CHAPTER II

RODBERTUS

THE starting-point of Rodbertus's[1] theory of interest is the proposition, introduced into the science by Adam Smith and more firmly established by the Ricardian school, that goods, economically considered, are to be regarded as products of labour alone, and cost nothing but labour. This proposition, which is usually expressed in the words "Labour alone is productive," is amplified by Rodbertus as follows :—

1. Only those goods are economical goods which have cost labour; all other goods, be they ever so useful or necessary to mankind, are natural goods, and have no place in economical consideration.

2. All economic goods are the product of labour and labour only; for the economic conception they do not count as products of nature or of any other power, but solely as products of labour; any other conception of them may be physical, but it is not economic.

3. Goods, economically considered, are the product solely of

[1] A tolerably complete list of the writings of Dr. Karl Rodbertus-Jagetzow is to be found in Kozak's *Rodbertus' sozialökonomische Ansichten*, Jena, 1882, p. 7, etc. I have made use by preference of the second and third *Social Letters* to Von Kirchmann in the (somewhat altered) copy published by Rodbertus in 1875, under the name of *Zur Beleuchtung der sozialen Frage*; also of the tract *Zur Erklärung und Abhilfe der heutigen Kreditnoth des Grundbesitzes*; and of the fourth *Social Letter* to Von Kirchmann (Berlin, 1884), published under Rodbertus's bequest by Adolf Wagner and Kozak under the name *Das Kapital*. A few years ago Rodbertus's interest theory was subjected to an extremely close and conscientious criticism by Knies (*Der Kredit*, part ii. Berlin, 1879, p. 47, etc.), with which in its most important points I fully agree. I feel myself, however, bound to take up the task of criticism independently, my theoretic point of view being so different from that of Knies that I cannot help looking at many things in an essentially different light.

that labour which has performed the material operations necessary to their production. But to this category belongs not merely that labour which immediately produces the goods, but also that labour which first creates the instrument by which the goods are made. Thus grain is not merely the product of the man who held the plough, but also of him who made the plough, and so on.[1]

The fundamental proposition that all goods, economically considered, are the product of labour alone, has with Rodbertus very much the claim of an axiom. He considers it a proposition about which, "in the advanced state of political economy, there is no longer any dispute;" it is naturalised among English economists, has its representatives among those of France, and, "what is most important, in spite of all the sophisms of a retrograde and conservative doctrine, is indelibly imprinted upon the consciousness of the people."[2] Only once do I find any attempt in Rodbertus to put this proposition on a rational foundation. He says that "every product that comes to us through labour in the shape of a good ought to be put solely to the account of human labour, because labour is the only original power, and also the only original cost with which human economy is concerned."[3] This proposition also is put down as an axiom, and Rodbertus does not go any farther into the subject.

The actual labourers who produce the entire product in the shape of goods have, at least "according to the pure idea of justice," a natural and just claim to obtain possession of this entire product.[4] But this with two rather important limitations. First, the system of the division of labour, under which many co-operate in the production of one product, makes it technically impossible that each labourer should receive his product *in natura*. There must therefore be substituted, for the claim to the whole product, the claim to the whole *value* of the product.[5]

Further, all those who render society useful services without immediately co-operating in the material producing of the

[1] *Zur Beleuchtung der sozialen Frage*, pp. 68, 69.

[2] *Soziale Frage*, p. 71.

[3] *Erklärung und Abhilfe*, ii. p. 160 note.

[4] *Soziale Frage*, p. 56; *Erklärung*, p. 112.

[5] *Soziale Frage*, pp. 87-90; *Erklärung*, p. 111; *Kapital*, p. 116.

goods must have a share in the national product; such, for example, as the clergyman, the physician, the judge, the scientific investigator, and, in Rodbertus's opinion, even the undertakers, who "understand how to employ a number of labourers productively by means of a capital." [1] But such labour, being only "indirect economic labour," may not put in its claim of payment at the "original distribution of goods," in which the producers alone take part, but only at a "secondary distribution of goods." What then is the claim which the actual labourers have to put forward, according to the pure idea of justice? It is a claim to receive the entire value of the product of their labour in the original distribution, without prejudice to the secondary claims on salary of other useful members of society.

This natural claim Rodbertus does not find recognised in present social arrangements. The labourers of to-day receive as wages, in the original distribution, only a part of the value of their product, while the remainder falls as rent to the owners of land and capital.

Rent is defined by Rodbertus as "all income obtained without personal exertion solely in virtue of possession." [2] It includes two kinds of rent—land-rent and profit on capital.

Rodbertus then asks, As every income is the product of labour alone, what is the reason that certain persons in society draw incomes (and, moreover, original incomes) without stirring a finger in the work of production? In this question Rodbertus has stated the general theoretical problem of the theory of rent.[3] The answer he gives is the following:—

Rent owes its existence to the coincidence of two facts, one economical and one legal. The economic ground of rent lies in the fact that, since the introduction of the division of labour, the labourers produce more than they require to support themselves in life and to allow them to continue their labour, and thus others also are able to live upon the product. The legal ground lies in the existence of private property in land and capital. As, therefore, through the existence of private property the labourers have lost all control over the conditions that are indispensable to production, they cannot, as a rule, do otherwise than produce in the service of the proprietors, and

[1] *Soziale Frage*, p. 146; *Erklärung*, ii. p. 109, etc.

[2] *Soziale Frage*, p. 32.

[3] *Ibid.* p. 74, etc.

that according to an agreement previously made. These proprietors impose upon the labourers the obligation of surrendering a part of the product of their labour as rent, in return for the opportunity of using the conditions of production just mentioned. Indeed this surrender even takes an aggravated form, for the labourers have to give up to the owners the possession of their *entire* product, receiving back from the owners only a part of its value as wage, and a part that is no more than the labourers absolutely require to keep them in life and allow them to continue their labour. The power which forces the labourers to agree to this contract is Hunger. To let Rodbertus speak for himself:—

"As there can be no income unless it is produced by labour, rent rests on two indispensable conditions. First, there can be no rent if labour does not produce more than the amount which is just necessary to the labourers to secure the continuance of their labour, for it is impossible that without such a surplus any one, without himself labouring, can regularly receive an income. Secondly, there could be no rent if arrangements did not exist which deprive the labourers of this surplus, either wholly or in part, and give it to others who do not themselves labour, for in the nature of things the labourers themselves are always the first to come into possession of their product. That labour yields such a surplus rests on economic grounds that increase the productivity of labour. That this surplus is entirely or in part withdrawn from the labourers and given to others rests on grounds of positive law; and as law has always united itself with force it only effects this withdrawal by continual compulsion.

"The form which this compulsion originally took was slavery, the origin of which is contemporaneous with that of agriculture and landed property. The labourers who produced such a surplus in their labour-product were slaves, and the master to whom the labourers belonged, and to whom consequently the product itself also belonged, gave the slaves only so much as was necessary for the continuance of their labour, and kept the remainder or surplus to himself. If all the land, and at the same time all the capital of a country, have passed into private property, then landed property and property in capital exert a similar compulsion even over freed or free labourers. For, first, the result will be the same as in slavery, that the product will not belong to the labourers, but to the masters of land and capital; and secondly, the labourers who possess nothing, in face of the masters possessing land and capital, will be glad to receive a part only of the product of their own labour with which to support themselves in life; that is to say, again, to enable them to continue their labour. Thus, although the contract of labourer and employer has taken the place of slavery, the contract is only formally and not actually free, and Hunger makes a good substitute for the whip. What was formerly called food is now called wage."[1]

Thus, then, all rent is an exploitation,[2] or, as Rodbertus sometimes calls it still more forcibly, a robbery of the product of other people's labour.[3] This character applies to all kinds of rent equally; to land-rent as well as to profit on capital, and to the emoluments of hire and loan interest derived from them. Hire and interest are as legitimate in connection with the undertakers as they are illegitimate in connection with the labourers, at whose cost, in the last resort, they are paid.[4]

The amount of rent increases with the productivity of labour; for under the system of free competition the labourer receives, universally and constantly, only the amount necessary for his maintenance—that is, a definite quantum of the product. Thus the greater the productivity of labour the less will be the proportion of the total value of the product claimed by this quantum, and the greater will be the proportion of the product and of the value remaining over to the proprietor as his share, as rent.[5]

Although, according to what has been already said, all rent forms a homogeneous mass having one common origin in practical economic life, it is divided into two branches, land-rent and profit on capital. Rodbertus then explains the reason and the laws of this division in a most peculiar way. He starts from the theoretical assumption, which he carries through all his investigation, that the exchange value of all products is equal

[1] *Soziale Frage*, p. 33; similarly and more in detail, pp. 77-94.

