

*Major Horne*

ON THE

*Stirkoke*

MANAGEMENT OF LANDED PROPERTY

IN THE

HIGHLANDS OF SCOTLAND

BY

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INVERNESS

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TO THE MACKINTOSH,

CHIEF OF CLAN CHATTAN.

SIR,

These Papers, penned in a spirit of attachment to the Highlands, and with a view to the advancement of its Commerce, its Culture, and its Peasantry, I venture to Dedicate to you, as one to whom these have ever been matter of heartfelt solicitude. Assured that you appreciate any effort, however humble, towards the attainment of these objects, and knowing you, as one of the most extensive Landholders in the Highlands, to be, like your Ancestors, bound up in the hearts of an attached and devoted tenantry, purely Highland, I feel happy to be permitted to issue these Sketches in a permanent form, under your favouring auspices.

I have the honour to be,

SIR,

Your most obedient Servant,

GEORGE G. MACKAY.

## P R E F A C E.

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THESE Sketches make no pretensions to be an exhaustive treatise upon the subject expressed in the title. They are simply a series of papers which have appeared at various intervals in *The Inverness Courier* newspaper, and were written without the slightest intention of their appearing in a more permanent form. They are published in their present form at the solicitation of gentlemen who have kindly expressed approval of their matter and spirit.

16 NESS BANK, INVERNESS,  
1st January 1858.

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CHAPTER I.

ARABLE LANDS:—PROPER SIZE OF FARMS—ADJUSTMENT OF BOUNDARIES — BUILDINGS — MELIORATIONS — TENANT'S CAPITAL, &c.—LEASES—RECLAMATION OF WASTE LANDS.

A HIGHLAND estate generally consists of arable land, wood, and moorland, or heath. These, with the game, being the sources from which land yields its return, we shall consider each of them separately; and as, in the management of landed property, we have to deal with the people as well as with the soil, we shall, before finishing, remark upon the rural population.

The arable land on an estate in the Highlands is usually divided into farms of all sizes, from say three hundred acres, down to the lot of perhaps a quarter of an acre. On commencing a new system of management on a neglected estate, it is an important question, and one not always of very simple solution, into what size of farms the property should be divided. It is, of course, impossible at once, or even perhaps in a generation, to attain the desired result in

this respect—from existing contracts, and the impolicy, as well as harshness, of making extensive removals. But it is, at the same time, necessary to ascertain exactly what the most desirable position of matters would be, in order that a well-defined plan may be adopted, and carried out gradually as circumstances may from time to time permit. Without such clearly-defined issue being steadily kept in view, no proper result, or even much progress, can be attained.

We would neither advocate the doctrine that the whole property should be converted into large farms, nor the opposite opinion, that it should be divided into small ones. The very conformation of the ground in this part of the kingdom, as well as our habits, demand that we should have small as well as extensive farms. The conversion of a whole district into large holdings has been tried more than once and found to be an error. In Sutherland, for example, we find that the large farms into which the country was divided a generation ago, are now being gradually cut up again, in reversal, to some extent at least, of the policy then adopted in the face of public opinion. To clear a country entirely of its smaller tenantry, and convert it into a "waste howling wilderness," is a great mistake, whether considered politically, socially, morally, or, as we hope to show, economically. No change or improvement can be carried out without some real or apparent injury to individuals, and we are far from having a disposition to indorse every tale of distress that may be got up where a forcible ejection may be made. Our sympathies are not in every case excited in behalf of a removed family, or even township. It is in many cases absolutely necessary. It is like performing a severe surgical operation to save a patient's life. The unfortunate crofter may be unable to see that the measures taken are for his own good, for the good perhaps of his neighbours, and for the benefit of the proprietor. He complains, and gets up a case of grievance, assisted often by the press; but no prudent landlord will abandon his

well-matured plans of improvement on that account, neither will men of intelligence echo indiscriminately the cry of the grievance-monger.

While objecting to the conversion of an estate into large farms, we would at the same time deprecate the cutting up of the country into small farms or crofts, as is the case in Belgium. By such a system we should in a great measure do away with that most important class in the social scale—the middle class. We should have little hired labour; we should want the example and stimulus given to the small farmer by the proceedings of the thoroughly skilled and more intelligent capitalist; and we should have less surplus produce with which to supply the wants of our manufacturing population, and make the country at large more dependent upon foreign supplies.

