

&c., in the proper manner for the Continental markets, and in the way which is most suitable for the Irish market.

7. The curers ought to be made generally aware of the practice of the Dutch, who, in repacking, carefully preserve the original natural pickle or juices of the herring, by barrelling it up, to be used with the same herrings, or the herrings caught and barrelled the same day, as those from which the pickle had been taken.

8. Being of opinion, from a series of observations for several years back, that the abundance of herrings on our coasts, and in the bays and rivers, much depends on the degree of sunshine and heat in the one or two months previous to the usual time of their approach; namely, that if the one or two months have been dark or cloudy, the fishing will be abundant, and that if sunshine and heat predominate, the herrings will keep farther off the shore, I would respectfully suggest that the Fishery Board instruct their officers at the different stations to keep journals of the wind and weather, distinguishing the days of sunshine from the cloudy days, the quantity caught by each boat, and the usual and actual distance from the shore at which they are caught. Were the theory established, the fish-curers might with greater certainty judge as to the most eligible localities, and the extent of the preparations necessary at such localities; and the fishermen might be taught as to what distance from the shore they would likely meet with the greatest success.

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ON THE IMPROVEMENT IN THE STATE OF SCOTLAND SINCE THE  
END OF THE SEVENTEENTH CENTURY.

The agricultural part of the people of Scotland have lately had a double cause of self-gratulation, first, in the testimony borne to the high state of agriculture in Old Scotia, by the newly formed Sister Society in London, who, at the very commencement of their labours, offered a large prize for an essay "on the improvements which have taken place in the agriculture of Scotland since the formation of the Highland Society," and secondly, in that prize being awarded to Mr Dudgeon of Spylaw, not a learned Professor, not a Doctor of Law or Physic, or some book-worm of the day,—but a rent-paying

practical farmer—"one of ourselves." The writer of this article has had no means of knowing the contents of Mr Dudgeon's essay, or of being informed whether it is to be printed or not;\* but as it is the property of the English Society, it may not be considered out of place, that another individual should bring before the agriculturists of Scotland a sort of rapid sketch on the same subject, which it shall now be his endeavour to do. It may be well before proceeding, to make our Southern neighbours bear in mind (we, who dwell in the land of cakes, have no need of the reminiscence) the local position of Scotland—its surface, and also the state in which it was some years previous to the birth of the Highland Society—situated in a very high northern latitude—the snow and frozen ice never altogether leaving the chasms in the rocks of her highest mountains—subject to severe frost late in spring, and heavy dews and hoar-frost early in autumn—the sky constantly covered with clouds, and those broken to pieces on the mountain tops, pouring down heavy partial showers on the ground already surcharged with moisture; her agriculturists have to carry on their operations under the worst climate in any part of the civilized globe. Nor was this all in days of yore. The intestine broils produced by the deadly feuds constantly carried on, nay, even fostered by the selfish and warlike chieftains, during the days of clanship, the inroads made by their English neighbours, and the total want of all security or trust in the law, all tended to make the face of the country no better than that of a bleak howling wilderness. Such, at the beginning, or even towards the middle of last century, was Scotland! and well, indeed, might the poet at the Inn window indite—

"Bleak are thy hills of north,  
Not fertile are thy plains:  
Bare-legged are thy nymphs,  
And bare — are thy swains;"

while the Southern may exclaim "Mercy on us! who would follow agriculture in such a country?" Let us endeavour to portray Scotland as it now is; for with it disadvantages by nature, and all the miseries which the wickedness of

\* This paper was in types before the publication of the *Journal of the English Agricultural Society*, in which Mr Dudgeon's essay may be found.  
—EDINBURGH.

man had brought upon her, the Lord Almighty had yet blessings innumerable in store for Scotland, and we now behold her no longer sunk in darkness, in the grossest ignorance, and in the most abject poverty, but, in very truth, “a highly favoured nation.”

