embracing all artisans and labourers, representing 30·1 per cent. The higher skilled workmen of this group only represent about 11 per cent. of all services. As the balance of services—commercial and professional—only amount to 10·6 per cent., it follows that of all services required only 21·6 *per cent. demand skill of a higher order*; and that 78·4 per cent. represent agricultural and other labourers and domestic servants, in respect of which skill of a high order is not absolutely requisite.

It is largely due to the flooding of particular kinds of employment beyond the strict proportions which local wants demand that inconvenience or distress is felt in young as well as old countries. The numbers which can find entry into the higher industrial, the commercial, and professional divisions cannot, without unhealthy competition, be increased beyond the relative proportions which these divisions must bear to the producing industries of the particular country; and these dominating industries in Australasia are agricultural, pastoral, and mining. Employment in other divisions can only follow substantial increases in the three industries named; for manufacturing industries cannot alter their present proportions independently, as in England, until such time as they are able to manufacture for the markets of other countries than the local one. This applies much more strongly to the smaller division represented by unskilled labour (not agri-

cultural), and by the commercial and professional classes. These certainly may only increase according to their rigid proportion; and this must be determined by a previous increase in the fundamental producing industries of the particular place.

The principal producing industries of the place may increase irrespective of other local divisions (*i.e.*, agricultural, pastoral, and mining), as their products may find the necessary consumer in foreign markets. Whatever influence, therefore, may bar the progress of the dominating producing industries of the place *must also bar occupations in all other divisions of services.*

It is clear from what has been stated that applicants for a given kind of employment may often fail, not because there is no room for more labour, but because the *direction* in which the applicants have been trained, or in which they desire to be employed, is out of harmony with the natural or local proportions of that particular service necessary in the production of general wants.

From this cause arises much difficulty and distress. It largely adds to the proportion of *dependants*, and consequently the direct or indirect strain (*i.e.*, support of friends, relatives, private and public charities) upon the actual breadwinners becomes oppressive. I do not here touch upon artificial aids to local production in its effects upon the alteration or disturbance of the relative proportions of the division of services upon which such aid must have an immediate effect, further than to remark, that if the aid by tariff duties or other means enables the local division at once to cover the ground formerly supplied by foreign industry, it can only do so either by increasing the machinery or the relative proportion of numbers employed locally in the division of service affected. The advantage or disadvantage of adopting such a policy is hereafter discussed. It is sufficient for the present purpose to show the possible effect it may exert upon local *employment* alone.

CAUSES OF EXISTING POVERTY AND MISERY.

It cannot be denied that in spite of the great accumulation of wealth, and the increased command over the forces of nature during the present century, that there is still to be found much poverty and distress, and that much of it is due to the unequal distribution of wealth; and whether we may or may not be able to point a remedy, it is utterly repugnant to the best feelings of human nature to sink into the despair or apathy of many who say, "Let alone; whatever is is best or worst, and cannot be helped." Whatever errors the Socialists and Communists are chargeable with they must be credited with warm aspirations for the amelioration and improvement

of suffering humanity, and are free from the charge of indifference. The latter, however, are too emotional to perceive the great difficulties of the problems which have always engaged the deepest attention of earnest Social Economists, and are too ready to advocate the introduction of their own pet schemes, without having taken sufficient trouble either to test their adequacy, or to fathom the true nature of fundamental difficulties, which would in most cases be made vastly more formidable by the various plans propounded by them for their removal. Thus some, having been misled by the assumption that all our evils are due to individual property right and unequal distribution of wealth, employ all their ingenuity to show that all existing evils are attributable to these, and to these alone.

Yet there are many other influences far more potent for evil which no scheme yet propounded by Political Economists, Socialists or Communists may wisely undervalue or ignore. Of such are the following :—

- (1.) The superabundant proportions of human beings in existence who, free from restraint, are naturally disposed to be idle, sensuous, and wicked ; or who are ignorant, foolish, and improvident.
- (2.) The difficulties of supplying other motives more adequate than self-interest to so many in effecting conformity to the necessary social laws and virtues, and as a spur to industry and useful application of powers.
- (3.) The inequalities of different habitable portions of the earth as regards productiveness, climate, disease, density of population, and the difference of civilisation and racial characteristics.
- (4.) The periodic failure of food supply (famine), whether due to seasonal influence, exhaustion of soil, violence, wilful waste, or improvidence.
- (5.) Effectual means for elimination from society of the more pronounced forms of hereditary vice and madness which, if allowed to persist, would endanger society.
- (6.) Absence of facilities for relieving the pressure of population in over-peopled lands by migration.
- (7.) Difficulties connected with free exchange of products between different nations whose artisans and labourers are living under different material and social conditions, *e.g.*, slave labour and free labour.
- (8.) Difficulties in effecting adequate exchange of products with other nations where, as in England, local foods, products, and the raw materials for manufacture are locally far below the level of requirement of an ever-increasing population.

- (9.) Difficulties and dangers arising from local increase of population, especially when foreign, thinly-populated lands are forcibly closed to emigrants, as in the experience of the Chinese.
- (10.) The misery caused by war, strife, murder, accident, painful disease, and preventible forms of death.
- (11.) The terrible root difficulty connected with either (1) decrease, (2) stationariness, or (3) rapid increase of population.
- (12.) The absolute limits of space requisite for the reception and sustenance of man.

The last two form *the population difficulty*; in itself the chief cause of human trouble.

This difficulty cannot be banished by sentimental tirades or bad argument. No tinkering with schemes affecting "Rights of Property," "The Battle of Interests," "Competition," or "Community of Goods," can do other than make the dominant difficulty more formidable. As this great difficulty is often denied or misunderstood by those who attribute all the evils to rent and free competition, it may be well to touch upon these important subjects separately.

SATISFACTION OF WANTS AND THEORY OF OBSTACLES CONSIDERED.

Human satisfactions are enjoyed to the fullest extent with the smallest expenditure of time and human energy in regions where the natural sources of human satisfactions are vast and rich, and under conditions where the fewest obstacles intervene between actual producers and actual consumers. Extra time and labour, often necessarily spent in *mere distribution*, are in themselves *obstacles*, and directly tend to lessen the quota of satisfactions which might be enjoyed by each individual. All conditions, therefore, which necessitate the larger expenditure of time and labour—(such as extreme distance between the several kinds of producers and manufacturers) as well as conditions which necessitate extra provision against loss or waste of satisfactions produced or being produced (such as dangers from loss by storms, inundations, fire, waste by war, civil strife, robbery, depredations by wild animals, idle and useless dependants, plagues of parasites, disease, etc.), curtail of necessity the amount of necessary satisfaction which otherwise might be enjoyed by each useful human unit. Obstacles, therefore, greatly reduce the amount of human satisfactions so far as each individual is concerned, although in the aggregate this is not so easily comprehended. Lowness of nominal prices is not a

correct index of conditions most favourable for the attainment of the greatest amount of satisfactions, with the smallest expenditure of time and human energy: for it often happens that low prices may be caused by *excessive expenditure* of human energy forced upon a struggling producer; or by poverty due to forced idleness on the part of a large body of consumers. While it may often happen—as in young colonies—that a high price is no index of a lower supply of satisfactions; but rather of the smaller amount of obstacles intervening between consume and producer, and gratuitous sources of nature; the smaller amount of enforced idleness on the part of consumer, giving him a greater purchasing power; and the greater advantage of the producer, due to similar causes, enabling him to obtain all the most necessary round of satisfactions with a smaller expenditure of time and labour. Mere cheapness of satisfactions, therefore, is not a reliable index of individual welfare. Purchasing power, as indicated by expenditure of time and labour, is the only true index as between countries differently circumstanced, and this purchasing power of the consumer—unlike the unreliable *nominal cost or wage*—is always in harmony with the amount of obstacles intervening between the actual producers of satisfactions and the actual consumers.

This method of determining the condition of different communities will be better understood if we carefully investigate the effect of obstacles more closely. As the factors are variable and numerous, the only way to arrive at true conclusions is to approach the question by the mathematical method: thus:—

Let N=Natural agents and products; or the gratuitous forces of nature.

P=Productive power of human agencies, including skill and energy, and skilled appliances.

O=Obstacles intervening between NP or producer and consumers.

C=Producers, dependants, distributors, etc., representing the living population; or consumers.

Then $\frac{NP-O}{C}$ = Represents the amount of the average satisfactions provided for each individual.

And $\frac{NP+O}{C}$ = Represents the nominal cost of satisfactions for each individual on the average—or it may fairly represent the amount of exertion or energy expended by human energy.

Having stated the general effect of obstacles between direct producer and consumer as minimising the actual supply of

necessary satisfactions to each consumer where the values of N and P and C are constant, it follows inevitably that the amount of satisfactions to each individual is in direct correspondence to the amount of O; increasing with its decrease, and decreasing with its increase.

The effect upon *price*, however, is exactly the reverse of this, as a *definite amount of satisfactions increase* in price in correspondence with the increase in obstacles (O), and decrease correspondingly with its increase.

This law is not invalidated, because in particular cases (1) price is comparatively low when O is absolutely great, and conversely (2), price is comparatively low when O is absolutely small; for in every such case there must be corresponding dissimilarity in the other elements to explain this effect: *i.e.*—

The effect (1) could only happen in cases where either N or P is abnormally or relatively great, or C is comparatively small; and similarly the effect (2) could only happen in cases where either N or P is abnormally or relatively small or C is comparatively great.

The failure to grasp these fundamental considerations is the chief cause of the blunders in all reasonings connected with questions related to the policy of different nations in respect of artificial restrictions, hindrances or facilities in the interchange of foreign products.

To make this matter more clear it may be advantageous in demonstration to set forth a number of examples for the sake of illustrating the important truths involved in the effects produced where one or all the factors are different in value:—

- (1.) Where soil, climate, or natural utilities are particularly advantageous the value of N is at its best or maximum= N^m
- (2.) Where skill and energy exist and are employed to the best advantage the largest results are attained for $P=P^m$
- (3.) Where the smallest number of obstacles occur between NP and C, the largest amount of satisfactions fall to the share of $C=C^m$
- (4.) The most perfect conditions favourable for effecting the highest amount of satisfactions to each individual consumer coincide with $\frac{N^m P^m - O^n}{C^n}$

Or,

If we separate P^m into labourers (L), and instruments (1) the fruit of former efforts saved from previous consumption, and devoted by inventive skill and energy to more or

less permanent aids to L, we have a more perfect statement of (4) thus:—

$$(A) \quad S^m = \frac{N^m (L^n I^m) - O^n}{C^n} = \text{The ideally best conditions for the attainments of the highest satisfactions of human wants with the least expenditure of human energy.}$$

Or greatest quota
of satisfactions.

Understanding by *m* and *n* the indices of the *maximum* and *minimum* of the various conditions, then it would logically follow that the converse or worst possible conditions for attaining the necessary satisfactions of human wants, involving also the greatest expenditure of human energy, would be when the equation becomes

$$(B) \quad \frac{N^n (L^m I^n) - O^m}{C^m} = S$$

This being so, it also follows that this stage will be coincident with conditions which favour the maximum of cost for each satisfaction, thus:—

$$\frac{N^n (L^m I^n) + O^m}{C^m} = P$$

Similarly the conditions favourable to the attainment of minimum of lowest cost or price (*P*ⁿ) would coincide with stage A, thus:—

$$\frac{N^m (L^n I^m) + O^n}{C^n} = P^n$$

Reasoning from these premises it is clear that the results *S* and *P*, or their values, can never be satisfactorily known, unless we can gauge the values of their respective co-efficients. That is, we must know not merely what is the tendency of any one factor—but we must also know the tendency of all factors affecting the problem. Nay, more; if Political Economy is ever to be dignified by the name of “The *Science* of Political Economy,” it must not merely take cognisance of the tendency of every one of these factors, but, like the skilled physicist, its disciples must not talk of the “teachings” “or conclusions” drawn from them until they are prepared to place approximate values against the tendency of each factor, and then to strike a balance showing the ultimate effects of the ever-varying combinations in ever-varying localities.

The difficulty of the problem is no excuse for ignoring the necessity for the adoption of this course. Hitherto, to a great extent, the subject has been governed by the more or

less plausible generalisations of mere literary men; and their deserved fame and undoubted ability and skill as such have given them a prestige in political matters to which they are not entitled from a practical or scientific point of view. That they have done good service in arousing and sustaining attention on such important matters is readily admitted; but further progress is impossible so long as the inexact methods of the mere literary polemist are employed. In future the progress of Political Economy as a science depends upon demonstrations based upon quantitative analysis, and not as heretofore upon authoritative dogmas based upon the qualitative analysis of any *one* factor of the problem arbitrarily chosen from a compound or complex equation.

It is obvious that we may concur with most of the writers on Political Economy as to the general tendency of any one influence; but while this is so it may not be a safe proceeding to trust the effect of this one tendency—even admitting its importance—as determining the ultimate conclusion; for other tendencies, minus or plus, must be reckoned with before any reliable conclusion can be arrived at. Pathos and literary merit are powerful adjuncts, no doubt, but in the solution of political problems they are worse than useless where complete and exact methods are eschewed.

