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MODEL FARM

AND AGRICULTURAL SCHOOL NEAR DUBLIN.

By Henry Colman.

There is an establishment connected with the agriculture of Ireland, which is in the immediate neighbourhood of Dublin, and which I have visited with the greatest pleasure, and that is a Model Farm and an Agricultural School. The national government have determined to appropriate seventy-five thousand pounds annually to the cause of education in Ireland, to be distributed, in proportions corresponding to the subscriptions of individuals for the same objects, in parts of the country where education is most needed. It is considered, and with good reason, that the great want, among the people, is a want of knowledge in applying and using the means of subsistence within their reach; that there is no indisposition on their part to labor; that there is as yet an ample extent of uncultivated land capable of being redeemed and rendered productive; and that a principal source of the wretchedness, and want, and starvation, which prevail in some parts of this country, often to a fearful extent, is attributable to the gross ignorance of the laboring classes of the best modes of agriculture and of rural economy. With this conviction upon their minds, the commissioners have determined to connect with all their rural schools a course of teaching in scientific and practical agriculture, communicating a knowledge of the simple elements of agricultural chemistry; of the best modes and operations of husbandry which have been adopted in any country; of the nature, and character, and uses, of the vegetables and plants necessary or useful to man or beast; of the improved kinds of live stock, and of the construction and use of the most improved and most approved farming implements and machinery.—With these views, it is their intention to train their schoolmasters and to send out such men as are apt and qualified to teach these most useful branches. For this purpose the government have established this model farm, which was begun in 1833, and which has already, in a greater or less measure, qualified and sent out seven hundred teachers. To my mind it seems destined to confer the most important benefit upon Ireland, and I may add upon the world, for so it happens under the benignant arrangements of the Divine Providence, the benefits of every good measure or effort for the improvement of mankind proceed, by a sort of reduplication, to an unlimited extent; these teachers shall instruct their pupils, and these pupils become in their turn the teachers; and the good seed, thus sown and widely scattered, goes on yielding its constantly-increasing products, to an extent which no human imagination can measure. Three thousand schoolmasters are at this moment demanded for Ireland, and the government are determined to supply them. Happy is it for the country, and honorable to human nature, when, instead of schemes of avarice, and dreams of ambition, and visions of conquest, at the dreadful expense of the comfort, and liberty, and lives, of the powerless and unprotected, the attention of those who hold the destinies of their fellow-beings in their hands is turned to their improvement, their elevation, their comfort, and their substantial welfare.

The Model Farm and Agricultural School is at a place called Glasnevin, about three miles from Dublin, on a good soil. The situation is elevated and salubrious, embracing a wide extent of prospect of sea and land, of plain and mountain, of city and country, combining the busy haunts of men, and the highest improvement of art and science with what is most picturesque and charming in rural scenery, presenting itself in its bold mountains and deep glens, in its beautiful plantations, its cultivated fields, and its wide and glittering expanse of ocean. The scenery in the neighbourhood of Dublin, with its fertile valleys, and the mountains of Wicklow, of singularly grand and