The writer, as one living in this now happy country, would desire to render thanks to Him to whom alone it is due, and say “The blessing of God has done it.” But we know that the Allwise Being who rules in heaven, and laughs to scorn the puny efforts of man, always makes use of means. It therefore behoves us to look at *those means*; and in bringing Scotland out of the unsightly chaos in which all Europe beheld her at the end of the 17th century—the union with England seems to be the first in her career of prosperity. Whatever our countrymen of the Emerald Isle may think (or without thinking may bellow) against the act which united Ireland with this country, there is not a single Scot who has a particle of truth in his heart or mouthful of sense in his head, who will not readily own, that the union with England has been the making of his country. This great act gave the death-blow to the feudal system (long a curse to Scotland), and the happy termination of the rebellion of 1745 was the last throe of that direful tyranny, the cause of all those forays and fightings that perpetually devastated the plains and stained the mountain streams with blood. The savage yell of the deadly slogan,\* and the plaintive wail of the coronich,† had long been hushed, the once bright claymore had been permitted to rust in the scabbard, and the clansman, wearied of a life of poverty and inactivity, had *ceased to hope* ever again to hear the note of the pibroch to summon him to war—the lowlander, on the contrary, had *begun to hope* that the days of rapine and plunder were over,—when, in 1784, a few gentlemen, full of zeal for their country, and it may be a little love of society, formed themselves into a sort of hole and corner club, in a Coffeehouse called the Exchange, situated in the court of that name near “the market-cross of Edinburgh.” Here, in the enjoyment of agreeable conversation, and a good supper, did those worthies talk over plans for the amelioration of the

\* War cry of the clansmen rushing to the “onslaught.”

† The “Lament” or dirge for the dead sung by the women.

**Highlands**, and from this nucleus arose the now widely extended and powerful Highland Society. The writer had the pleasure to know several of the original members of the Highland Society, particularly the man who was in fact the prime mover in the business, the late Mr Macdonald of St Martin's, whose picture now hangs in Albyn Place; this gentleman, as well as most of the others, belonged to the profession of the law, he was (what we in Scotland call) a writer to the Signet—(*anglice*, an attorney of the highest grade). No set of men could be more fitted to forward the agricultural interests of the country. At that period, law in all its branches was followed by cadets of old families, sometimes by the eldest sons; thus they were often possessed of landed property themselves, and were entrusted, as agents, with the care of all the estates in Scotland, their education and business habits, giving them a complete command over the ill educated, and, at that time, (*proh pudor*) drunken Lairds. They were also in this capacity (that of agents), a link between the highland and lowland proprietors, and were enabled to get aid from the latter in the way of subscriptions and countenance in the forwarding of their patriotic schemes. To say what was the state of agriculture in Scotland at the date of the formation of the Highland Society, would (to treat of it minutely) require greater scope than the limits of a periodical admit. The northern part of the kingdom does not at all resemble the southern division; there is not that flat and uniform surface as in England, where much the same sort of agriculture might be followed. In Scotland, we find the flat greasy clays of the carses (as they are called) fitted for wheat and bean husbandry; the more friable loam of the upland country fitted for barley and turnips; and the steep and rocky sides of the mountains covered with heath, fitted only for the flock of the shepherd or the shaggy coat of the West Highland kyloe. But, to take one sweep over hill and dale, corn-field and meadow, we may at once pronounce the agriculture of Scotland at that period, to have been wretched,—execrably bad in all its localities! Hardly any wheat was attempted to be grown, oats full of thistles was the standard crop, and this was repeated on the greater part of the arable land, while it would produce twice the seed thrown into it,—turnips as part of the

rotation of crops were unknown, few potatoes were raised, and no grass seeds or clover were sown. The whole manure of the farm being put on a little bit of the best ground near the farmstead, and there they grew some barley of the coarse sort, termed "bere," wherewith to make bannocks, broth, and small-beer, or peradventure the farm lay at the foot of the Grampians, to brew a portion of "mountain dew!" Since the writer can recollect, a great part of the summer was employed, in the now fertile shire of Fife, in pulling thistles out of the oats and bringing them home for the horses, or mowing the rushes and other aquatic plants that grew on the bogs round the homestead. Such was the state of Scotland, with but little appearance of amendment, up to 1792.