THE BEST MODE FOR EFFECTING THE HIGHEST QUOTA OF SATISFACTIONS WITH A MINIMUM OF TROUBLE DEPENDS UPON THE LOCAL VALUE AND EXTENT OF NATURAL SOURCES OF SUPPLY.

The principal material satisfactions essential to the happiness and cultured content of human life primarily depend upon natural sources of supply, and that country whose natural sources afford the greatest potential of elements which may be made to contribute to the material satisfactions of cultured men, is also the country wherein the greatest number of people may best fulfil all those mutual services to each other which cover the whole round of wants of an ideally happy community. The essential natural conditions for the sustenance of a highly-cultured community, and permitting a natural, healthy expansion, are:—

- (1.) Large area covering all zones of climate favourable for the production of all reasonable wants, and possessing richly all the elements essential to production, such as water, fertile soil, the varied mineral and vegetable products, and such flocks and herds as most contribute to the welfare of man.

- (2.) Division of labour—each division carefully apportioned in relation to the probable amount of different satisfactions required; and each labourer in every division carefully trained in that branch of work to which he has been apportioned.
- (3.) The creation and maintenance of instruments which best supplement man's efforts in modifying and distributing the products derived from natural sources, and so enabling each unit to enjoy the maximum of desirable satisfaction with that minimum of exertion which is most conducive to the health and happiness of the individual.

Now, if it were possible to find such a combination of favourable conditions, wherein all the wants of man could be completely met, it follows that interchange with other countries, so far as material needs are concerned, would not only be unnecessary, but *disadvantageous*.

It is true, on moral grounds, a nation enjoying the maximum of satisfactions with a minimum of exertion or maximum of ease, might either reduce the amount of satisfactions or increase its exertions for purposes of benevolence as directed towards a country less favourably situated; but there would be no such necessity on commercial grounds as laid down by the earlier economists, except upon the plea that we should buy in the cheapest market. But this last plea, the favourite maxim of Free Trade theorists, ignores many consequences of the most vital importance.

First, the ideal state contemplated had already discovered and achieved that final state of content or *end* to which a people can aspire to—that is, a maximum of desirable satisfactions combined with a minimum of reasonable exertion. This being so, why should they attempt to procure this end by another *method* untried by them, seeing that they could not improve their condition in this way, but might make it worse. But as this plea must be discussed, let us see under such circumstances what it might lead to.

BUY IN THE CHEAPEST MARKET.

In our ideally perfect state, let us for convenient reference call it "Euphrasia." One of the fundamental conditions regulating its well-being is, that all for each is considered of as great if not greater importance as each for all.

The favourable natural conditions were experienced to be such that the round of wants of all might be satisfactorily supplied without demanding from any one group of its divisions of labour more than 44 hours of public labour per week. But it was also carefully determined that although a certain aggregate of labour when properly directed would affect this.

desirable end, a corresponding or even a much greater amount of labour could not produce the same result if the previously carefully arranged and periodical regulation of the apportionment of labourers were subsequently disturbed in an arbitrary way. Every arbitrary disturbance of the proportion of labourers trained and originally apportioned to a special work or function, has the effect of lowering the purchasing power of the section which was arbitrarily increased, because it introduced either curtailment of employment, wrongful competition, over-production, or diminished purchasing power within that particular section of the division of labour; and in the section from which they were arbitrarily withdrawn, it either lessened the amount of aggregate satisfactions required for all; or, if it have not that effect, it increases the hours of labour of those within the division beyond the maximum standard without additional recompense for increased exertion. If, however, the additional hours are rewarded by extra satisfactions, it must be at the expense of the general consumers, thus lessening their average of aggregate satisfactions.

The wrongful over-production is a direct loss to the whole community so healthfully regulated by community of interests.

Oh! but your ideal Euphrasian forgets, says the Economist, that the surplus of A division might by interchange with another nation be made to restore the balance thus arbitrarily destroyed by A recompensing through products needed in division B where a deficiency was caused. This is true, but at best this course only helps to restore the loss occasioned by the arbitrary disturbance of the apportionment of the local Euphrasian division of services. Nay, more; the loss occasioned could not be fully restored by *an equal exchange of labour and skill*, for the exchange with the distant foreign country involved a fresh expenditure of labour in transfer and agencies of exchange—thus increasing the value of O or obstacles—between producer and consumer, and so inevitably lessening the quota of the essential material satisfactions to be divided among consumers. It must be borne in mind that Euphrasia is assumed to possess the maximum of favourable natural resources—plus best art appliances—and consequently the restoration of the destroyed equilibrium in Euphrasia could only be effected by a skilled people, who of necessity were forced to adapt themselves to circumstances by either being satisfied with a lower requirement of wants than that enjoyed by the Euphrasians, or by a similar standard of material satisfactions gained at a much greater expenditure of labour.

For the sake of illustration, let us further examine this theory of obstacles. It will readily be granted that where

two producing centres are situated at vastly different distances from consuming centres, that supply from the nearer producing centres can be effected by a much smaller expenditure of labour than by the more distant centre of production.

Thus, if A be 8,000 miles distant, and B 40 miles, it follows that the extra labour and time consumed in carrying the extra 7,960 miles is a serious disadvantage. Men do not consume distance. In itself it does not add a jot to the ultimate material wants of man otherwise produced. Distribution is certainly a necessity, but the smaller the need for distribution the larger the produce to be divided, for it is obvious that the more machines and human beings that are abstracted from direct production of essential satisfactions, the smaller is the quantity falling to the share of each consumer of wants. Thus, if 100 producers and 50 distributors provide the ideal quota of wants of an Euphrasian at the maximum of eight hours per day—say 10 wants per day, then the 100 producers must each have produced 15 wants, for consumers include producers, and non-producers or producers and distributors, and these number 150, and

$$\frac{100 \times 15}{150} = 10$$

for each consumer: or on the basis of exertion which lies at the root of price or cost, we might put it that for the aggregate hours of labour in producing and distributing each consumer was put in the possession of 10 wants. Now, if we increase obstacles we cannot supply the same number of wants without individually increasing the hours of labour. Thus, if the additional distance involves the labour of 50 additional distributors, and if producer and consumer alike share the additional labour thrown upon them, we have

$$\begin{aligned} \frac{200 \times 10}{200} &= 10 \\ &= \quad \times \quad = 10^h \end{aligned}$$

Thus, to maintain the same share of wants as formerly, the necessary increase of 50 non-producers or distributors involved an extra two hours labour per day, or 25 per cent. extra exertion on the part of all breadwinners. In like manner it may be shown if the amount of exertions per individual remain undisturbed—then the amount of wants formerly supplied to each consumer must be lessened, thus:—

$$\frac{150 \times 10}{200} = 7.5 \text{ wants per consumer}$$

Thus we have with the increased obstacles a diminution in the satisfaction of wants equivalent to a reduction of 25 per cent.

In these simple illustrations the direct effects of increased obstacles between producer and consumer are set forth in plain terms, so far as interchange with a distant country affects the conditions of a country circumstanced like our ideal Euphrasia. To apply the argument involving obstacles to other countries not so favourably conditioned as Euphrasia might favour the adoption of interchange between two or more distant countries, as effecting improvement in the condition of consumers in each country—but this improvement could only reach the highest possible quota for such a place where the exchanges are confined to the necessary products, which are either naturally easily produced beyond local needs, or in respect of products which are naturally deficient within its own border. In such case the exchange of the former by exports would have to be met with a similar value of imports of the latter. But even here the disadvantageous effects of obstacles are not a whit lessened. The disadvantageous effects of obstacles have to be endured so long as they do not outweigh the advantages of the desired exchanges.

Nay, there is one form of want—Food—which no obstacle can outweigh so long as the energies of the labourer in other directions remain unexhausted. The unfortunate country so circumstanced must of necessity effect exchanges with food countries, or perish as a community. Still more terrible is it for the masses of this country if it should happen that it lacks the natural or raw products upon whose manufacture the exchanges for the food of other countries depends.

In such a case the friction of obstacles (distance) between (1) producer of raw products (2), manufacturer, and (3), consumer—attains its maximum—notwithstanding that science and skill may have done, and are still doing, wonders by steam and other contrivances on sea and land to minimise its lowering influence on the amount of satisfactions proportionate to labour exerted.

The Economist may here exclaim: How does the Euphrasian argument from obstacles reconcile itself with such a case as the United Kingdom. He will no doubt proceed to show that no nation on earth has carried the method of interchange with other countries to so high a pitch as the United Kingdom. Her vessels are found laden with the products of exchange in every important harbour of every country.

Her aggregate wealth is the envy of nations, amounting to a sum something approaching £130,000,000 as a yearly income. Her external interchange trade amounts to 643 millions yearly, 362 millions being imports and 281 millions being exports. Her annual value of real estate alone reaches £196,000,000. Surely, he would continue confidently, this

is the most complete vindication that could be given practically, that the nation which has the greatest amount of foreign interchange trade and, presumably, the greatest amount of obstacles—is also the nation which, by her great wealth, affords the greatest amount of satisfactions to divide among her consumers.

The answer to this supposed objection certainly involves many complex questions, but it may at once be affirmed that it does not in the slightest degree diminish the value of the argument from obstacles as applied to Euphrasia. In making this affirmation it is not denied that the wealth of the United Kingdom in *the aggregate* is unbounded, and no one can reflect upon her grand achievements in science, wealth, and progress, without admiration and pride. The skill and energy of her people are marvellous, and our admiration is not lessened, but increased, by the thought that her vast resources and enormous interchange of trade have been built up by her prodigious energy and industry in *spite of obstacles of every kind*. Her skill, daring, and enterprise have given her the command of important lands under every clime. This skill and enterprise, however, could not within her own borders increase, beyond a certain limit, the necessary supplies to meet her rapidly growing needs, as regards food and clothing for her people and raw products to supplement her needs for supplying manufactures in exchange for prime necessities, failing which she could not support the lives of her people. It is necessity, therefore, which inevitably forced her to direct her industries in such a manner that her lack in food and other raw products at home should be purchased by a surplus creation of manufactures. Food, being one of the prime essentials to the life of each person, must be secured in sufficient quantity, or the lives of her workers cannot be sustained. A nation possessed of all the world's wealth of exchange could not preserve the lives of her people if this one form of wealth—Food—be lacking or insufficient. With such a nation—so unfavourably conditioned—her existence depends upon her power to command supplies of the food of other countries in exchange for such products as food-producing countries may think it desirable to take from her.

The food-producing countries may carry on this exchange as a matter of choice or preference; but with the food-requiring country the exchange must be effected—on the best terms possible—but if necessity presses hard, *it must be effected upon any terms forced upon her*.

Fortunately for such a country all lands capable of producing large food supplies are not in the condition of our ideal Euphrasia, and hence there is little danger of a

stoppage of food exchanges for manufactures so long as the food-producing country is tempted by cheapness to buy those of the food-lacking country in preference to making them for herself; or of buying them from a rival manufacturing country on *still* more advantageous terms.

FREE TRADE.

A food-lacking country must therefore favour free interchange of trade, for it is necessary to her existence. A country with ample natural sources unutilised or partly utilised would only suffer a *temporary inconvenience* by the cessation of imports of foreign manufactures, and it is possible that this inconvenience which forced her to supply her own wants from sources and agencies within her own borders might result in increasing the amount of satisfactions for each consumer with an expenditure of a smaller amount of exertion on the part of each producer and distributor.

AGGREGATE WEALTH AND INDIVIDUAL WEALTH.

But let us again return to the outward indices of the prosperity of the United Kingdom. Admitting that she has great wealth in the aggregate, it does not necessarily follow that the share of satisfactions falling to the bulk of her people compare favourably with countries whose aggregate wealth is comparatively small. In point of fact any aggregate respecting the wealth of a country is a pure abstraction. It is as such enjoyed by no one. It is the share falling on the average to each individual which is the true indication of real wealth, or of the satisfactions enjoyed by the unit.

This is significantly demonstrated by contrasting two widely differing countries in respect of that abstract idea called national wealth :—

	Tasmania.	United Kingdom.
Area	16,778,000	77,800,000
Ditto per head of population	114·13	2·05
Aggregate earnings of wages class	5,519,340	800,084,000
Working class breadwinners, estimated	61,326	15,884,000
Ditto per head	£90	£51
Average hours employed per week	44	55
Ditto per week	34s. 6d.	19s. 3d.
Average wages per hour ...	9 ^{·40} d.	4 ^{·20} d.
Average cost of one quarter of wheat	32s. 6d.	32s. 6d.
Equivalent of ditto in true purchasing power, <i>viz.</i> , <i>hours labour</i>	41 ^{·5} hours	92 ^{·9} hours

Thus it will be seen that notwithstanding the imposing effect of the vast aggregate wealth of labour in England representing over eight hundred million pounds sterling—the purchase of one quarter of wheat, the staff of life—demands of her workmen the expenditure of 92⁹ hours time in labour, whereas in Tasmania the same amount of satisfactions can be gained by the expenditure of 41⁶ hours of labour. That is, the English workman would have to work—if work could be placed at his disposal (in itself a greater difficulty)—123 per cent. more hours to attain the same purchasing power possessed by the Tasmanian workman, whose *aggregate wealth* only represents 0·69 per cent. of the corresponding *aggregate* in England.

