

CHAPTER 2 THE EFFECTS OF INCREASE OF POPULATION UPON THE DISTRIBUTION OF WEALTH

The current political economy says that the way increasing population advances rent is by forcing the margin of cultivation lower as poorer lands need to be brought into use.

This is how the theory of rent is made to support the Malthusian doctrine.

The manner in which increasing population advances rent, as explained and illustrated in current treatises, is that the increased demand for subsistence forces production to inferior soil or to inferior productive points. Thus, if, with a given population, the margin of cultivation is at 30, all lands of productive power over 30 will pay rent. If the population be doubled, an additional supply is required, which cannot be obtained without an extension of cultivation that will cause lands to yield rent that before yielded none. If the extension be to 20, then all the land between 20 and 30 will yield rent and have a value, and all land over 30 will yield increased rent and have increased value.

It is here that the Malthusian doctrine receives from the current elucidations of the theory of rent the support of which I spoke when enumerating the causes that have combined to give that doctrine an almost undisputed sway in current thought. According to the Malthusian theory, the pressure of population against subsistence becomes progressively harder as population increases, and although two hands come into the world with every new mouth, it becomes, to use the language of John Stuart Mill, harder and harder for the new hands to supply the new mouths. According to Ricardo's theory of rent, rent arises from the difference in productiveness of the lands in use, and as explained by Ricardo and the

economists who have followed him, the advance in rents which, experience shows, accompanies increasing population, is caused by the inability of procuring more food except at a greater cost, which thus forces the margin of population to lower and lower points of production, commensurately increasing rent. Thus the two theories, as I have before explained, are made to harmonize and blend, the law of rent becoming but a special application of the more general law propounded by Malthus, and the advance of rents with increasing population a demonstration of its resistless operation. I refer to this incidentally, because it now lies in our way to see the misapprehension which has enlisted the doctrine of rent in the support of a theory to which it in reality gives no countenance. The Malthusian theory has been already disposed of, and the cumulative disproof which will prevent the recurrence of a lingering doubt will be given when it is shown, further on, that the phenomena attributed to the pressure of population against subsistence would, under existing conditions, manifest themselves were population to remain stationary.

The misapprehension to which I now refer, and which, to a proper understanding of the effect of increase of population upon the distribution of wealth, it is necessary to clear up, is the presumption, expressed or implied in all the current reasoning upon the subject of rent in connection with population, that the recourse to lower points of production involves a smaller aggregate produce in proportion to the labor expended; though that this is not always the case is clearly recognized in connection with agricultural improvements, which, to use the words of Mill, are considered "as a partial relaxation of the bonds which confine the increase of population." But it is not involved even where there is no advance in the arts, and the recourse to lower points of

This presumes that recourse to lower points of production involves a smaller aggregate produce in proportion to the labor expended.

But increased population, of itself, and without any advance in the arts, implies an increase in the productive power of labor.

If population be doubled, land of but 20 productiveness may yield to the same amount of labor as much as land of 30 productiveness could before yield. For the productiveness either of land or labor is not to be measured in any one thing, but in all desired things. And in a populous district, people can make a good living from poor land; not perhaps in the production of corn, but in the production of wealth generally, or the obtaining of all the commodities and services which are the real object of their labor.

production is clearly the result of the increased demand of an increased population. For increased population, of itself, and without any advance in the arts, implies an increase in the productive power of labor. The labor of 100 men, other things being equal, will produce much more than one hundred times as much as the labor of one man, and the labor of 1,000 men much more than ten times as much as the labor of 100 men; and, so, with every additional pair of hands which increasing population brings, there is a more than proportionate addition to the productive power of labor. Thus, with an increasing population, there may be a recourse to lower natural powers of production, not only without any diminution in the average production of wealth as compared to labor, but without any diminution at the lowest point. If population be doubled, land of but 20 productiveness may yield to the same amount of labor as much as land of 30 productiveness could before yield. For it must not be forgotten (what often is forgotten) that the productiveness either of land or labor is not to be measured in any one thing, but in all desired things. A settler and his family may raise as much corn on land a hundred miles away from the nearest habitation as they could raise were their land in the center of a populous district. But in the populous district they could obtain with the same labor as good a living from much poorer land, or from land of equal quality could make as good a living after paying a high rent, because in the midst of a large population their labor would have become more effective; not, perhaps, in the production of corn, but in the production of wealth generally—or the obtaining of all the commodities and services which are the real object of their labor.

