

# THE FARMER'S MAGAZINE.

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[SECOND SERIES.

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## PLATE I.

### A CART STALLION.

Our first Plate represents a Cart Stallion bred by Mr. James Frame, of Brumfield, Lanarkshire, N.B., and is the property of Mr. Thomas Richardson, of Soliman, near Brampton, Cumberland, by whom it was exhibited at the Meeting of the Highland and Agricultural Society of Scotland, at Dumfries, in October last, and obtained a prize of Forty Sovereigns as the best Cart Stallion. The animal was also successfully exhibited at the late Meeting of the Royal Agricultural Society of England at Newcastle-upon-Tyne, where a prize of Fifteen Sovereigns was awarded to Mr. Richardson.

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## PLATE II.

### A HEREFORD OX.

Bred by Paul Prosser, Esq., of Garway Court, near Monmouth, the property of Robert Martin Layton, Esq., of Thorney Abbey, near Peterborough, Northamptonshire, for which the first prize of Twenty Sovereigns and Silver and Gold Medals were awarded at the Smithfield Cattle Show in December last.

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## REMARKS ON THE AGRICULTURE OF ABERDEENSHIRE.

BY THOMAS SULLIVAN.

### No. III.

#### FARM SERVANTS.

By far the greater proportion of the farm-work in Aberdeenshire is performed by unmarried servants. Ploughing and all other operations, requiring the labour of either horses or oxen, are, for the most part, executed by young men between seventeen and thirty years of age; while the lighter, or less laborious descriptions of work, such as the pulling and collecting of weeds, the thinning and hand-hoeing of turnips, &c., are accomplished by grown-up girls and boys.

The predilection manifested in this county, and indeed throughout the north of Scotland generally, for single servants, arises from the impression that they are, upon the whole, more convenient, useful, and economical than married men would be. They are considered by the majority of farmers in this quarter to be more active on hurried occasions, more solicitous about keeping their horses, harness, &c., in proper order, besides being in general more easily taught, and more disposed to learn improved modes of executing agricultural operations. It is, therefore, only on some of the larger farms that any married servants are regularly employed, and even on these their number is very limited. It is proper to observe here, that most of the married agricultural labourers rent a house and a small *croft*, or an allotment of land, either from the farmers, or (which is the more common practice), directly from

the proprietor; by which they are provided, not only with a home, but also with the means of profitably occupying their own and their families' leisure hours, while ample employment is usually to be had from the neighbouring farmers in draining, trenching, and other operations executed by the piece. Comparatively few of the farm-servants think of entering the matrimonial state until they are able to rent a cottage, with a croft of greater or less extent; and when the necessary capital is realized, little or no difficulty is experienced in obtaining a suitable possession.

The regular or constantly employed servants acquire different ranks on the farm, to which it may not be uninteresting to advert. Each of the larger class of farmers keeps a working steward, or *grieve* as he is termed, whose principal business is to get his master's orders duly executed, to see that the other servants and labourers faithfully discharge their respective duties, and to superintend the women and boys employed in gathering weeds, thinning turnips, &c., during the summer months; he also sows the seed in spring, and erects some of the corn stacks in harvest. The next in rank is the *foreman*, or first ploughman, who observes the time to commence and leave off work, and "feers," or marks off the ridges for ploughing; he leads the mowers in reaping, and assists the *grieve* in stacking the grain crops. Then come the second, third, fourth ploughmen, &c., according to the number of horses employed on the farm. Every farmer annually fattens a greater or less number of cattle, and some person is, of course, required for supplying them regularly with food and dry litter, and for keeping them and their apartments clean. One man is allowed to be capable of pulling turnips for, and attending to, twenty-four head of stall-fed cattle, during the feeding season. On some of the more extensive farms a *byre man* is employed, whose duty it is to feed, clean, and "look after," the milch cows and young stock. Comparatively few sheep are kept by the Aberdeenshire farmers, except in the higher districts of the county, and consequently shepherds are little required. Draining, trenching, and similar operations, are generally accomplished by a class of labourers designated "contractors," who make a practice of taking piece or job work from farmers, and are usually bound to complete it within a certain period, and according to the specifications or written agreement entered into. Draining is executed at so much per hundred yards; trenching waste ground, by the imperial or Scotch acre, as may be most convenient; and stone dikes and other fences, are constructed at a stipulated rate per lineal or running yard.