This clearly proves how misleading are the effects produced by allowing the mind to dwell upon mere abstractions based upon aggregates.

THE EFFECT OF STRIKES OR A RISE IN WAGES IN FOOD-PRODUCING AND FOOD-LACKING COUNTRIES.

But the difference in the purchasing power of the English breadwinner is not the only disadvantage. Her purchasing power is also not merely limited by the extent of the market for her manufactures, but upon her success in underselling foreign rivals who are also by necessity compelled to exchange manufactures for the prime necessities of raw products of food and clothing; and hence her success depends either upon her superiority in skill and local appliances, or in cheapness or extending the hours of labour. It is a necessity that a manufacturing country must produce cheaply, and necessity will force her to attain this end by extending the hours of the labourer without extra recompense, should other means fail her as a competitor for the bread and raw products of food-producing countries. Strikes and combinations among workmen are only of value to them within very narrow limits. For let us suppose that England's supremacy as a manufacturing country depends upon her present power to undersell rival countries to the extent of 15 per cent., it would then follow that any *nominal success* attained by the combined strikes of her workmen, thereby improving their hours of labour or rates of wages to the extent of, say, 16 to 20 per cent., would be altogether disastrous; for it would destroy the competitive power of England as a manufacturer for other countries than her own. But if England was thus shut within herself there would probably be no employment whatever, and no means of subsistence for perhaps 20 millions of her present population of 38 millions. This would be a terrible result arising out of the success of combined strikes among her manufacturing workmen.

That an increase of the cost of her products to the extent of what has been indicated is not a very improbable matter springing from strikes has been foreshadowed by the recent combination among English dock labourers, who succeeded in having their rate of wages raised 2d. per hour. As the average rate of workmen in England is only 4^{·20}d. per hour, a general increase of 1½d. per hour would raise the cost of wages 35^{·7} per cent.; and as the price of labour is the chief item of cost in all manufactures, it is not improbable that the ultimate cost of her manufactures would be raised 20 per cent., thus cutting her off from her previous advantage, which enabled her successfully to outrival all other countries in supplying the external markets of the world with manufactures.

In countries where food and raw products is or can be produced far in excess of local requirements, the effect of prohibitive tariffs in raising local prices would not have a similar effect. If the cost of living would be *nominally raised* thereby, it would be exactly or nearly counterbalanced by a *nominal increase in earnings locally*. Thus, for example, if the consumer had to pay 20 per cent. extra for all articles of consumption it is probable that even this would not be disadvantageous; for it is almost certain that the true purchasing powers of labour—relative to staff of life—would be very little altered, as the *price of labour* would also tend to approach an increase of 20 per cent.

But there is one effect which this would have upon a food-producing country, which would show a decided contrast with a similar rise of wages in a manufacturing country such as England, *viz.*, it would draw to the former the manufacturing labourers of manufacturing or densely-peopled centres; for instead of cutting off sources of employment, as in England, it would of necessity require her to import *labourers* to produce those wants locally, or a great portion of them, which formerly had been supplied to her by the manufactures of *external* labour. That is, broadly, its main effect would be to increase the local *labour market* or widen the field for the employment of local labour. At first this would also have the effect of diminishing the aggregate extent of *external commerce*; but it need hardly be discussed, all things being fairly equal as regards natural sources, that the supply of exchanges by home products, instead of by foreign, is all in favour of diminution of *obstacles*, and therefore, upon the whole, advantageous. . . . This problem has already been worked out in the United States of America, and whatever the ultimate effects may be when local population approaches too close to her limits of natural powers for producing *food and necessary raw materials* for her own people, it is undoubted

that 60 *millions* would not be profitably employed and well supported if it were not for her policy of favouring the creation of her own wants as far as possible by the energies of *local labourers*.

It must be granted, however, that the policy which is advantageous to a rich food and raw-producing country, such as America, would be annihilation to a country such as England, where the population by far exceeds her natural sources of supply as regards food and other essential raw products.

A country so circumstanced must maintain a Free Trade policy or perish. With countries thinly populated, possessing illimitable sources of natural wealth, including soil, climate, and all conditions favourable for the production of food and raw products in excess of local wants, it must inevitably follow that the tendencies and influences arising from the desire to extend the *local field of employment* must be in the direction of *Protection*, or restrictions upon foreign trade. It is the conditions of the various countries which determine *means* to ends. In one country the *means* is Protection, in the other Free Trade; but the *end* in both cases is the same, *viz.*, *the best available mode of supplying the greatest amount of satisfactions to each individual (including local employment to the rising generation) with the least expenditure of individual effort.*

If Mr. Henry M. Hoyt, who has so ably defended the American policy of Protection, had premised that he was referring solely to countries rich in all natural sources—far surpassing the demands of all possible local requirements—we might agree with his ideal as regards the policy to be pursued, *viz.*:—“The nearer we come to organising and conducting our *competing industries*, as if we were the only nation on the planet, the more we shall make, and the more we shall divide among the makers. Let us, at least, enter upon all the industries authorised by the nature of *our* things. Thus we shall reach the greatest annual product of the industry of the society.”

When, however, any country's population fails or is unable to cultivate 2.⁸¹ acres per head within her own borders the policy suggested by Mr. Hoyt must of necessity be abandoned in favour of Free Trade. This necessity—involving the population difficulty—is, however, an evil, and not an advantage to the masses.

RENT MONOPOLY.

Emotional and inexact writers, carried away by some foregone conclusion, or by the fascinating exaggerations of a certain literary style, are constantly blundering when they

attempt to investigate the casual relations of complicated matters. Rent presents a fertile theme for mere emotionalists, yet no subject presents greater difficulties to the earnest and more exact investigator than that of rent, whether regarded as (1) a proper object to be included among *individual rights of property*, or (2) in its effects, in the opinion of some, in increasing by its amount the cost of production.

- (1.) What is the peculiar claim upon land which, when used or let to a tenant, is called *rent*, and when occupied by the legitimate owner is in official assessment rolls termed *annual value*?
- (2.) How has the owner acquired such a right to land which empowers him to monopolise its uses in any way not otherwise restricted by law, or to let it to another for an equivalent in value termed *rent*?

Perhaps the progress of property acquirement in a young colony affords the best means for giving a correct answer to these questions.

In Tasmania, for example, there is an area of 16,778,000 acres, of which, up to the present time, 4,572,649 have been converted by purchase or grant into private property, and whose annual value equivalent to rent is estimated at £860,555, or 3s. 9.16d. per acre. The remainder, representing nearly three-fourths of the whole, is still owned by the State. But this includes the land and *its improvements*. If we eliminate the value of buildings alone—which we could not put at a much lower figure than £584,000, *viz.*, 29,200 buildings, most habitable at £20—this leaves only £276,555, or a value of 1s. 2½d. per acre for lands and *other improvements*, embracing fencing, grubbing, clearing, burning timber and scrub, etc.

It is true that of the 4,572,649 acres private property only about 150,000 acres are under tillage, and about 410,000 laid in permanent grasses, fenced, cleared, or otherwise improved; this represents only 12.22 per cent of all private property.

Even if we suppose the 87.78 per cent. of uncultivated land to possess no exchange value whatsoever, and that the existing *rent* only bears relation to the 560,000 acres of cultivated land, then this ($\frac{276555}{560000}$) only provides 9s. 10½d. per acre as the proprietor's recompense for capital (the fruit of previous labour or service, paid for the *proprietorship*), and for the labour value expended in bringing the wild bush land of nature into a condition fit for the plough. Leaving out the loss to the owner expended in obtaining the *rights of proprietorship*, it follows that there is now only 9s. 10½d. per acre per annum of exchange value left to cover former outlay

which, in a rough bush country like Tasmania, would hardly compensate the actual labour of the pioneer bushman in reclaiming it. Here, then, vanishes the last trace of the *element* in rent supposed to form an important proportion accruing to the landlord without the expenditure of labour.

But some may object on the ground that I leave out of consideration the *increment* from which favoured properties derive the benefit, in consequence of the enhancing effect of subsequent influences (not the proprietor's) as, for example:—

- (1.) The establishment of a town or city continually raising the value of lands within or near its bounds.
- (2.) The establishment of roads and railways* at the public expense—improving means of communication, and saving time and money in the transit of persons and products—and thus directly enhancing or diminishing the value of the property.
- (3.) The limited nature of naturally fertile land.

Such enhancement, for the most part, I fully admit, is in itself an unearned increment, and cannot always justly (from this point of view) be claimed by the proprietor as a value produced by his individual services.

But it must also be remembered that this increment in the aggregate is already included in the £276,555 present value of aggregate annual rental of all cultivated lands.

If, therefore, the present annual value of land, with incremental value, does not cover the actual value of the original services in rendering it fit for tillage or stock, it follows either that the exchange *value* of the land, as a whole, has fallen below the original cost of services rendered to as great or to a greater extent than property value, as a whole, has been raised by the unearned increment. It becomes a fair contention, therefore, on the part of the proprietors of land to say that the possible loss from downward fluctuations in the exchange value of land would hinder the development of the occupation and cultivation of wild forest land, or obtain a lower value from purchasers if it were not for the hope that other influences—unearned increment, for example—gave promise, as in other speculations, that such possible losses might be compensated for by such possible gains; and we might also urge that if the community does not share in the gain of unearned increment it is compensated by its freedom from sharing the actual losses which are brought about frequently by external influences effecting a gradual or sudden depression in exchange value below the original cost of preparing the soil for tillage, or below the price of original purchase.

* In a colony where these works are constructed at the cost of the public, it must also be conceded that the proprietor contributed his share of the general cost.

It is fairly consistent, therefore, to contend that so long as unearned increment does not exceed in amount the limits of a possible downward depression in *exchange value* (*i.e.*, risk of loss), it would be unjust to deprive them of the benefit of compensation in an upward direction (*i.e.*, chance of profit), and thus improvement in value, however caused, cannot rightly be claimed by the community as an *unearned increment* until its amount, as a whole, exceeds the original cost of services in converting the original land to the condition necessary to the uses to which it may now be devoted.

MONOPOLY OF THE GIFTS OF NATURE.

But, say others, have you forgotten the free gifts of Nature—the oxygen, carbon, rain, and the forces of life—called into play by man's industry, increasing his original stores every year forty, fifty, and a hundredfold; these forces silently working, whether the proprietor sleeps or wakes, are surely embraced in the products reaped. Most certainly. Man's labour would be of no avail without these natural forces. But who reaps the benefit of these general gratuitous services? Most clearly it is the consumer. The free forces of Nature common to all lands are not produced at the expense or by the labour of the producer, and it would scarcely ever occur to him to introduce it as a possible ingredient in the selling value. It no more can enter into the selling value of common terrestrial products than can the value of the free winds of heaven enter into the merchantman's freight charges. In truth, the selling price of products—such as wheat, for example—is not now determined by the producers of any one country; nor by the immediate actual cost of production defrayed by any particular producer; nor by the greater or smaller natural fertility of the soil of any one place or country.

It is not now farm against farm, but terrestrial region against terrestrial region, in which natural agents, such as *climate* and *largeness* of cultivable area play a greater part than human skill or even richness of soil.

The aggregate quantity produced in relation to present demand is the only determining measure of selling price. When supply is much above demand the producer must often sell under cost price. When supply falls short of demand the profit is still measured in the same manner without reference to immediate cost of production. Competition forces all producers to give the consumer the benefit of all gratuitous aids—whether natural or artificial—that are free to all other producers, and the only effect of actual cost of production is that it determines the extent and quality of the lands which are best capable of promising success in the competition for

supply. It also spurs industry and invention in the direction of lessening cost, all of which benefits inevitably are reaped by the community. No gratuitous element entering into products can ever form part of *exchange price* so long as there are many competitors and free competition. In the case of the products of agriculture, too, there is the greatest possible security against the arbitrary acts of monopolists in the hugeness and the universality of producing operations which can be focused at any point of demand in the globe by the mighty steamships on the ocean highway, and which would require omnipotence and omnipresence to monopolise.

If any one country had a monopoly of the production and supply of an important product of the land, such as wheat, I frankly admit that the owners of more fertile parts would reap the sole advantage of this limited gratuitous gift of Nature (the one rent of Political Economists), provided that in the acquirement of these more valuable parts the present or original possessor had not given the state or community an equivalent in purchase value; but this monopoly of good lands, while securing a better return locally as compared with poor lands, may not secure as much additional profit as the difference in the fertility of rich and poor lands would seem to indicate.

