

On Rent

by Alfred Marshall

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It has been said that man's progress in the knowledge of the world in which he lives may be measured by the extent to which he has been able to see the Many in the one and the one in the Many. Judged by this standard, the modern developments of economic science in relation to rent indicate progress. For we are learning that what is commonly called the rent of land is really a very complex thing made up of many elements, some of which differ more widely from one another than it, as a whole, differs from profits, or than some elements of it differ from wages. And as the obverse of this movement, those elements in rent, in profits, and in wages, which are similar to one another, are being drawn together, and the particular laws which govern them are being subsumed under more general laws common to all. In many countries - simultaneously people of widely different tempers, and of divergent aims in social and political matters, have been developing the same kind of analysis. They sometimes make much of small differences; but they have attained independently broad results which so far agree as to justify the hope that further progress will not destroy, but develop them; just as recent progress has developed Ricardo's work; and has pruned away only the dogmas deduced from it by followers of a different stamp of mind from his.

It is especially difficult for persons, who learnt Ricardian doctrines early in this century, to adjust themselves to the new mode of thought, and to realise how fully the living spirit of Ricardo's work has been freed from the encumbrance of dead dogmas. They think they find inconsistent concessions and naive admissions in work that claims to be a direct development of Ricardo's ideas, but does not harmonise and was not intended to harmonise with Ricardian dogma. The new work seems to them a chaos, and they protest.

The most important of such protests is contained in the Duke of Argyll's *Unseen Foundations of Society*. He writes as a critic of modern as well as classical doctrine; but his own studies seem to have brought him nearer to the newer path than he is aware. He has a remarkable practical knowledge of the modern history of agriculture; he is in the first rank both as a student and as a statesman; he is a vigorous disputant, but he is too keen a thinker to be an unfair or ungenerous one. He undertakes, as his title page tells us, 'an examination of the fallacies and failures of economic science due to neglected elements;' and this calls for some answer from adherents of the new thought, however strongly they may hold that life is too short to allow much time for criticism and controversy.

I propose therefore to attempt to gather together shortly the chief results of modern analysis as applied to that problem of Rent and its relation to Value which lies at the centre of his criticisms. I shall not attempt to break new ground. For brevity, I shall speak only in my own name, without any reference to

authority; and shall make no apology for making frequent references to my Principles of Economics where I can save space by doing so.

The Duke of Argyll objects to Ricardo's doctrine of rent and its modern developments on the grounds that they treat the rent of land as an isolated thing, instead of as one particular form of hire. But on this, and several minor points his opinions are not inconsistent with modern analysis as I understand it. There are however, other points on which we appear to differ in substance; though it is possible that we misunderstand one another a little, and that even here our differences are really less than they appear. Among these points are the character of what, in spite of the Duke's protests, I must call by the short name of 'marginal production'; the relations in which this stands to the price of the whole produce; and lastly, that vague and perhaps misleading sentence - Rent does not enter into cost of production.

I will begin by setting out my own position as to rent: and afterwards consider how it is related to the Duke's position, quoting what I think are the key-passages, in his own words.

The rent of land appears to differ in degree rather than in kind from the net income yielded by other agents of production, the supply of which may be taken as fixed for the time under discussion, whether that be long or short. This keynote is struck in my first preface:- 'The greater part, though not the whole, of the distinction between Rent and Interest on capital, turns on the length of the period which we have in view. That which is rightly regarded as interest on 'free' or 'floating' capital, or on net-investments of capital, is more properly treated as a sort of rent - a quasi-rent it is called below - on old investments of capital. And there is no sharp line of division between floating capital and that which has been sunk for a special branch of production, nor between new and old investments of capital; each group shades into the other gradually, and thus even the rent of land is seen, not as a thing by itself, but as the leading species of a large genus, though indeed it has peculiarities of its own which are vital from the point of view of theory as well as practice.'

Producer's Surplus is a convenient name for the genus of which the rent of land is the leading species. Producer's Surplus is the excess of the gross receipts which a producer gets for any of his commodities over their prime cost; that is, over that extra cost which he incurs in order to produce those particular things, and which he could have escaped if he had not produced them.