*Hiring.*—Farm servants are almost invariably hired by the half year, at the terms of Whitsunday

(May 26), and Martinmas (November 22). Hiring, or "feeing," markets (as they are here generally termed) are held a few weeks prior to each term at Aberdeen, Inverury, and other towns throughout the county, which are commonly attended by a large concourse of farmers and servants. All classes of farm-servants are most generally engaged at the above-mentioned terms; but women and boys are occasionally hired at some of the cattle markets held previous to or about Candlemas, from that period to the ensuing Whitsunday. Reapers of both sexes are engaged for harvest work at, or near, the term of Lammas. The servants hired at these feeing-markets are very seldom required to furnish certificates as to their steadiness, and industry of character, as is the uniform custom in some other quarters, the farmers being, generally speaking, quite satisfied if the person's appearance indicates an active workman, and demand merely a verbal promise that he shall, at all times, obey the orders of the master or steward. Some sixty years ago, the connection between farmers and their servants was very different in this county from what it is at present. The majority of servants then remained with the same master until they contrived to accumulate a little capital when they married and obtained crofts, or small possessions suitable to their means; but now by far the greater number changemasters every half year, in fact neither party seem much disposed to enter into longer engagements. This is attributable, partly, to a disinclination to abandon a generally established practice, however injudicious it may be; but chiefly, I apprehend, to the alleged security it affords the farmer against a bad servant, and the servant against an unreasonable master, in consequence of the period of separation being so near at hand.

No doubt half a year is fully long enough for a farmer to have to retain an indolent or a troublesome servant in his employment, or for a servant to be obliged to submit to the harshness or exactions of an unfeeling master; and in either of these cases, a short engagement is obviously of no trivial importance. But the system has been found to be productive of more than counterbalancing mischief. It generally, indeed almost necessarily, creates a spirit of restlessness, and a love of change among servants, which, when often indulged in, become a fruitful source of unhappiness to themselves, besides materially diminishing the value of their services, not to mention the number of days worse than uselessly spent every year at feeing-markets, nor the habits of dissipation and idleness which are there so apt to be contracted. The evils attendant on these feeing-markets for hiring servants have long been felt and complained of by intelligent farmers and others in this quarter, and various

plans have been ineffectually proposed from time to time for superseding their necessity. Their abolition is in fact supposed to be now altogether impracticable; the recent establishment of "register offices" in some of the towns, for the purpose of facilitating the engaging of farm servants, has, however, been found of considerable advantage. All servants desirous of obtaining places through the instrumentality of any of these offices are required to lodge certificates of their character and capabilities from the masters whom they had previously served, with the keeper of the "register;" and these are shown to such farmers as make application. This mode of hiring is not, however, taken advantage of to the extent that its usefulness would seem to warrant.

Very few farm labourers are engaged by the year in Aberdeenshire; but judging from the experience of those districts in which the *hind* system has been long and successfully established, the advantages accruing from engagements of at least that endurance, both to the employer and the employed, appear to be important, and beyond question. The yearly hired servant generally acquires an interest in his master's prosperity, and almost invariably manifests a greater degree of anxiety in the prosecution of his business than the labourer whose connection with his employer is likely to be of only a temporary duration. Yearly hired servants are, further, allowed to be in general more trustworthy, and less unwilling to work beyond the ordinary hours of labour at seed time, harvest, or on other hurried occasions, than those that are engaged by the half year. The truth of these remarks is abundantly confirmed on every farm in this county on which a few married men are employed, and accommodated with cottages and small gardens, as they prove with few exceptions the most steady and useful servants.\*

\* The *hind* system here alluded to has been established from a remote period in the Lothians, Berwickshire, Roxburghshire, and Northumberland.