The world's supply, if not artificially barred or shut out from any country, determines the actual price of corn, and it is significant that America, with her bonanza method of farming on a scale far grander than is possible in England, is enabled, with a much lower natural yield per acre, to grow grain cheaper, and in much larger quantities than in England; and consequently she regulates the price of corn in England more by her methods and scale of farming than by higher fertility of soil. The nature of the season's rainfall, too, falling indifferently, and often irregularly on good or bad tracts of lands, and sometimes restricted in sufficient quantity for produce, a high yield to particular provinces further breaks the influence of fixed fertility of soil in any one country as a regulator of price. The mere difference of fertility of soil of any one country may not, therefore, be the dominating influence in determining price to consumer, and hence the consumer may even have the advantage of the gratuitous influence—a more fertile soil—in reducing the general average of the price of corn.

In the century ending 1888 it is estimated that the population of Europe and North America increased from 150 to 470 millions, that is, 180 per cent. This must have correspondingly increased the demand for food and the unearned increment of land. Notwithstanding this, such were the mighty effects of steam and electricity introduced, adding to

the effective force of man's labour and time, that the supplies were multiplied at a greater rate, and relatively at a much smaller expenditure of man's labour.

ABOLISH THE MIDDLEMAN AND THE MONOPOLISER OF NATURAL WEALTH.

Many are of opinion that the consumer of wants would be greatly benefited if he were brought more immediately into contact with the producer without the intervention of the middleman. No doubt some of the latter, where circumstances favour them, succeed in monopolising a larger share of profits than he is entitled by his services, but the evil may well be left, in the long run, to be remedied by the action of rival competitors for custom. True the co-operation of consumers may successfully employ salaried agents for performing the same services, but this is not abolishing the middleman, but rather controlling his charges by converting him from an independent dealer or agent into a salaried servant. It is not always possible, however, for consumers to secure wise and trustworthy agents, and there are many advantages valued by many consumers profitably risked by energetic, independent middlemen which would not be safe to commit to a hired servant, and hence it seems improbable that association, often necessary and successful, will entirely occupy that division of the social exchanges of services.

Not a little of the objection to middlemen, however, arises from the misconception that the wealth earned by middlemen, professional men, and the rich, is equivalent to wealth individually consumed by them.

This naturally leads on to

DISTRIBUTION AND CONSUMPTION OF WEALTH.

There are many fallacies current with respect to the distribution of wealth. If all the enormous wealth year by year created by stored fruits of previous labour (capital), current labour, and the gratuitous forces of Nature, were directly devoted to consumption or enjoyment, no doubt the proportion per head allotted to the industrial labourer would be small indeed in comparison with the rich. Indeed, it is urged by Lange¹ that it might be better for society generally, as well as for the rich industrial chiefs, that if all those who have acquired a more than moderate income were to retire from business life, and henceforth devote their leisure to public affairs, to art and literature, and in fine to a cultured enjoyment of life upon moderate means*, "not only would those people lead a more beautiful and worthier existence, but there would also be secured an adequate material basis to maintain permanently a nobler culture with all its require-

1. * Lange's "History of Materialism." E. C. Thomas' translation. Vol. iii., pp. 237, 238, 239, 241.

ments, and thus to give a higher content to our present epoch than that of classical antiquity." As it is, he charges not inaccurately the few colossal capitalists and industrial chiefs of the present age with miserly abstemiousness as regards the proportion of the wealth gained by them which they devote to immediate personal enjoyment and consumption. He adds:—"It is true that forces on forces are created, new machinery continually devised, new means of communication; it is true that the capitalists, who have the means at their command, are ceaselessly active in creating, *instead of enjoying, the fruits of their toil* in dignified leisure; but, nevertheless, the constantly increasing activity aims directly at anything rather than the furtherance of the common weal (?). . . . The great interest of these times, however, is no longer, as in antiquity, *immediate enjoyment, but the accumulation of capital.*"

Again he states (p. 241):—"We live, in fact, not for enjoyment, but for labour and for wants; but amongst those wants that of pleonexia is so over-bearing that all true and lasting progress, all progress that might benefit the mass of the people, is lost, or, as it were, gained only incidentally."

If this be a true picture, and it must be confessed it is to some extent borne out by experience, we may ask, Who derives the benefit of the capitalised wealth? This requires careful analysis; for the conclusion to be drawn as regards the public weal may be widely different from that indicated by Lange.

We may truly premise, in the first place, that capital in the hands of the rich, in so far as personal consumption is concerned, is as much a *tool of trade* as is the *plough* to the farmer. By its means he sets in motion the wheels of many industries, and so enables the smaller capitalist of muscular services to exchange his capital for primary wants, necessary minor tools of trade, and such comforts as his varying rates of profit may afford. The rich capitalist in like manner, but with much larger profit, reaps the reward of his ventures. But there is this important difference: The rich capitalist cannot or does not abstract from his profits the *same proportion* of earnings towards his personal wants and enjoyments as the workman does. On the contrary, what he can directly consume personally of the said primary wants and comforts is limited by the same natural law as his humblest workman, and the necessities of tear and wear in his machine (*capital*), or the passion or necessity to increase the number and power of his machines, and to keep them ever at work, *abstract the greater portion of his increasing or decreasing profits*. In consequence of this inevitable tendency it is really a difficult question to say which of the two—rich capitalist or workman—personally consumes the largest

portion of products created each year for actual consumption and enjoyments. It is almost certain that as regards some of the most valuable necessary natural products the balance would be in favour of the workman. What immense capital is devoted to making and working or developing railways, steamships, sailing vessels, telegraph lines, machinery of all kinds agricultural, farms for food and various textile products, pastoral farms for the produce of animal meal and materials for clothing, houses for shelter of men, animals, and products.

What is usually termed "The Enormous Accumulations of Wealth in our Times," "The Riches of Capitalists," are really those *tools or instruments* themselves. But the owner no more *consumes or personally enjoys* this form of *commercial wealth* than does the poorest labourer who toils upon these machines and instruments of his employer. This is seen at once by asking for what purpose is it that so much of the vegetable and mineral products of the earth, and so much of the former energies and labours of man have previously been saved, abstracted, or diverted from former possible powers of consumption and personal enjoyment; and for what purpose is it that capitalists and workmen alike devote such a large portion of their present services in fresh creations, and to the repairs of the consumption (tear and wear) of these very machines which do not themselves enter into their personal consumption or enjoyment, although they nominally make up the greater part of the so-called accumulated wealth of capital? The answer is very simple. Their sole end is the production, transport, distribution, and protection of man's primary wants—Food, clothing, shelter. Luxurious articles of consumption are insignificant as compared with the necessaries.

It is mainly for food and clothing, therefore, that all this vast machinery of the capitalist has been created and set in motion by the savings of *previous efforts*. How much, then, of this ultimate fruit of the combined result of the capital of machines and instruments, the forces of Nature, and men's labour, is actually absorbed or consumed by the rich capitalist, as compared with the poor servant or artisan?

Let us see:

- (1.) The human body can only consume and assimilate a certain quantity of food per day. The old, sickly, and very young cannot consume or assimilate so much as the strong, healthy persons of youth and prime of life. Health and hard physical employment cause the body to burn more food just for the same reason as greater energy exhausted by a steam engine demands a much higher consumption of fuel.

This is the reason why an average, strong, healthy navvy can and does consume a much greater *quantity* or weight of food in the day than the less robust city clerk or the brain-worried financier. Similarly, it is safe to affirm this of all persons who are obliged to put their bones and muscles into greater activities than their brains, and hence it is reasonable to state that man for man the average food consumed and enjoyed during the life of a labourer is much greater than that personally consumed by those whose physical exertions are smaller, as in the case of clerks, shopkeepers, teachers, professional men, bankers, and rich people. As the production, transport, and distribution of this food for consumption is by far the greatest object for which all the capitalist's savings and machinery have been put in motion, and must continue so, it follows that at least in this respect the wealth of food, the chief primary want; wealth in highest utility as well as their wealth of exchange, the end and aim of the greater part of all wealth in capital, is more largely distributed among and consumed by the poorer classes than is the case with the rich. It is true luxurious foods, having a relatively higher *price*, are to be found more on the rich man's table; but the limits which determine what the rich man really can consume of common and rare substances must again be reckoned with. When we regard the cheap foods now found on the humblest cotter's table, and much of which, because of former rarity and price (tea, coffee, spices, etc.), are still termed luxuries, we can well perceive the utter insignificance of the limited quantities of *rare* food monopolised by the rich, more *costly* because *rare*; not because of superiority, or because in its production it originally demanded more of the *gratuitous forces of Nature*, the devotion of more *capital*, or the expenditure of more *labour*—but mere variety—one of the chief characteristics of that part of *nominal exchange wealth termed pleonexia*.

The next item, clothing, has to be considered, and here again it may be affirmed that the tear and wear of hard work of the labourer demand that his clothing should be stronger. He, as a rule, therefore, personally *consumes* a greater weight of the produce of the sheep and the cotton plant than the rich man, and however dirty and ill-looking they may seem from the nature of the labourer's employment, the production is as great a tax upon the land and the forces of nature; upon the means of transport, upon the capitalist's looms, and upon manufacturing labour, as the clothes of his employer. The silks and satins, like rare foods, are more beautiful and *rarer*; but their high price is on account of *rarity*, not because they are more useful. Indeed, they are for the real purpose of clothing far inferior in general utility to the commoner cheap woollen and cotton

fabrics. The same reasoning is applicable to the remaining portions of the real wealth of primary wants and ordinary comforts, all going to show that underneath the *nominal* proprietorship of the means which *produce* consumable wealth, the share allotted and falling to the humblest classes is greater than is generally supposed.

If the material comforts are, as shown, most fully distributed according to wants, and not to relative powers of purchase, it may also be shown that the highest forms of culture and enjoyment are within the reach of all.

We have but to refer to cheap periodicals, cheap editions of valuable works, newspapers; the stage, music, fine arts. In fact, it is notorious that the more elevated and healthful amusements are obtainable at the least cost, and, owing to the spread of education, it is curious to observe that the children at public schools are now better trained in reading music at sight than are the children of the wealthy in the higher academies.

If it were possible for the skilled craftsman of the present day to compare his condition with that of his representative of the last century, or even with the rich of the same period, he would realise that, whatever misery or difficulty still exists among us, the condition of the masses is vastly superior; and this improvement could not possibly have taken place if the rich in past times had *personally consumed their yearly profits in the same proportion as the poor*; for if they had the capital, now engaged in meeting the demands of increasing millions of men would not have been saved, and further increase in population would be impossible.

CAPITAL AND WAGES DIFFICULTY.

It may seem a bold and hazardous thing to propose new definitions for terms so frequently defined by the ablest minds, but as in their application it is undoubted that in the many definitions of *capital and wages* each varies considerably from the other; and as most of them fail more or less in consistency and relevancy with the matters upon which they are brought to bear, it is not unreasonable nor over-presumptuous on the part of anyone to attempt the solution of the difficulty, so long as these difficulties are also fairly appreciated.

The expansion or limitation of the meaning of the words, Capital and Wages, I am of opinion, would not be the source of so much confusion if it were more firmly grasped by each one that the terms belong to two important and distinct categories; the first either wholly or partly related to the agents or powers involved in the *Creation or Production of Wants in Exchange*; the second either wholly or partly related to the *Appropriation of the Wants of Exchange Produced*.

Instead, therefore, of dwelling upon the contradictions involved by the inconsistent use of these terms, it may serve a good purpose if we discuss *ideas* rather than *terms* before involving the issues with a fruitless logomachy regarding unstable definitions. First, let us honestly try to bring under the first category all the elements or ideas that are necessary to be reckoned with in making it complete, *viz.*:—

What are the necessary powers and forces now used in the effectual production of wants *in exchange*.

To realise these powers and forces it will admit of clearer apprehension if they be classified in tabular order thus:—

(A.) AGENTS OR POWERS NECESSARY TO BE EMPLOYED IN THE PRODUCTION AND PRESERVATION OF WANTS IN EXCHANGE.

a. LABOUR
(Present Labour).

1. Of *highly-skilled minds* in the determination of the *modes* in which labour may be made most productive; labour thus devoted may be the means of adding from two to many times the effective power of the physical force of the labourer of mere brute force. *Types*: The inventor of spinning jenny, steam-engine, director of operations, etc.
2. Highly-skilled hands. *Types*: Mechanic, carpenter, weaver.
3. Ordinary skilled hands. *Types*: Navyy, messenger, ploughman, shepherd.

b. INDIRECT FRUITS OF
LABOUR AND SKILL
(Anterior Labour of
Bastiat).

Products of food, clothing, shelter, etc., on hand in smaller or greater proportions by different persons; the fruit of previous labour and other forces saved (1) partly by greater individual economy, or abstemiousness in the consumption or enjoyment of wants previously earned; or (2), the saved and preserved surplus of previous earnings, due to the products of previous labour and skill being much greater than the power to reasonably consume or enjoy.