Now the question how great a part of his expenses he must enter in these prime costs, and how much he must deduct from his selling price before he calculates his surplus, depends entirely on how far he looks ahead; or in other words, on whether he is making his calculations for a long period or only for a short.

If he is looking only a little way ahead, and is not afraid of spoiling his market; if he has got all his apparatus ready and standing idle; then a new order coming in will give him a surplus over its direct cost to him, consisting of the whole price which he receives after deducting the special outlay for raw material,

for extra wages, and for wear and tear of plant involved in filling up the order, But suppose him to be looking far ahead, & proposing to extend his factory so as to do an increased business; he does not then reckon any price as affording him a real surplus unless, after allowing for all risks, it will yield him, in addition to prime costs, sufficient to give normal profits on all his outlay for material, plant, and for building up his business connection, together with charges for depreciation though the lapse of time, and for once and other general expenses, which are not reckoned in the prime, or special and direct, costs of filling up any particular order.

The conditions which govern the amount of this surplus and its relations to value, depend not so much on the nature of the industry as on the period of time for which the calculation is made. But a short period for one class of industry may be a long one for another; just as the age of youth for a dog is shorter than for an elephant.

Since human life changes rapidly this difference may give rise to important practical consequences, and in fact it often does so. It is reasonable to suppose that the manufacturing plant existing at any time was made or bought by its owners, or immediate predecessors, in anticipation of economic conditions very much like the present. To interfere with their action, or with the income they derive from the plant, might be for some special reason necessary, just, and wise; but it would certainly be an interference with definite expectations, and would perceptibly diminish the inducements acting on other people to provide similar plant and develop manufacturing industries in general.

Land in a new country, but only there, resembles manufacturing plant from this point of view - The settler engages in a risky occupation open to all; and one of the chief motives to his exertion is the hope of becoming the possessor of title deeds to land that will rapidly rise in value. A tax on any part of his gains, present or in the near future, would instantly discourage the enterprise of himself and others, and make itself felt strongly in the supply and therefore in the price of agricultural produce. Accordingly, the whole of his income is to be regarded as earnings and profits, or at most as a quasi-rent and not as rent proper: although even in a new country a far-seeing statesman will feel a greater responsibility to future generations when legislating as to land than as to other forms of wealth; and even there land must be regarded as a thing by itself from the economic as well as from the ethical point of view.(1*)

I admit that the soil of old countries is often as much an artificial product as those pieces of earth which have been arranged into brick walls, and that a great deal of it has yielded but a poor return to the vast capital sunk in it even within recent times. And doubtless the returns to new capital applied to the land are for the greater part like the gains of a settler in a new country: a special tax on them would check the supply of produce and be transferred partly to the consumer, in spite of the importation of foreign produce. They are but quasi-rents.

On the other hand the soil receives an income of heat and light, of rain and air, which is independent of man's efforts;

most of its advantages of situation - which are especially important in the case of urban land - are independent of the action of its immediate owners; and a special tax on these would not much affect production directly. I regard the income derived from them as true rents for all practical purposes.

This brings me to the Duke's complaint (2*) that I underrate the importance of security. That is a large and grave subject on which I have never yet said much. I do not think there is a wide difference between us. But it is true that I care for security for property chiefly as a means to security for liberty, and I might be willing to give up a very little of it, if necessary, in order to increase a great deal the security of well-deserving persons against extreme want. At present we have not got security in the full sense of the term; and we cannot preserve what we have not got. I agree, however, that a violent confiscation even of rent proper would give so great a shock to general security as to be a blunder from every point of view. it would discourage both accumulation and production even more than a moderate special tax on any kind of profits or quasi-rents.

But to return from this semi-ethical question to our analysis. Speaking broadly the price of anything and the amount of it that is produced are determined together by the general relations of demand and supply; the price just covers the expenses of production of that part of this amount which is raised at the greatest disadvantage, and every other part yields a surplus above its direct cost. This surplus is a result and not a cause of the selling price. For the price is determined by the relations of supply and demand; and while, of course, the surplus does not affect the demand, so neither does it affect the supply, since it is yielded only by a part of the produce which would be produced even for a lower price.

