

from a nominal to a fair rent, are practical evidences of the value of the permanent improvements produced by draining, warping, irrigation, and subsoil ploughing. They are evidences too, which while they profess to record what the system has done for individuals, are really illustrations of what it is doing for all.

Such, then, is the brief sketch of the advance made in the several departments of English agriculture up to the present period. Of the whole progress the one county of Lincoln is a lucid epitome. Divided into three natural portions, the *fens*, the *heaths*, and the *wolds*, the former of which, 50 years ago, was an unprofitable marsh, and the latter, barren sheep-walks or miserable oat-lands; yet now, by the aid of draining, 200,000 acres of the fens are luxuriant pastures, which bear a heavy stock of as fine cattle as can be met with in England; while the wolds and the heaths, by the adoption of the turnip and clover culture, and the use of bones and rape dust, send to the market countless flocks of sheep, and as fine samples of wheat as can be found anywhere.

Thus we learn from the evidence of Mr. R. J. Atkinson, Mr. Francis Isles, and Mr. John Houghton, (vide "Compendium of Evidence before Committee of House of Commons, 1837"), that on the whole of the lands from *Louth* to *Barton*, where thirty or forty years ago *what was scarcely tanned*, and the land was, generally speaking, *uncultivated*, much improvement has been made, even within ten years; that 25 to 30 bushels of wheat is an average crop; that it is of a fine quality, and can compete in the markets with that grown on strong lands; also, that *when clay land has been drained*, in some districts, it will bear green crops.

And the general results of the same agency throughout England are, that wheat, instead of being a luxury confined to the rich, is now the staff of the poor man's strength. The quaking morass and the arid moor wave with the golden grain, and the acre which formerly gave back four times the seed, now returns it from eight to ten fold. Instead, too, of winter being a season of starvation to the cattle, when existence was all that could be hoped for, it is now essentially the season for fat and plenty; for if the turnip cultivation has given the grazer the power of increasing the *quantity*, the skill of the breeder has equally increased the *quality* of his stock. This will be seen from the estimated weight of cattle and sheep at Smithfield market, at three different periods, by Davenant, McCulloch, and Youatt:—

1810. Davenant estimates cattle at 26 st. 6 lbs. Sheep and lambs, 2 stone each.

1830. McCulloch estimates cattle at 39 st. 4 lbs. Sheep and lambs, 3 stone 8 lbs.

1840. Youatt estimates cattle at 46 stone 12 lbs. Sheep and lambs, 6 st. 6 lbs.

But all these may be summed up in one grand national result, that *while we have increased in name and in numbers we have increased still faster in wealth and in the means of life.*

Such, then, is a brief glance at the progress of English agriculture. Trivial as has been the record which we have been able to give of it, sufficient of both cause and effect has been developed in the history of the past, to make our prophecy for the

*In 1387, the manor farm at Hawstead, (Suffolk), produced on 66 acres only 552 bushels of wheat, or not quite 8½ bushels per acre. The average of England is now 24 bushels per acre. According to the same authority, (Cullum's Hawstead), 26 acres of barley returned 52 qrs 2 bushels; 62 acres of oats returned 40 qrs. 4 bushels.

future a golden one. Such prospects, we are inclined to believe, are not delusive, not merely because it is natural to look through the past to the prospective, and it is natural also for the object to assume a tinge from the medium through which it is viewed, but because it is an axiom that like causes produce like effects; so the means which have done so much for agriculture, being continued in operation, it is fair to presume they yet do more. And that the same agency will continue to operate, we may the more safely judge, because nearer we look to the present, and more we see its effects. Thus we know that since the commencement of the present century, our produce has increased faster than our population. Between 1800 and 1820 this is evident, but it is more so from 1820 to the present time. Thus even Mr. McCulloch says, "The price of wheat in England, at an average of the ten years ending with 1820, was no less than 83s. 6d. per quarter; its average price has since, as we have just seen, been reduced to 56s. 11½d. per quarter; and yet, notwithstanding this tremendous fall, a most extraordinary improvement has taken place in agriculture since 1820, so much so that we now provide for an additional population, not only without any increase, but with a very considerable diminution of importation."