- c.* INDIRECT FRUITS OF LABOUR AND SKILL (Anterior Labour of Bastiat). The possession of lands, mines, costly machines, railways, canals, ships, buildings, instruments of all kinds that have or may be *bought* or *sold* by the accumulated *previous* or *current* *savings* of skill, industry, or common physical labour.

If capital, as a term, be confined to *b* and *c*, there could be no objection if it were not assumed afterwards that these alone formed the whole of the forces necessary to produce fresh wants in exchange in sufficiency for all. Similarly, there would be no objection to confine the term capital to labour, if it were not ignored in after applications that the important portions, *viz.*, Indirect Fruits of Previous Labour and Skill or Anterior Labour (*b c*) are also necessary for the *effectual production of the wants of all*, and that those gained by right of previous savings are not generally distributed possessions.

We come now to the second great category:—

(B.) MODES OF APPROPRIATION OF WANTS IN EXCHANGE CREATED OR PRODUCED, OR ABOUT TO BE CREATED OR PRODUCED.

MODE.

- a.* (By Wages or Salary.) Labourers or poor capitalists share in respect of personal services *mainly*.
- b.* (By *Commission, Interest Rent, or Income.*) Employers or possessors of a more than ordinary share of the equivalents of previously stored labour and skill—rich capitalists—obtained *mainly* from the possession of a larger share than ordinary of the actual fruits, or the equivalents of previously stored labour and skill.

From this analysis, which is sufficiently comprehensive, it would appear that labourers are simply *poor capitalists*, and employers and wealthy people are *rich capitalists*; that both forms of capital are necessary to the production of fresh wants for all, and that both—whether as wages or salary, or whether as commission, interest, rent or income—derive their share of these wants by the aid of the combined action of the two groups. In this sense it is no more true or false that wages are derived from *capital*, than that commission, interest, rent, or income is derived from *capital*. If this view of the case be

correct, it would seem to appear that certain Economists, as well as their critic, Mr. Henry George, are wrong,* for if the former may be justly accused of ignoring *B a's* part in the production of wants in exchange (in their wages fund theory), the latter errs quite as much in ignoring the vast part which the increasing store of previous savings, or more or less permanent creations (anterior labour), represent in the combination necessary to produce in sufficiency for all the ordinary *wants of exchange of human beings*.

IMPROVEMENT IN THE CONDITION OF THE INDIVIDUAL
LARGELY DUE TO THE SAVINGS OF ANTERIOR LABOUR
(CAPITAL) SKILFULLY APPLIED AS INSTRUMENTS AIDING
PRODUCTION.

This solution of the vexed problem of the so-called "Wages Fund" is, moreover, in harmony with all related facts, and it clearly establishes the important truth that it is to preserved previous savings (anterior labour) skilfully applied, that the powers to further increase of production *per head* is mainly secured; for if the increase in appropriation to necessary machines and instruments be only proportionate to increase in mouths to be fed, there would be no improvement in the appropriation of wants per individual, even though "each mouth" be accompanied by "two more hands," as urged by some. It follows, therefore, that if the individual necessary wants be now better supplied than in former times, it must either be due to relative diminution of the mouths to be fed, or to the multiplication of productive power (anterior labour) largely due to the great advances made in recent years in the power which man has obtained over the forces of Nature. As it is undeniable that population has largely increased since the beginning of the eighteenth century, and as it is also demonstrable, notwithstanding the great simultaneous increase in population, that the supply of wants per head, rich and poor, have also materially improved, while the hours of labour have been shortened, it follows logically that this improvement, in the aggregate and per head, is entirely

* The admirably expressed views of Bastiat, however, are in entire accord with these views.

Thus Bastiat writes (p. 43, "Wages—Harmonies of Political Economy");—"As capital is nothing else than human services, we may say that *capital* and *labour* are two words which in reality express one and the same idea; and consequently the same thing may be said of *interest* and *wages*. Thus, where false science never fails to find antagonism, true science ever finds identity.

"Considered, then, with reference to their origin, nature, and form, *wages* have in them nothing degrading or humiliating any more than *interest* has. Both constitute the return for present and anterior labour derived from the results of a common enterprise. Only it almost always happens that one of the two associates agrees to take upon himself the risk. If it be the present labour which claims a uniform remuneration the chances of profit are given up in consideration of *wages*. If it be the anterior labour which claims a fixed return, the capitalist gives up his eventual chance of profits for a determinate rate of *interest*."

due to the vastly increased productive power obtained through a greater knowledge of Nature's forces—more especially in the uses of steam and electricity. The contrary allegation by Mr. Henry George and others has no support from reason or facts.

It is clear, therefore, that the greatness or smallness of accumulated wealth is not necessarily an index to the presence or absence of individual comfort and happiness, but rather both depend upon the relative proportions which the total wealth and total population bear to each other.

From this it is easy to show that the chief source of misery and discomfort—or the diminution of necessary supply of wants per head—is mainly due to the tendency of population, in times of distress, to increase in a greater ratio than the powers of production.

The extravagant statement of Mr. Henry George, that “there is nowhere any improvement which can be credited to increased productive power,” is too absurd, perhaps, to require serious consideration. Yet it may be well to show by a simple illustration its utter fallacy.

Let us take one of the most important wants of man, necessarily consumed alike by rich and poor, *viz.*, *common water*. Although in natural reservoirs or channels, as in springs, lakes, and rivers, it is generally a gratuitous gift of Nature to all men, it has to be transferred to points of consumption; and although the gratuitous element never enters into *exchange price*, it is generally a marketable commodity in large centres of population where a large daily supply is absolutely necessary. The element which here forms price is *labour of transfer*. The labour of transferring water by primitive means is great, as one gallon weighs 10lb., and if the distance be considerable both *time* and *muscular powers* of labourer must be consumed, and, therefore, the carrier must earn the equivalent of such *time* and *labour* as may be expended in this most necessary service. It is true water, for the support of a few individuals, may be supplied at a minimum of the expenditure of *time* and *labour*; for their habitations might be fixed contiguous to the natural supply; but for large towns this, for the most part, is quite impracticable. In the latter case water supply would fall into one of the most important divisions of marketable labour, and the price of water to the consumer would be determined by the present *time* and *labour* bestowed by water carriers engaged in the service, plus the proportion of cost and maintenance of equipment necessary—(anterior labour).

Now, if we were to confine attention to the *producer* (only about 44·2 per cent. of living persons are producers of marketable wants), we would never perceive the full signi-

ficance of the statement *that the greater the proportion of skilfully applied previous labour or service (tools, instruments, appliances, etc., or anterior labour) introduced as auxiliaries to present labour or services, the greater is the power of production and supply, and the smaller is the price of the product.*

But if we bear in mind that all persons are *necessarily consumers*, we can at once perceive that *abundance and lessened cost* of primary needs, consumed alike by rich and poor, by producers and dependants, are real benefits in which *all* must equally participate. If it can be shown, then, that the statement respecting the introduction of anterior labour is correct, it follows unmistakably that Mr. Henry George's statement is contradicted in the experience of all men as *consumers of marketable wants*.

The City of Launceston contains about 15,000 inhabitants. Each person consumes on an average at least 20 gallons of water per day = 200lb. weight. Thus the population consumes each day at least 1,342 tons weight of water per day, or 488,840 tons per year, and each person consumes 7,300 gallons per year.

The transit of this 488,840 tons over 13 miles from source is at present easily effected by permanent waterways, iron pipes, reservoirs, etc. (*representing anterior labour*), in conjunction with a staff of men engaged in the maintenance and working of the water supply (*representing present labour*), and there is ample power (potential) in the store of existing *anterior labour* to double the supply, if required, without any addition to cost.

Now, the exchange value of anterior labour and present labour, combined in effecting this service each year, is estimated to be £68,243 and £2,133 respectively, or about £32 to £1.

The only way to measure the true value of the benefits effected by the direct influence of anterior labour as an auxiliary to present labour, is to try and estimate the number of men required to effect the same work of transfer, *viz.*, 488,840 tons per year a distance of 13 miles by more primitive means. It is impossible for men to do any part of this work without *some anterior labour* in the shape of instruments; but if we reduce the latter to the most simple form, it will be sufficient to demonstrate the enormous advantage gained by every accession to the power of anterior labour. Let us suppose, therefore, three modes of transfer:—

- (1.) The primitive mode by pails of 2-gallon or 20lb. capacity, requiring 5 men and 10 pails per day for carrying one day's supply to each person, *viz.*, 20 gallons or 200lb. weight.
- (2.) One man and a horse and water cart effecting the transfer of 224 gallons per day.

- (3.) A system of pipes and waterworks, with a staff of men to maintain and work the system, capable of transferring at least 1,342 tons of water per day, *i.e.*, 300,000 gallons.

We may now, in a tabular form, compare the effectiveness and cost of the three modes as follows. To supply 15,000 persons:—

	1ST MODE.	2ND MODE.	3RD MODE.
Water transported 13 miles per head of population per day... ..	20 gallons	20 gallons	20 gallons
Number of men required per day... ..	75,000 or 3261	1,342 or 58'35	23 or 1
Cost of present labour service per year ...	£6,844,875 or 99'73	£122,290 or 64'57	£2,133 or 3'03
Value of instruments—			
Anterior labour ...	£18,750 or 0'27	£67,100 or 35'43	£68,243 or 96'97
Cost of ditto per year ...	£1,125	£4,026	£4,094
Total cost of transit to consumer per year ...	£6,844,875	£126,316	£6,227
Cost per 100 gallons ...	£6 10 0	£0 2 3½	£0 0 1 ³⁶

It is here clearly demonstrated that by the accession of anterior labour, or the fruit of applied previous labour saved from personal consumption, and skilfully applied in accordance with the knowledge which man has gained with respect to natural laws, the effective power of each man's labour is multiplied 3,261 times, and the cost to consumer is reduced thereby to about $\frac{1}{1100}$ th of that which it would cost if the proportion of anterior labour was at a minimum.

That is—when in the combined service of anterior and present labour, anterior labour only represented 0'27 per cent. of the combined service—the cost of water would be £6 10s. per 100 gallons to consumer; but when the proportions were reversed, and anterior labour represented 96'97 per cent. of the combined service, the cost of water would be reduced to 1³⁶ per 100 gallons. It will readily be perceived, therefore, that the mere accompaniment of “two hands to each fresh mouth” is insignificant as a force to effect improvement in the condition of the individual consumer of needs without a corresponding gain in anterior labour.

Why the present population of the United Kingdom and her colonies do not individually perceive the full benefit of the immense addition made to the store of anterior labour now used as an important auxiliary to the force of present labour, is not because of a failure in the production or in the

distribution of the products or wants created, but primarily because the numbers of consumers of wants have kept pace hitherto with the increased producing power.

The individual does not necessarily benefit by the aggregate increase in production, as it depends upon the proportion which consumers bear to aggregate production. Thus:—

AVERAGE INDIVIDUAL SHARE OF PRODUCTS.

Let A=Aggregate products created by anterior and present labour.

C=Number of consumers.

P=Average proportional share of products falling to each individual.

$$\text{Then } \frac{A}{C} = P$$

It follows, then, that P will only improve so long as A continues to increase faster than C. The aggregate of A, however large, is of no account. It is the proportional relation to C which determines increase or decrease to P.

DENIAL OF COMPARATIVE PROGRESS IN MODERN TIMES
DUE TO INCREASED PRODUCTIVE POWER.

“THE RICH ARE BECOMING RICHER, AND THE POOR POORER.”

There is nowhere any improvement which can be credited to increased productive power.

The tendency of what we call material progress is in nowise to improve the condition of the lowest class in the essentials of happy human life. Nay . . . it is to still further depress the conditions of the lowest class.—“Progress and Poverty.”

Of all the mischievous and erroneous statements current, perhaps these are the most notable. The statements imply that the relative state of rich and poor were formerly more equable, and that the working classes, or the lower zone of them, have not benefited by the introduction of steam and electricity, the occupation of vast new virgin lands, and by manifold inventions and improvements in labour-saving machinery, and in knowledge during the present century. It would be nearer the truth to say that, owing to increase in productive power, at no time in human history has the condition of the vast masses of skilled and unskilled workmen been so highly raised materially, intellectually, and socially. No one who has studied the writings of one of the ablest living authorities on this subject—Robert Giffen, President of the Royal Statistical Society of England—can help admitting that the humblest workmen of the present generation in civilised countries have marvellously improved their condition as compared with any known period in past history.

Material improvement, unfortunately, cannot eradicate all evils so long as we have those who are vicious, idle, and improvident, and the fruit of these evils must ever fill our

records with statistics of crime and pauperism. Paradoxical as it may appear, it is in itself a grand index of moral improvement in our modern civilisation that we are able to refer to State-supported paupers, even although this benevolence may itself be the fruitful cause in time of adding to our social difficulties.

To state, however, or to imply that pauperism is proportionately greater now than when productive power was much less, is contrary to reason and fact.