But even where there is a diminution in the productiveness of labor at the lowest point—that is to say, where the

increasing demand for wealth has driven production to a lower point of natural productiveness than the addition to the power of labor from increasing population suffices to make up for—it does not follow that the aggregate production, as compared with the aggregate labor, has been lessened.

Let us suppose land of diminishing qualities. The best would naturally be settled first, and as population increased production would take in the next lower quality, and so on. But, as the increase of population, by permitting greater economies, adds to the effectiveness of labor, the cause which brought each quality of land successively into cultivation would at the same time increase the amount of wealth that the same quantity of labor could produce from it. But it would also do more than this—it would increase the power of producing wealth on all the superior lands already in cultivation. If the relations of quantity and quality were such that increasing population added to the effectiveness of labor faster than it compelled a resort to less productive qualities of land, though the margin of cultivation would fall and rent would rise, the minimum return to labor would increase. That is to say, though wages as a proportion would fall, wages as a quantity would rise. The average production of wealth would increase. If the relations were such that the increasing effectiveness of labor just compensated for the diminishing productiveness of the land as it was called into use, the effect of increasing population would be to increase rent by lowering the margin of cultivation without reducing wages as a quantity, and to increase the average production. If we now suppose population still increasing, but, between the poorest quality of land in use and the next lower quality, to be a difference so great that the increased power of labor which comes with the increased

And even as the margin falls, productiveness of labor at the margin may increase if increasing population added to the effectiveness of labor faster than it compelled resort to less productive land.

And even if productivity at the margin falls, *average* productivity is likely to increase because productivity of labor on land that was already in use, prior to the population increase, will rise.

Thus, increase of population will increase rent and reduce wages as a proportion, and may or may not reduce wages as a quantity, but probably always increases the aggregate production of wealth as compared with the aggregate expenditure of labor.

The increased powers of co-operation and exchange which come with increased population give an increased capacity to land.

population that brings it into cultivation cannot compensate for it—the minimum return to labor will be reduced, and with the rise of rents, wages will fall, not only as a proportion, but as a quantity. But unless the descent in the quality of land is far more precipitous than we can well imagine, or than, I think, ever exists, the average production will still be increased, for the increased effectiveness which comes by reason of the increased population that compels resort to the inferior quality of land attaches to all labor, and the gain on the superior qualities of land will more than compensate for the diminished production on the quality last brought in. The aggregate wealth production, as compared with the aggregate expenditure of labor, will be greater, though its distribution will be more unequal.

Thus, increase of population, as it operates to extend production to lower natural levels, operates to increase rent and reduce wages as a proportion, and may or may not reduce wages as a quantity; while it seldom can, and probably never does, reduce the aggregate production of wealth as compared with the aggregate expenditure of labor, but on the contrary increases, and frequently largely increases it.

But while the increase of population thus increases rent by lowering the margin of cultivation, it is a mistake to look upon this as the only mode by which rent advances as population grows. Increasing population increases rent, without reducing the margin of cultivation; and notwithstanding the dicta of such writers as McCulloch, who assert that rent would not arise were there an unbounded extent of equally good land, increases it without reference to the natural qualities of land, for the increased powers of co-operation and exchange which come with increased population are equivalent to—nay, I think we can say without metaphor, that they give—an increased capacity to land.

I do not mean to say merely that, like an improvement in the methods or tools of production, the increased power which comes with increased population gives to the same labor an increased result, which is equivalent to an increase in the natural powers of land; but that it brings out a superior power in labor, which is localized on land—which attaches not to labor generally, but only to labor exerted on particular land; and which thus inheres in the land as much as any qualities of soil, climate, mineral deposit, or natural situation, and passes, as they do, with the possession of the land.

Increasing population brings out a superior power in labor exerted on *particular* land, which thus inheres in the land as much as any natural qualities.

An improvement in the method of cultivation which, with the same outlay, will give two crops a year in place of one, or an improvement in tools and machinery which will double the result of labor, will manifestly, on a particular piece of ground, have the same effect on the produce as a doubling of the fertility of the land. But the difference is in this respect—the improvement in method or in tools can be utilized on any land; but the improvement in fertility can be utilized only on the particular land to which it applies. Now, in large part, the increased productiveness of labor which arises from increased population can be utilized only on particular land, and on particular land in greatly varying degrees.