[2] *Ibid.* p. 115, and other places.

[3] *Ibid.* p. 150; *Kapital*, p. 202.

[4] *Soziale Frage*, pp. 115, 148, etc. See also the criticism of Bastiat, pp. 115-119.

[5] *Ibid.* p. 123, etc.

to their labour-costs; in other words, that all products exchange with each other in proportion to the labour they have cost.[1] Rodbertus indeed is aware that this assumption does not exactly correspond with reality. Still he believes that the deviations amount to nothing more than that "the actual exchange value falls sometimes on the one side, sometimes on the other," in which cases there is at least always a point towards which they gravitate, "that point being the natural as well as the just exchange value."[2] He entirely rejects the idea that goods normally exchange with each other according to any other proportion than that of the labour incorporated in them; that deviations from this proportion may be the result, not merely of accidental and momentary fluctuations of the market, but of a fixed law drawing the value in another direction.[3] At this stage I merely draw attention to the circumstance, and will show its importance later on.

The total production of goods may, according to Rodbertus, be divided into two branches—raw production, which with the assistance of land obtains raw products, and manufacture which works up the raw products. Before division of labour was introduced the obtaining and working up of raw products were performed in immediate succession by one undertaker, who then received without division the whole resulting rent. In this stage of economic development there was no separation of rent into land-rent and profit on capital. But, since the introduction of the division of labour, the undertaker of the raw production and the undertaker of the manufacture which follows it are distinct persons. The preliminary question is, In what proportion will the rent that results from the total production now be divided among the producers of the raw material on the one hand and the manufacturers on the other?

The answer to this question follows from the character of rent. Rent is a proportion of and deduction from the value of the product. The amount of rent that can be obtained in any branch of production is regulated by the value of the product created in this branch of production. As, however, the amount of the value of the product is regulated here also by the amount

[1] *Soziale Frage*, p. 106.
[2] *Ibid.* p. 107; similarly pp. 113, 147. *Erklärung*, i. p. 123.
[3] *Soziale Frage*, p. 148.

of the labour spent on it, the total rent will be divided between raw production and manufacture, according to the expenditure of labour in each of these branches. To illustrate this by a concrete example.[1] Say that it requires 1000 days of labour to obtain a certain amount of raw product, and that its manufacture requires 2000 days more; then if rent takes 40 per cent of the value of the product as the share of the owners, the product of 400 days of labour will fall as rent to the producers of raw material, and the product of 800 days of labour as rent to the manufacturing undertakers. On the other hand, the amount of capital employed in each branch of production is a matter of no consequence as regards this division, for though the rent is estimated in relation to this capital, it is not determined by it, but by the amount of labour supplied.

Now the very fact that the amount of capital employed has no causal influence on the amount of rent obtainable in any branch of production becomes the cause of land-rent. Rodbertus proves this in the following manner.

Rent is the product of labour. But it is conditioned by the possession of wealth. Therefore rent is looked on as a return to that wealth. In manufacture this wealth takes the form of capital alone, and not of land. Thus the total rent obtained in manufacture is regarded as return on capital, or profit on capital. And thus by calculating, in the usual way, the proportion between the amount of return and the amount of the capital on which the return is obtained, we come to say that a definite percentage of profit is obtainable from capital engaged in manufacture. In virtue of well-known tendencies of competition this rate of profit will approximate to equality in all branches, and will also become the standard for calculating the profit of capital engaged in raw production; for a much greater portion of the national capital is engaged in manufacture than in agriculture, and obviously the return of the greater portion of capital must dictate to the smaller portion the rate at which its profit shall be calculated. Therefore the raw producers must calculate, as profit on their capital, so much of the total rent gained in the raw production

[1] This illustration is not given by Rodbertus; I only add it to put the difficult line of argument more clearly.

as corresponds with the amount of capital that has been employed and with the usual rate of profit. The remainder of the rent, on the other hand, must be considered as return from land, and forms the land-rent.

Now, according to Rodbertus, there must always be such a remainder in raw production, in virtue of the assumption that products exchange in proportion to the amount of labour incorporated in them. He proves this as follows. The amount of rent obtainable in manufacture depends, as we have seen, not on the amount of the capital laid out, but on the quantity of labour performed in the manufacture. This labour is made up of two constituent parts; on the one side, the immediate labour of manufacture, on the other side, that indirect labour "which must also be taken into calculation as representing the tools and machines used." Therefore of the different constituent portions of the capital laid out, only those portions will affect the amount of rent which consist of wages and expenditure for machines and tools. On the other hand, no such influence affects the capital laid out in raw materials, because this outlay does not express any labour performed in the manufacturing stage. Yet this part of the outlay increases the capital on which the rent obtainable as return is calculated. The existence of a portion of capital which increases the manufacturing capital on which the share of the rent that falls to it as profit is calculated, while it does not increase this profit itself, must evidently lower the proportion of the profit to the capital; in other words, it must lower the rate of profit on capital engaged in manufacture.

Now the profit on capital engaged in raw production also will be calculated at this reduced rate. But here (in raw production) the circumstances are generally more favourable. For as agriculture begins production *ab ovo,* and does not work up material derived from a previous production, its outlay of capital has no constituent "value of material." The analogue of material is simply land, and land in all theories is assumed to cost nothing. Hence no portion of capital has any share in the division of the profit which does not also have an influence upon its amount, and hence also the proportion between the rent gained and the capital employed must be more favourable in agriculture than in manufacture. As however, in agriculture also, the profit on capital is calculated at the reduced rate determined by manufacture, there must always remain a surplus of rent, which falls to the landowner as land-rent. This, according to Rodbertus, is the origin of land-rent, and its distinction from profit on capital.[1]

I may shortly supplement this by remarking that, notwithstanding the very severe theoretical judgment that he pronounces on profit in describing it as plunder, Rodbertus will not hear of abolishing either private property in capital or profit on capital. Nay, he ascribes to property in land and capital "an educating power" which we cannot spare; a "kind of patriarchal power that could only be replaced after a completely altered system of national instruction, for which at present we have not got even the conditions."[2] Property in land and capital appear to him in the meanwhile to have "a

[1] *Soziale Frage*, p. 94, etc.; particularly pp. 109-111. *Erklärung*, i. p. 123.

It may be advisable, in the interest of the English reader, to put this theory of land-rent in a different way.

According to Rodbertus, all rent is a deduction from product, and an exploitation of the labour that produces the product. Both land-rent then and capital-rent (profit) must be accounted for by this deduction, and only by this deduction. Now rent cannot emerge at all unless the necessary resources are provided. The owners give these resources; the labourer works with them; the owner takes his rent from the product, and, naturally enough, calculates it as a percentage on the amount of the resources he provides. In reality, however, rent does not depend on the amount and duration of these resources, but on the amount of labour employed and exploited.

But resources are of two kinds, land and capital. In manufacturing the resources consist of capital alone. The profit exploited from the manufacturing labourers is calculated as a rate on the capital, and comes to be ascribed to the capital. Under the competitive system profits tend to an equality over the whole field, and accordingly we should expect the landowner to get simply the same rent for the resources he lends (land) as the capitalist gets for the resources he lends (capital). But as a fact the landowner gets more; in fact, sufficient to pay another rent, which is properly called land-rent. How is this?

The reason is that in manufacture there are two outlays of capital, one for wages and one for raw materials. But there is only one field of exploitation, wages. There is, then, in manufacturing a portion of capital employed which yields no profit, and the profit that is made in the total manufacture, being calculated on this portion plus the portion employed in paying wages, the rate of profit is lower than it would be otherwise.

Now in agriculture there is indeed only one source of rent or profit, labour, but there is no outlay for raw materials. The profit thus in agriculture is calculated on a smaller capital, and so must leave, over and above the ordinary manufacturing rate of profit, a surplus which is land-rent.—W. S.

[2] *Erklärung*, ii. p. 303.

kind of official position involving the national functions of managing the economic labour and the economic resources of the nation in correspondence with national need."

Thus from this, its most favourable point of view, rent may be regarded as a form of salary which certain "officers" receive for the execution of their functions.[1] I have already observed above how this remark, casually expressed in a mere note, formed the basis on which later writers, particularly Schäffle, have built up a peculiar form of the Labour theory.

To come now to criticism of Rodbertus's system. Without circumlocution I may say at once that I consider the theory which it contains to be an entire failure. I am convinced that it suffers from a series of grave theoretical defects which I shall endeavour to set forth in the following pages as clearly and as impartially as may be.