The chief advantages of the present century in Europe and in English colonies are, that owing to the wonderful progress made in means of communication, in knowledge, and in labour-saving machinery, the masses of men

- (1.) Are better fed, clothed, and housed than formerly, and are almost free from the terrible periodic famines which were so common in the four preceding centuries, and which still afflict the masses in India nearly every third year.
- (2.) Are able to obtain primary wants, and even luxuries, with less hours toil.
- (3.) Education and luxuries are now more diffused among the wage-earning classes than among the ruling classes two centuries ago.
- (4.) Freedom and privileges, social and political, are immeasurably greater than in former times.
- (5.) Notwithstanding that within the same area (United Kingdom) the wants of 37 millions have to be supplied, instead of 2,300,000, as at the close of the fourteenth century, and about $7\frac{1}{2}$ millions at the beginning of the eighteenth century, these wants are now supplied much more certainly and in much superior quantities per head.
- (6.) Life of each individual on the average is greatly prolonged, owing to improvement in hygiene, social habits, and in the improvement in material condition.
- (7.) There is a much smaller mortality per 1,000; pauperism and crime is greatly reduced proportionally, and the effective power of labour is immeasurably superior.

PAST AND PRESENT CONTRASTED.

Therefore, whatever evils remain they may still be consistently admitted without denying the great comparative progress made generally in the age in which it is our good fortune to live. If we could really picture to ourselves the actual condition of society in former times, all doubts regarding progress made in recent times would be speedily set aside.

Let us for a moment take a glimpse into past history, as revealed to us in the pages of Hallam, the historian. Passing over the Dark Ages, when the husbandman was either degraded to menial slavery by brutal predatory lords, or, what was little better, was afforded such miserable tenure of villenage as the feudal lords were pleased to allow, we find the ruling classes themselves brutal, poor, and ignorant. Thus Hallam writes of the fifteenth century:—¹ “It is an error to suppose that the English gentry were lodged in stately or even in well-sized houses. . . . A gentleman’s house, containing three or four beds, was extraordinarily well provided; few, probably, had more than two. The walls were commonly bare, without wainscot or even plaster. It is unnecessary to add that neither libraries of books nor pictures could have found a place among furniture. . . . No mention is made in inventories of such conveniences as chairs or looking glasses. Cottages in England at this time seem to have generally consisted of a single room without division of stories. Chimneys were unknown.”

Even at the close of the seventeenth century the progress made was comparatively small. Draper states:—² “For a long time London had been the most populous capital in Europe; yet it was dirty, ill-built, without sanitary provision. The deaths were one in twenty-three each year;³ now, in a much more crowded population, they are not one in forty” (one in fifty in the year 1886).

Much of the country was still heath, swamp, and warren. Nothing more strikingly shows the social condition than the provisions for locomotion. In the rainy season the roads were all but impassable. Through such gullies, half filled with mud, carriages were dragged often by oxen. . . . If the country was open the track of the road was easily mistaken. It was no uncommon thing for persons to lose their way and to spend the night out in the air. Between places of considerable importance the roads were sometimes very little known, and such was the difficulty for four-wheeled carriages that a principal mode of transport was by pack horses, of which passengers took advantage by stowing themselves away between the packs. The usual charge for freight was 15d. per ton per mile. The country beyond the Trent was still in a state of barbarism, and near the source of the Tyne there were people scarcely less savage than American Indians, their “half-naked women chanting a wild measure, while the men with

1. “Hallam’s View of the State of Europe During the Middle Ages.” (Murray and Son, London, pp. 779, 781).

2. “Draper’s Intellectual History of Europe,” vol. ii., pp. 238, 239.

3. *i.e.*, 43·48 per 1,000, or higher than the birth rate.

brandished dirks danced a war dance." At the beginning of the eighteenth century even, the only press in England north of the Trent was at York. Social discipline was very far from being of that kind which we call moral. The master whipped his apprentice, the pedagogue his scholar, the husband his wife. . . . It was a day for the rabble when the culprit was set in the pillory to be pelted with brickbats, rotten eggs, and dead cats; when women were fastened by the legs in the stocks at the market place, or a pilferer flogged through the town at the cart tail. . . . To a debased public life private life corresponded. The houses of the rural population were (chimneyless) huts covered with thatch; their inmates, if able to procure fresh meat once a week, were considered to be in prosperous circumstances. One-half of the families in England could hardly do that. Children six years old were not unfrequently set to labour. In London the houses were mostly wood and plaster, the streets filthy beyond expression. There were no lamps. . . . As a necessary consequence there were plenty of shoplifters, highwaymen, and burglars."

No earnest and dispassionate person can contrast the conditions of the past with those of the present without frankly acknowledging the great progress among all classes, including the lowest in the scale; and further, that were it not for the vast increase in productive power the 30 millions of souls added to the population of the United Kingdom since the beginning of the eighteenth century would not have been called into existence. Misery and death would have arrested population at the limit of its old lower productive power, just as it has in all times prevented population from passing beyond the productive power of the respective times and places. Nay, no reasonable mind can for a moment doubt that the extra 30 million souls—with wants supplied more effectively than were the 7 millions at the beginning of the eighteenth century—is in itself the best proof that can be conceived of the beneficial influence exerted by the knowledge which man has gained over the forces of Nature since that time. Indeed, so palpable must this appear to any thoughtful mind that he or she would readily assent to the proposition that increase of population is possible only so long as the productive power makes a corresponding advance. When it becomes stationary population must become stationary; and that means intense competition for primary wants of existence, resulting in misery and starvation to the weakest, and indicated most infallibly by a sudden rising of the death rate to, or even above, the birth rate. These inevitable consequences will be more fully discussed hereafter under the heading "Population Difficulties." In the meantime, instead of making idle assertions, let us contrast the present with the

past as regards the comparative progress made in population, and in material and social condition.

This can best be realised by tabulating for distinct progressive periods, statistics bearing upon population, crime, pauperism, effective purchasing power of the labourer in relation to primary wants and comfort. The condition of the United Kingdom since 1541 affords the best index of comparative progress.

COMPARATIVE EFFECTIVE PURCHASING POWER OF LABOUR.

Much information of value is lacking in the earlier periods referred to, but what is lacking would tell all the more in favour of the condition of the labourer in existing times :—

Estimated Population.		Average Increase Per Year in Population.	Average Price of the Quarter of Wheat.	Average Price of Wages Per Week.	Effective Power of Labourer in Purchasing 1 Quarter of Wheat.	Death Rate Per 1,000 Persons.	Paupers Per 1,000 Persons.		Crimes Com't'd for Trial Per 1000 Per.
Year.	No. Pop.						About.	s. d.		s. d.	Days' Labour. No	—	Able-bodied.	All.
1400	3,300,000	..	...	...	...	...	...	...	...
1541-82	...	...	13 10½	5 1½	16·30	...	...	...	...
1583-1642	...	...	36 1	5 4½	40·28	...	...	...	...
1643-1702	7,500,000	(since 1,400) 14,000	41 11¼	8 0¾	31·09	40	...	...	...
1801	16,237,300	87,370	...	...	...	...	...	...	...
1831	24,392,485	271,000	...	...	...	22·0	10·9	19·0	...
1850	...	...	...	...	...	21·6	8·0	17·0	0·81
1887	37,091,564	449,000	34 9	30 5	6·86	19·0	3·7	12·9	0·49
AUSTRALASIAN COLONIES.									
1887	3,551,751	...	38 10	53 7	4·34	...	...	...	...

The few figures in the preceding table tell a significant tale. Of course, it would be alleged by all who had preconceived notions that rates of wages and prices do not always reveal the effective power of the labourer to command primary wants. But no index of this relative power can be so satisfactorily shown than by reference to the relative purchasing power of the labourer as regards the staff of life. Whatever qualification may be urged, it is undoubted that the purchasing command of bread is the most powerful index to purchasing command over other wants.

Now, when it is shown that the average weekly wage of the wage-earning class at the present time, by the expenditure

of 6·86 days' labour, commands as much power in purchasing one quarter of wheat as it would take the same class

16·30 days in the period 1541-1582

40·28 " " " 1583-1642

31·09 " " " 1643-1702

what possibly could be more conclusive?

Especially favoured is the wage-earner of Australasia who can command the same power by the expenditure of 4·34 days' labour; whereas it would cost the same class in 1583-1642 the fruits of 40·28 days, *i.e.*, nearly ten times more. Surely this alone should dispose of all reckless statements having a contrary tendency in measuring comparative advantages with the present time. The lowering of the death rate, and the consequent more rapid increase of population; the relative decrease in the proportion of paupers, especially the able-bodied; the decrease in serious crimes, all tell the same tale of unparalleled progress.

THE PRESENT CONDITION OF THE MASSES IN ENGLAND AND WALES AS COMPARED WITH THEIR CONDITION DURING THE 200 YEARS ENDING IN THE YEAR 1800.

If still we must admit that the present condition of England and Wales is such that great misery oppresses many, it must also be borne in mind that her present death rate, 19·3 per 1,000, is the lowest upon the records; and her natural rate of increase, although far below that of the colonies, shows an increase of 1·4 per cent. per year.

No statistics directly bearing upon the misery and death rate of the 200 years ending 1700 are available, but there is good evidence to show that the population in the year 1500 numbered about 2,300,000. In the year 1700, or 200 years later, it only numbered 5,475,000, *i.e.*, an increase of 3,175,000 in 200 years, equivalent to an increase of *one per 1,000 per year*. There is every reason to believe that the birth rate was at least as high as in recent years; and if this be correct, it follows that the death rate must have averaged 34·3 per 1,000, instead of 19·3 per 1,000, as in recent years.

Now, what does this mean. Why, that formerly the struggle for means of existence was so terrible that 15 deaths per 1,000 persons took place beyond the number now occurring. This lamentable state of things is better realised when we see that it represents the destruction of the possibility of 2,364,800 lives in the 200 years referred to, above the average rate now occurring.

Surely this evidence should dispel all doubt respecting the comparative state of misery, past and present.

Nor is this all. Mr. Giffen (1) has shown by unmistakable reference to facts that in the admitted great increase of

wealth during the last fifty years the rich have not improved their incomes in the same ratio as the working classes. Thus:—

PROGRESS OF NATIONAL INCOME IN MILLIONS OF £'s.

—	INCOME.		INCREASE.	
	In 1843.	Present Time.	Amount.	Per Cent.
Capitalist Classes from Capital	190	400	210	110
Working Income in Income Tax Return	90	180	90	100
Working Income Not Included in Income Tax Return ...	235	620	385	160
—	515	1200	685	130

Thus we perceive the falsification of Mr. Henry George's statement with regard to the alleged exemption of the working classes from any share in the present progress in the aggregation of wealth; for not only do they also share in the material progress of our times, but it is shown that the proportion of the lowest group in the increased wealth (160 per cent.) is by far greater than that of the two higher (100 to 110 per cent.) It is impossible to enumerate all the comparative advantages of those who live in the present day, due to improvements in knowledge, but the indices given should decide all earnest enquirers that whatever difficulties still exist are small, indeed, in comparison with what men suffered from in former times. The greatest difficulty which now threatens, is not that man's power to further command the forces of Nature may fail, but the far more serious consideration: Will the increase of such power be commensurate with the high rate of natural increase which is the inevitable concomitant of a comfortable existence? This brings us to the problem of problems—Population.

INCREASING NUMBERS.

Residents of new countries, with a scant population, and with vast natural resources in the shape of unlimited areas of unoccupied and unutilised virgin lands, longingly picture the transformation of these areas into yellow cornfields, fruitful

gardens, verdant pasturage teeming with browsing cattle, busy industrial centres crowded with the homes of industrious and happy people.

Ah! little do they know of the never-failing Nemesis which, like a sleuth hound, dogs the steps of an ever-increasing population. Happy selectors of easily-acquired choice lands may luxuriously grumble at the amount of their taxation, the *low price of mutton and corn*, their bad roads, and the impossibility of extending their operations in the production of corn and wool, so long as the wages of farm and other labour are *so high*.

The professional and merchant class may reasonably grumble at the scarcity of men and products which restricts their respective callings, and may impatiently rail against the slow progress which the country is making in *population and the creation of products*. The few wealthy men of leisure may hanker after the amusements and honours so common in thickly-crowded centres, where the *attractive ministry of cheap labour* is but too common.

The comparative comfortable artizan or labourer, under such favourable conditions, may *in verbal or literary debate* still wage a lively dispute whether the irksome eight hours' labour—or weekly half-holiday—may not be further improved, and the rate of wages *further raised above the rates of over-peopled old countries*, but he does not view with favour the fresh introduction of labourers in *his own craft*.

The consumers of the services of local dear labour may desire the introduction of the surplus cheaper labour of Europe, and for the sake of Protection may urge upon the Government the necessity of extending the advantages of external Free Trade. On the other hand, the protector of a local monopoly of relatively high wages or more dearer local manufactures, may more strenuously advocate the necessity of increasing the tariff on all manufactures from other countries, especially on such as may be produced locally. It will be seen, therefore, that in young countries, as well as in the old, we have the battle of interests still waged, if not so keen. The competitor or seller of services cries for Protection; and the user or consumer of services enlarges upon the harmonies and advantages of universal Free Trade.