Here, let us imagine, is an unbounded savannah, stretching off in unbroken sameness of grass and flower, tree and rill, till the traveler tires of the monotony. Along comes the wagon of the first immigrant. Where to settle he cannot tell—every acre seems as good as every other acre. As to wood, as to water, as to fertility, as to situation, there is absolutely no choice, and he is perplexed by the embarrassment of richness. Tired out with the search for one place that is better than another, he stops—somewhere, anywhere—and starts to make himself a home. The soil is virgin and rich, game is abun-

Imagine an unbounded, fertile, undifferentiated savannah. The first settler would have no basis to choose one location over another.

Settling somewhere,

he has good land and natural resources, but he is poor.

dant, the streams flash with the finest trout. Nature is at her very best. He has what, were he in a populous district, would make him rich; but he is very poor. To say nothing of the mental craving, which would lead him to welcome the sorriest stranger, he labors under all the material disadvantages of solitude. He can get no temporary assistance for any work that requires a greater union of strength than that afforded by his own family, or by such help as he can permanently keep. Though he has cattle, he cannot often have fresh meat, for to get a beefsteak he must kill a bullock. He must be his own blacksmith, wagonmaker, carpenter, and cobbler—in short, a “jack of all trades and master of none.” He cannot have his children schooled, for, to do so, he must himself pay and maintain a teacher. Such things as he cannot produce himself, he must buy in quantities and keep on hand, or else go without, for he cannot be constantly leaving his work and making a long journey to the verge of civilization; and when forced to do so, the getting of a vial of medicine or the replacement of a broken auger may cost him the labor of himself and horses for days. Under such circumstances, though nature is prolific, the man is poor. It is an easy matter for him to get enough to eat; but beyond this, his labor will suffice to satisfy only the simplest wants in the rudest way.

He can easily get enough to eat, but cannot satisfy other desires.

The next settler will choose to live adjacent to the first, and both will benefit, helping each other with tasks difficult or impossible for one man alone.

Soon there comes another immigrant. Although every quarter section of the boundless plain is as good as every other quarter section, he is not beset by any embarrassment as to where to settle. Though the land is the same, there is one place that is clearly better for him than any other place, and that is where there is already a settler and he may have a neighbor. He settles by the side of the first comer, whose condition is at once greatly improved, and to whom many things are now possible that were before impossible, for two men may help each other to do things that one man could never do.

Another immigrant comes, and, guided by the same attraction, settles where there are already two. Another, and another, until around our first comer there are a score of neighbors. Labor has now an effectiveness which, in the solitary state, it could not approach. If heavy work is to be done, the settlers have a logrolling, and together accomplish in a day what singly would require years. When one kills a bullock, the others take part of it, returning when they kill, and thus they have fresh meat all the time. Together they hire a schoolmaster, and the children of each are taught for a fractional part of what similar teaching would have cost the first settler. It becomes a comparatively easy matter to send to the nearest town, for some one is always going. But there is less need for such journeys. A blacksmith and a wheelwright soon set up shops, and our settler can have his tools repaired for a small part of the labor it formerly cost him. A store is opened and he can get what he wants as he wants it; a postoffice, soon added, gives him regular communication with the rest of the world. Then come a cobbler, a carpenter, a harness maker, a doctor; and a little church soon arises. Satisfactions become possible that in the solitary state were impossible. There are gratifications for the social and the intellectual nature—for that part of the man that rises above the animal. The power of sympathy, the sense of companionship, the emulation of comparison and contrast, open a wider, and fuller, and more varied life. In rejoicing, there are others to rejoice; in sorrow, the mourners do not mourn alone. There are husking bees, and apple parings, and quilting parties. Though the ballroom be unplastered and the orchestra but a fiddle, the notes of the magician are yet in the strain, and Cupid dances with the dancers. At the wedding, there are others to admire and enjoy; in the house of death, there are watchers; by the open grave, stands human sympathy

More immigrants arrive, and for the same reason, settle near one another. Labor has now an effectiveness which in the solitary state it could not approach, as people co-operate and specialize.

As growth continues, the benefits of community increase. Services become available, and social life develops.

to sustain the mourners. Occasionally, comes a straggling lecturer to open up glimpses of the world of science, of literature, or of art; in election times, come stump speakers, and the citizen rises to a sense of dignity and power, as the cause of empires is tried before him in the struggle of John Doe and Richard Roe for his support and vote. And, by and by, comes the circus, talked of months before, and opening to children whose horizon has been the prairie, all the realms of the imagination—princes and princesses of fairy tale, mailclad crusaders and turbaned Moors, Cinderella's fairy coach, and the giants of nursery lore; lions such as crouched before Daniel, or in circling Roman amphitheater tore the saints of God; ostriches who recall the sandy deserts; camels such as stood around when the wicked brethren raised Joseph from the well and sold him into bondage; elephants such as crossed the Alps with Hannibal, or felt the sword of the Maccabees; and glorious music that thrills and builds in the chambers of the mind as rose the sunny dome of Kubla Khan.