*Wages.*—The wages of a grieve and other farm servants are usually as follows for the summer half-year, with board and lodging:—

	£	s.	£	s.
Grieve	-	-	8 0	to 8 10
1st Ploughman	-	-	7 0	7 10
2nd ditto	-	-	6 10	6 15
3rd ditto	-	-	5 15	6 0
Orra man (a man of all work)	4	10	5	0
Female field-worker	-	-	3 0	3 5
Boys	-	-	2 0	2 7

The rates for the winter half-year (from Martinmas to Whitsunday) are always somewhat lower than the above. Where a few married servants are regularly employed, they usually get a boll and a-half (1 cwt. 3 qrs. 4lbs.) of oatmeal, and from £7 to £9 in money, per annum, with a cottage, and the keep of a cow all the year round. Their fuel is also carted home free of expense, and they get their food from the farmer during harvest. Day-labourers commonly get ten shillings per week without victuals; women ten pence a day, for thinning and hand-hoeing turnips, weeding, &c. The cost of work done by the piece, or by "contract," as it is termed, is, of course, regulated by the current rate of wages in the locality at the time. Furrow drains, two and a-half feet in depth, are cut and filled with broken stones at from 11s. to 14s. per hundred yards, according to the nature of the soil, and other circumstances. The charge for trenching waste land to the depth of sixteen inches, and placing all the stones on the surface of the trenched ground, varies from £5 to £9 per imperial acre. Stone dikes, three feet nine inches in height, three feet wide at the bottom, and 15 inches at top, are constructed at from four pence halfpenny to six pence per lineal yard. The subjoined statement of the wages of farm-servants in Aberdeenshire for the last six years may, perhaps, be interesting. The rates are those that were given at the feeing markets held at Inverury, and are exclusive of board and lodging.

	1840.		1841.		1842.		1843.		1844.		1845.	
	Summer.	Winter.	Summer.	Winter.	Summer.	Winter.	Summer.	Winter.	Summer.	Winter.	Summer.	Winter.
	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
Grieve	8 0	7 7	8 10	7 15	8 10	7 7	7 10	7 10	8 0	7 10	8 0	8 0
1st Ploughman	7 0	6 10	7 10	6 10	8 0	7 7	6 6	6 0	7 0	6 0	7 9	7 0
2nd do.	6 10	5 10	6 12	5 15	6 12	5 5	6 0	5 5	6 10	5 5	6 0	6 0
3rd do.	6 0	5 10	6 0	5 8	6 0	5 5	5 15	5 0	6 0	5 0	5 15	12 12
Orra man	5 0	4 10	5 10	4 10	5 5	4 4	4 10	4 10	4 12	4 0	4 10	4 15
Female field-worker	3 0	1 10	3 3	1 10	3 3	1 5	2 15	1 10	3 0	1 10	3 5	1 15
Boys	2 7	1 15	2 5	1 15	2 7	1 12	2 5	1 15	2 7	1 12	2 5	1 15

Grain crops are almost exclusively cut down in this quarter by the scythe, the sickle being now employed only in the reaping of patches very much laid and entangled. Subjoined are the rates of wages (with board and lodging) which have been given to reapers, during the last seven years, for executing the harvest work, however long it may last:—

	1839.			1840.			1841.			1842.			1843.			1844.			1845.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Scythesmen . . . . .	2	10	0	2	12	6	2	15	0	2	10	0	2	10	0	2	7	6	2	12	6
Bandsters . . . . .	2	9	0	2	9	3	2	10	0	2	8	0	2	4	0	2	5	0	2	9	0
Rakers (to three scythes) . . . . .	2	9	0	2	7	6	2	10	0	2	8	0	2	4	0	2	5	0	2	9	0
Gatherers . . . . .	1	18	0	1	7	9	2	0	0	1	13	6	1	15	0	1	13	6	2	0	0