In other words, there is a part of the produce which is on the margin of doubt as to whether it will be supplied or not, and the decision to supply it or not will affect price; but this part of the produce yields no surplus. The surplus does not enter into its cost of production; that is to say the surplus does not enter into that cost of production that gives the level at which the whole supply is held fixed. And this is what we mean by the phrase: 'producer's surplus does not enter into cost of production.' it is one of those short phrases which do not explain themselves, and are easily misunderstood. But it has an important meaning; and it is applicable to many different kinds of income.

If this surplus is derived from natural advantages which became private property in forgotten ages, there are no practical problems for which it need be regarded as entering into cost of production, or therefore into price. There are not many such problems, if it is derived from any natural advantages, which were brought into use long ago, or again from the improvement of the environment through the growth of population or other causes in which the owners played no direct part.(3*)

If the surplus is derived from buildings or other improvements which can be quickly made, but last long, it does not enter into price for short periods, but does enter for moderately long periods; and it is best described as a quasi-rent when there is no special mention of the period under discussion.

But on the other hand, the income derived from such machinery and other plant as is both quickly made and quickly destroyed enters into cost for all but very short periods. It is therefore best described generally as profits; though when very short periods come under discussion, it has to be regarded as a quasi-rent.

This account of the relations between rent and value is independent of the incidents of land tenure. For modern analysis regards these incidents as holding but a secondary role in the fundamental problems of economics. The true nature of the rent of land, the relations in which it stands to the incomes earned by other agents of production, have been disguised by its not being generally worked by its owner as manufacturing plant is. up to a certain point indeed the progress of the theory of rent in Great Britain was assisted by the fact not wholly accidental that, within recent times at least, the broad line of division between the landlord and the farmer has assigned to the former most of those improvements which bear fruit slowly, and to the latter most of those which bear fruit quickly. The whole of the farmer's net income is therefore as a rule to be regarded as profits except for very short periods; while the greater part of the landlord's income is to be regarded partly as a rent proper for all periods, and partly as a quasi-rent for all except very -long periods; and, consequently, Adam Smith and his followers, while discussing the incidents of English land tenure, were impelled towards an analysis of value, the ultimate results of which were quite hidden from them, and have not been fully developed even yet. But we have now got far enough to strip away the accidental from the essential, to see that the central problem of rent is superior to all incidents of land tenure; that these incidents, important as they are, and fascinating as is the interest which attaches to their history, belong to a later chapter of economic analysis.

The producer's surplus, earned by the land and improvements in it, accrues to the landowner if he cultivates it himself; if he does not, then it accrues to him and his tenants, regarded as a firm engaged in the business of cultivation. This holds true whatever be the division which custom or law or contract may have arranged between them with regard to their several shares of the cost of cultivation 'on the one hand, and the fruits of the cultivation on the other; and from the modern point of view the general analysis of rent proceeds on the assumption: that the cultivation of the land is undertaken by its owner.' This includes two facts which the Duke of Argyll seems to think that economists have ignored. One is that when the owner takes a farm into his own lands, it is not considered: to pay,' unless it yields as a surplus over the immediate expenses of working it, its rent, that is: the estimated price of the hire of it.' (4*) And the other is that the landlord who invests his capital in improvements has as much right to be called an 'enterprising undertaker' as the tenant farmer has.(5*)

The surplus which any piece of land actually yields is governed by the markets, and by the course of cultivation actually followed by landlord and tenant together. That part of this surplus which the tenant is called on to pay as rent is however not that net income which he actually does earn (in addition to profits on his own capital, and earnings of his own

industry). It is generally that which a farmer of normal ability, enterprise, and command over capital, may be expected to earn; but the result of accidents chiefly of a local and personal character, it is sometimes more and sometimes less than this.(6*)