Go to our settler now, and say to him: "You have so many fruit trees which you planted; so much fencing, such a well, a barn, a house—in short, you have by your labor added so much value to this farm. Your land itself is not quite so good. You have been cropping it, and by and by it will need manure. I will give you the full value of all your improvements if you will give it to me, and go again with your family beyond the verge of settlement." He would laugh at you. His land yields no more wheat or potatoes than before, but it does yield far more of all the necessities and comforts of life. His labor upon it will bring no heavier crops, and, we will suppose, no more valuable crops, but it will bring far more of all the other things for which men work. The presence of other settlers—the increase of population—has added to the

Go to our settler now and offer to pay for his improvements, so he can go again to the frontier and get more fertile land. He would laugh at you. His land yields no more wheat than before, but it does yield far more of the necessities and comforts of life.

productiveness, in these things, of labor bestowed upon it, and this added productiveness gives it a superiority over land of equal natural quality where there are as yet no settlers. If no land remains to be taken up, except such as is as far removed from population as was our settler's land when he first went upon it, the value or rent of this land will be measured by the whole of this added capability. If, however, as we have supposed, there is a continuous stretch of equal land, over which population is now spreading, it will not be necessary for the new settler to go into the wilderness, as did the first. He will settle just beyond the other settlers, and will get the advantage of proximity to them. The value or rent of our settler's land will thus depend on the advantage which it has, from being at the center of population, over that on the verge. In the one case, the margin of production will remain as before; in the other, the margin of production will be raised.

Population still continues to increase, and as it increases so do the economies which its increase permits, and which in effect add to the productiveness of the land. Our first settler's land, being the center of population, the store, the blacksmith's forge, the wheelwright's shop, are set up on it, or on its margin, where soon arises a village, which rapidly grows into a town, the center of exchanges for the people of the whole district. With no greater agricultural productiveness than it had at first, this land now begins to develop a productiveness of a higher kind. To labor expended in raising corn, or wheat, or potatoes, it will yield no more of those things than at first; but to labor expended in the subdivided branches of production which require proximity to other producers, and, especially, to labor expended in that final part of production, which consists in distribution, it will yield much larger returns. The wheatgrower may go further on,

The growth of population has added to the productiveness of labor bestowed upon this land, making it superior to land of equal natural quality where there are as yet no settlers.

Population continues to increase. Our settler's land being the center of population, shops are set up on it. Soon arises a village which grows into a town. The land is no more productive for agriculture, but to labor expended in types of production which require proximity to other producers or to customers, it will yield much larger returns.

This excess of productiveness for such purposes the landowner can claim. And so our settler can sell in building lots a few of his acres, and with the proceeds build and furnish himself a fine house. That is, the people who wish to use the land build and furnish the house for him.

and find land on which his labor will produce as much wheat, and nearly as much wealth; but the artisan, the manufacturer, the storekeeper, the professional man, find that their labor expended here, at the center of exchanges, will yield them much more than if expended even at a little distance away from it; and this excess of productiveness for such purposes the landowner can claim just as he could an excess in its wheat-producing power. And so our settler is able to sell in building lots a few of his acres for prices which it would not bring for wheatgrowing if its fertility had been multiplied many times. With the proceeds, he builds himself a fine house, and furnishes it handsomely. That is to say, to reduce the transaction to its lowest terms, the people who wish to use the land build and furnish the house for him, on condition that he will let them avail themselves of the superior productiveness which the increase of population has given the land.

Population still keeps on increasing, giving greater and greater utility to the land, and more and more wealth to its owner. The town has grown into a city—a St. Louis, a Chicago or a San Francisco—and still it grows. Production is here carried on upon a great scale, with the best machinery and the most favorable facilities; the division of labor becomes extremely minute, wonderfully multiplying efficiency; exchanges are of such volume and rapidity that they are made with the minimum of friction and loss. Here is the heart, the brain, of the vast social organism that has grown up from the germ of the first settlement; here has developed one of the great ganglia of the human world. Hither run all roads, hither set all currents, through all the vast regions round about. Here, if you have anything to sell, is the market; here, if you have anything to buy, is the largest and the choicest stock. Here intellectual activity is gathered into a focus, and here

Population keeps increasing, and the town has grown into a large city.

springs that stimulus which is born of the collision of mind with mind. Here are the great libraries, the storehouses and granaries of knowledge, the learned professors, the famous specialists. Here are museums and art galleries, collections of philosophical apparatus, and all things rare, and valuable, and best of their kind. Here come great actors, and orators, and singers, from all over the world. Here, in short, is a center of human life, in all its varied manifestations.