But an impulse was *now* to be given to the agriculture of Scotland far greater than could ever have been effected by the paltry prizes, or still more tiny experiments, of the Highland Society, as it was *then* constituted. The French war, which at that time broke out, soon raised the price of all sorts of agricultural produce to a height previously unknown in this country, and soon roused the Scotch, ever alive to their own interests, to greater exertions in agriculture than the elder farmers had imagined to be practicable. There was all the while a deal of by-play going on,—the banks had commenced to give unlimited credit—the lairds were now better educated, they were serving as officers in the ranks of the English regiments, or were returned to Parliament, and mixing with accomplished gentlemen within the walls of St Stephen. Manufactures and commerce were rapidly increasing and still causing a lively demand for the productions of the soil; an increase in the value of land had taken place, and a mania in the purchase, or rather traffic in estates had seized numerous thoughtless speculators, who, on acquiring a property, quickly expended large sums on improvements, such as farm-buildings, plantations of forest trees, draining, &c., and then, partly from the improvements they had made, and partly from the rise in the markets, they demanded, and for a few years got, not unfrequently, nearly double the price they had given. Time, with her "ceaseless wing," had now brought in another century, and on the arrival of the nineteenth, the richer part of the low country had put on another aspect. Beautiful fields of wheat were to be seen,

—drilled green crops and clean fallows every where abounded, —the bogs had disappeared,—the thistles no longer existed. In the Lothians all this was carried on to a great extent; in fact, there was too much of the “*pas accélère*.” The farmers forgot themselves, they were coining money, and “light come light go” was their motto. They went on in the most reckless manner,—they began to keep greyhounds, to be members of coursing clubs, subscribed to the “silver cup” or “puppy stakes,” and yelped the same note of folly as their betters in birth, their equals in extravagance and vice. Then followed yeomanry races,—the good sturdy nag that could be of use *at a time* in the operations of the farm was exchanged for a blood-weed, and on market-day, instead of rational conversation about matters connected with their own calling, they began to talk “*knowingly*” about the turf. At this time, that is from 1810 to 1814, the agricultural horizon was the brightest; the gas was fully up, the nation was alive, all was activity and business,—local agricultural associations had been formed, the Highland Society had grown to full maturity, or at least was advancing to it, and the ramification of its members was spread over the length and breadth of the land;—ploughing matches had made the operatives expert,—premiums and competitions had improved the breed of horses and stock, and high prices had given the farmer the sinews to carry on the war; but all this was soon to get a check, perhaps a salutary one. There was too much of a “flare-up,” the state of things was not healthy, the recklessness of the richer tenantry was fast spreading over the whole country, and that ruin which was soon to overtake the farmers of the Lothians might have been the fate of all Scotland, but 1815 arrived, and with it came Waterloo, a finisher to the war and an extinguisher to Napoleon. The writer knew the state of things in the county of Haddington well, and it was truly distressing to watch the effects of that memorable battle on this so lately prosperous county; an accurate observer might almost draw a parallel. The glitter of the appointments no longer dazzled the eye, the flash of the gun and turmoil of war and the shout of victory had ceased, all the noise and confusion of the battle was hushed on the heights and in the hollows of

Waterloo. But the trodden grain, the neglected farm-stead, the lifeless carcass, or the crippled soldier, told what had been acted; and although all was now quiet at "the tree,"\* the death-pang of the sufferer and the groans of the lately thoughtless wounded made the hospital walls to ring again, and filled many a once happy family with mourning. So was it with the farmer; each fair was a shot that told heavily on his purse, each sale was a shell that scattered ruin, and the prices of the weekly markets were so many bullets through his sinking credit. Then came the return of killed and wounded,—each bankrupt list was in very truth an official notification of them. The smart young farmer no longer galloped along the road on the blood-weed; the coursing clubs fell into desuetude, and the greyhounds were hanged. But all would not do, and we, though distant from the seat of war, had to witness *our* farmsteads neglected, our fields no longer under *bright* culture, while the ruined bankrupt, sold out of his farm, was no better than the clay-cold corpse; some there were who struggled hard, some, in the kindness of their landlords, had their cases taken under consideration, and, in reduction of rent, or converting it into a grain one, had their wounds bound up. Still the sufferers were to be heard complaining of their ruin, with wives and children lamenting the reality of the sad catastrophe; alas! this is no metaphor! It grieves the writer to think of the great change that has taken place in the tenantry of East-Lothian; since 1815 hardly one large farm has the same occupier, men from other counties have started up and filled the gaps which the transition from war to peace had made, and the patronymic of the farm no longer carries to the mind the name of an acquaintance or a friend. Methinks, in merry England even, there may be not a few who, on the retrospect of past times, like the galled jade, feel inclined to wince, and, at the recital above given, it might be said in the words of Horace, "nomine mutata fabula narratur de te;" but enough of this. Agriculture in Scotland, without all doubt, came to a check, as fox-hunters say, and it was a long one, but the game was not up. The national character here came