*Food.*—The staple food of the farm servants and labourers in Aberdeenshire is oatmeal. This article is made use of in a variety of forms. When the servants are boarded in the farmer's house, their breakfast usually consists of porridge with oatmeal bread and milk *adlibitum*; when milk is scarce, beer is used as a substitute. Potatoes are generally given to dinner, together with bread and milk, and occasionally broth; and the supper is usually composed of either milk-porridge (oatmeal boiled in milk), or what is called "kail-brose," a dish which is, I believe, peculiar to Aberdeenshire. This species of brose is formed by pouring the juice of boiled greens or cabbage into a dish in which a small quantity of oatmeal has been put; the whole being stirred, and more of the liquid added, till it be brought to the proper consistence: this is regarded as a very wholesome and nutritious article of food. Butcher's-meat is a luxury, very rarely partaken of except at Christmas. The foregoing dietary is estimated to cost about eightpence a day for each servant.

The food given to reapers in this and other parts of the north of Scotland is commonly oatmeal porridge and milk for breakfast and dinner, potatoes and milk for supper, with as much oatmeal bread at every meal as they wish to use, and two quart bottles of beer daily to every person. Refreshments of bread and milk are also given between the regular meals; and the average cost of the whole is estimated at about eleven pence per day for each reaper.

*Bothy System.*—Prior to the last thirty years all the farm servants were boarded and lodged in their masters' houses; but this mode of maintaining them became latterly productive of great inconvenience and annoyance to the family, and another method has since been devised with the view of remedying the evil by excluding them altogether from the farmer's dwelling—I allude to the bothy system, which, some time ago, received no small share of public reprobation, but is, nevertheless, rather on the increase than otherwise, being now quite general throughout the north and east of Scotland. As

this mode of keeping farm servants differs essentially from that which is adopted in the southern counties, a brief description of it may not be uninteresting to general readers. It relates exclusively to single men, who are hired by the half year for performing the ploughing, carting, and other routine operations on a farm. As already stated, their wages vary from £10 to £12 per annum, besides two pecks (17½ lbs.) of oatmeal in the week, and two pints\* of milk daily, or an equivalent in money. Potatoes are occasionally given during the winter half year. Their general diet is *brose* made of oatmeal and boiling water, to which a little sweet milk is added, and this is taken three times a day. They are provided with a room or house, which is designated the "bothy," and is usually connected with, or situated adjacent to the farm offices. In this apartment all the unmarried men regularly employed on the farm spend their leisure hours, and cook their victuals; fuel, and a few simple utensils for cooking, being furnished by the farmer. It also sometimes serves as a dormitory for the servants, and in this case is provided with panelled beds; but generally the sleeping place is in an adjoining room, or in the stable. In many of the larger establishments a woman is allowed for kindling the fire, keeping the bothy clean, &c.; but in general all these matters have to be attended to by the servants themselves.

Most farm servants prefer being "bothied," to boarding in the farmer's kitchen, probably on account of the greater liberty which they thus enjoy; while the masters find this choice to be most convenient and agreeable to themselves. Hence one great reason why the bothy system is more or less generally established throughout Aberdeenshire, and other counties in the north and east of Scotland, where unmarried servants are mostly employed for carrying on the regular farm work. But, however convenient it may be, there are many evils inseparable from it, which affect the ser-

\* The Scotch pint is equal to about two imperial quarts.

wants themselves directly, their employers indirectly. In order to give some idea of the tendency of the bothy system, I shall here quote a few remarks from an admirable essay on the subject by Mr. James Cowie, Mains of Haulkerton, Kincardineshire.