beautiful formation, bounding the prospect for a considerable extent, is among the richest which the eye can take in; and at the going down of the sun in a fine summer evening, when the long ridge of the mountains seemed bordered with a fringe of golden fire, it carried my imagination back, with an emotion which those only who feel it can understand, to the most beautiful and picturesque parts of Vermont, in the neighbourhood of Lake Champlain. I have a strong conviction of the powerful and beneficial influence of fine natural scenery, where there is a due measure of the endowment of idealism upon the intellectual and moral character; and I would, if possible, surround a place of education with those objects in nature best suited to elevate and enlarge the mind, and stir the soul of man from its lowest depths. It is at the shrine of nature, in the temple pillared by the lofty mountains, and whose glowing arches are resplendent with inextinguishable fires, that the human heart is most profoundly impressed with the unutterable grandeur of the great object of worship. It is in fields radiant with the golden harvests, and every where offering, in their rich fruits and products, an unstinted compensation to human toil, and the most liberal provision for human subsistence and comfort, and in pastures and groves animated with the expressive tokens of enjoyment, and vocal with the grateful hymns of ecstasy, among the animal creation, that man gathers up those evidences of the faithful, unceasing, and unbounded goodness of the Divine Providence, which most deeply touch, and often overwhelm, the heart. The Model Farm and School, at Glasnevin, has connected with it fifty-two English acres of land, the whole of which, with the exception of an acre occupied by the farm buildings, is under cultivation, and a perfect system of rotation of crops. The master of the school pays for this land a rent of five pounds per acre, and expenses carry the rent to eight pounds per acre. Twelve poor boys, or lads, live constantly with him, for whose education and board, besides their labor, he receives eight shillings sterling per week. They work, as well as I could understand, about six hours a day, and devote the rest of the time to study, or learning. The course of studies is not extensive, but embraces the most common and useful branches of education, such as arithmetic, geography, natural philosophy, and agricultural, in all its scientific and practical details. They have an agricultural examination, or lecture, every day. I had the gratification of listening to an examination of fourteen of these young men, brought out of the field from their labor; and cheerfully admit that it was eminently successful, and in the highest degree creditable both to master and pupil. Besides these young men who live on the farm, the young men in Dublin, at the normal school, who are preparing themselves for teachers of the national schools, are required to attend at the farm and assist in its labors a portion of the time, that they may become thoroughly acquainted with scientific and practical agriculture in all its branches, and be able to teach it; the government being determined that it shall form an indispensable part of the school instruction throughout the island. The great objects, then, of the establishment, are to qualify these young men for teachers by a thorough and practical education in the science, so far as it has reached that character, and in the most improved methods and operations of agriculture. Besides this, it is intended to furnish an opportunity to the sons of men of wealth, who, may be placed here as pupils, to acquire a practical knowledge of, and a familiar insight into, all the details of farming. This must prove of the highest importance to them in the management of their own estates.

The superintendent was pleased to show me his accounts in detail, which convinced, as far as I could ascertain, a successful and profitable management; but as there were several material elements to be taken into the calculation, I shall not speak with any confidence on this subject, without further information, which cannot now be had, but which I

shall take pains to give in the fullest manner hereafter.

As the crops were uncommonly fine, and the whole cultivation and management, as far as it appeared, excellent, I shall detail some few particulars in a cursory manner.

The first object was to illustrate the best system of rotation of crops; and three systems of alternate husbandry were going on; one of a course of three crops, one of five, and one of nine; and one special object pursued in one department of the farm was to show the most eligible course of management of a single acre of land, so as to give an example of the best system of cottage husbandry for the poor man, who might have only a small allotment of land, and whose object would be to feed a cow and a pig, and to get what supplies he could for his family. Such lessons, it is obvious, must appear of the highest importance in Ireland, when we consider the condition of its peasantry, and cannot be without their advantages to every cultivator of land. Another object aimed at is to show that a farm is capable of being kept in condition from its own resources, and from the consumption of the principal part of the produce upon the land. No manure is ever purchased here, and the manager professed to have an ample supply. Six years' trial, with crops of the highest productiveness, and indicating no diminution, but rather an increase of yield, seems to have satisfactorily established this point. The provisions for saving all the manure, both liquid and solid, for managing the compost heap, and for increasing its quantity by the addition of every species of refuse that can be found, are complete. The stock consists of seventeen cows, one bull, six young stock, two horses and one pony, and they are all carefully stall-fed, in clean, well littered, and well-ventilated stables, with ample space before and behind them, and turned out for recreation in a yard, about two hours in a day. The manure heap is in the rear of the stables, is always carefully made up, and kept well covered with soil, or sods, or weeds, so as to prevent evaporation, retain the effluvia, and increase the quality. The liquid manure is collected by spouts, from the stables, into a tank, from which it is, as often as convenient, pumped up, and thrown, by an engine pipe attached to the pump, over the heap; and that portion of it which is not retained, but passes off, is caught again in another tank, and again returned upon the heap by the same process as before. The skilful manager of the farm prefers this method to that of applying the liquid manure directly from a sprinkling machine upon his fields. Either mode may have its peculiar advantages, which I shall not now discuss.