\* The Tree was the spot where the Duke of Wellington stood.

into play ; the Scotch, naturally a thinking, calculating people, and, as I said before, ever alive to their own interest, do not fly into absurdities to get themselves out of a difficulty,—they do not, for instance, set to work and burn the notes that they may ruin a bank, or burn all the ricks, along with the thrashing-machines, in order to force the farmer to use the hand-flail ; his corn to thrash, and his cash wherewith to pay them, being swallowed up in the conflagration. No, they are not only a thinking, but a moral people, and, it may be hoped, a stronger and a better principle restrained the peasantry from being hurried, by the pressure of the times, into those enormities which disgraced some of the English counties. The Scotch are a religious and a Sabbath-keeping people, and God fulfils his own promise in sending a blessing on such as do what he has commanded. And here let the meed of praise be withheld in regard to the noble parochial system, by which there is in every parish not only a church but a school, where the youth of every rank may receive a good education and be taught to venerate religion, and to honour the powers that be, because they are ordained of God. Our schoolmasters are, perhaps, one of the most respectable and praiseworthy classes of men in the kingdom—well educated, generally licentiates of the Church of Scotland, they work hard at their posts, and are ever ready to impart (at a very cheap rate) all that can make a man wise either for time or eternity ; and to this excellent system is it mainly owing that the Scotch are such an intelligent peasantry—being well educated, the rural population were enabled to turn their minds to the best method of getting a livelihood under the new times.

Some time previous to the era of 1815, the turnip husbandry had got a firm hold in the country,—the benefit accruing from it was so apparent that no convulsion in the market-prices could make the farmers forsake it ; but as yet turnips were only used sparingly to *young cattle*, in order to get them up to the age when they could be driven by land to the southern markets. Near the large towns, cattle were at this period fed for local consumption, but in the more distant parts there was as yet no such practice ; and there existed two good reasons why it should not be—the farmer could not



procure manure enough to raise all the green crop he would have wished, and if he could have procured it, there was no outlet for his fat cattle,—a species of stock that cannot be removed to any great distance without suffering a loss as to weight and quality, as well as a heavy expense from the time required to transport them.

But new discoveries soon took away both those impediments which were retarding the improvement of the more inland parts of the country. The first of these discoveries was the most important that ever occurred in the annals of agriculture, in this or any other country, viz. that of bone-dust.

We all know how very slowly improvements in agriculture proceed ; yet so palpable was the benefit to be derived from the use of this new manure, that in a few years there was not a farmer who did not avail himself of it. It is not twenty years since the writer first used bone-manure (roughly broken by hand-labour), and quickly perceiving the advantage, continued to employ it amidst the jibes and taunts of his neighbours, who did not fail to hint that Macadam would prove a bad purveyor of manure ! and now what a change do we see, those very men purchasing it every year to a great extent and at a high price !

Well, the farmer could now grow turnips to any extent, and the bare fallow was exploded ; and just then there started into existence another powerful *help* (as the Yankees say), to the Scotch agriculturists—the discovery of steam-boats. No longer forced to sell his lean cattle to the English jobber to be driven foot-sore and jaded to the southern fairs, the Scotch farmer is brought in close contact with the London market ; and, as a gentleman, in his speech at the great Glasgow show, justly said, “ The steam-engine is now our drover,” and Smithfield our market-place. The benefits arising from the London trade are very great ; the home butchers are now *forced* to give a fair price to the feeder for his stock ; the needy farmer can in a moment convert his “ beast ” into money, certain that by return of post his cash will arrive. Nor is this all, for the wealthy feeder is alike benefited by being enabled to throw his stock into the market whenever

the price pleases him, and, on a failure of food, *any one* can clear his yard at a moment's notice, and thereby save the only other resource, that of pinching the store cattle until a purchaser appears to take away the fat ones. There yet remains another epoch in the history of Scotch agriculture to be spoken of,—the thorough or Deanston mode of draining.