"While the servants were retained in the farmhouse, they were kept under restraint by the occasional presence or neighbourhood of their master and mistress. They were prevented from encouraging bad and promiscuous company in their abodes, they were necessarily restricted from improper conduct, and they had regular hours to observe in retiring to rest. In the bothy, however, they are free from every restraint and control. They frequently congregate from the neighbouring farms, and form a considerable company, sometimes consisting of both sexes. At many of these meetings, which, be it remarked, take place frequently on Sundays, where they are neither in the sight nor hearing of their superiors, the most obscene conversation, levity of conduct, and rude manners are freely indulged; gaming, singing, and uttering desultory and unseemly jests, occupy almost their whole time. It is a fact, moreover, which cannot be concealed, that those who are most depraved sometimes resort to dishonourable and dishonest practices, in order to afford entertainment on these as well as on ordinary occasions; they hesitate not to commit acts for which they are amenable to the criminal laws of their country. They lay hold of every household article which they by stealth can get at, with the assistance, commonly, of the female servants; bread, butter, hams, fowls, eggs, &c., are all more or less objects of plunder, and greedily devoured without compunction. In justice to the better principled servants, of whom there are not a few, it must be stated that these highly censurable proceedings are condemned in the better regulated bothies; and even many of those who do participate, act more from wantonness and ignorance of the crime than from abandoned habits."

It would be unjust to conclude without remarking that considerable improvement has latterly taken place in the management of bothies in Aberdeenshire; but, at the best, the system is anything but deserving of imitation. Mr. Cowie considers that it is not susceptible of improvement, and therefore advocates its entire abolition. As a substitute he recommends the erection of a few cottages on every farm for married servants, with whom the single men are to be lodged.

#### SIZE OF FARMS, &c..

Very great diversity exists in the size of farms in Aberdeenshire. In some parts they are mostly of considerable extent, while in others they are gene-

rally small. The possessions in this county may not improperly be divided into four classes; namely, large, medium sized, and small farms, and what are here denominated "crofts," which vary in extent from two to ten Scotch acres. In all the higher, and in many of the interior districts, where a greater or less proportion of waste land is almost invariably attached to every farm, it is by no means uncommon for one tenant to occupy from two hundred and fifty to four hundred and fifty acres, and not a few possess considerably more. Even in the lower and comparatively improved parts of the county, in which the greater proportion of the soil is arable, there exists a large number of farms ranging in size from one hundred and fifty to three hundred and fifty statute acres. The divisions of Buchan and Formartin contain several farms of about three hundred acres, and some of even considerably greater extent; indeed, obviously, rather extensive in proportion to the amount of capital apparently at the command of their respective occupiers. It must be evident to all conversant with agricultural pursuits, that much too great anxiety is manifested by the generality of farmers to rent larger possessions than the extent of their available resources would warrant; and it must be allowed that this is the case in Aberdeenshire, as well as in other parts of the country, though there are, no doubt, numerous exceptions. Not that arable farms are actually larger in this than in other localities, for the contrary is perhaps the case: but generally speaking, the tenantry as a body are not quite so wealthy and independent as those of the Lothians, and some other districts throughout the kingdom, which abound with extensive possessions. It is not very difficult to conceive, and experience has long since abundantly confirmed the fact, that the almost inevitable results of occupying farms disproportionate in size to the amount of capital invested in their cultivation, are inadequate and imperfect tillage, defective implements, insufficient manuring, and as a necessary consequence deficient produce. Draining and other important, and in most cases essential, improvements cannot of course be undertaken to any extent, or executed in an efficient manner, without the command of ample funds; and the occurrence of a few unpropitious seasons or deficient harvests may prove altogether ruinous. Hence the productive capabilities of the soil are not developed to the extent which would undoubtedly be attained by the judicious outlay of sufficient capital in its improvement and cultivation.

There is a great number of medium-sized farms throughout this county, and the number of this class is steadily on the increase. They vary in extent from eighty to one hundred and forty acres. Those between seventy and one hundred and ten

acres are generally worked by a pair of horses and a pair of oxen; those from the latter size to one hundred and forty acres, require the regular labour of two pairs of horses. Experience has, in numerous instances, shown that medium-sized farms, in the cultivation of which adequate capital is invested, are more likely to remunerate the tenants for their labour and expense, than much larger holdings with insufficient means for prosecuting their management.

