

Live stock, in which we include horses, oxen, asses, sheep, goats, swine, geese, ducks, hens, bees, &c., &c., occupied their care and attention. And the various breeds were propagated upon principles, some of which would be well worthy of attention at the present day.

Indeed, let us look which way we will upon the subject, we find the high estimation in which it was held as a profession, an index of its advance as a practice. It is, therefore, fair to presume not merely that the Roman colonists introduced a system of agriculture into Britain, as stated by all authorities, but that they introduced the Roman system, and made use of Roman experience in practicing it. Reason tells us it must have been so; for facts, some of which we have mentioned, show that she did so, with respect to every other art, science, or custom, not merely in Britain, but wherever she carried her victorious arms.

In the preceding sketch, therefore, of the practice of the Romans, we obtain a pretty correct, and indeed the only view of the agriculture of England, during the first five centuries of the Christian era. It is true, that a difference in the climate, &c., might cause some slight variation in the practices of the two countries. But, in the foregoing summary of agricultural knowledge, as practiced by the Romans, during the time Britain was a part of their Empire, it will be obvious that we have recorded nothing but what was adapted to England. It would, therefore, be fair to infer that every practice there mentioned was adopted. Assuming this, and looking forward for a thousand years, we observe the phenomena which we have before mentioned, as characterizing the progress (if it be not an *Hypermeism*, so to call it), of agriculture till a late period. For even if we make the liberal allowance for a degeneracy in the science, owing to the transplanting it from Italian to English soil, we cannot, till after the sixteenth century, discover the least improvement developed in the practice.

Thus we can find no advance made in the use of tillages, in the construction of implements, or in permanent improvements.—The old Roman system of alternate crop and fallow, or at most, of two crops and a fallow, still held its unquestioned sway.—Nor do we discover any traces of those artificial grasses which Gibbon tells us increased the number of herds and the fertility of the soil. It is possible, however, that the Romans never did introduce these into England, or they could scarcely have gone completely out of use. Owing to this, we find that the principal part of the land was grazed on open commons; while those lands nearest their habitations were cultivated for the growth of corn. The consequence of this was, that as there was no fodder to be had, but such as was grown on natural meadows, the cattle starved upon the hungry common during winter, and the enclosed land, owing to no manure being made, grew gradually less productive. Thus we are told that they experienced the greatest difficulty in keeping their cattle alive during winter; that many died, and many were killed (to use an Irishism) to keep them from dying. That their oxen, too, were so badly fed, that it required six to plough half an acre per day; and that four times the seed was reckoned a fair crop under this management.

Their variety of crops was very limited, oats, barley, rye, pease, being the staple productions. Wheat, the farmers' paying crop, was then very little known. Thus, Tusser says:—

"In Suffolk again, where wheat never grew."

Even at the commencement of the 17th century, it was a luxury confined to the tables of the nobility of the land.

The most important part of the farmer's possessions was the live stock. And it only wanted a better system of management in the production of food, to have made him progress in this branch of his profession.—Cattle, however, could make but a poor growth on the common pastures, or indeed, upon any pastures during the winter months, and consequently, they were a scarce stock. Sheep could do no better upon this method, and thus, with the demand for wool, caused them to be kept in great quantities. The neglect of cattle for sheep, had so increased, that we find it ordained in 1533, that no man should keep more than 2,400 sheep, (25 H. 8. c. 31), and in 1553, that wherever there were 66 sheep, a cow should be kept; and a calf bred wherever there were 120, (2 and 3 Phil. and Mary, c. 3).

Nor was its standing as a profession very high. The position of the farmer was that of the humble and contented labourer, and his qualifications were industry and sobriety. Education and research were unnecessary, and consequently unknown. His path was the path of his predecessor; it was well beaten, and was easily travelled upon. But no where do we discover so closely, the characteristics of a people, as in the customs and duties of their women. No where do we see the station of the man more plainly than in the bearing of his help-mate. Apply this principle, in the present instance, and the farmer's true position will require no further illustration; for we are told by Sir A. Fitzherbert, that it was "the wife's occupation to winnow all corn, to make malt, to wash and wring, to make lay, to shear corn, and in time of need, to help her husband to fill the muckwain, or dung cart, to drive the plough, to load corn, hay, and such," &c., &c.