Few recognise the truth that individual welfare depends less upon the greatness of the aggregate wealth of a country than upon the proportion which freedom from excessive competition gives each individual over the local natural sources of utility, including primary wants; and that the country possessing the greatest aggregate of material wealth may, owing to the competition of excessive numbers, present the spectacle of a small privileged minority absorbing an

unparalleled share of luxurious wealth, while the masses are struggling for the barest subsistence.

All other things being equal, it follows that in the country where Nature's gratuitous stores of wealth, as regards food and other essential products, far exceeds the power of its inhabitants to utilise, yet, notwithstanding the comparative insignificance of its accumulated wealth in exchange, its inhabitants on the average are individually happier, and enjoy a much larger share of material comforts, than the inhabitants of countries, however great the aggregate wealth, but whose natural resources as regards food products are far below the local requirement of its teeming inhabitants.

Two nations standing in this relation to each other would correspond to the relation of two individuals where one is the privileged capitalist or buyer, and the other the unprivileged seller of labour service. In other words, the latter would be in the position of the needy Esau in being forced to sell his whole birthright to preserve his life; the former would occupy the favourable position of Jacob, who had merely to part with a portion of his surplus of primary wants (red pottage) to secure a large augmentation to his wealth of pleonexia.

This, unfortunately for many old centres of civilisation, is no overdrawn statement—the creation of enthusiastic declamation or sentimentality—for if we take one of the most vigorous countries of Europe (England), with its untold wealth in the aggregate, and compare it with the young colony of Victoria, we may readily demonstrate the verity of what has been alleged.

POPULATION DIFFICULTIES, OR THE STRUGGLE FOR EXISTENCE.

Darwin (page 52, *Origin of Species*) has observed "that in a state of nature almost every full-grown plant annually produces seed, and amongst animals there are few which do not annually pair. Hence we may confidently assert that all plants and animals are tending to increase at a geometrical ratio—that all would rapidly stock every station in which they could anyhow exist. And this geometrical tendency to increase must be checked by destruction at some period of life," and, as an inevitable consequence, he goes on to add "that each individual lives by a struggle at some period of its life, that heavy destruction falls either on the young or old during each generation, or at recurrent intervals. Lighten any check, mitigate the destruction ever so little, and the number of the species will almost instantaneously increase to any amount."

These considerations, when fully appreciated, form the foundation of the problem of Malthus.*

* An Essay on the Principle of Population. Malthus. (2 vols, London, 1826.)

That Mr. Henry George altogether failed to grasp the various elements of this problem is at once apparent by the manner in which in his otherwise very attractive work, "Progress and Poverty," he has attempted to refute the conclusions of Malthus.

As he has fallen into the most simple errors in his adverse comments upon Malthus, it may be as well to state with greater precision the factors of the problem, thus:—

P.—Actual population.

I.—Natural tendency to increase.

(a) At its maximum in an ideal state of perfect health, virtue, peace and prosperity.

(b) At its minimum when the opposite of this state obtains.

T.—Natural limit of life; death at extreme old age.

C.—Checks, cutting off life before the healthy limit of life has been reached, among which are prominent:—

(a) Competition of other forms of animal life—zymotic diseases, parasites, attacks by beasts of prey, etc.

(b) Insufficiency of food or famine, whether from seasonable influence, poor soil, climate, ignorance, wilful waste, or improvidence.

(c) Violence, wars, murders, accidents, physical causes, such as earthquakes or volcanic outbursts, cannibalism, infant and senile murder, massacre.

(d) Diseases, whether due to ignorance, vice, human neglect of hygiene, climate, cosmical influences, etc.

(e) Diseases due to the tendency of civilised communities to aggregate in dense numbers, as in cities and towns.

(f) Misery the close attendant of these evils.

M.—Moral restraint operating upon I.

E.—Means of subsistence, varying with season, but increased absolutely by numbers and increasing knowledge of natural resources; the ratio per individual, however, gradually lessening as the poorer lands and waters are invaded by swelling numbers.

F.—The absolute limit when a greater density for each square mile of the earth's surface is reached by removal or the minimising of all repressive checks. About 2·83 acres in cultivation is now necessary for the support of each person living.

G.—The final stage, the world peopled to its full limit, and the struggle for existence only permitting a perpetuation of the maximum population at F by the effects of T; and the failure of either in any degree, again re-introducing of necessity checks C, *a, b, c, d, e*, and so producing a decline in population, although the natural tendency I to multiply may still be conceived to be as vigorous and prolific as at the first.

When Malthus affirmed that the ratio of increase of population advanced faster than the ratio of increase of means of subsistence, he never stated or conceived that population could actually outstrip the means of subsistence as interpreted and discussed by Mr. Henry George (p. 17, book ii.), and hence the whole of Mr. George's citations and reasonings are either fallacious, or they never touch upon the real causes at the root of Malthus' problem. That there is a thorough misconception on the part of Mr. Henry George is clearly proved by the following quotation from Malthus (p. 243, vol. ii. "Malthus on Population") :—"According to the principles of population the human race has a tendency to increase faster than food. It has, therefore, a constant tendency to people a country fully up to the limits of subsistence (F or G), but by the laws of Nature it can never go beyond them, meaning, of course, by these limits the lowest quantity of food which will maintain a stationary population. Population, therefore, can never, strictly speaking, precede food." This clear expression on the part of Malthus casts aside the whole of Mr. George's ratiocinations as worthless. His inability to grasp the most important elements of the problem is still further made manifest by his query, p. 17, "How is it, then, that this globe of ours, after all the thousands, and it is thought millions, of years, that man has been upon the earth, is yet so thinly populated.

I can hardly conceive that a man of Mr. George's intelligence could put forward such a plea in proof of his contention that the natural tendency of population (I) is not towards an increase in the direction of the limits of subsistence.

His query indicates unmistakably that he confounds the product with the ever-varying factors plus and minus I, T, and C, which make the product (P). There is no argument necessary to show the absurdity of ignoring the value and tendency of I, because the product P does not disclose a similar value and tendency.

For example, the query entirely ignores the whole burden of Malthus' problem by the effects of the checks T and C. The mere fact, notwithstanding the powerful influence checks

T and C, which have always been in operation--the human race is now, after a million years, still vigorous, and numbers over 1,480 million souls, is in itself the strongest proof that the natural tendency to increase has been the powerful influence counteracting the terrible effects of C, which we too well know have always exerted a most powerful and dire influence in preventing a large increase of population.

The fallacy of Mr. George's arguments is more clearly appreciated by stating the problem thus:—

Let I.—Natural tendency to increase (birth rate).

D.—Actual rate of increase or decrease of population (*a*) surplus of births over deaths; (*b*) stationary state, etc.; (*c*) surplus of deaths over births.

T.—Death as the full termination of a natural healthy life }
 C.—Death from preventible causes } Death Rate.

M.—Moral influence lowering the value of I.

S.—Prosperity heightening the effect of I.

P.—The result upon the population (*a*) increase; (*b*) stationariness; (*c*) decline.

D.—The actual surplus (*a*); stationariness (*b*); decline (*c*) per year.

1. When $I + S - M$ exceeds $T + C$, the result will be $P a$ or $D a$, or an increase of population.
2. When $I + S - M$ only equals $T + C$, the result will be $P b$ or $D b$, or a stationary state of population.
3. When $I + S - M$ falls below $T + C$, the result will be $P c$ or $D c$, or a decline in population, caused by the checks being greater than the birth rate.

What folly, therefore, to conceive a stationary state of population as being due to the lowered absolute influence of I alone, when the same result, according to our experience, based upon the vital statistics of all countries, is due rather to the increased value of C, the root evil, which Malthus wished to see eliminated.

That a high death rate has a greater influence than a low birth rate in diminishing the surplus of births over deaths is easily proved by reference to vital statistics—our only guide in such matters. For example, take the case of Norway and Spain and Hungary for the year 1885:—

	$I + S - M$	$C + T$	$D a$
	Birth rate	Death rate	Surplus of births
	per 100	per 100	over deaths
	persons.	persons.	per 1000 persons.
Norway ...	30·9	17·1	13·8
Spain ...	36·6	30·6	6·0
Hungary ...	45·3	32·6	12·7

No better example from actual facts could be obtained to show that the increase of disease and misery, as shown by the death rate $C + T$ has more influence in lowering the value of Ba , or surplus of births over deaths, than the lowering of the rate of births; for Norway's actual rate of increase is higher than that of Spain and Hungary respectively by 7·8 and 1·1 per 1,000 persons; although its birth rate is actually lower than in these countries by 5·7 and 14·4 per 1,000 respectively. In a healthy, happy, prosperous, and peaceful country, the actual rate of increase is invariably high, due to a high birth rate and a low death rate.

In an unhealthy, miserable, and savage society, the tendency, while these conditions last, is invariably shown in a higher death than birth rate, resulting in a positive decline in population.

It is clear, therefore, that when population is declining it is rather because misery, disease, and vice have abnormally raised the death rate higher than the birth rate, and not because of any material tendency to a decline in the birth rate.

While there are different stages of civilisation in existence, over-population is a relative term applicable to the particular country, and not an absolute quantity to be determined by an absolute number of persons to a given area, as most erroneously indicated by Mr. George. This is clear to any one who studies the civilisation and the sanitary state of different countries.

When peoples who have attained to the same state of civilisation are so situated that the struggle for existence is made lighter for a given community by local causes, such as may be seen in the comparison between the Australian colonies and the older countries of Europe—then the increased prosperity, the diminution of competition for labour, the increased health due to the smaller density of population, and other advantages—climate not being too unequal—would show such an improvement in the actual rate of increase from natural causes alone that their effect is significant and instructive. Thus, although the actual rate of increase in the colonies, during many years, is equal to about 20·05 per 1,000 (not including the effects of immigration), or about 10 per 1,000 above the rate of Europe, nevertheless, its average birth rate is only about 1·5 per 1,000 higher. This again forcibly proves that the higher rate of actual increase to population is due mainly to favourable circumstances lowering check C , or deaths from preventible causes. These illustrations by explicit reference to actual facts entirely overthrow the arguments of Mr. Henry George, which solely confine attention to one of the two great factors in the problem relating to the causes of

the increase, stationariness, or decline in the population of different countries. Malthus was not so visionary as to expect the entire elimination of any of the factors. He only hoped to regulate population in relation to means of subsistence, by the substitution of an increased power of check M, in place of the terrible check C. He conceived that as man grew in knowledge and dignity, he might be able by degrees to lower the terrible influence of C, thus favouring the state P *a*; the latter being prevented from again re-introducing the evil effects of C by the substitution of influences increasing the power of the superior central check M. If the check C now ruthlessly in operation be removed altogether or reduced to a minimum—a most desirable thing for its own sake, it is certain that the geometrical increase of I would produce a maximum effect as D *a*, and this would sooner or later, if unchecked, over-populate the whole earth. No matter in what degree the final stage was delayed by increased knowledge and productiveness, fairer modes of wealth distribution, and the gradual spread over all habitable areas; or hastened by exhaustion of existing sources of wealth, or a state of anarchy; the stage would in effect be often reached in particular isolated districts, although not in all, by reason of human ignorances, jealousies, prejudices, not to mention lower types of human beings unfitted for the reception of a higher civilisation.

Had it not been for the fortunate discovery of the steam engine, the perfecting of means of transport, and the discovery of new fertile continents (Australia and America) thinly populated, opening out vast additional sources of production and affording relief to the pressure of crowded European centres, it is certain the state of Europe would be very different at the present hour; and the check C would long ere this have reduced existing crowded centres to half their present numbers. What would England do with her present population (37 millions) if America and Australia were no longer open to her emigrants and no longer furnished food and other products? England is now a striking example of a country whose population has rapidly outstripped the means of subsistence so far as local supply of food is concerned.