At the outset I am obliged to take exception to the very first stone that Rodbertus lays in the structure of his system—the proposition that all goods, economically considered, are products of labour and of labour alone.

First of all, what do the words "economically considered" mean? Rodbertus explains them by a contrast. He puts the economical standpoint in opposition to the physical standpoint. That goods, physically speaking, are the products not only of labour but of natural powers, he explicitly allows. If then it is said that, from the economic standpoint, goods are the product of labour only, the statement can surely have but one meaning, viz. that the co-operation of natural powers in production is a matter of utter indifference so far as human economy is concerned. On one occasion Rodbertus gives forcible expression to this conception when he says: "All other goods except those that have cost labour, however useful or necessary they may be to mankind, are natural goods, and have no place in economic consideration." "Man may be thankful for what nature has done beforehand in the case of economic goods, as it has spared him so much extra labour, but economy takes

[1] *Erklärung*, p. 273, etc. In the posthumous tract on "Capital" Rodbertus expresses himself more severely on the subject of private property in capital, and would have it redeemed, if not abolished (p. 116, etc.)

notice of them only in so far as labour has completed the work of nature."[1]

Now this is simply false. Even purely natural goods have a place in economic consideration, provided only they are scarce as compared with the need for them. If a lump of solid gold in the shape of a meteoric stone falls on a man's field, is it not to be economically considered? Or if a silver mine is discovered by chance on his estate, is the silver not to be economically considered? Will the owner of the field really pay no attention to the gold and silver given him by nature, or give them away, or waste them, simply because they were bestowed on him by nature without exertion on his part? Will he not preserve them just as carefully as he would gold and silver that he had earned by the labour of his hands; place them in security from the greed of others; cautiously convert them into money in the market—in short, treat them economically? And again, is it true that economy has regard to those goods which have cost labour only in so far as labour has completed the work of nature? If that were the case, men acting economically would have to put a cask of the most exquisite Rhine wine on the same level with a cask of well-made but naturally inferior country wine, for human labour has done pretty much the same for both. That, notwithstanding this, the Rhine wine is often valued economically at ten times the amount of the other, is a striking confutation of Rodbertus's theorem at the hands of everyday experience.

All this is so obvious that we might fairly expect Rodbertus to have taken every precaution to guard this, his first and most important fundamental proposition, against such objections. In this expectation, however, we are disappointed. With peculiar carelessness he is content on almost every occasion to assert this proposition in the tone of an axiom. Sometimes he appeals on its behalf to the authority of Adam Smith and Ricardo, and only on one single occasion does he say anything that might be construed as an attempt to give it any real foundation.

The critic will scarcely be satisfied with such poor support for a proposition so important. As regards the authorities appealed to, in a scientific discussion authorities in themselves

[1] *Soziale Frage*, p. 69.

prove nothing. Their strength is simply the strength of the arguments which they represent. But we shall shortly have an opportunity of convincing ourselves that Adam Smith and Ricardo merely assert the proposition as an axiom without giving any kind of argument for it. Moreover, as Knies has on a recent occasion very properly pointed out,[1] Adam Smith and Ricardo themselves have not held consistently to it.

In the one seriously argued passage Rodbertus says: "Every product that comes to us through labour in the shape of a good is, economically speaking, to be placed to the credit of human labour alone, because labour is the only original power, and also the only original cost with which human economy is concerned."[2] As regards this argument, however, one may seriously doubt, in the first place, whether the premiss made use of is itself correct, and Knies has shown that there is good reason for questioning it.[3] And in the second place, even if the premiss be correct, the conclusion is not necessarily so. Even if labour actually were the sole original power with which human economy has anything to do, I do not at all see why it should not be desirable to act economically in regard to some things besides "original powers." Why not in regard to certain results of these original powers, or to the results of other original powers? Why not, for instance, with the golden meteorite we spoke of? Why not with the precious stone we accidentally find? Why not with natural deposits of coal? Rodbertus has too narrow a conception both of the nature and of the motive of economy. We deal economically with the original power, labour, because, as Rodbertus quite correctly says, "Labour is limited by time and strength, because in being employed it is expended, and because in the end it robs us of our freedom." But all these are only secondary motives,

[1] *Kredit*, part second, p. 60, etc.

[2] *Erklärung und Abhilfe*, ii. p. 160; similarly *Soziale Frage*, p. 69.

[3] *Der Kredit*, part second, p. 69: "What Rodbertus brings forward as his sole reason, viz. that 'labour is the only original power, and also the only original cost with which human economy is concerned,' is simply, in point of fact, untrue. What surprising blindness it is not to see that in the case of a landlord the effectual power of the soil in our limited fields could not be allowed 'to lie dead' by uneconomic men, could not be wasted in growing weeds, etc. etc. So absurd an opinion would certainly in the long run justify any one in defending the proposition that the loss to a landlord of X acres, and the loss to a people's economy of Y square miles, represents no 'economical loss.'"

not the final motive for our economic conduct. In the last resort we deal economically with limited and toilsome labour because we should suffer loss of wellbeing by an uneconomic treatment. But exactly the same motive impels us to deal economically with every other useful thing which, as existing in a limited quantity, we could not want or lose without losing something of the enjoyment of life. It matters not whether it be an original power or not; whether the thing has cost the original power we call labour or not.

Finally, the position taken by Rodbertus becomes entirely untenable when he adds that goods are to be regarded as the products of material manual labour alone. This principle would forbid even direct intellectual guidance of labour from being recognised as having any productive function, and would lead to an amount of internal contradiction and false conclusion that leaves no doubt of its incorrectness. This, however, has been shown by Knies in such a striking way that it would be mere superfluous iteration to dwell further on the point.[1]

Thus in the very first proposition he has laid down Rodbertus comes into collision with fact. To be entirely just, however, I must here make one concession which Knies, as representing the Use theory, was unable to make. I admit that, in confuting this fundamental principle, the whole of Rodbertus's interest theory has not been confuted. The proposition is wrong; not, however, because it mistakes the part played by capital in the production of goods, but because it mistakes the part played by nature.

I believe with Rodbertus that, if we consider the result of all the stages of production as a whole, capital cannot maintain an independent place among the costs of production. It is not exclusively "previous labour," as Rodbertus thinks, but it

[1] See Knies, *Der Kredit*, part second, p. 64, etc.: "A man who wishes to 'produce' coal must not simply dig; he must dig in a particular place; in thousands of places he may perform the same material operation of digging without any result whatever. But if the difficult and necessary work of finding the proper place is undertaken by a separate person, say a geologist; if without some other and "intellectual power" no shaft is sunk, and so on, how can the 'economic' work be digging only? When the choice of materials, the decision on the proportions of the ingredients, and such like, are made by another person than by him who rolls the pills, are we to say that the economical value of this material body, this medicine, is a product of nothing but the hand labour employed in it?"

is partly, and indeed, as a rule, it is principally "previous labour"; for the rest, it is valuable natural power stored up for human purposes. Where natural power is conspicuous—as in a production which, in all its stages, only makes use of free gifts of nature and of labour, or which makes use of such products as have themselves originated exclusively in free gifts of nature and in labour—in such cases we could, indeed, say with Rodbertus that the goods, economically considered, are products of labour only. Since then Rodbertus's fundamental error does not refer to the rôle of capital, but only to that of nature, the inferences regarding the nature of profit on capital which he deduces are not necessarily false. It is only if essential errors appear as well in the development of his theory that we may reject these inferences as false. Now such errors there undoubtedly are.

Not to make an unfair use of Rodbertus's first mistake, I shall, in the whole of the following examination, put all the hypotheses in such a way that the consequences of that mistake may be completely eliminated. I shall assume that all goods are produced only by the co-operation of labour and of free natural powers, and by the assistance exclusively of such objects of capital as have themselves originated only by the co-operation of labour and free natural powers, without the intervention of such natural gifts as possess exchange value. On this limited hypothesis it is possible for us to admit Rodbertus's fundamental proposition that goods, economically considered, cost labour alone. Let us now look farther.

The next proposition of Rodbertus runs thus: that, according to nature and the "pure idea of justice," the whole product, or the whole value of the product, ought to belong without deduction to the labourer who produced it. In this proposition also I fully concur. In my opinion no objection could be taken to its correctness and justice under the presupposition we have made. But I believe that Rodbertus, and all socialists with him, have a false idea of the actual results that flow from this true and just proposition, and are led by this mistake into desiring to establish a condition which does not really correspond with the principle, but contradicts it. It is remarkable that, in the many attempts at confutation that have been directed up till now against the Exploitation theory, this decisive point has been touched on only in the most superficial way, and never yet been placed in the proper light. It is on this account that I ask my readers to give some attention to the following argument; all the more so as it is by no means easy.