The object of each is to save and to use the whole, and I am determined, so important do I deem it, never to lose a fair opportunity of reminding the farmers that the liquid manure of any animal, if properly saved and applied, is of equal value as the solid portions; but in most places this is wholly lost. The manure for his crops he prefers to plow in the autumn; and the extraordinary crop of potatoes grown by him are powerful testimonies in favor of his management.

His potatoes give an average yield of eighteen tons (gross weight) to an English acre, which, allowing fifty-six pounds to the bushel, would be seven hundred and twenty bushels. He has grown twenty-two tons to an English acre.—Either of these quantities, in New-England and in Old-England, would be considered a magnificent crop. He plants his potatoes either in ridges thirty inches asunder, with the potatoes, or sets eighteen inches apart in the drills or else in what here is called the *lazy-bed fashion*, which is a common practice, but which, as it respects the labor required, is altogether misnamed. In this case, the land is dug or plowed, and thrown into beds of about three feet wide first form by ridging for back-furrowing with the plow and after wards covered with earth, thrown from a ditch between the beds about eighteen inches in width and running between all the beds. After this bed is smoothed off, the potatoes

are planted upon it, in rows, crosswise, at the distance of eighteen inches by thirty inches apart and they are then covered with about four inches of earth taken out of the intermediate ditch with a spade. After the potatoes are fairly above ground, they have a second covering of four inches of earth, as before, and this comprehend the whole of their cultivation in the *lazy-bed-fashion*. When they are planted in drills and ridges, the space between the ridges is never suffered to be disturbed by a plow, but is simply dug with a spade, as it is an important object to avoid injuries the young fibrous roots of the plant, upon which the tubers are formed. The potatoes are kept, in this way, with an occasional application of the hand to the weeds, entirely clean; and the luxuriance of their growth through out a large field, as far as my observation goes was never surpassed. By his management of his manure, sprinkling the heap with the liquid portions, and so keeping up, through the summer, a slight but constant fermentation, not only all the weeds thrown upon it are rotted, but the seeds of these weeds are effectually destroyed. He says the largest crop of potatoes which he ever produced was had in a field where the sets were placed over the whole field, at a distance of a yard each way from each other. He prefers always planting whole potatoes, of a medium size, to cutting them. He showed me a portion of the field, which had been planted with cuttings of potatoes, sent him by a friend, of a new and valuable kind, and which he cut with a view to planting more land; but the difference in their appearance was most marked, and showed an inferiority of as one to three to those which were planted whole. Ten bushels of seed he considers sufficient for planting an acre.

His turnips promised extremely well. I remarked to him that they were sown in the drills very thickly. He replied that he had never lost his crop by the fly, and he attributed his success to two circumstances—the first, to planting his seed two inches deep, by which means the roots of the plant became extended and strong before the plant showed itself above ground; and the second, by sowing a large quantity of seed; if the flies took a portion of the plants, he would probably have an ample supply left. He suffers them to get somewhat advanced before they are thinned, and then is careful to select the healthiest and strongest plants to remain. I must not be supposed ever to endorse the opinions of another man, simply because I give them; but certainly success is the best test of judgment and skill. However interesting and ingenious a man's speculations may be, his practice is always worth vastly more than theory.

His crops of mangel wurtzel were magnificent; and he gets a great deal of green feed for his cows by plucking the under leaves; though, if too severely stripped in the autumn, they are liable to be injured by the frosts.

He sows tares and oats together for green feed for his stock. The oats serve to support the tares, and the mixture seems to be greatly relished by the animals. His great dependence for green feeding of his stock is upon the Italian rye-grass, a most valuable grass, which is very much commended wherever it is cultivated, and which, I hope, will be introduced into the United States. I saw a field of this on the farm, which had already been cut twice in the season, and was nearly ready for another cropping. In Manchester, the last autumn, I saw specimens of three cuttings of Italian rye-grass, all cut from the same field in the same season, the combined length of which was thirteen feet. This was a surprising growth, and indicated the remarkable luxuriance of the plant.

His oats give an average yield of eighty bushels to an English acre; and the oats chiefly preferred here are the Scotch potato and the Hopetown oat. The weight of the potato oats per bushel is stated to be about forty-four pounds. I have known it in the United States, the first year of its cultivation, to weigh as much but the second year not to weigh