If we look, however, from 1830 to 1840, we see still more clearly the operation of the spirit of progression; and in the individual and united efforts of the agriculturists, in fostering every germ of improvement, at this present moment, we have a still surer evidence that it is not yet inoperative. If we know, then, that the wheel of improvement has had an *impetus*, and that that impetus has kept increasing up to the present time, may we not conclude that it will not yet stop?

But there is another consideration which induces us to picture bright prospects for agriculture. The progress which has been lately made has not been a progress of extension of the practice merely, but an extension of the knowledge of the science of agriculture; for if we look to the twenty years preceding 1820, we shall find that 1677 enclosure bills were passed, and that 3,068,910 acres of land were brought into cultivation, while in the ten years after 1820, only 186 enclosure bills were passed, and 340,480 acres reclaimed; and yet it is a remarkable fact, that the necessities of life were more plentiful in the latter period than in the former.

The advance, therefore, that has been made is an advance that cannot be forgotten. It is an achievement of the mind over the mysteries of matter; and now, that the fruit of the conquest is tasted, it will incite to other and more extensive exploits.

But while the past performances and present principles of agriculture entitle us to hold out such prospects, and to anticipate with a hope amounting to conviction, that they will be gloriously realized, we must not forget that the brightest object has a shadow. So it is our duty to notice that even now a cloud hangs about the horizon, which by threatening the glory of the day, throws a partial gloom over the brightness of the morning of these prospects. Thus, with a full knowledge of what has been done, and what may yet be done, if be permitted to use the same means, the English farmer is, at the present time repressed in his exertions by a fear which is not without some foundation. The immense efforts made by a certain class to deprive him of the protection, on the faith of which he has buried his capital in the improvement of the soil, is this foundation. It is not our object to discuss the merits or demerits of the free trade theory;

so far, however, as it interferes with the prospects of agriculture, as faithful chroniclers, we must allude to it. And that it should in some degree mar these prospects is not strange, when it is considered that the declared object of the theory is to reduce the price of the English farmer's products to a level with those of the Continent, and the declared effect (vide Lord W. Russell's speech), that two or three millions of acres of land must go out of cultivation; and according to Lord Spencer, that even the good land would go out of corn cultivation, and be converted into pasturage.

Knowing, then, these designs, knowing too, that in his present situation in society, with heavily taxed soils, and with dear labour, he cannot compete with the produce of the untaxed soil and cheap labour of the Continent; and that the land upon which he has invested the most capital in improvements or in tillage must suffer first, because the interest of this capital has to be repaid by the increased crop, and because the management of such soils is the most expensive (as natural deficiencies cannot be supplied artificially without expense); knowing, we say this, is it possible for him, at the present time not to feel misgivings to hesitate, and often to finally relinquish those improvements which, were he sure of reaping a fair return for his capital, he would undertake?

Whether or not it be proper national policy to experiment with such a great and important interest, and to produce so much certain evil for an uncertain good; whether or not it be justice to unroof one house to repair another; and whether, or not, Mr. Van Buren's opinion, that "nothing can compensate a nation for a dependence upon others for the bread they eat," be a fallacious one, I leave. Thus much, however, we are compelled to say, that the very agitation of the question, and the possibility of a measure being passed by the legislature, which would reduce the farmer's produce to a rate lower than he can afford, has a tendency to mar, in some degree, the present prospects of English agriculture, and to check that spirit of improvement that has already secured to England, along with its fast increasing population, a still faster increasing production of the necessities of life; and this attained, it is said, that population is the measure of a nation's prosperity; without it, the index of its ruin.

Thus, then, is the cloud which by threatening the future condition of agriculture, throws a partial gloom over its present prospects. We say a partial gloom, because we have every assurance that it will soon pass away. The reasons adduced at the commencement of this portion of our subject, incline us to believe that bright prospects have yet to be realized; and a knowledge of the position which the friends of agriculture hold in the country, the exertions which they have made to promote its improvement, and their knowledge of its importance as a national interest, convinces us that this cloud will not be permitted to destroy them. Had this "heavy blow and great discouragement" been contemplated before English agriculture had assumed its present standing, as a science it might perhaps have been carried into effect. It never can now. Ignorance and apathy are no longer the characteristics of the guardians of the soil. The lamps of science shed their light over the once dreary waste, and in it the statesman sows the seeds of national independence and prosperity, and the philosopher finds food for the mind; and it will not be made the subject of an experiment. Never will such a great interest be risked for the sake of trying a novel theory.