I shall first simply specify and then examine the blunder. The perfectly just proposition that the labourer should receive the entire value of his product may be understood to mean, either that the labourer should *now* receive the entire *present* value of his product, or should receive the entire *future* value of his product *in the future*. But Rodbertus and the socialists expound it as if it meant that the labourer should *now* receive the entire *future* value of his product, and they speak as if this were quite self-evident, and indeed the only possible explanation of the proposition.

Let us illustrate the matter by a concrete example. Suppose that the production of a steam-engine costs five years of labour, and that the price which the completed engine fetches is £550. Suppose further, putting aside meanwhile the fact that such work would actually be divided among several persons, that a worker by his own continuous labour during five years makes the engine. We ask, What is due to him as wages in the light of the principle that to the labourer should belong his entire product, or the entire value of his product? There cannot be a moment's doubt about the answer. The whole steam-engine belongs to him, or the whole of its price, £550. But at what time is this due to him? There cannot be the slightest doubt about that either. Clearly it is due on the expiry of five years. For of course he cannot get the steam-engine before it exists; he cannot take possession of a value of £550 created by himself before it is created. He will, in this case, have to get his compensation according to the formula, The whole future product, or its whole future value, at a future period of time.

But it very often happens that the labourer cannot or will not wait till his product be fully completed. Our labourer, for instance, at the expiry of a year, wishes to receive a part payment corresponding to the time he has worked. The question is, How is this to be measured in accordance with the above proposition? I do not think there can be a moment's doubt about the answer. The labourer has got his due if he now receives the whole of what he has made up till now. Thus, for example, if up till now he has produced a heap of brass, iron, or steel, in the raw state, then he will receive his due if he is handed over just this entire heap of brass, iron, or steel, or the entire value which this heap of materials has, and of course the value which it has *now*. I do not think that any socialist whatever could have anything to object to in this conclusion.

Now, how great will this value be in proportion to the value of the completed steam-engine? This is a point on which a superficial thinker may easily make a mistake. The point is, the labourer has up till now performed a fifth part of the technical work which the production of the whole engine requires. Consequently, on a superficial glance, one is tempted to infer that his present product will possess a fifth part of the value of the whole product—that is, a value of £110. On this view the labourer ought to receive a year's wage of £110.

This, however, is incorrect. £110 are a fifth part of the value of a steam-engine *when completed*. But what the labourer has produced up till now is not a fifth part of an engine that is already completed, but only a fifth part of an engine that will not be completed till four years more have elapsed. And these are two different things; not different in virtue of a sophistical quibble, but different in very fact. The one-fifth part has a different value from the other so surely as, in the valuation of to-day, an entire and finished engine has a different value from an engine that will only be ready for use in four years; so surely as, generally speaking, present goods have a different value in the present from future goods.

That present goods, in the estimation of the present time, in which our economical transactions take place, have a higher value than future goods of the same kind and quality, is one of the most widely known and most important economic facts. In the second volume of this work I shall have to make thorough examination into the causes to which this fact owes its origin, into the many and various ways in which it shows itself, and into the no less many and various consequences to which it leads in economic life; and that examination will be neither so easy nor so simple as the simplicity of the fundamental thought seems to promise. But in the meantime I think I may be allowed to appeal to the fact that present goods have a higher value than similar kinds of goods in the future, as one that is already put beyond dispute by the most ordinary experience of everyday life. If one were to give a thousand persons the choice whether they would rather take a gift of £100 to-day, or take it fifty years hence, surely all the thousand persons would prefer to take the £100 now. Or if one were to ask a thousand persons who wished a horse, and were disposed to give £100 for a good one, how much they would give *now* for a horse that they would only get possession of in ten or in fifty years, although as good an animal were guaranteed at that time, surely they would all name an infinitely smaller sum, if they named one at all; and thereby they would surely prove that everybody considers present goods to be more valuable than future goods of the same kind.

If this is so, that which has been made by our labourer in the first year, *i.e.* the fifth part of a steam-engine which is to be completed four years later, has not the entire value of a fifth part of an already completed engine, but has a smaller value.

How much smaller? That I cannot explain at present without anticipating my argument in a confusing way. Enough here to remark that it stands in a certain connection with the rate of interest usual in the country[1]—a rate which is a matter of experience—and with the remoteness of the period at which the whole product will be completed. If we assume the usual rate of interest to be 5 per cent, then the product of the first year's labour will, at the close of the year, be worth about £100.[2] Therefore, according to the proposition that the labourer ought to receive his whole product, or its whole value, the wages due him for the first year's labour will amount to the sum of £100.

If, notwithstanding the above deductions, any one should

[1] Of course I do not mean to put forward the rate of interest as the *cause* of the smaller valuation of future goods. I know quite well that interest and rate of interest can only be a result of this primary phenomenon. I am not here explaining but only depicting facts.

[2] The appropriateness of these figures, which seem strange at the first glance, will be seen immediately.

have the impression that this sum is too small, let me offer the following for his consideration. No one will doubt that the labourer gets his full rights if at the end of five years he receives the entire steam-engine, or the whole value of £550. Let us calculate then for comparison's sake what would be the value of the part-wage anticipated as above at the end of the fifth year? The £100 which the labourer has received at the end of the first year can be put out at interest for the next four years—that is, till the end of the fifth year; at the rate of 5 per cent (without calculating compound interest), the £100 may therefore increase by £20—this course being open even to the wage-paid labourer. Thus, it is clear, the £100 paid at the end of the first year are equivalent to £120 at the end of the fifth. If the labourer then, for the fifth part of the technical labour, receives £100 at the end of a year, clearly he is paid according to a scale which puts him in as favourable a position as if he had received £550 for the whole labour at the expiry of five years.

But what do Rodbertus and the socialists suppose to be the application of the principle that the labourer should receive the whole value of his product? They would have the whole value that the completed engine will have at the end of the process of production applied to the payment of wages, but they would have this payment not made at the conclusion of the whole production, but spread proportionally over the whole course of the labour. We should consider well what that means. It means that the labourer in our example, through this averaging of the part payments, is to receive in two and a half years the whole of the £550 which will be the value of the completed steam-engine at the end of five years.

I must confess that I consider it absolutely impossible to base this claim on these premises. How should it be according to nature, and founded on the pure idea of justice, that any one should receive at the end of two and a half years a whole that he will only have produced in five years? It is so little "according to nature," that, on the contrary, in the nature of things it could not be done. It could not be done even if the labourer were released from all the shackles of the much-abused wage-contract, and put in the most favourable position that can be conceived—that of undertaker in his own right. As labourer-undertaker he will certainly receive the whole of the £550, but not before they are produced; that is to say, not till the end of the five years. And how can that which the very nature of things denies to the undertaker himself be accomplished, in the name of the pure idea of justice, through the contract of wages?

To give the matter its proper expression, what the socialists would have is, that the labourers, by means of the wage-contract, should get *more* than they have made; more than they could get if they were undertakers on their own account; and more than they produce for the undertaker with whom they conclude the wage-contract. What they have created, and what they have just claim on, is the £550 at the end of the five years. But the £550 at the end of two and a half years which the socialists claim for them is more; if the interest stand at 5 per cent it is about as much as £620 at the end of five years. And this difference of value is not, as might be thought, a result of social institutions which have created interest and fixed it at 5 per cent—institutions that might be combated. It is a direct result of the fact that the life of all of us plays itself out in time; that to-day with its wants and cares comes before to-morrow; and that none of us is sure of the day after to-morrow. It is not only the capitalist greedy of profit, it is every labourer as well, nay, every human being that makes this distinction of value between present and future. How the labourer would cry out that he was defrauded if, instead of the 20s. which are due him for his week's wage to-day, one were to offer him 20s. a year hence! And that which is not a matter of indifference to the labourer is to be a matter of indifference to the undertaker! He is to give £550 at the end of two and a half years for the £550 which he is to receive, in the form of the completed product, only at the end of five years. That is neither just nor natural. What is just and natural is—I willingly acknowledge it again—that the labourer should receive the whole value, the £550, at the end of five years. If he cannot or will not wait five years, yet he should, all the same, have the value of his product; but of course the *present* value of his *present* product. This value, however, will require to be less than the corresponding proportion of the future value of the product of the technical labour, because in the economic world the law holds that the present value of future goods is less than that of present goods,—a law that owes its existence to no social or political institution, but directly to the nature of men and the nature of things.