And here something may be said on the Law of Diminishing Return and its application to rent. The returns are always supposed to be such as nature will yield to successive doses of capital and labour, applied not by a cultivator of infinite intelligence, skill, enterprise, and command over capital, but by the ordinary cultivator of the place and time; just as the cost of production of cloth or anything else is estimated on the supposition that it is made not by a person of extraordinary genius, but by the ordinary manufacturer of the place and time. In the discussion of the Law of Diminishing Return we cannot go back to prehistoric times and take account of all the capital applied to the land. We go back as far as may be convenient, and reckon the applications of capital and the return to them for long periods or for short, as we like. We can adapt our argument (or our diagrams) to short periods for which the capital invested by the landlord is reckoned with the natural richness of the soil as yielding rent; or to long periods for which a part or the whole of this capital is classed with the tenant's capital as yielding profits. The treatment by Ricardo's method of arithmetical examples, or by the more powerful modern method of diagrams, is elastic and adaptable to almost every kind of problem which is brought to light by commissioners investigating the: depression of agriculture,' or the need for further 'Compensations for Improvements,' amid all the varieties of local customs and economic surroundings.

Some charges which the Duke brings against the forms of modern economic analysis, may here be answered. He objects to such terms as: final utility,' 'marginal production,' etc., as: appropriated to some scrappy conception.' Frankly I accept that description, and do not regard it as one of reproach. These terms are used to enable ordinary readers to get the chief advantages which mathematicians derive from their training in the analysis of the laws of continuous growth.(7*) And after a little trial and error, at the hands of two generations of workers, they have reached a form which experience shows enables them to render great service to the student. Science, like machinery, must begin with scrappy operations. Analysis is nothing else but breaking up a complex conception into scraps, so that they may be easily handled and thoroughly investigated. Afterwards the scraps have to be put together again, and considered in relation to many other complex notions, and the intricately interwoven facts of life.(8*)

Science must study facts, ascertain which of them are representative and normal, and then analyse, and reason about normal conditions, at first within a narrow range; and afterwards, as knowledge increases, giving a wider range to these normal conditions and thus becoming at once more complex and nearer the actual facts of life. But it can never finish off a problem for practical purposes; the finishing touches must always be given by common sense, as the products of even the finest machinery need to be finished off by handicraft. Scientific analyses, like the operations of machinery, are in their first attempts always clumsy and often a little ridiculous. They are, however, changing the face of the world: because their progress

is cumulative throughout the whole life of the race, while each man's common sense, like his skill in handicraft, dies with him.

We may now pass to the graver charges which the Duke brings against Ricardo's theory of value and its modern developments. Of course he is able to make some good verbal points against Ricardo; for no one denies that Ricardo's phrases are slovenly, and that they must be interpreted before they are defended.(9*) In particular, we must supply that allowance for the element of time which a careful reading shows to have scarcely ever been absent from his mind, though he seldom gave signs of it in his words.

The central sentence of the Duke's attack runs:(10*) -- With every possible explanation and excuse, the broad and unqualified assertion of Ricardo remains one of the monstrosities of pretended science - that the price of all commodities is regulated by the cost of the worst and most expensive agency employed in its production. The truth of the exact opposite proposition is a matter of continual and familiar experience and observation. We all know, and many of us must have suffered from the fact, that the opening of some cheaper and easier method of production so lowers the exchangeable value, or price, of some given commodity in which we deal, that those who may have before derived a large profit from its production can only thenceforward continue to produce it at a profit comparatively low. In all such cases, add they are numberless in commercial life, the exchangeable value of every article or commodity is always seen to be regulated by the best and cheapest, and not by the worst, or dearest mechanism of production.' He gives an instance in which the price of a commodity (nickel) was lowered by the discovery of richer sources of supply. The poorer mines, having to accept the lower price which was forced on them by the richer mines, yielded lower returns to their owners.

He makes a good verbal point as to the phrase 'is regulated by'; for no doubt the cost of production at the margin cannot be the sole and ultimate regulator of price; because the margin itself is determined by the general relations of demand and supply. But he seems to hold that 'regulated' can mean nothing more here than 'ascertained'; and that the marginal cost merely supplies one particular way of calculating the price. I hold that it does more than that.