No precise rule, of course, can be given as to the relative proportion of large and small farms. Much will depend upon the nature of the property, the climate, altitude, distance from markets, and means of access. In all the upland districts of the county of Inverness, for instance, extending from within five miles of Inverness, through Strathnairn, Strathdearn, and Badenoch, small farms must be the rule, large ones the exception. The shortness of their summer necessitates great activity and watchfulness, both in seedtime and harvest. A comparatively excessive force must be maintained on a large farm during the whole year, in order to undertake in a short time, at these seasons, the necessary work; while on a small farm the difficulty is overcome, by the farmer, with all his family and servants, working almost night and day, and being ever on the alert. The distance from a seaport or market town, again, creates a heavy tax upon the large farmer, who has to export his produce with hired labour, and perhaps indifferent roads. From the narrow strips in which the arable land is generally found in Highland straths, as well as from its detached character, the expense of enclosure and of cultivation is



comparatively great to the farmer who holds a large extent; whereas the smaller occupant has his cattle tended and his crops preserved by his family, and has no fences; or if he has, they are erected with his own hands at little expense.

In many other respects the small farmer in such districts has great advantages over the large, but we have probably said enough on this subject. We may observe, however, that a better return will usually be obtained from an estate in such districts divided into small farms, because there will be more competition. The natives, from attachment to their birthplace, will give as much, if not more money, acre for acre, than they would do in a more fertile district or milder climate; and they have means sufficient to occupy a small extent. But if the farms were increased in size, their limited capital would prevent their competing, and men of skill and wealth from another district would only estimate their value, and offer a rent, after deducting largely for distance from market, severity of climate, &c., circumstances which the others would never calculate. Indeed, the county of Inverness, as a whole, looking simply to its natural formation, is more adapted for small than for large farms. Except around Inverness, and in the neighbourhood of Beaulieu, there is no considerable extent of purely arable land to be found in the county, easily wrought and undetached by hill or moor ground. Easter Ross, on the other hand, is altogether different. There, as is actually the case, extensive farms should prevail; the cultivated land is comparatively level, and contiguous in all its parts. It is intersected in all directions by good roads, and has ready access by sea to the southern markets; so that it would be extremely unwise to divide such land into small sections. As a general rule, where the arable land is of considerable extent in any one place, easily wrought and easy of access, especially if near a shipping port or railway station, it should be the aim to establish large farms. This may be done gradually as the possessions fall out of lease, by add-

ing two or more of them together, and studying to have each farm as compact as possible.

Great loss and inconvenience result from one farm running into another, as is too often the case throughout the Highlands. This, from obvious reasons, is the crigin of much bad feeling between neighbours; while a combination of the two farms in one, or even a simple adjustment of marches, would remedy the evil. We do not speak of the old system of holding "rig about," where half-a-dozen crofters held a farm together, and every alternate furrow was occupied by a different person. This system, though still lingering to a small extent in remote districts, has now happily given way to a more rational mode of management. But the almost analogous circumstance of one holding being intermingled with another is very prevalent, and should in all cases be remedied before new leases are granted.

In the case of both large and small possessions, the nearer the form of the square can be attained the better; and where two or more long and narrow pieces of land are in separate possessions, they should be united, if circumstances will at all permit. Although it will be admitted to be an axiom in agriculture that the farm-steading should be as nearly as possible in the centre of the farm, yet, strangely enough, for one case in which this principle is practically carried out, there are fifty in which it is not. The position of the steading in regard to the land, would seem generally to be the result of accident rather than design.

The buildings should, in all cases, belong to the proprietor of the land. It seems a strange anomaly that the tenant should be proprietor of the buildings necessary for the profitable occupancy of the land. Without buildings, the land, of course, cannot be cultivated, and there can be no good reason (except inadequate capital on the part of the proprietor) why the tenant's capital should be ab-

sorbed in them. The system of paying ameliorations on entry to a farm is attended with much injury to the agricultural interest. A tenant with moderate capital enters upon a hundred-acre farm, and has to pay from three to four or five hundred pounds for a set of miserable buildings and dykes, being bound to deliver them up of the same value, after nineteen years' tear and wear! What is the consequence? He is crippled at the very outset. He has not, perhaps, as much more money with which to stock and cultivate the farm, and has to resort to makeshifts in every possible way. He lays in an indifferent stock, because it is less costly, stints the supply of manures, makes no improvements, and occupies the land unprofitably both for himself and his landlord. These evils revert ultimately to the proprietor; so that, to prevent them, he should, in all cases, be also owner of the buildings. The tenant then enters upon his possession unfettered, and undertakes its management with more spirit and enterprise, as well as with more efficient means, than when crushed, as it were, at the starting-point.