If prolixity may ever be excused, it is in this instance, where we have to confute a doctrine with issues so extremely serious as the socialist Exploitation theory. Therefore at the risk of being wearisome to many of my readers I shall put a second concrete case, which, I hope, will afford me an opportunity of pointing out still more convincingly the blunders of the socialists.

In our first illustration we took no account of the division of labour. Let us now vary the hypothesis in such a way that at this point it will come nearer to the reality of economic life.

Suppose then that, in the making of the engine, five different workers take separate parts, each contributing one year's labour. One labourer obtains, say, by mining, the needful iron ore; the second smelts it; the third transforms the iron into steel; the fourth takes the steel and manufactures the separate constituent parts; and finally the fifth gives the parts their necessary connection, and in general puts the finishing touches to the work. As each succeeding labourer in this case, by the very nature of things, can only begin his work when his predecessors have finished theirs, the five years' work of our labourers cannot be performed simultaneously but only successively. Thus the making of the engine will take five years just as in the first illustration. The value of the completed engine remains, as before, £550. According to the proposition that the labourer is to receive the entire value of his product, how much will each of the five partners be able to claim for what he has done?

Let us try to answer this question first on the assumption that the claims of wages are to be adjusted, without the intervention of an outside undertaker, solely among the labourers themselves; the product obtained is to be divided simply among the five labourers. In this case two things are certain.

First, a division can only take place after five years, because before that date there is nothing suitable for division. For if one were now to give away in payment of wages to individuals, say the brass and iron which had been secured during the first two years, the raw material for the next stage of the work would be wanting. It is abundantly clear that the product acquired in the first years is necessarily withdrawn from any earlier division, and must remain bound up in the production till the close.

Second, it is certain that a total value of £550 will have to be divided among the five labourers.

In what proportion will it be divided?

Certainly not, as one might easily think at the first hasty glance, into equal parts. For this would be distinctly to favour those labourers whose labour comes at a later stage of the total production, in comparison with their colleagues who were employed in the earlier stages. The labourer who completed the engine would receive for his year's labour £110 immediately on the conclusion of his work; the labourer who turned out the separate constituent portions of the engine would receive the same sum, but must wait on his payment for a whole year after the completion of his year's labour; while that labourer who procured the ore would not receive the same amount of wages till four years after he had done his share of the work. As such a delay could not possibly be indifferent to the partners, every one would wish to undertake the final labour (which has not to suffer any postponement of wage), and nobody would be willing to take the preparatory stages. To find labourers to take the preparatory stages then, the labourers of the final stages would be compelled to grant to their colleagues who prepared the work a larger share in the final value of the product, as compensation for the postponement. The amount of this larger share would be regulated, partly by the period of the postponement, partly by the amount of difference that subsists between the valuation of present and the valuation of future goods,—a difference which would depend on the economic circumstances of our little society, and on its level of culture. If this difference, for instance, amounted to 5 per cent per annum, the shares of the five labourers would graduate in the following manner:—

The first labourer employed, who has to wait for his payment four years after the conclusion of his year's work, receives at the end of the fifth year .	£120
The second, who has to wait three years . . .	115
The third, who waits two years	110
The fourth, who waits one year	105
The last, who receives his wages immediately on the conclusion of his labour	100
Total . . .	£550

That all the labourers should receive the same amount of £110 is only conceivable on the assumption that the difference of time is of no importance whatever to them, and that they find themselves quite as well paid with the £110, which they receive three or four years after, as if they had received the £110 immediately on the conclusion of their labour. But I need scarcely emphasise that such an assumption never corresponds with fact, and never can. That they should each receive £110 *immediately on the accomplishment of their labour* is, if a third party do not step in, altogether impossible.

It is well worth the trouble, in passing, to draw particular attention to one circumstance. I believe no one will find the above scheme of distribution unjust. Above all, as the labourers divide their own product among themselves alone, there cannot be any question of injustice on the part of a capitalist-undertaker. And yet that labourer who has performed the second last fifth part of the work does not receive the full fifth part of the final value of the product, but only £105; and the last labourer of all receives only £100.

Now assume, as is generally the case in actual fact, that the labourers cannot or will not wait for their wage till the very end of the production of the engine, and that they enter into a negotiation with an undertaker, with the view of obtaining a wage from him immediately on the performance of their labour, in return for which he is to become the owner of the final product. Assume, further, that this undertaker is a perfectly just and disinterested man, who is far from making use of the position into which the labourers are possibly forced, to usuriously depress their claim of wages; and let us ask, On what conditions will the wage-contract be concluded under such circumstances?

The question is tolerably easy to answer. Clearly the labourers will be perfectly justly treated if the undertaker offers them as wage the sums which they would have received as parts of the division, if they had been producing on their own account. This principle gives us first a firm standing ground for *one* labourer, namely, for the last. This labourer would in the former case have received £100 immediately after the accomplishment of his labour. This £100, therefore, to be perfectly just, the undertaker must now offer him. For the remaining labourers the above principle gives no immediate indication. The wages in this case are not paid at the same time as they would have been in the case of the division, and the sums paid in the former case cannot afford a direct standard. But we have another standing ground. As all five labourers have performed an equal amount towards the accomplishment of the work, in justice an equal wage is due to them; and where every labourer is to be paid immediately on the performance of his labour, this wage will be expressed by an equal amount. Therefore, in justice, all five labourers, at the end of their year's labour, will receive each £100.

If this seems too little, let me refer to the following simple calculation, which will demonstrate that the labourers receive quite the same value in this case as they would have received had they divided the whole product among themselves alone, in which case, as we have seen, the justice of the division would have been beyond question.

Labourer No. 5 receives, in the case of division, £100 immediately after the year's labour; in the case of the wage-contract he receives the same sum at the same time.

Labourer No. 4 receives, in the case of division, £105 a year after the termination of the year's labour; in the case of the wage-contract £100 immediately after the labour. If, in the latter case, he lets this sum lie at interest for a year he will be in exactly the same position as he would have been in the case of division; he will be in possession of £105 one year after the conclusion of his labour.

Worker No. 3 receives, in the case of division, £110 two years after the termination of his labour; in the wage-contract, £100 at once, which sum, placed at interest for two years, will increase to £110.

And in the same way, finally, the £100 which the first and second labourers receive are, with the addition of the respective interests, quite equivalent to the £120 and the £115 which, in the case of division, these two labourers would have received respectively four and three years after the conclusion of their labour.

But if each single wage under the contract is equal to the corresponding quota under the division, of course the sum of the wages must also be equal to the sum of the division quotas; the sum of £500 which the undertaker pays to the labourers immediately on the completion of their work is entirely equal in value to the £550 which, in the other case, would have been divided among the labourers at the end of the fifth year.

A higher wage payment, *e.g.* to pay the year's labour at £110 each labourer, is only conceivable in one of two cases; either if that which is not indifferent to the labourers, namely, the difference of time, were completely indifferent to the undertaker; or if the undertaker were willing to make a gift to the labourers of the difference in value between a present £110 and a future £110. Neither the one nor the other is to be expected of private undertakers, at least as a rule; nor do they deserve the slightest reproach on that account, and, least of all, the reproach of injustice, exploitation, or robbery.

There is only one personage from whom the labourers could expect such a treatment—the State. For on the one hand, the state, as a permanently existing entity, is not bound to pay as much regard to the difference of time in the outgoing and replacing of goods as the short-lived individual. And on the other hand, the state, whose end is the welfare of the whole, can, if it is a question of the welfare of a great number of the members, quit the strict standpoint of service and counter-service, and, instead of bargaining, may give. So then it certainly is conceivable that the state—but certainly only the state—assuming the function of a gigantic undertaker of production, might offer to the labourers as wage the full future value of their future product at once, that is, immediately after the accomplishment of their labour.

Whether the state *ought* to do this,—by which, in the view of Socialism, the social question would be practically solved,—is a question of propriety which I have no intention of entering on at this moment. But this must be repeated with all emphasis: if the socialist state pays down at once, as wages to the labourer, the whole future value of his product, it is not a fulfilment of the fundamental law that the labourer should receive the value of his product as wages, but a *departure* from it on social and political grounds. And such a proceeding would not be the bringing back of a state of things that was in itself natural, or in accordance with the pure idea of justice,—a state of things only temporarily disturbed by the exploiting greed of the capitalists. It would be an artificial interference, with the intention of making something possible which, in the natural course of things, was not possible, and of making it possible by means of a disguised continuous gift from the magnanimous commonwealth state to its poorer members.