The number of farms under a hundred acres is very considerable; indeed it is highly probable that there are more below than above that size. Possessions of greater extent than ten acres are commonly called "small farms;" those under that size are designated "crofts." The majority of the small farms furnish employment during the greater part of the year to a pair of horses, or to a horse and an ox, which are very commonly yoked together in the same team, for ploughing, harrowing, &c., by the small farmers of Aberdeenshire, the extent of whose possessions does not require, or afford to keep a pair of horses. This system is found to be most advantageous and economical, and well adapted to the circumstances of the smaller class of occupiers in this locality. A stout three-year old ox is purchased about the beginning of October; and being in general required to plough only for five or six hours per day, and wholly idle during frosty weather, he is maintained in such good condition as to be again readily disposed of at a profit after the completion of turnip sowing. Such a team is capable of executing the general work of at least forty imperial acres of land of the ordinary texture met with in this county. Where the holdings are under thirty acres, which is very commonly the case in the vicinity of the towns and villages, it is customary for two neighbouring tenants, each of whom keeps a horse to unite in forming a team, when the operations of ploughing and harrowing are required to be accomplished by either. This very convenient arrangement is more or less general in the neighbourhood of all the towns and villages throughout the county, and is productive of great advantage to the industrious class by whom it is adopted.

The crofts, or smallest class of holding, are confined for the most part to the vicinity of Aberdeen, and other towns, where they are very numerous. These small possessions vary in size from two to ten acres, and, being occupied by labourers and tradesmen, are cultivated almost exclusively by the spade. There is probably no other county north of the Tweed that contains so many of these crofts or allotments as Aberdeenshire, or in which they have existed for so long a period without undergoing any material alteration or augmentation. Several reasons, some of which are contradictory of each other,

have been adduced to account for this circumstance. In Dr. Skene Keith's agricultural survey of this county, there is a good deal of speculation on this point. Dr. James Anderson, who previously drew up a brief report of the rural economy of Aberdeenshire, for the consideration of the Board of Agriculture, most of which is quoted in the more elaborate survey of the former writer, states, in reference to this subject, that the farms were of much greater extent, and the farmers in general more wealthy and respectable, about the middle of the seventeenth century, than at the period at which he wrote (1793). The principal cause which led to the subsequent subdivision of farms, he considered to have been the occurrence of seven successive years of scarcity, from 1693 to 1700. It appears that the crops during that time were so deficient that a famine prevailed to such a degree as greatly to diminish the population. Many substantial tenants were reduced to poverty, and compelled to throw their farms into the hands of the proprietors, and other tenants capable of stocking them could not be found. In order to "induce poor men, the only persons then to be found, to take farms, they were made small, to adapt them more nearly to the circumstances of the tenants; and even then it frequently happened that the landlord was fain to give a team of oxen, or some milch cows as a present, to induce the tenants to accept of these small farms. At that period, sheep were entirely banished from the lower districts of the county; for, although when the farms were large such flocks were kept as could afford the expense of a shepherd to attend them, when they became small this could not be done; and as money to purchase a flock could not be easily commanded, these two considerations concurring banished the sheep entirely, and with them the corn that was to be produced from their fold. After that time, the stocking manufacture affording a ready resource to those who had a small bit of land to produce a little meal, many persons chose rather to betake themselves to that mode of life than to continue labouring servants. Servants, of course, became more scarce, and their wages high; they soon acquired as much money as enabled them to take one of these small possessions from two to five pounds rent; and many proprietors, tempted by an offer of rent seemingly high for these small patches, broke down their farms into minute allotments."\*

Dr. Anderson has further remarked, that many extensive tracts of land, which had been in cultivation during the existence of large farms prior to the seven years of scarcity, were subsequently abandoned as wastes, and became covered with heath. Dr. Keith was, however, of a contrary opinion. He

\* See Keith's Survey, p. 144.