Having fixed upon the size, form, and conditions in which a new farm is to be let, the proprietor looks out for a tenant. He should satisfy himself that the proposed tenant possesses the necessary capital, skill, and enterprise to occupy the land profitably. Upon the circumstances and character of the tenant, in these respects, more depends than may at first sight appear. From want of capital, the farm may fall into the proprietor's hands sooner than he anticipates—the land as much exhausted and as great a wreck as its occupant. For want of skill, even where there is adequate capital, the land is mismanaged, and gets a "bad name," so that it can only with difficulty and at a disadvantage be re-let. And from want of enterprise, where we may have both capital and skill, the land is unimproved, the proprietor is disappointed, and the district derives comparatively little benefit from the tenant's occupancy. Thus it appears that the proprietor has not only

to seek as a tenant a man who promises the stipulated rent, or even one who can pay it—his interest demands a closer scrutiny of the tastes, character, and habits of the man to whom he intrusts his property. When, however, he finds a tenant that satisfies him in these respects, he should remember that the liberal and enlightened policy which he seeks must be reciprocated.

A lease must be entered into, whereby the tenant may have security in the investment of his capital; and the fewer restrictions imposed upon him in regard to the cultivation of the soil the better. If he has skill and intelligence, he will know that it is even more for his own interest than for the proprietor's that he farms liberally, and does not scourge or injure the soil. Restrictions as to cropping, therefore, or regulations as to the precise rotation, are not only superfluous, but harassing and vexatious to a good farmer. It should always be enough that the proprietor specifies the rotation to be observed during the last five years of a lease, and the condition in which the land is to be left at removal. It is found now that the only way to farm profitably is to farm "high." The scourging, exhausting, cross-cropping system will not pay, and there is no fear of its being attempted by a tenant who understands his business. The man who is found to succeed as a farmer is not he who reaps successive crops of two or three quarters per acre—who sells off everything saleable, and buys in no extraneous manures. The thriving farmer is the man who reaps six or eight quarters of grain per acre, where only two or three were formerly grown—who raises thirty tons per acre of turnips, where the average of the district is ten tons—and who perhaps pays as much for concentrated manures as the rent of his farm. Agriculture is on the advance every day; improvements in management are constantly occurring; so that to tie a man down with a set of antiquated regulations—perhaps framed by our grandfathers—is to put a stop to progress, and discourage exertion and experiment.

Every proprietor who studies his own interest will do all in his power to encourage his tenant to improve ; he will make such arrangements with him as will induce him to devote his spare time and capital to this object. There are thousands, ay tens of thousands, of acres of waste ground throughout the Highlands, which, by the simple adoption of a judicious and enlightened policy, might be increased from twenty to forty fold in value in twenty-five years, at very little expense to the proprietor. This seems a startling statement ; one apparently too good to be true. But it *is* true, and we could adduce a hundred instances in proof of it. There are few farms, indeed, in the Highlands to which there is not attached waste ground which might be profitably brought into cultivation. Yet there it remains, untouched and unprofitable in every respect, while the tenant would usually respond heartily to the offer of an advance by the proprietor for its reclamation. To the capitalist such improvement offers the highest possible inducements in the way of investment. The tenant will usually be found glad to pay six per cent on the outlay ; the proprietor has the best security for his money in the actual improvement of the soil, which he cannot possibly lose ; so that such a safe and remunerative investment for money is rarely to be found. He reaps this interest for his money for the first nineteen years, and will derive from fifteen to twenty per cent in perpetuity thereafter. And even where the proprietor has to borrow money for the purpose, it will be seen that it is still his interest to improve. He can borrow from any of "The Lands Improvements Companies," at a certain rate of interest, to pay off principal and interest in twenty-five years. The tenant will be found willing to pay within, say one per cent of the interest thus paid, and in many cases he will even pay the whole ; so that the owner has his land converted from moor ground, worth perhaps a shilling an acre, to fertile arable land, worth perhaps