Such then was the position which agriculture, after a practice of more than 1,600 years, had assumed. From the middle of the 17th to the middle of the 18th century, a change began to creep over its spirit, the effects of which are evident in the practice of the present century. And it is now our duty to examine the influence which promoted this change.

Time is the parent of change. As there is a natural tendency in man to increase in knowledge and in strength, up to a certain period, so is there in every art or science, to advance towards, if not to attain perfection. That this spirit should operate upon agriculture is natural; that, however, it should be so long unmanifested, is a phenomena produced by certain influences; and to the removal of these influences we must ascribe its manifestation at all. Thus, if we saw a youth making no progress in size, from the age of 5 to 15 years, and then beginning to shoot upward, it would be his former stoppage, not his present growth, which would be marvellous. We should ascribe this to the removal of some disordered functions which had obstructed his natural tendency. What then was the disorder which obstructed that progress which agriculture ought to have made, and to the destruction of the influence of which we owe the after progress of the science.

That frequent changes of proprietorship from the Romans to the Saxons, the Danes, and the Normans, the ravages of war, the iron hand of feudalism and priestly domination over the mind, are amongst these influences, cannot be doubted; and for some centuries we may allow that they would be predominant. When, however, we consider that it was long after these influences were

diminished before agriculture began to awake from its lethargy; when we look at the great progress made in every domestic polished art, during the 14th, 15th, and 16th centuries, and when we consider that science had fixed upon a footing of security, trade, manufactures, and commerce; and that the paths of learning and literature could show the footsteps of such men as Chaucer, Leland, Ascham, Tyndale, Caxton, Sydney, Spenser, Shakspeare, Bacon, Milton, &c., &c., before agriculture had advanced one step towards laying the foundation of future excellence, we must call to our aid some other influence to account for the phenomena. This we shall find in itself.—Every age has a marked spirit which stamps with its influence every improvement, and tinges every event. Every science, too, at certain periods, feels a peculiar influence, which turns its energies to the development or non-development of truth. And by the combined operation of one spirit upon agriculture, we may explain the lethargic existence of English agriculture.

It was the oldest science, and consequently was considered to be the best *known* practice; whence, to use language we have before employed, "it became the youngest in theory; and without principles to regulate its common usage, sanctioned by ancient dogmas, ruled in their stead. Under all circumstances, these remained the same, and of course the practice varied not. The road which custom had marked out was *beaten and smooth*, and the farmer continued to travel upon it. It was a circle too, and brought him always to the place he started from; and he never lost himself.—But in travelling upon one path, and at one pace for a length of time, we both wear out the road, and incapacitate ourselves for travelling at any other pace. So a long course of injudicious management and cropping, not only exhausted the arable land, but, as the fatalism of the Turks has prevented them from marching on with contemporary nations in the scale of civilization, the practice of a science, the cultivation of which (the same here and every where) required no exertion of mind, deadened the spirit of inquiry in the farmer, and left him an easy uninquiring being, knowing nothing from himself, but governed by an hereditary feeling of obedience to ancient usage."

This, then, was the weight which bound down our agriculture to one long mediocrity. It was considered merely an *imitative* science, instead of an *experimental* one, which, owing to its great variety of operations, and the many different circumstances affecting these operations, it must also be considered, if we would cultivate it with success; for, says Varro, "Nature has given us two ways to agricultural knowledge; imitation and experience. Preceding husbandmen, by experiment, have established many maxims which their posterity generally imitate, but we ought not only to imitate others, but to make experiments, not dictated by chance, but by reason."

But it was not till the middle of the 17th century, that this evil influence began fairly to lose its power. In the Elizabethan age, the mind of man appears to have received a general stimulus, the effect of which is sufficiently manifest in the progress of every branch of human knowledge, and agriculture appears soon after to show some marks of general advance.

It was not however till a much later period in the 18th century, when modern science (by pursuing a system of observation and research, in which the mind of the observer, and the stores of the science were improved at the same time), had, by its