considered that the seven unfruitful seasons alluded to had not the effect of breaking down, but rather of enlarging farms, in order to induce the few persons who had any capital remaining, to take them from the proprietors; and further adds, that "too many landlords, in order to increase their rents, broke down their farms from the year 1760 to 1782, and these small tenants getting one or two weak horses united them with their cows in a wretched plough. The very unfavourable season of 1782 wasted their capital; and such as survived that shock, were unable to get over the two calamitous years of 1799 and 1800. The landlords in general saw the bad consequences of letting their lands to men who had neither knowledge nor capital, and a number of these small possessions have been reunited into their ancient farms." The small farms in this county are much higher rented per acre than the more extensive holdings, for which there is less competition: and as the estates are not in general very large, nor the proprietors very wealthy, this circumstance may, in a great degree, account for the continuance of the system.

In most parts of Aberdeenshire, and particularly in the higher districts, there are considerable tracts of waste land now covered with heath and gorse, but which present indisputable evidence of having been under the dominion of the plough at some former period, the high raised, crooked, ridges into which it was disposed not being yet quite obliterated. Dr. Anderson attributed the abandonment of these tracts of land to the occurrence of the years of dearth already referred to; while Dr. Keith, alluding to the same subject, remarks, "that the many traces of the plough which appear on the ridges of high hills, where the ground is now covered with heath, are not to be ascribed to the desertion of farms from 1683 to 1700, but to a different cause, and a much more remote period. In the ancient and uncultivated state of the lands of this county, the lower parts of Aberdeenshire, and almost all the glens and valleys, were one vast forest; the little arable land was on the sides or ridges of the hills. When the country became populous, and the inhabitants more attentive to agriculture, after the valleys were cleared of wood, the plough was brought down from the hills to the plains; and as the latter were more fertile and more easily cultivated, the former were deserted by the farmer."\*

It is deemed unnecessary to occupy space by entering at any length into the comparative advantages of large and small farms, as this subject has long constituted a fruitful source of controversy among speculative agriculturists, and the writer of these observations is quite satisfied that the question is

mainly dependent on situation, and various other local circumstances. However problematical the advantage of very small farms may be to the nation at large, it is undeniable that the croft system has been found to work admirably well in the immediate vicinity of Aberdeen and a few other towns in this county, a fact which is abundantly confirmed by the high rental and singular productiveness of the land so occupied. In the immediate neighbourhood of a considerable town, the small farmer or crofter has at all times a ready market for his surplus produce, and an abundant supply of excellent manure always at command, besides several other obvious conveniences; and certainly no large occupiers, cultivating the soil exclusively by the plough, as in the interior of the county, could raise such large crops of grain, roots, and grass, or afford to pay such high rents, as do the cotters and small farmers in the suburbs of Aberdeen, who till their piece of ground by the spade alone, or by the spade and plough alternately. The condition of this class is, however, very different in the interior of the county, and in situations remote from towns, where the soil is, in general, still susceptible of vast improvement. It admits, I think, of the clearest proof, that before the croft or allotment system can be advantageously adopted in any locality, the land must have previously undergone considerable improvement by means of draining (if necessary) or otherwise; inasmuch as cottagers destitute of capital cannot be expected to be able to execute any costly or extensive undertaking; and without drainage and adequate manuring, most, if not all, wet soils must remain comparatively unproductive. Hence these small possessions are, generally speaking, very ill adapted to the existing condition of the soil in most parts of Aberdeenshire, where, notwithstanding the great improvements that have already been effected, so much remains yet to be done. It is only the large and the middle class of farmers who possess sufficient capital to accomplish any expensive undertaking, even with the aid usually afforded by the proprietors; and it is therefore but reasonable to presume that there exists a general disposition among the landlords of this county to augment the size of farms, though there are also some who encourage the small-farm system.