twenty to thirty shillings an acre, without costing him anything but the trouble of negotiating the business, or at the most at a cost to him of perhaps five pounds per acre. Many proprietors—the Earl of Seafield for example, with that justice and liberality for which he and his noble ancestors have earned such an enviable reputation—in order to encourage improvement, promise five pounds at the end of the lease for every acre of land brought into cultivation during the lease. This is a fair arrangement, but not productive of the result that might be anticipated. The progress of improvement is at best slow under this plan, inasmuch as tenants usually do not possess sufficient capital to enable them to lie out of their money for such a long period as nineteen years. The method of advancing the money is the most economical for the proprietor, and is best for the tenant, as his means are left free for the efficient management of the land. The progress of improvement will be found in this way much more rapid, and the benefits sooner reaped, to the advantage of both proprietor and tenant, and manifestly also to that of the whole country. The labouring classes will in the mean time be fully occupied, and the quantity of food raised will be permanently increased.

While there is so much waste land, let it not be said that the Highlands are over-peopled. Let the proprietors organise extensive plans for the improvement of their estates, and it will be found that instead of a redundant population, we have a scanty one, both for the present execution of the improvements, and the future working of the additional land. Seeing the increasing demand for farms, and the progressive advance in the rent of land, we must confess our astonishment at the apathy of the landed interest in this respect. There is, of course, always something doing in the way of reclaiming waste lands, but not one-twentieth of what might be done, if the matter were thoroughly understood.

*Watson*

## CHAPTER II.

SMALL FARMS OR CROFTS :—NATURE OF CROFT LEASES—HILL COMMONTIES—PROPER SIZES OF CROFTS—IMPROVEMENT AND ENCLOSURE—BUILDINGS—HABITS OF CROFTERS—INSTRUCTION NECESSARY—MEN WHO OUGHT TO GET CROFTS.

WE now come to consider Small Farms or Crofts. Notwithstanding the rapid strides with which the practice of agriculture has advanced within the last twenty years, it has as yet scarcely affected the small farmer or crofter ; he is still much the same ; his practice varies little from what it was a century ago. While the large farmer of intelligence, under the security of a lease, goes on draining, subsoiling, liming, and improving ; while his stock, by judicious breeding and proper feeding, attains a high standard of excellence, and the land, under his skilful treatment, teems with abundance—the land of the neighbouring crofter luxuriates in dockweeds and thistles ; the scanty corn-crop struggles for an existence among them ; the wet portion produces little or nothing ; and, indeed, the whole land, from starvation and mismanagement, is unprofitable. As to stock, although breeding, rearing, and feeding are so well understood nowadays, and their profitability experienced, we have only to attend any of the Highland markets to see what sort of stock crofters keep. The slowness with which they pick up the practice of their more skilful neighbours is astonishing ; even at this day, the majority of the beasts sent to market are little worth ;

we find there, black cattle, two years old, which are not a bit bigger than a good sheep, and not quite so valuable. But how, it will be asked, is this state of matters to be remedied? How are they to learn to farm with profit to themselves, and with credit and satisfaction to the landlord? We reply, that the landlord must interest himself in their welfare, and, by doing so, he will be amply repaid by living in the affections of his tenantry, and pocketing an increased and better-paid rental.

First of all, he must grant leases. Few of the crofters in the Highlands have yet got leases. They are liable to be removed at any time by a sudden scheme of the proprietor. And how, in these circumstances, could they be expected to improve? When remonstrated with for not improving, the never-failing and unanswerable reply is, that they have no lease. It has been urged, as an objection to the granting of leases to crofters, that they then become independent of the landlord, and might be lazier and more troublesome in other respects than ever, from want of the constant salutary fear of incurring the displeasure of their superior. We would obviate this objection, however, by the terms of the lease. We would make its validity dependent upon strict compliance with the regulations of the estate—upon a continuance of good character and steadiness. Failing in these, or in the gradual but progressive improvement and enlargement of his croft, as will be more particularly specified, the lease should be null and void, and the worthless tenant should be removed without hesitation, as an example to others, and to make room for a more deserving subject. The neglect of the terms of the lease in such cases is too often permitted to pass unnoticed. A single ejection, however, as a result of not adhering strictly to the terms of the lease, would have a most salutary effect upon a whole district, and proprietors should in no case hesitate to put such ejection in force from leniency or mistaken benevolence.