And now a brief practical application. It is easy to recognise that the method of payment which I have just now described in our illustration is that which actually does obtain in our economic world. In it the full final value of the product of labour is not divided as wages, but only a smaller sum; this smaller sum, however, being divided at an earlier period of time. Now, so long as the total sum of the wages spread over the course of the production is not less than the final value of the finished product by more than is necessary to make up the difference in the valuation of present as compared with future goods—in other words, so long as the sum of the wages does not differ from the final value of the product by more than the amount of the interest customary in the country—no curtailment is made on the claims that the workers have on the whole value of their product. They receive their whole product *according to its valuation at the point of time in which they receive their wages.* Only in so far as the total wages differ from the final value of the product by more than the amount of interest customary in the country, can there be, under the circumstances, any real exploitation of the labourers.[1]

[1] More exact criticism on this head I postpone till my second volume. To protect myself against misunderstandings, however, and particularly against the

To return to Rodbertus. The second, and most distinct blunder of which I have accused him in the foregoing, is that he interprets the proposition I have conceded (the labourer is to receive the whole value of his product) in an unwarrantable and illogical manner, as if it meant that the labourer is to receive now the whole value which his completed product will have at some future time.

If we inquire how it was that Rodbertus fell into this mistake, we shall find that the cause of it was another mistake, this being the third important error in the Exploitation theory. It is that he starts with the assumption that the value of goods is regulated solely by the amount of labour which their production has cost. If this were correct, then the first product, in which is embodied the labour of one year, must now possess a full fifth part of the value which the completed product, in which is embodied five years of labour, will possess. In this case the claim of the labourer to receive as wages a full fifth part of that completed value would be justified. But this assumption, as Rodbertus puts it, is undoubtedly false. To prove this I need not question in the least the theoretical validity of Ricardo's celebrated theory, that labour is the source and measure of all value. I need only point out the existence of a distinct exception to this law, noticed by Ricardo himself and discussed by him in detail in a separate chapter, but, strangely enough, passed

imputation of considering undertaking profit to be a "profit of plunder" when it exceeds the usual rate of interest, I may add a short note.

In the total difference, between value of product and wages expended, which falls to the undertaker, there may possibly be four constituents, essentially different from each other.

1. A premium for risk, to provide against the danger of the production turning out badly. Rightly measured, this will, on an average of years, be spent in covering actual losses, and this of course involves no curtailment of the labourer.

2. A payment for the undertaker's own labour. This of course is equally unobjectionable, and in certain circumstances, as in the using of a new invention of the undertaker, may be very highly assessed without any injustice being done to the labourer.

3. The compensation referred to in the text, viz. the compensation for difference of time between the wage payment and the realising of the final product, this being afforded by the customary interest.

4. The undertaker may possibly get an additional profit by taking advantage of the necessitous condition of the labourers to usuriously force down their wages.

Of these four constituents only the latter involves any violation of the principle that the labourer should receive the whole value of his product.

over without notice by Rodbertus. This exception is found in the fact that, of two goods which have cost an equal amount of labour to produce, that one obtains a higher exchange value the completion of which demands the greater advances of previous labour, or the longer period of time. Ricardo notices this fact in a characteristic manner. He declares (§ 4 of the first chapter of his *Principles*) that "the principle that the quantity of labour employed in the production of goods regulates their relative value, suffers a considerable modification by the employment of machinery and other fixed and durable capital," and further, in § 5, "on account of the unequal durability of capital, and of the unequal rapidity with which it is returned to its owner." That is to say, in a production where much fixed capital is used, or fixed capital of a greater durability, or where the time of turn-over on which the floating capital is paid back to the undertaker is longer, the goods made have a higher exchange value than goods which have cost an equal amount of labour, but into the production of which the elements just named do not enter, or enter in a lesser degree,—indeed an exchange value which is higher by the amount of the profit which the undertaker expects to obtain.

That this exception to the law of labour-value noticed by Ricardo really exists cannot be questioned, even by the most zealous advocates of that law. Just as little can it be questioned that, under certain circumstances, the consideration of the postponement may have even a greater influence on the value of goods than the consideration of the amount of labour-costs. I may remind the reader, for example, of the value of an old wine that has been stored up for scores of years, or of a hundred years old tree in the forest.

But on that exception hangs a tale. It does not require any great penetration to see that the principal feature of natural interest on capital is really involved in it. For when, on the division of the value, those goods that require for their production an advance of foregoing labour show a surplus of exchange value, it is just this surplus that remains in the hands of the capitalist-undertaker as profit. If this difference of value did not exist natural interest on capital would not exist either. This difference of value makes it possible, contains it, is identical with it.

Nothing is more easily demonstrated than this, if any proof is wanted of so obvious a fact. Supposing each of three goods requires for its making a year's labour, but a different length of time over which the labour is advanced. The first good requires only one year's advance of the year's labour; the second a ten years' advance; the third a twenty years' advance. Under these circumstances the exchange value of the first good will, and must be, sufficient to cover the wages of a year's labour, and, beyond that, one year's interest on the advanced labour. It is perfectly clear that the same exchange value cannot be sufficient to cover the wages of a year's labour, and a ten or twenty years' interest on the ten or twenty years' advance of labour as well. That interest can only be covered if and because the exchange value of the second and third good is correspondingly higher than that of the first good, although all three have cost an equal amount of labour. The difference of exchange value is clearly the source from which the ten and twenty years' interest flows, and the only source from which it can flow.

Thus this exception to the law of labour-value is nothing less than the chief feature in natural interest on capital. Any one who would explain natural interest must, in the first place, explain this; without an explanation of the exception here can be no explanation of the problem of interest. Now if, notwithstanding, in treatises on interest this exception is ignored, not to say denied, it is as gross a blunder as could well be conceived. When Rodbertus ignores the exception, it means nothing else than ignoring the chief part of what he ought to have explained.

Nor can one excuse Rodbertus's blunder by saying that he did not intend to lay down a rule which should hold in actual life, but only a hypothetical assumption by which he might carry through his abstract inquiries more easily and more correctly. It is true that Rodbertus, in some passages of his writings, does clothe the proposition, that the value of all goods is determined by their labour costs, in the form of a simple hypothesis.[1] But, firstly, there are many passages

[1] E.g. *Soziale Frage*, pp. 44, 107.

where Rodbertus expresses his conviction that his principle of value also holds in actual economic life.[1] And, secondly, a man may not assume anything that he likes, even as a simple hypothesis. That is to say, even in a purely hypothetical assumption, one may omit only such circumstances of actual fact as are irrelevant to the question under examination. But what is to be said for a theoretical inquiry into interest which at the critical point leaves out the existence of the most important feature; which gets rid of the principal part of what it had to explain with a "let us assume"?

On one point it may be admitted that Rodbertus is right: if we wish to discover a principle like that of land-rent or interest, we must "not let value dance up and down";[2] we must assume the validity of a fixed law of value. But is it not also a fixed law of value that goods which require a longer time between the expenditure of labour and their completion have, *ceteris paribus*, a higher value? And is not this law of value of fundamental importance in relation to the phenomenon of interest? And yet it is to be left out of account like an irregular accident of the circumstances of the market![3]

[1] *Soziale Frage*, pp. 113, 147. *Erklärung und Abhilfe*, i. p. 123. In the latter Rodbertus says: "If the value of agricultural and manufacturing product is regulated by the labour incorporated in it, as always happens on the whole, even where commerce is free," etc. [2] *Ibid.* p. iii. n.

[3] The above was written before the publication of Rodbertus's posthumous work, *Capital*, in 1884. In it Rodbertus takes an exceedingly strange position towards our question,—a position which calls rather for a strengthening than a modification of the above criticism. He strongly emphasises the point that the law of labour value is not an exact law, but simply a law that determines the point towards which value will gravitate (p. 6, etc.) He even owns in as many words that, on account of the undertaker's claim on profit, a constant divergence takes place between the actual value of the goods and their value as measured by labour (p. 11, etc.) Only he makes the extent of this concession much too trifling when he assumes that the deviation obtains only in the relations of the different stages of production of one and the same good; and that the deviation does not obtain in the case of all the stages of production as a whole. That is, if the making of a good is divided into several sections of production, of which each section develops into a separate trade, according to Rodbertus the value of the separate product which is made in each individual section cannot remain in exact correspondence with the quantity of labour expended on it; because the undertakers of the later stages of production have to make a greater outlay for material, and therefore a greater expenditure of capital, and on that account have to calculate on a higher profit, which higher profit can only be provided by a relatively higher value of the product in question.

This singular omission is not without result. On the first result I have already touched. In overlooking the influence of time upon the value of products, Rodbertus could not avoid falling into the mistake of confounding the claim of the labourer to the whole present value of his product with the claim to its future value. Some other consequences we shall encounter shortly.