So enormous are the advantages which this land now offers for the application of labor, that instead of one man with a span of horses scratching over acres, you may count in places thousands of workers to the acre, working tier on tier, on floors raised one above the other, five, six, seven and eight stories from the ground, while underneath the surface of the earth engines are throbbing with pulsations that exert the force of thousands of horses.

All these advantages attach to the land; it is on this land and no other that they can be utilized, for here is the center of population—the focus of exchanges, the market place and workshop of the highest forms of industry. The productive powers which density of population has attached to this land are equivalent to the multiplication of its original fertility by the hundredfold and the thousandfold. And rent, which measures the difference between this added productiveness and that of the least productive land in use, has increased accordingly. Our settler, or whoever has succeeded to his right to the land, is now a millionaire. Like another Rip Van Winkle, he may have lain down and slept; still he is rich—not from anything he has done, but from the increase of population. There are lots from which for every foot of frontage the owner may draw more than an average mechanic can

So enormous are the advantages which this land now offers for application of labor, that in places there are thousands of workers on each acre.

These advantages attach to this land, and no other, for here is the center of population. Our settler, or whoever has succeeded to his right to the land, is now a millionaire, not due to anything he has done, but from the increase in population.

earn; there are lots that will sell for more than would suffice to pave them with gold coin. In the principal streets are towering buildings, of granite, marble, iron, and plate glass, finished in the most expensive style, replete with every convenience. Yet they are not worth as much as the land upon which they rest—the same land, in nothing changed, which when our first settler came upon it had no value at all.

Anyone in a progressive country can see for himself that this is the way in which increase of population increases rent. It is not so much because inferior lands need to be put into use, but because of the increased productiveness which increased population gives to land already in use.

That this is the way in which the increase of population powerfully acts in increasing rent, whoever, in a progressive country, will look around him, may see for himself. The process is going on under his eyes. The increasing difference in the productiveness of the land in use, which causes an increasing rise in rent, results not so much from the necessities of increased population compelling the resort to inferior land, as from the increased productiveness which increased population gives to the lands already in use. The most valuable lands on the globe, the lands which yield the highest rent, are not lands of surpassing natural fertility, but lands to which a surpassing utility has been given by the increase of population.

The valuable quality of such lands is simply its surface capacity; its physical characteristics are not important.

The increase of productiveness or utility which increase of population gives to certain lands, in the way to which I have been calling attention, attaches, as it were, to the mere quality of extension. The valuable quality of land that has become a center of population is its superficial capacity—it makes no difference whether it is fertile, alluvial soil like that of Philadelphia, rich bottom land like that of New Orleans; a filled-in marsh like that of St. Petersburg, or a sandy waste like the greater part of San Francisco.

And where land's value does arise from superior natural qualities, those qualities are rendered tangible

And where value seems to arise from superior natural qualities, such as deep water and good anchorage, rich deposits of coal and iron, or heavy timber, observation also shows that these superior qualities are brought out, rendered

tangible, by population. The coal and iron fields of Pennsylvania, that today are worth enormous sums, were fifty years ago valueless. What is the efficient cause of the difference? Simply the difference in population. The coal and iron beds of Wyoming and Montana, which today are valueless, will, in fifty years from now, be worth millions on millions, simply because, in the meantime, population will have greatly increased.

only by
population.

It is a well-provisioned ship, this on which we sail through space. If the bread and beef above decks seem to grow scarce, we but open a hatch and there is a new supply, of which before we never dreamed. And very great command over the services of others comes to those who as the hatches are opened are permitted to say, "This is mine!"

To recapitulate: The effect of increasing population upon the distribution of wealth is to increase rent, and consequently to diminish the proportion of the produce which goes to capital and labor, in two ways: First, by lowering the margin of cultivation. Second, by bringing out in land special capabilities otherwise latent, and by attaching special capabilities to particular lands.

To recapitulate: Increasing population increases rent in two ways: First by lowering the margin of cultivation; second by bringing out special capabilities in particular lands. I think that the latter mode is the more important.

I am disposed to think that the latter mode, to which little attention has been given by political economists, is really the more important. But this, in our inquiry, is not a matter of moment.