Ricardo's general position appears to be this. Market fluctuations of value are the results of the pressure of temporary (and in some cases local) demand against temporary (and in some cases local) supply. The supply consists mainly of the stocks actually in the market; with more or less reference to 'future' supplies, and not without some influence of trade combinations.(11*) But the current supply is in itself the result of the action of producers in the past; this action has been mainly determined by their comparing the prices which they expect to get for their goods with the expenses to which they will be put in producing them. The range of expenses of which they take account, will depend on whether they are merely considering the extra expenses of certain extra production with their existing plant, or are considering whether to lay down new plant for the purpose. But in any case it will be the general rule that that portion of the supply, which can be most easily produced, will be produced unless the price is expected to be very low. Every

increase in the price expected will, as a rule, induce some people who would not otherwise have produced anything, to produce a little; while those who have produced something for the lower price, probably produce more for the higher price.(12*)

The producers who are in doubt whether to produce anything at all, may be said to lie altogether on the margin of production (or, if they are agriculturists, on the margin of cultivation). Their decision exerts some influence on supply and therefore on price. But as a rule they are very few in number; there may be none in this position; and anyhow their action is far less important than that of the great body of producers who will produce something whatever be the price (within certain limits), but watch the price to see how far it is worth their while to extend their production. That part of their production with regard to which such persons are on the margin of doubt as to whether it is worth while for them to produce it at the price, is to be included together with that of the persons who are in doubt whether to produce at all; the two together constitute the marginal production at that price.

Now I hold that the point of Ricardo's doctrine is to be sought in the fact that the cost of production of the marginal produce can be ascertained (theoretically at least)(13*) from the circumstances of the margin, without reasoning in a circle, and that the cost of production of other parts of the produce cannot. For other parts yield a rent or a quasi-rent, or both; and these are determined not by the circumstances of production of the parts in question, but by the price of the whole produce. The costs of production of these parts cannot be reckoned up without counting in the corresponding rents and quasi-rents; and therefore the price of the commodity cannot be deduced from them without reasoning in a circle. This is what I take Ricardo's doctrine to mean; and it seems to me fertile in important results.

Another aspect of the same truth is that the income earned by machinery and other plant already in existence is not any given percentage on their cost of production, but is a quasi-rent determined by the value of what they produce. If they are of obsolete fashion, this quasi-rent is small. But whether it is large or small, this value is found by capitalising their quasi-rent, and if we were then to turn round, and say that their quasi-rent would return a certain rate of interest on their value we should be reasoning in a circle.(14*) It was then completely in accordance with Ricardo's principles, that when richer supplies of nickel were discovered the price fell to the level of the marginal cost of production under the new relations of demand and supply, and that the net return yielded by the Duke's old mines fell in consequence.(15*)

Attention has just been called to the fact that the marginal production is not to be sought only in places and in businesses which have no differential advantages for production. For every producer, whether well-placed or ill-placed, whether cultivating rich land or rentless land, comes to some point at which he is on the margin of doubt whether to go further or not. That shows he thinks any further production would not increase the net surplus, which he gets from his differential advantage; and such production would therefore be marginal. I hold therefore that Ricardo's theory of rent and his deductions from it in no way

depend on the existence of rentless land; but the Duke referring (16*) to a previous statement of mine to this effect, says: - 'Thus we see that the Ricardian argument is defended on the ground that it is entirely independent of facts.' No: it is independent only of the accident whether there happens to be any rentless land in the neighbourhood. A statement with regard to the manner in which fish breathe, which claims to apply to all (true) fish, including trout, cannot be described as 'independent of facts,' on the ground that it is independent of the question whether there happen to be any trout in the stream which is under discussion.(17*)

The chief remaining attack by the Duke traverses part of the same ground as the last. He says that rent is only one kind of hire, and therefore must enter into cost of production as other kinds of hire do. I admit that it is a kind of hire, and I say that relatively to short periods many kinds of hire do not enter into cost of production. Now, strangely enough, the Duke takes account of the element of time, just as I should, when he is establishing his premiss: but in applying his premiss he ignores it, and then we no longer agree.