A fourth criticism which I have to make on Rodbertus is, that his doctrine contradicts itself in important points.

His entire theory of land-rent is based upon the repeatedly and emphatically expressed proposition that the absolute

However correct this is, it is clear that it does not go far enough. The divergence of the actual value of goods from the quantity of labour expended does not take place only between the fore-products of one good in relation to each other, in such a way that, in the course of the various stages of production, it cancels itself again through reciprocal compensation, and so the final result of all the stages of production, the goods ready for consumption, obeys the law of labour-value. On the contrary, the amount and the duration of the advance of capital definitively forces the value of *all* goods away from exact correspondence with their labour costs. To illustrate. Say that the production of a commodity requiring ninety days for its manufacture is divided into three stages of thirty days' labour in each. Rodbertus would say that the product of the first thirty days' labour might only attain the value of twenty-five days' labour, while the second thirty attained the value of thirty days', and the third thirty of thirty-five days' labour. But on the whole the final value of the product would be equal to ninety days' labour. But it is a matter of common experience that, in normal successive production, the value of such a commodity will increase during the three stages by a definite amount, say $30+31+32$, and that the final product will be equal to, say, ninety-three days of labour; *i.e.* a value greater than the value of the labour incorporated in it by the amount of the customary interest.

Besides this, Rodbertus deserves the severest censure that, in spite of his own admission, he always persists in developing the law of the distribution of all goods in wages and rent under the theoretical hypothesis that all goods possess "normal value"; that is, a value that corresponds to their labour costs. He thinks he is justified in doing this because the "normal value, in regard to the derivation both of rent in general and of land-rent and capital-rent in particular, is the least captious; it alone does not quietly beg the question, and assume what was first to be explained by it, as every value does in which is included beforehand an element for rent."

Here Rodbertus is grievously mistaken. He begs the question quite as improperly as any of his opponents ever did; only in an opposite way. His opponents, by their assumptions, have begged the question of the existence of interest. Rodbertus has begged the question of its non-existence. In taking no notice of the constant divergence from "normal value" (which divergence gives natural interest its source and its nourishment), he himself altogether abstracts the chief feature in the phenomenon of interest.

amount of "rent" to be gained in a production does not depend upon the amount of the capital employed, but exclusively upon the amount of labour connected with the production.

Supposing that in a certain industrial production—for example, in a shoemaking business—ten labourers are employed. Each labourer produces per year a product of the value of £100. The necessary maintenance which he receives as wages claims £50 of this sum. Thus, whether the capital employed be large or small, the year's rent (as we shall call it with Rodbertus) drawn by the undertaker will amount to £500. If the capital employed amounts, say to £1000, namely, £500 for wages of labour and £500 for material, then the rent will make up 50 per cent of the capital. If in another production, say a jeweller's business, ten labourers likewise are employed, then, under the assumption that the value of products is regulated by the amount of labour incorporated in them, they also will produce another yearly product of £100 each, of which the half falls to them as wages, while the other half falls to the undertaker as rent. But as in this case the material, the gold, represents a considerably higher value than the leather of the shoemaking business, the total rent of £500 is distributed over a far larger business capital. Assume that the jeweller's capital amounts to £20,000, £500 for wages and £19,500 for material, then the rent of £500 will only show a $2\frac{1}{2}$ per cent interest on the business capital.

Both examples are carried out entirely on the lines of Rodbertus's theory.

As in almost every "manufacture" the proportion between the number of the (directly and indirectly) employed labourers and the amount of business capital employed is different, it follows that, in almost every manufacture, business capital must bear interest at the most various possible rates. Now even Rodbertus does not venture to maintain that this is really the case in everyday life. On the contrary, in a remarkable passage in his theory of land-rent, he assumes that, in virtue of the competition of capitals over the whole field of manufacture, an equal rate of profit will become established. I will give the passage in his own words. After remarking that the rent derived from manufacture is considered wholly as profit on capital, since here it is exclusively wealth in the form of capital that is employed, he goes on to say:—

"This, further, will give a rate of profit which will tend to the equalisation of profits, and according to this rate, therefore, must be calculated that profit which, as one part of the rent falling to the raw product, accrues to the capital required for agriculture. For if, in consequence of the universal presence of value in exchange, there now exists a homonymous standard for indicating the ratio between return and resources, this standard, in the case of the portion of rent accruing to the capital employed in manufacture, also serves to indicate the ratio between profit and capital. In other words, it will be right to say that the profit in any trade amounts to ten per cent of the capital employed. This rate will then furnish a standard for the equalisation of profits. In whatever trade this rate indicates a higher profit, competition will cause increased investment of capital, and thereby cause a universal tendency towards the equalising of profits. Similarly no one will invest capital where he does not expect profit corresponding to this rate."

It will repay us to look more closely into this passage.

Rodbertus speaks of competition as that factor which will establish a uniform rate of profit over the field of manufacture. In what manner it will do so is only slightly indicated by him. He assumes that every rate of profit which is higher than the average level is reduced to the average by an increase of the supply of capital; and we may supplement this by saying that every lower rate of profit is raised to the average level by the flowing off of capital.

Let us continue a little farther the consideration of the process from the point at which Rodbertus breaks off. In what manner can an increased supply of capital level down the abnormally high rate of profit? Clearly in this way; that with the increased capital the production of the particular article is increased, and through the increase of supply the exchange value of the product is lowered till such time as after deducting the wages of labour, it only leaves the usual rate of profit as rent. In our above example of the shoemaking business we might evidently have pictured to ourselves the levelling down of the abnormal rate of profit of 50 per cent to the average rate of 5 per cent in the following manner. Attracted by the high rate of profit of 50 per cent, a great many persons will go into the shoemaking business. At the same time those who have been engaged in producing will extend their business. Thus the supply of shoes is increased, and their price and exchange value reduced. This process will continue till such time as the exchange value of the year's product of ten labourers in the shoemaking trade is reduced from £1000 to £550. Then the undertaker, after deducting £500 for necessary wages, has only £50 over as rent, which, distributed over a business capital of £1000, shows interest at the usual rate of 5 per cent. On reaching this point the exchange value of shoes will require to remain fixed if the profit in the shoemaking trade is not to become abnormal again, in which case a repetition of the process of levelling down would ensue.

On the same analogy, if the rate of profit in the jeweller's trade be under the average, say $2\frac{1}{2}$ per cent, it will be raised to 5 per cent in this way. The profit in jewellery being so small, its manufacture will be curtailed, the supply of jewellery thereby reduced and its exchange value raised, till such time as the additional product of ten labourers in the jewellery trade reaches an exchange value of £1500. There now remain to the undertaker, after deducting £500 for necessary wages, £1000 as rent, this being interest on the business capital of £20,000 at the usual rate of 5 per cent. Thus is reached the resting-point at which the exchange value of jewellery, as in the former example the exchange value of shoes, may remain steady.

Before going farther I shall, by looking at the matter from another side, make entirely clear the important point that the levelling of abnormal profits cannot take place without a steady alteration in the exchange value of the products concerned.

If the exchange value of the products were to remain unaltered, then an insufficient rate of profit could only be raised to the normal level if the difference were made up at the cost of the labourers' necessary wages. For example, if the product of ten labourers in the jewellery manufacture retained without alteration the value of £1000, corresponding to the amount of labour expended, then evidently a levelling up of the rate of profit to 5 per cent—that is, an increase in the amount of profit from £500 to £1000—is only conceivable if the wages which the ten labourers have hitherto received were to be wholly withdrawn, and the entire product handed over to the capitalist as profit. To say nothing of the fact that such a supposition contains in itself a simple impossibility, I need merely point out that it is equally opposed to experience and to Rodbertus's own theory. It is contrary to experience; for experience shows that the usual effect of a restriction of supply in any branch of production is not a depression of the wages of labour, but a raising of the prices of product. And again, experience does not bear witness that the wages of labour, in such trades as require a large investment of capital, stand essentially lower than in other trades—which would necessarily be the case if the demand for a higher profit had to be met from wages instead of from prices of product. And it is also contrary to Rodbertus's own theory. For that theory assumes that the labourers in the long run always receive the amount of the necessary costs of their maintenance as wages,—a law which would be sensibly violated by this kind of equalisation.

It is just as easy to show conversely that, if the value of the products remained unaltered, a limitation of profits could only take place by raising the wages of the labourers in the trades concerned above the normal scale, which again, as we have said, is contrary to experience and to Rodbertus's own theory.