This so great benefit, not for Scotland only, but for the whole kingdom, is as yet in its infancy—already the fame and the utility of it is spreading all over the island, and we have not a doubt, in a short time there will not be found a spot (where improvements are carried on) that has not been “made anew,” by means of this simple yet powerful and efficient system of draining. It is not possible, in a short article of this sort, to enter into minute details; but to state facts and set people on inquiry for themselves, is the legitimate duty of every writer. Now, no man holding land ought to be ignorant of the thorough or Deanston drain. Those who have not got the little pamphlet published by Mr Smith, may like shortly to know the history. Mr Smith, deeply engaged in the cotton-spinning trade, could not procure a fall of water on the river Teith, ten miles west of the castle of Stirling, without renting along with it a considerable portion of very bad and wet land. Not liking to have a heavy rent to pay for such trash, Mr Smith turned his powerful mind to the subject, and perceiving the folly of throwing away large sums of money on deep and useless drains, with all the stuff of tapping and boring, to *catch* the water as it were a wild beast for which gins and traps must be laid, hit on the idea of making drains in parallel lines in the hollow of every ridge, cutting them to the depth of thirty inches, filling them with small stones half-way to the surface, above this putting a green turf reversed, and replacing the mould. Following up his first discovery by ploughing deep, he has now a farm of the finest land ever seen; and so convinced is the writer of the utility of this mode of draining, that each year he has been increasing the quantity he has made, and during the last twelve months has put in above fifteen miles. Nor is the Deanston drain confined to those parts of the country where stone or gravel can be procured; the same sys-

tem can be and is followed with the same effect, by using the Marquis of Tweeddale's tile ; or even the poorest farmer, who has not capital to undertake costly improvements, can fertilize his farm by making the thirty-inch drains and filling them with brushwood. It is perfectly wonderful to behold the mighty change this thorough-drain system is making in the different parts of the country where it is in operation : wet land is made dry, poor weeping clays are converted into turnip-soil, and even what would formerly have been accounted dry is advanced in quality. Whole parishes in the vicinity of Stirling are completely transformed from unsightly marshes into beautiful and rich wheat-fields, and where the plough could scarcely be driven for slush and water, we see heavy crops per acre and heavy weight per bushel, the quantity and the quality alike improved.

The writer has endeavoured to paint Scotland as it was at the middle of last century, and to carry the reader, step by step, through the various improvements that have since that period taken place. He would now appeal for testimony as to her present flourishing appearance and to the admirable system of Scotch husbandry—not to the simple *ipse dixit* of a single, it may be partial, individual, not to the report of a few tourists, or to Loudon, who says, “the change in the face of the country, in the gentlemen's seats, and even in the cottages, is so great, that one having been absent for a few years, would hardly be able to say he had ever before been in the same locality.” No—there is still stronger testimony in the constant wish manifested in England and Ireland to have Scotch farmers, Scotch land-stewards, and Scotch gardeners—and stronger still, in the fine cattle and beautiful samples of Scotch grain, commanding, week after week, the top prices in Smithfield and Mark Lane. But the writer would go a step farther, and, trusting to having been nearly thirty years actively and enthusiastically engaged in practical agriculture, having many times visited every part of the island in quest of agricultural information, and having long been a member of the Highland Society, he would endeavour to point out some of the errors at present existing in England, and some of the good which has been effected by

the labours of our great National Society, as well as what may, in like manner, be done by the new-born one in England.