He has to meet the argument that the rent of land is marked off from all other kinds of income by the fact that land: is a thing of which the supply is limited, and cannot be increased by man's action.' And he contends that the supply of other things also available at any place is also limited for the time. He says:(18*) 'It is true that if I want to hire a farm, and if the owner won't let it to me at a price which I think to be its value, I cannot say to him that I can make another farm at a lower rent. But it is equally true that if I want to hire a boat or a sewing machine, or a steam engine, or a horse or a cow, and if the owner charges for the hire of such articles more than I think they are worth, I cannot practically say to him that I can build a boat for myself, or make a sewing machine, or a steam-engine, or breed for myself a horse or a cow. All of these are things which can be multiplied by man's action. But at any given time and place they are as entirely out of the reach of multiplication by individual men as the acres of a farm. Practically, therefore, everything we can either buy or hire, is strictly limited in quantity by conditions, which are for the time at least, and perhaps for ever, insuperable to every individual buyer or hirer; and in this respect the price we pay for the purchase or for the hire of land cannot be differentiated in principle, or as regards its origin and cause, from the price we pay for the hire of any other article whatever.'

So far well. He introduces the limiting words 'for the time' always at the critical place, and is so far quite in agreement with Ricardo. But he drops these limiting words when he proceeds to his attack on Ricardo. He says:(19*) 'The hire of anything which is hired at all is, of course, measured by its excess of value over another thing of the same kind. Thus, the pony or donkey which a costermonger may hire to draw his cart may be either a young and strong pony or donkey capable of much work, which well repays its keep and a considerable hire.' As I should say, its work yields a considerable surplus or quasi-rent above the prime cost of that work. He goes on: 'Or it may be an old and feeble pony or donkey which just pays for its keep and no more, or so much more as to be a mere nominal amount for hire. in this case the value of the efficient pony or donkey, and the hire the

costermonger has to pay for it, may be said to be the excess of the value of that animal over the value of the animal which is so weak as to fetch no hiring value at all. But what is the use of saying this?' And again:(20*) 'The mere isolation of one particular case of lending and of hiring from all the other innumerable cases of the same transactions, must of necessity be, in itself, a copious source of fallacy. It essentially consists in, and depends upon the greatest of all failures in science, - the failure to recognise identity of principle and of law, under superficial diversities of form. The fundamental importance attached to the mere half-truth that the rent of land is, in each particular case, predominately the result or consequence of the price of its produce, and conversely that rent does not directly enter as a cause into the price of produce, is an excellent example of this kind of fallacy. It is true of the price of the hire of the land, only, as we have seen, in the same sense in which it is equally true of the hire of labouring men, or of the hire of horses, or of the hire of implements; so that the isolation of the one particular case of the hire of the land from other cases of hire, which are equally incidents in the same production is essentially a failure to distinguish between the essential and the accidental, which is the worst of scientific errors.'

The reader has now the two positions before him. I submit that modern analysis does not 'isolate' the rent of land, but says that what is true of the hire or net income earned by ponies for a short time, is true of the hire of or net income earned by houses and permanent improvements in land for a long time; and that it is true of rent proper in an old country, and especially in the towns of an old country for a much longer time. The limiting words 'for the time' have disappeared from the later stages of the Duke's discussion of the hire of ponies, and I will not consent to part with them. That is the difference between us.

In my view, the hire of ponies, like that of land, is governed for a time by the value of the services they will render, and the value of those services is determined by the relations in which the supply of ponies, etc., stands to the demand for such services. If nothing unexpected has happened, that supply will have been so adjusted to the demand that an average (or normal) pony during a life of average length and activity will yield a hire giving normal profits on its cost of production. As a rule it will do this, and yield no 'surplus' above normal profits to the producer. Of course the demand for ponies may have been wrongly estimated, and the hire (or quasi-rent) yielded by an average pony may exceed or fall short of normal profits on its cost of production. But the divergence can be only for short periods in the case of ponies, because they are so quickly raised, and they so quickly die off, that any error in the adjustment of supply to demand can be quickly set right. The difference between the rent of land and the quasi-rents of most other things lies in the fact that their hire can never for any long time diverge much from normal profits on their cost of production; while the supply of fertile land cannot be adapted quickly to the demand for it, and therefore the income derived from it may for a long time together, or in some cases even permanently, diverge much from normal profits on the cost of preparing it for cultivation. That is my case on the main issue.