I may venture then to claim that I have described the process of the equalisation of profits in accordance with facts, and in accordance with Rodbertus's own hypothesis, when I assume that the return of profits to their normal level is brought about by means of a steady alteration in the exchange value of the products concerned. But if the year's product of ten labourers in the shoemaking trade has an exchange value of £550, and the year's product of ten labourers in the jewellery trade has an exchange value of £1500,—and it must be so if the equalisation of profits assumed by Rodbertus always takes place,—what becomes of his assumption that products exchange according to the labour incorporated in them? And if, from the employment of the same amount of labour, there result in the one trade

£50, in the other £1000 as rent, what becomes, further, of the doctrine that the amount of rent to be obtained in a production is not regulated by the amount of capital employed, but only by the amount of labour performed in it?

The contradiction in which Rodbertus has involved himself here is as obvious as it is insoluble. Either products do really exchange, in the long run, in proportion to the labour incorporated in them, and the amount of rent in a production is really regulated by the amount of labour employed in it,—in which case an equalisation of profits is impossible; or there is an equalisation of the profits of capital,—in which case it is impossible that products should continue to exchange in proportion to the labour incorporated in them, and that the amount of labour spent should be the only thing that determines the amount of rent obtainable. Rodbertus must have noticed this very evident contradiction if he had only devoted a little real reflection to the manner in which profits become equalised, instead of dismissing the subject in the most superficial way with his phrase about the equalising effect of competition.

But we are not done with criticism. The whole explanation of land-rent, which, with Rodbertus, is so intimately connected with the explanation of interest, is based upon an inconsistency so striking that the author's carelessness in not observing it is almost inconceivable.

There are only two possibilities here: either, as the effect of competition, an equalisation of profits does take place, or it does not. Assume first that it does take place. What justification has Rodbertus for supposing that the equalisation will certainly embrace the whole sphere of manufacture, but will come to a halt, as if spellbound, at the boundary of raw production? If agriculture promises an attractive profit why should not more capital flow to it? why should not more land be cultivated, or the land be more intensively cultivated, or cultivated by more improved methods, till the exchange value of raw products comes into correspondence with the increased capital now devoted to agriculture, and yields to it also no more than the common rate of profit? If the "law" that the amount of rent is not regulated by the outlay of capital, but only by the amount of labour expended, has not prevented equalisation in manufacture, how could it prevent it in raw production? But what in that case would become of the constant surplus over the usual rate of profit, the land-rent?

Or assume that an equalisation does not take place. In that case, there being no universal rate of profit, then in agriculture, as in everything else, there is no definite rule as to how much "rent" one may calculate as profit of capital. And, finally, there is no division line between capital and rent of land.

Therefore, in either case, whether an equalisation of profits does take place or does not, Rodbertus's theory of land-rent hangs in the air. There is contradiction upon contradiction, and that, moreover, not in trifles, but in the fundamental doctrines of the theory.

My criticism has hitherto been directed to the individual parts of Rodbertus's theory. I may conclude by putting the theory as a whole to the test. If correct, it must be competent to give a satisfactory explanation of the phenomenon of interest as presented in actual economic life, and, moreover, of all the essential forms in which it presents itself. If it cannot do so, it is self-condemned; it is not correct.

I now maintain, and shall attempt to prove, that although Rodbertus's Exploitation theory might possibly account for the interest borne by that part of capital which is invested in wages, it is absolutely impossible for it to explain the interest on that part of capital which is invested in the materials of manufacture. Let the reader judge.

A jeweller, whose chief business it is to make strings of pearls, employs annually five labourers to make strings to the value of £100,000, and sells them on an average in a year's time. He will accordingly have a capital of £100,000 constantly invested in pearls, which, at the usual rate of interest, must yield him a clear annual profit of £5000. We now ask, How is it to be explained that he gets this income?

Rodbertus answers, Interest on capital is a profit of plunder, got by curtailing the natural and just wages of labour. Wages of what labour? Of the five labourers who sorted and strung the pearls? That cannot well be; for if, by curtailing the just wages of the five labourers, one could gain £5000, then the just wages of these labourers must, in any case, have amounted to more than £5000. That is to say, these wages must have amounted, in any case, to more than £1000 per man,—a height of just wages that can hardly be taken seriously, especially as the business of sorting and stringing pearls is very little above the character of unskilled labour.

But let us look a little farther. Perhaps it is the labourers of an earlier stage of production from the product of whose labour the jeweller obtains his stolen profit; say the pearl-fishers. But the jeweller has not come into contact at all with these labourers, for he buys his pearls direct from an undertaker of pearl-fishing, or from a middleman; he has therefore had no opportunity whatever of deducting from the pearl-fishers a part of their product, or a part of the value of their product. But perhaps the undertaker of pearl-fishing has done so instead of him, so that the jeweller's profit originates in a deduction which the undertaker of the pearl-fishing has made from the wages of his labourers. That, however, is impossible; for clearly the jeweller would make his profit even if the undertaker of the pearl-fishing had made no deduction whatever from the wages of his labourers. Even if this latter undertaker were to divide among his labourers as wages the whole £100,000 that the pearls so obtained are worth—the whole £100,000 he receives from the jeweller as purchase money—then it only comes to this, that *he* makes no profit. It in no wise follows that the jeweller loses his profit. For to the jeweller it is a matter of complete indifference how this purchase money which he pays is distributed, so long as the price is not raised. Whatever then be the flights of our fancy, we shall seek in vain for the labourers from whose just wages the jeweller's profit of £5000 could possibly have been withheld.

Perhaps, however, even after this illustration there may be some readers still unconvinced. Perhaps they may think it certainly a little strange that the labour of the five pearl stringers should be the source from which the jeweller can exploit so considerable a profit as £5000, but yet not quite inconceivable. Let me therefore bring forward another and still more striking illustration,—a good old example by which many an interest theory has already been tested and found false.

The owner of a vineyard has harvested a cask of good young wine. Immediately after the vintage it has an exchange value of £10. He lets the wine lie undisturbed in the cellar, and after a dozen years the wine, now of course an old wine, has an exchange value of £20. This is a well-known fact. The difference of £10 falls to the owner of the wine as interest on the capital contained in the wine. Now who are the labourers that are exploited by this profit of capital?

During the storage there has been no further labour expended on the wine. The only conceivable thing is that the exploitation has been at the expense of those labourers who produced the new wine. The owner of the vineyard has paid them too small a wage. But I ask, How much ought he "in justice" to have paid them as wage? Even if he pays them the entire £10, which was the value of the new wine at the time of harvest, there stills remains to him the increment in value of £10, which Rodbertus brands as profit of plunder. Indeed even if he pays them £12 or £15 as wages, the accusation of plundering will still hang over him; he will only be free from it if he has paid the full £20. Now can any one seriously ask that £20 should be paid as "just wages of labour" for a product that is not worth more than £10? Does the owner know beforehand whether the product will ever be worth £20? Is it not possible that he might be forced, contrary to his original intention, to use or to sell the wine before the expiry of twelve years? And would he not then have paid £20 for a product that was never worth more than £10 or perhaps £12? And then, how is he to pay the labourers who produce that other new wine which he sells at once for £10? Is he to pay them also £20? Then he will be ruined. Or only £10? Then different labourers will receive different wages for precisely similar work, which again is unjust; not to mention the fact that a man cannot very well know beforehand whose product it is that will be sold at once, and whose stored up for a dozen years.

But still further. Even a £20 wage for a cask of new wine would not be enough to protect the vine-grower from the accusation of robbery; for he might let the wine lie in the cellar twenty-four years instead of twelve, and then it would be worth not £20 but £40. Is he then, justly speaking, bound to pay the labourers who, twenty-four years before that, have produced the wine, £40 instead of £10? The idea is too absurd. But if he pays them only £10 or £20, then he makes a profit on capital, and Rodbertus declares that he has curtailed the labourer's just wage by keeping back a part of the value of his product!

I scarcely think any one will venture to maintain that the cases of interest which have been brought forward, and the numerous cases analogous to them, are explained by Rodbertus's theory. But a theory which has failed to explain any important part of the phenomena to be explained cannot be the true one, and so this final examination brings us to the same result as the detailed criticism which preceded it might lead us to expect. Rodbertus's Exploitation theory is, in its foundation and in its conclusions, wrong; it is in contradiction with itself and with the circumstances of actual life.

The nature of my critical task is such that, in the foregoing pages, I could not choose but confine myself to one side—that of pointing out the errors into which Rodbertus had fallen. I consider it due to the memory of this distinguished man to acknowledge, in equally candid terms, his conspicuous merits as regards the development of the theory of political economy. Unfortunately, to dwell on these lies beyond the limits of my present task.