CHAPTER III

THE FERTILITY OF LAND, CONTINUED. THE TENDENCY TO DIMINISHING RETURN

§ 1. The law of or statement of tendency to Diminishing Return may be provisionally worded thus:

An increase in the capital and labour applied in the cultivation of land causes in general a less than proportionate increase in the amount of produce raised, unless it happens to coincide with an improvement in the arts of agriculture.

We learn from history and by observation that every agriculturist in every age and clime desires to have the use of a good deal of land; and that when he cannot get it freely, he will pay for it, if he has the means. If he thought that he would get as good results by applying all his capital and labour to a very small piece, he would not pay for any but a very small piece.

When land that requires no clearing is to be had for nothing, everyone uses just that quantity which he thinks will give his capital and labour the largest return. His cultivation is "extensive," not "intensive." He does not aim at getting many bushels of corn from any one acre, for then he would cultivate only a few acres. His purpose is to get as large a total crop as possible with a given expenditure of seed and labour; and therefore he sows as many acres as he can manage to bring under a light cultivation. Of course he may go too far: he may spread his work over so large an area that he would gain by concentrating his capital and labour on a smaller space; and under these circumstances if he could get command over more capital and labour so as to apply more to each acre, the land would give him an Increasing Return; that is, an extra return larger in proportion than it gives to his present expenditure. But if he has made his calculations rightly, he is using just so much ground as will give him the highest return; and he would lose by concentrating his capital and labour on a smaller area. If he had command over more capital and labour and were to apply more to his present land, he would gain less than he would by taking up more land; he would get a Diminishing Return, that is, an extra return smaller in proportion than he gets
for the last applications of capital and labour that he now makes, provided of course that there is meanwhile no perceptible improvement in his agricultural skill. As his sons grow up they will have more capital and labour to apply to land; and in order to avoid obtaining a diminishing return, they will want to cultivate more land. But perhaps by this time all the neighbouring land is already taken up, and in order to get more they must buy it or pay a rent for the use of it, or migrate where they can get it for nothing.\footnote{Increasing return in the earlier stages arises partly from economy of organization, similar to that which gives an advantage to manufacture on a large scale. But it is also partly due to the fact that where land is very slightly cultivated the farmer's crops are apt to be smothered by nature's crops of weeds. The relation between \textit{Diminishing and Increasing Return} is discussed further in the last chapter of this Book.}

This tendency to a diminishing return was the cause of Abraham's parting from Lot,\footnote{"The land was not able to bear them, that they might dwell together: for their substance was great, so that they could not dwell together." Genesis xiii. 6.} and of most of the migrations of which history tells. And wherever the right to cultivate land is much in request, we may be sure that the tendency to a diminishing return is in full operation. Were it not for this tendency every farmer could save nearly the whole of his rent by giving up all but a small piece of his land, and bestowing all his capital and labour on that. If all the capital and labour which he would in that case apply to it, gave as good a return in proportion as that which he now applies to it, he would get from that plot as large a produce as he now gets from his whole farm; and he would make a net gain of all his rent save that of the little plot that he retained.

It may be conceded that the ambition of farmers often leads them to take more land than they can properly manage: and indeed almost every great authority on agriculture, from Arthur Young downwards, has inveighed against this mistake. But when they tell a farmer that he would gain by applying his capital and labour to a smaller area, they do not necessarily mean that he would get a larger gross produce. It is sufficient for their argument that the saving in rent would more than counterbalance any probable diminution of the total returns that he got from the land. If a farmer pays a fourth of his produce as rent, he would gain by concentrating his capital and labour on less land, provided the extra capital and labour applied to each acre gave anything more than three-fourths as good a return in proportion, as he got from his earlier expenditure.

Again, it may be granted that much land, even in a country as advanced as England, is so unskilfully cultivated that it could be made to give more than double its present gross produce if twice