But there is one side issue to which I will refer. The

relation in which the rent or quasi-rent of any agent of production stands to the price of the produce which it takes part in raising has been discussed so far without reference to the possibility of diverting that agent from one branch of production to another. We have spoken of the rent of land, for instance, with reference to agricultural produce in general, and without reference to the competition between crops for the occupation of the land. But of course it is true that the marginal cost of production of oats near London is higher than it would be if the land had nothing to do but to grow oats. The high rent which the land can pay for the purposes of market gardeners and others alters the position of the marginal production of oats, and thus alters the price of oats. The Duke quotes a passage from the first edition of my Principles in which I had referred rather clumsily to this fact, and infers (21*) that I hold 'it would be absurd to say that the cost of producing any one of these crops is determined or caused by the cost of its production on the worst bit of land on which it is actually grown; but it would be perfectly correct to say that the aggregate value of the whole produce of the farm is caused by the cost of production on the poorest bit of it.'

I did not intend to say that. But without disputing whether my words really implied it, I will quote a more careful version from my second edition:(22*) - 'When applied to the cost of production of one particular crop, though still literally true as it stands, experience shows that it [the doctrine that rent does not enter into cost of production] is liable to be interpreted in senses in which it is not true. For if land which had been used for growing hops, is found capable of yielding a higher rent as a market garden, the area under hops will undoubtedly be diminished; and this will raise their marginal cost of production and therefore their price. The rent which land will yield for one kind of produce, though it does not directly enter into those expenses, yet does act as the channel through which a demand for the land for that kind of produce increases the difficulties of supply of other kinds; and thus does indirectly affect their expenses of production - 'I hold that this can be extended to the ground rents of factories which are applicable to several trades, to the quasi-rents of their machinery;(23*) and to the rents of rare natural abilities, and the quasi-rents of trained skill, when they are not limited to a single occupation.(24*) There are many other points in the Duke's instructive and suggestive criticisms on which I feel tempted to say a few words. But my article is already too long; and I can only hope that it may lead him to find a little more agreement than before between his own positions and those of the modern followers of Ricardo; and may incline him to the opinion that however untenable may be the so-called 'Ricardian dogmas,' the analysis of which Ricardo was the chief builder, has firm if often unseen foundations.

NOTES:

1. The argument of this paragraph is developed in some detail in my Principles, Book V, chap. ix, of the second, and Book vi, chap. iii, of the first edition.
2. Unseen Foundations.
3. In my Principles I have traced in some detail the way in which

that part of the rental value of land which is derived from advantages of situation passes by imperceptible gradations from the character of a pure rent, in cases in which the owners of the land have no direct part in improving its environment, to that of a quasi-rent or even profits, when the conditions of the environment were deliberately brought about by and at the expense of the owners of that land in order to raise its value. I have studied this, not so much for its own sake, as because of the strong light which it throws by analogy on the analysis (into rent, profits and earnings proper) of the total incomes that accrue to business men, to professional men, and even skilled artisans, and are due not solely to their own industry and the capital invested in their education, but also to the accidents of their birth, to advantages of their environment, to opportunity or, in German phrase, to "Conjunctur".

4. Unseen Foundations, pp. 302, 303.

5. Ibid, p. 373-4. After all the care I have taken to discuss Producer's Surplus from the point of view of the cultivating owner, and not the tenant farmer, it is a little hard to be told that my interpretation of its faulty 'because the owner is denied his share in "cultivation"' Ibid, p. 322, foot-note.)

6. Something is said of the ethical aspects of this question in my Principles, pp. 701-2, of the second, pp. 690-2 of the first edition.

7. They correspond to differential co-efficients connecting the rates of growth of two mutually dependent elements. I admit that these terms and the diagrams connected with them repel some readers, and fill others with the vain imagination that they have mastered difficult economic problems, when really they have done little more than learn the language in which parts of these problems can be expressed, and the machinery by which they can be handled. When the actual conditions of particular problems have not been studied, such knowledge is little better than a derrick for sinking oil-wells erected where there is no oil-bearing strata. But the technical language and machinery of every science are liable to a similar misuse; and this evil, though not unimportant, is not to be weighed against the aid which clear-headed and careful students continually derive from them.