The crofts and small holdings are for the most part occupied by persons who had previously been servants to the larger farmers, and had annually saved a portion of their wages, in the hope of eventually being enabled to rent a piece of ground for themselves. Very many of the Aberdeenshire farm servants look forward from an early period to such a consummation; which is certainly a most laudable ambition, and it could nowhere be indulged in with greater prospect of attainment than in this county,

\* See Keith's Survey, p. 152.

which abounds with possessions of every size, and suited to the resources of all. It must be admitted, however, that, generally speaking, the condition of the very small holders of land, or "crofters" as they are commonly designated, is but few degrees (if any) above that of the ploughmen on the larger class of farms, except indeed in the immediate vicinity of the towns; while in not a few instances they certainly are rather worse off. As has been already remarked, they have in most cases very high rents to pay; and though toiling with the utmost assiduity, and living in the most frugal manner, they find some difficulty in meeting this and other engagements. The idea of comparative independence, arising from being the possessor of a few acres, may in some degree reconcile the industrious cottager to the many hardships and privations to which his station in life subjects him, but it can in no wise mitigate their actual severity. Owing to the prevalence of the "bothy" system of managing farm-servants, referred to in a preceding page of this article, very few married men are employed on farms, at least, not in the capacity of ploughmen; and hence, no doubt, one great reason for the anxiety so generally manifested by labourers to have a few acres of ground attached to their homes. Where a man obtains regular employment in his own immediate neighbourhood, a croft is to him of unquestionable utility, as furnishing a small field for the industry of himself and family when not otherwise engaged. It affords the means of initiating his children into the use of the spade and hoe, not to mention the value of the vegetables thus raised; but to be of real advantage to a labouring man, the land must be good, and moderately rented.

It is the opinion of some of the most intelligent agriculturists in this quarter, that farms of such a

size as to require the regular work of three pairs of horses throughout the year, are the most advantageous to the tenants and the community at large, all other things being the same, as occasioning the least waste of labour, and with proper management yielding the largest acreable produce. When only two horses are employed, a great waste of time and labour is necessarily occasioned in frequently changing from one operation to another. As a striking illustration of the advantage of large over very small farms, I shall conclude with another extract from Dr. Keith's survey: In the chapter on the "Distribution of Crop," he mentions the case of a farmer, with whom the present writer of these remarks has also been acquainted, who began upon nearly 300 acres with only £200 of capital; but from the indulgence of his landlord for some years after the commencement of the lease, from the good opinion of his industry and character which procured him credit, from living with economy till he had acquired some capital, and from the particular attention paid to the rearing and feeding of black cattle, has raised his whole stock of horses, cattle, and farm produce to £3,700; has enclosed the greater part of his farm; has embanked a thousand yards of the river Don, which frequently overflowed and destroyed the crops of the old farmers; has improved his land by lime, draining, dung, and green crops, and laid out so much on buildings, that the remainder of his lease (fifteen years) would sell for at least other £3,700; while the proprietor at its expiration will at least quadruple his rent, and the real value of the farm will be more than double of what it would have been, if it had continued in the possession of the five old farmers who formerly rented it."\*

May, 1846.

## ELECTRO-CULTURE OF FARM AND GARDEN CROPS.

BY MR. TOWERS, MEMBER R.A.S., H.S.L., ETC.

In my late article upon the "Oak and the Ash" I solicited the attention of naturalists and persons of observation to the indications which, it had been said, were given by the condition of these two particular trees at a period when the actual state of the weather—in accordance with the prognostic of the March equinox—gave promise of continuous rains, and consequently of an unfavourable, if not wet summer.

During April it had rained on twenty-five or twenty-six days, and was proportionably cold. Yet the oaks continued far in advance of the ash-trees; and they who believed, upon observation, that

whenever this relative position was established, a fine and warm summer would be the undoubted result continued unshaken in their faith, and, in defiance of threatening aspects, still affirmed it.

May improved, but the weather remained unsettled till after the visitation of the parching east wind on the 14th, which appears to have blighted the apple and pear crops, and almost entirely destroyed the plums. At length, however, after rain, hail, and thunder, on the 19th, a decided melioration took place, the nights became warm, the days

\* See Keith's Survey, p. 163.