Now, what every calm and thinking man must own to be the greatest fault at the present day in the English agriculturist, is looking to and trusting to Government rather than each man to his own brains. We would assure our brethren of the plough, that it is not in the power of any government, be it conservative or be it radical, to bolster up the state of agriculture. A wise and a good government will not enact laws prejudicial to any part of the community, nor will it seek to break down the safe-guards which our forefathers have built up; but they may be assured, it is not *forcing* wheat to be sold at a sovereign the bushel, or meat at 5s. per lb., that will ever make the agriculture of the country prosper, or the farmer rich. Look at Manchester. Is it by the manufacturer selling his prints at a sovereign per yard that enormous fortunes have been amassed? No—it is the greatest quantity produced at the cheapest rate that will ever make a prosperous trade. If wheat is low in price the farmer must bestir himself. Instead of sitting whole evenings (as many an English farmer does) soaking over a drop of cider or a little home-brewed, while he grumbles and spells the columns of an old newspaper, and abuses Parliament for the “great cry and little wool” in the way of helping “agricultural distress,” let him toss aside the speeches of our would-be patriots, and let him to his fields and see if all be right there. Let him remember that if he can but grow one or two quarters more per acre, he will be in a better position even with the low price than he was before. The attempt made last year in London to retard the formation of the New National Society of England, was very much to be lamented; and while this and that about the corn laws and other matters connected with the legislature of the country were made a handle of to frustrate the plans of those true lovers of their country, who wished to organize the Association, it shewed to us, north of the Tweed, that their brethren in the south did not yet know the value of the good old proverb, “Ne sutor ultra crepidam,” alike true as to criticism, and the art of making money. If farmers must be politicians, at all events the hall of an agri-

cultural society ought never to be made the arena on which to fight such useless battles. Let statesmen, members of Parliament, and diplomatists, turn their minds to politics,—let us stick to the plough: “hoc age” is the grand thing in every profession, and he alone will prosper in his vocation who follows it. Nor can we suffer it to be said of us Scotch, that we are tame and servile, or that we advocate free trade and such-like nostrums. The Scotch are as lynx-eyed to their rights as any people can be; they know freedom to be the birth-right of every British subject from John o’ Groats to the Land’s-end. Look, for instance, how instantaneously they responded to Sir Walter Scott, when, but a few years previous to his death, he rang the tocsin of alarm, when the banking system was in danger, aye, and made Government pause, while “*nemo me impune lacessit*” was sounded in the ears of the Ministry. But politics is a mere thing of *words*, not confined to rank or education—it is seen to rage down to the pot-house, and it is no uncommon occurrence for an orator who cannot sign his own name to make his beer-swilling, smoke-puffing audience, even to boots or the hostler, sit in as great delight as did the admirers of a Fox or a Pit in the days that are gone—and for ever. We would say, then, that want of education is the next great barrier to the advance of agriculture in England,—a good moral and religious education is required for the agricultural part of the population to lift them (as the huntsmen say) over the beer-shop and brute-like existence into which the lower ranks are at present sunk, and to break down the lumbering obsolete practices of the higher orders. Recent events have read a plain and very solemn lesson to the high in rank, the opulent and the powerful of the realm,—a lesson to shew them that blind ignorance and infidel knowledge alike lead men into the greatest crimes. Look at the poor deluded peasantry who suffered themselves to be led by the madman Courtney, and turn on the other hand to the enlightened and march-of-intellect cotton-spinners of Glasgow planning and perpetrating deliberate murder! A good and religious education will give the poorest rustic new ideas, and raise him above “the beasts that perish;” while the higher orders will be enabled to understand much of the more popular parts of

science, and the farmer will be able to bring it to bear on his own particular calling. He will then find the *unalterable* and beautiful laws of nature to be far more interesting than the *permanence* of the corn-laws; the fermentation of manure a better topic of conversation than useless discussions on the removal of the tax from fermented liquors. The next obstacle to the prosperity of agriculture in England is an improper expense in the article of horse-labour, and this arises almost entirely from having more than two horses under one servant. There is no ordinary operation on a farm which cannot be carried on with two horses; more therefore are useless,—besides a man is not able to work, groom, and look after more than a pair of horses; hence, if the two-horse plan is not followed, there must be boys and lads, or horsekeepers, all of whom require wages and victuals, and do very little work. Until England adopts the Scotch two-horse system, she can never hope to bring her produce to market at so low a cost as the Scotch;\* hence Sawney will be able to undersell John Bull, and have after all more gain to put into his pocket. The next point where England is still behind the practice of Scotland, is the turnip-husbandry—drilled turnips of course, for if the drilling machine and the horse-hoe be not used, it is but the *sham* of turnip-husbandry, and does not deserve the name. It may be said, that much of the soil in several of the English counties is strong clay not fitted for the growth of turnip, and even if they could be grown, how could they be drawn or carted off? It would poach the land and ruin it! That may pass with the fireside farmer, but hundreds of acres can be shewn in Scotland of *naturally* as stiff a clay as any in England, *converted* into turnip-land by means of the thorough drain and the use of lime; in fact, fallow is exploded and most properly. Can any one be found in the 19th century to advocate a system which burdens our crop with the rent of two years? The last error in English farming, springs as a natural consequence