8. The Duke makes a complaint, apparently aimed at myself, as to the use of capital letters for scrappy conceptions. Capital letters are a great disfigurement to a page; and no reasonable writer would use them for his own gratification. Their purpose is solely to assist the reader in hearing in mind that certain terms do correspond to scrappy conception, and in finding references to places in which these scrappy conceptions are defined. The Duke suggests that capitals might have been excused in the use of terms already established by authority, but those terms do not need signals to indicate that they are to be taken in an unwonted sense. Perhaps however I should have done better to sacrifice comeliness to the reader's convenience rather less.

9. I have urged this repeatedly, but especially in the long note on Ricardo's theory of value in my Principles, pp. 529-536 of the first and pp. 538-345 of the second edition.

10. Unseen Foundations, p. 348.

11. Where there is a strong combination, tacit or overt, producers may sometimes regulate the price for a considerable time together with very little reference to cost of production. And if the leaders in that combination were those who had the best facilities for production, it might be said, in apparent though not in real contradiction to Ricardo's doctrines, that the price was governed by that part of the supply which was most easily produced. But as a fact, those producers whose finances are weakest, and who are found to go on producing to escape failure, often impose their policy on the rest of the combination. And it is a common saying, both in America and England, that the weakest members of a combination are frequently its rulers.

12. For brevity, I pass by, as the Duke has done, the special conditions of those branches of manufacture which obey the law of increasing return; that is, to which -- even allowing for the difficulties of getting increased supplies of raw material and labour -- an increased output can be turned out at a less than proportionate expense. I have always felt that Ricardo's treatment of this case was inadequate; and I do not quite concur in the treatment of it by Cournot, by Auspitz and Lieben, and by the Austrian economists generally. My own attempts to deal with it are given in my Principles (second edition) pp. 368-79, 403-4, 426-9, 439-40, 484-97, 535-536. the corresponding discussion in the first edition are less fully and much less carefully written; they are in pp. 371-380, 412-428, 438-439.

13. The difficulty of getting a case of production free from all quasi-rent is referred to in Principles, second edition, pp. 408-9 and 495-7.

14. See Principles, p. 470, p. 622, of the second, p. 500, p. 630 of the first edition.

15. I do not regard that net yield as income, but partly as the result of the sale of capital. (For I admit that free gifts of nature when appropriated become private capital.) I hold that a royalty is not a rent, any more than is the charge which a grocer makes for sugar. Royalties always do enter into cost of production, because every ton of ore that is raised has to pay its share; there is no marginal produce which pays no royalty. See Principles, pp. 463-4 of the second edition, p. 491 of the first.

16. Unseen Foundations, p. 300.

17. So far from regarding the existence of rentless land as needed for Ricardo's doctrine of rent, I have urged that new countries, where there is an abundance of rentless land, are just those to which his theory is not applicable without great reservations. He was perfectly aware that marginal produce need not come from rentless land. In his chapter on rent he says: "It commonly happens that before... inferior lands are cultivated, capital can be more productively employed on these lands that are already in cultivation.. In such case, capital will be preferably employed on the old land and will equally create a rent; for rent is always the difference between the produce obtained by the employment of two equal quantities of capital and labour... In this case, as well as the other, the capital last

employed yields no rent." (McCulloch's Edition, p. 36, 37). Ricardo's statement (pp. 38, 39) that "no reduction would take place in the price of corn, though landlords should forego the whole of their rent" is based on the fact that "the value of corn is regulated by the quantity of labour bestowed on its production on that quality of land or with that portion of capital which pays no rent." and thus it is explicitly independent of the question whether there is any rentless land. The Duke (p. 299) seems to have misconceived his criticism (pp. 34, 35) of Adam Smith's statement that rent is paid for forests in Norway. His point is that he charges made for leave to cut down timber are not rents. He is not, as the Duke thinks, insisting on the existence of rentless land. J.S. Mill's remarks on the subject are a little inconsistent.

18. Unseen Foundations, pp. 292-3.

19. Unseen Foundations, pp. 310-11.

20. Ibid, pp. 370-1.

21. Unseen Foundations, p. 317. His printer has made the sentence even worse than mine by substituting 'agreed' for 'argued' in the fourth line of the quotation.

22. Page 532. See also pp. 459-463.

23. Principles, pp. 462-3 and 471 of the second, pp. 490-1 of the first edition.

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24. Ibid., pp. 611-3 of the second, pp. 608-9 of the first edition.