It will readily be conceived, therefore, that the complicated problem of Malthus is—the elimination of C altogether, or, as far as it lies within man's control; with the substitution of an increased power of M, only when deemed to be absolutely necessary to banish the dire influence of C. Both Malthus and Mr. Henry George agree in desiring the elimination of check C, but Malthus showed that this constant effect, due to vice, ignorance, disease, and misery, could only be finally grappled with effectually, by never allowing P, or density of population, to press too strongly on the means necessary to

preserve a population in a healthy and happy state, and this could not be practically effected without some such controlling influences as M. The nobleness of Malthus' aims, and the problems which he endeavoured to grapple with, are altogether misconceived by Mr. George and other opponents. Some (might I not add the popular view) even maliciously or carelessly identify the Malthusian problem with the revolting physical check of Condorcet and others; and also of the view which rests in considering vice and misery as necessary evils. This proves that such people have not honestly studied the views of this much-wronged philanthropist. This is indisputably proved by the following quotations from his writings, pp. 478, 479: "Vice and misery, and these alone, are the evils which it has been my great object to contend against. I have expressly proposed moral restraint (M) as their rational and proper remedy; and whether the remedy be good or bad, adequate or inadequate, the proposal itself and the stress which I have laid upon it, is an incontrovertible proof that I never can have considered vice and misery as themselves remedies." In connection with these unfair charges urged by a Mr. Graham, he, in a dignified rejoinder, maintains, "It is therefore quite inconceivable that any writer with the slightest pretension to respectability should venture to bring forward such imputations, and it must be allowed to show either such a degree of ignorance, or such a total want of candour, as utterly to disqualify him for the discussion of such subjects." And with respect to charges identifying his view with the restraints prescribed by Condorcet, he distinctly affirms, "I have never adverted to the check suggested by Condorcet without the most marked disapprobation. Indeed, I should always particularly reprobate any artificial and unnatural modes of checking population on account of their immorality and their tendency to remove a necessary stimulus to industry . . . the restraints which I have recommended are quite of a different character. They are not only pointed out by reason and sanctioned by religion, but tend in the most marked manner to stimulate industry. It is not easy to conceive a more powerful encouragement to exertion and good conduct than the looking forward to marriage as a state peculiarly desirable, but only to be enjoyed in comfort by the acquisition of habits of industry, economy, and prudence, and it is in this light I have always wished to place it." How clearly and nobly Malthus explains his check of moral restraint is a matter which ought to leave no doubt of the purity and nobleness of his views, whatever doubts may remain as regards the efficacy of the moral check in itself. The possibility of the check, too, pre-supposes the general possession of moral strength sufficiently inadequate, not merely during large intervals of time, but at all times; for

the effects of opposing passion might wreck its efficacy at any moment if we do not contemplate the superior strength and continuous exertion of the higher moral virtue.

I think I have in these observations fairly vindicated the nobility of Malthus' ideal, however we may demur to it as regards adequacy. It has also been clearly shown that the problem is a serious one; and individuals, and the poorer classes often reach the limit of the means of subsistence long before society as a whole feels its pressure. How are we to eliminate the elements of disease, vice, and misery which at present form the only check against over-population in crowded centres without substituting some adequate check of a superior kind? This is the problem of Malthus.

Let us see what a small percentage of increase in population would effect in a short period of time.

If murder, war or epidemic, disease or misery, be not further increased, it would follow inevitably—

That the offspring of eight persons alone, at the present rate of natural increase in Australasia, would so multiply that:—

(8 persons) In 961 years they would number 1,480 millions,
equal to the whole present population of the globe.

1314·3 years they would place one person on
every 100 square yards of the land surface of the globe.

1527 years they would place one person on
each square yard of the estimated cultivable portion of the earth's surface.

1543·9 years they would place one person on
each square yard of the total surface of the land of the globe.

But it is more terrible still if we contemplate starting with the existing population of the earth, *viz.*, 1,480 million persons, and if we also reckon that the same number of acres must be cultivated to supply each person, as at present, *viz.*, 2·83 acres per head nearly.

With these conditions—

(1,480 millions) In 85·03 years there would be one person to
every 2·83 acres of all the cultivable land surface of the globe.

122·48 years there would be one person to
every 2·83 acres of land surface,
whether cultivable or not.

157·6 years, or in the year 2047, there would be one person to *every acre* of land open to the foot of man, supposing that one acre was by some miraculous means sufficient for his support, and that all arctic and torrid parts of the earth could be made habitable.

586·15 years, or in the year 2476, there would be one person to every square yard of total land surface on the globe, supposing that by miraculous intervention life could exist under such conditions.

United Kingdom.

The natural increase of the population of the United Kingdom in recent years, owing to comparatively low death rate, has been increasing at the rate of 1·4 per cent. per year. The density of population of London is at present about one person to every 90 square yards.

In 339·9 years—if misery and disease does not increase the death rate—her population would cover the whole land as a vast city with a density equal to the present City of London.

157·7 years this density would be reached under the same conditions, if the death rate was as low as in Australia at the present time.

United States.

The present limits of the United States are stated to be about 2,291,355,000 acres, and her present population may be stated at about 57,000,000. Allow that the present average of 2·81 acres per head in cultivation is necessary to supply the wants of each person, and that $\frac{3}{4}$ ths of her whole area are available for cultivation. Then if her death rate be not raised by misery and disease, the population would increase at the rate of 2 per cent., as at present in Australia (*i.e.*, if no *providential* influence checks the birth rate), and

In 119·8 years, or in the year 2009, the limits of available land would be reached, *viz.*,

134·4, or in the year 2023, under the same conditions, this limit would be reached, even if it were possible to cultivate every square yard of the whole country.

Nothing shows better the incoherence of Mr. Henry George's so-called disproof of the Malthusian theory as in that portion where he deals with man as limited by space. The figures referred to show, without doubt, that if misery as a check to population be banished, the increase to population would at least be not less than 2 per cent. per year, and this would in 85 years, or within the limits of the life of persons now living, exhaust all available lands, even if all available lands (providing 2·81 acres for each person) could be made to yield the same average as the better lands now cultivated; and this near contingency Mr. Henry George scoffs at as something so distantly remote "as to have for us no more practical interest than the recurrence of the glacial period or the final extinguishment of the sun." Rhapsodical nonsense of this sort ill-becomes one who professes to discuss so momentous a question, and one who professes to be so enthusiastic in attempting to grapple with the real difficulties which hitherto have barred the material, intellectual, moral, and social progress of mankind.

On the other hand, it is logically impossible by any scheme of civilisation yet propounded by man, except that suggested by Malthus (moral check), to dispose of the existing misery of mankind.

It would be inhuman to perceive this terrible dilemma, and not in heart and spirit rebel against it. Who does not flinch as he gazes upon this terrible enigma? It is no wonder, therefore, that many emotional natures are either struck mentally blind at the fierce light, or try to escape the bitter conclusions which calm reason points out as inevitable by concealing, ostrich like, the eyes of reason in the sands of passionate rhetoric. The worst calamities that exist seem to be far more easily borne if we could but suppose them to be solely the results of man's own doings. In this conclusion there is a hope of escape in the thought that *man may undo or amend what he has done amiss*. Hence, no doubt, the natural repulsion of Mr. Henry George to the terrible thought that the inexorable laws of Nature dominate, corporeally at least, over the single life, and over the types of Adam's race, much in the same way as Nature has hitherto dealt with the thousand types of earlier races that have vanished. He but utters the human cry of passion when he urges that this is not the doing of the Almighty Ruler. "We degrade the Everlasting; we slander the Just One. A merciful man would have better ordered the world." Alas! alas! Who does not, or has not at times, made similar despairing exclamations and passionate protests.

With respect to the statements of Mr. Henry George, which led to this outburst of declamation, they are but a repetition of

the attitude of the gifted and eloquent M. de Lamennais that drew from Bastiat the following just rebuke, which applies equally to writers of Mr. Henry George's class:—¹ "In all this we see only fallacious declamation which serves as the basis of dangerous conclusions; and we cannot help regretting that an eloquence so admirable should be devoted to giving popular currency to the most fatal errors."

The possible annihilation of our race, like those races that have gone, has weighed upon the thoughtful and pitiful in all ages, but nowhere does this feeling find nobler expression than in the words of the most thoughtful and tender of living poets:—

"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?
 'So careful of the type!' but no,
 From scarp'd cliff and quarried stone
 She cries, 'A thousand types are gone;
 I care for nothing; all shall go;
 Thou makest thine appeal to me;
 I bring to life, I bring to death,
 The spirit does but mean the breath;
 I know no more.' And he—shall he,
 Man, her last work, who seem'd so fair
 Such splendid purpose in his eyes,
 Who roll'd the psalm to wintry skies,
 And built his fanes of fruitless prayer,—
 Who trusted God was love indeed,
 And love Creation's final law.
 Though Nature, red in tooth and claw,
 With ravine shrieked against his creed—
 Who loved, who suffered countless ills,
 Who battled for the true, the just,
 Be blown about the desert dust,
 Or seal'd within the iron hills?
 No more! A discord. A monster then a dream,
 Dragons of the prime
 That lure each other in their slime
 Were mellow music, match'd with him.
 O life, as futile then as frail—
 O for thy voice to soothe and bless
 What hope of answer or redress,
 Behind the veil, behind the veil!"

Thus the poet's refuge is in the after life. But have we no hope of amelioration in the present. Yes, we do hope. But all our hopes may prove fruitless if we do not bravely face the real difficulty.

The substitution of the providential preventive check (the moral check of Malthus) to over-population, for the hitherto prevailing misery or repressive check is the one escape for

1. Bastiat. "Harmonies of Political Economy." (Part ii., p. 90).

society, even if it be only to maintain the social advantages that we now enjoy. Of countries which have as yet shown any tendency to successfully grapple with this problem, the only examples known to us are those of Switzerland and France, notably the latter.

The average birth and death rates of 14 States of Europe, and seven colonies of Australasia, afford some idea of their relative influence upon population, thus :—

	Per 1,000.		Percentage Increase.
	Birth Rate.	Death Rate.	
Average of 13 European States	33·8	23·5	1·03
Seven Colonies of Australasia	34·4	13·6	2·08
France	24·8	22·2	0·26

The low birth rate of France (not her death rate, which is even below the average of Europe) is the special reason why her population remains almost stationary.

That her birth rate should be 9 per 1,000 below the average of Europe is a remarkable thing. Is it due to a lowered racial vitality, or to moral and providential causes? If it be due to the latter influence, a study of the conditions of social life in France is of peculiar importance. The Hon. G. Shaw Lefevre, M.P., in his work on "English and Irish Land Question," has carefully studied the influence of large and small ownerships of the land, and unhesitatingly concludes that to the large proportion of small owners in France, as compared with England, is to be attributed the great superiority of the great mass of its industrial population. He states:—"The prophecies of Arthur Young and McCulloch that her system of small cultivation would lead to her becoming the pauper warren of Europe, and her sons the hewers of wood and drawers of water for the rest of Europe, have not been fulfilled. On the contrary, 'Production has been greatly stimulated by the sense and security of ownership; *but the population has not increased relatively in the same proportion; the average condition of the people, therefore, is vastly improved.* Pauperism is almost unknown in rural districts; the habits of industry and thrift are universal.'" The same author wisely observes:—"If the institutions of France have resulted in a self-acting process of adapting the growth of her population to the means of subsistence, it would seem to be not the least merit of a system which is based upon the wide distribution of property, bringing home to the *lowest, as well as the highest, the motives of restraint.*" If only a portion of this be true, the world will owe to France the grandest lesson in social economy. Here we see a possible escape from the terrible Malthusian dilemma. France has attained her present state of social welfare in rural districts by legal restriction against family entails, which lead to the agglomeration of big estates in few

hands, and by legal facilities for land transfer; and Mr. Lefevre urges that England should follow her example. This matter should receive the greatest attention at the hands of legislators in these colonies, for mighty issues are at stake, socially and politically.

CAN A HIGHER CULTURE BE MAINTAINED IN ANY ONE COUNTRY WITHOUT REGULATING ITS INTERCOURSE WITH OTHER RACES OF MEN IN A LOWER PLANE OF CIVILISATION?

There is still another difficulty to face, even if one enlightened country by providence had succeeded in adapting the growth of that population to the means of subsistence.

And this difficulty now presses hard upon the labourers of a higher civilisation open by Free Trade to the competition of the labour market of a lower or more degraded form of civilisation. The partial exclusion of cheap Chinese labour from America and these colonies may, or may not, have been in accord with the principle of Free Trade; but it opens up a grave subject. For if a higher culture could be enabled by provident moral or self-control to successfully grapple and overcome the present enigmas of social science, how is it possible that such a culture could be effectually preserved if it were open to be disturbed by the cheap labour or the starvation price products of other nations, who, by improvidence and lack of moral control, were still sunk in the abyss of that wretchedness which is due to over-population? In this aspect I am humbly of opinion the doctrines of Free Trade and Protection require further consideration; and it is with the hope that the reasonable discussion of such matters may shed fresh light upon this and related problems that I have had the courage to address you upon these old, well-worn, but hitherto unsoluble difficulties belonging to social and economic science.

One thought impresses me not a little. It is this: All truths that are painful are blindly and passionately resisted by the majority, who also are ever prone to reward skill when it is employed in opposing or obscuring what is hateful. It cannot be hoped, therefore, that the warnings given with respect to the danger that awaits us in the near future will be much heeded at present. The world's greatest intellects and genius are, for the most part, supported in defending popular views; for it is not found to be a difficult matter for men of greatest literary talent and skill to show, where complications abound, that the true is false, and the false is true. Popular favour is a terrible taskmaster, for she refuses bread to those who fail to work her pleasure. I do not, therefore, undervalue the temptation which ensnares the majority of able minds to continue the defence of pleasant delusions, when these alone find a ready market of *exchange value*. But the evil time draws too near for delusive teaching. It is now necessary that those who see the rocks ahead should speak out faithfully.