\* It does appear to a Scotch farmer most strange, the pertinacity with which this erroneous practice is followed all over England, even where the Scotch plough with two horses has come into fashion. Still, in the cart or clumsy waggon three and four horses are seen creeping along with half the load two good Clydesdale nags would take in a couple of light carts driven by one man.

out of the preceding, viz. a wasteful expenditure of money in the purchase of oil-cake, for unless cake is very low and meat very high in price, it can never repay the farmer to feed with cake—at this moment, from twenty to twenty-four tons of the best turnip can be had for the price of one ton of cake ; now, let any say which is the cheaper feed.\* It is true oil-cake is a valuable succedaneum when turnips rot in a late or bad spring. It may be used profitably to finish off cattle when meat is selling at a high price, or to keep valuable high-bred stock from falling away in winter, such as late calves, or the like ; but never can a farmer hope to make rich if he has each year to purchase a considerable portion of the food he requires. But to conclude, let us put the question, In what has the Highland Society contributed to the mighty advance of agriculture in Scotland ? The reader of this article must perceive that nowhere throughout its pages has there been any attempt to arrogate superhuman powers to any set of men ; but without all doubt, the labours of the Society have been productive of much good, and were it only the having banished all political discussions from their meetings, and taught the agriculturists of Scotland that in the hall of the Society they could meet as brethren, it must be acknowledged a great deal of good has been effected. Nor has this beneficial change extended only to the proceedings of the Society, or told only within its own walls, for as the page of history narrates how a wicked Monarch and a dissolute Court spread the virus of a moral pestilence throughout a fated land, till every inhabitant in the darkest lane and lowest cottage was inoculated with the soul-destroying plague—and, turning to the bright side of the picture, a good King and a virtuous Queen, are found not only making a healthier atmosphere in the Court itself, and throwing an aroma (as it were) of purity around their own exalted sphere, but elevating the tone of morals throughout the land—so in like manner has this *now* so powerful body given the tone to all the local associations throughout Scotland, so that in the business as well as social meetings of every one of

\* It is not only that turnip as a food is cheaper, but the farmer does not require to lay out his money for it, or (to make use of a phrase of which the Scotch are very fond), the farmer has the one food "within himself,"—while for the other, he is forced to go to market and pay hard cash.

them, nothing but harmony and unanimity is to be found. Again, in the days of its youth and feebleness, the Highland Society sent the leaven of the turnip-husbandry into all the glens and straths of the north, by offers of small prizes to certain Highland parishes, and the same may be said as to the growth of clover and the finer grasses. As it advanced in strength (as to numbers and as to cash), attention was turned to premiums for stock; then came offers of reward to men of science to discover better implements and machines, to diminish friction, and consequently draught, such as in the thrashing mill and other parts of agricultural machinery. Still advancing in the scale of intellect and of science, premiums were offered for essays to bring to light the facts connected with chemistry and natural philosophy; and, under the auspices of the Society, was set up the Quarterly Journal of Agriculture, a work which has been the vehicle of conveying so much useful information to the agriculturist, that, we humbly venture to say, it ought to appear on the table and book-shelf of every farmer's parlour. After this, the great stock-shows were resolved upon, as another link of union between the Society and the practical farmer, at the same time throwing aside all paltry feeling, and making them open to stock from both sides of the Tweed. How well they have succeeded, let the last one at Glasgow bear witness. Nor has the Society forgotten the beauty of the country, as the premiums offered in regard to planting trees and such like-subjects fully testify; and to sum up all, it may be said, the Highland Society has been a "*point d'appui*," a rallying point, to which the agriculturists of Scotland might look, and a fostering mother to all who, although strong in talent, were weak in interest to make it public. An ardent lover of the plough and all that can speed it, the writer of this article would advise the Society of England to look into the annals of the Highland Society, and from them to cull whatever may be of use in the advancement of the delightful science, the culture of the fields.

..... "the men  
Whom nature's works can charm, with God himself  
Hold converse; grow familiar day by day  
With his conceptions; act upon his plans,  
And form to his the relish of their souls."