It is especially necessary in negotiating with this class,



that, while providing for the security of the tenant's time and labour, the landlord should take care to secure his own safety and the wellbeing of the estate. Thus the terms of the lease should be stricter than would be advisable in the case of large farms. It is not recommended that leases should suddenly be given to all the crofters on the estate indiscriminately. This is a case in which haste might be bitterly repented, and that without remedy. It should be the *aim* of the proprietor that all the crofts should be held under leases; and he should move steadily, but circumspectly, in that direction. Two or three of the most intelligent and active should be selected at a time, and made examples for the rest, being dealt with in a liberal spirit, to encourage them, and excite a spirit of emulation.

It is an advantage for the crofter to have some hill-ground attached to his arable land, on which he can graze his horses and young cattle in summer, and perhaps a few sheep. This is the usual system, whereby the adjacent hill-ground to a township is held in common by all the tenants; and we think the system a good one. But we would by no means permit each and all the tenants to put as many horses or sheep on the ground as they choose, as is too often the case. The consequence of this is, that each puts on as many beasts as he has money to purchase, and the ground is almost invariably overstocked. The more sensible of them, who see the folly of such a course, cannot remedy the evil by keeping less stock themselves, because so long as others keep more than their proportion, they get little benefit from moderate stocking. The proprietor should ascertain the number of sheep the common can keep in addition to the horses, and each tenant should be limited to a certain number of sheep for every pound of rent he pays for his croft. In this way each tenant will have his fair proportion of the benefit of the common.

The size of a croft is an important consideration. It should be sufficient to give full employment to a pair of

horses, or only half this size for one horse, so that two could mutually accommodate one another in those operations where a pair was requisite. For the small ponies kept in the Highlands (and they alone are adapted for the Highland crofter), twenty-five imperial acres are as much as a pair can manage well ; so that this should be as far as practicable the size aimed at, or twelve and a half acres for a man in humbler circumstances to be worked by one horse. Instead of this, however, it will be found at present that the holder of perhaps eight or ten acres keeps a pair of horses, which are of course, like the owner, not half worked, and eat up a great proportion of the produce of the lot. There is thus great waste, besides loss of time, from the crofts being usually of no definite size. But how, it may be asked, are the lots to be brought to this size on an estate abounding in small farms of from two to twenty acres, without removing the majority? We would surmount the difficulty by increasing the arable land. This will be found the most agreeable and profitable mode ; and there are few purely Highland estates on which there is not ample scope for having this done.

We have met with hundreds of instances of the earnest desire crofters have to improve if they had fair opportunity. We have seen them begging for leave to trench, drain, and cultivate a piece of the adjacent moor-ground, so as to occupy their time, and enable them to raise a supply of meal adequate to the wants of their families ; their lazier neighbours preventing them from doing so on the ground that they thereby encroached upon the common pasture. We saw an instance very lately of a pattern crofter, who had cultivated every possible inch of ground within his enclosure, and whom we found actually encroaching on the river in his anxiety for more land. He was embanking the river, and casting the soil upon the gravelly beach he had thus secured at enormous labour. We thought what a pity it was that such a man should be

curbed, instead of being encouraged and invited to improve. In laying out a farm which it is wished should extend to thirty acres, we would, in the first instance, make it, say, twenty, and allocate it so that there could be ten acres of the interspersed or adjacent waste ground improved and added to it. It should be laid off into, say, five fields or lots, as nearly parallelograms as possible. The tenant should get a nineteen-years' lease of the farm, and be bound to improve at least one acre each year from the date of his entry, till the whole was in cultivation. He should be bound to enclose the whole farm with a substantial stone dyke, a tenth part in each year in the same way, so that in ten years the farm would have its complement of land, and be thoroughly enclosed. A great part of the stones for the enclosure will be obtained in clearing the improved land. The tenant will drive the stones at his own expense, but should be paid each year for the building of the dykes, being bound to pay six per cent for the amount. If this system were extensively adopted, the small farms on an estate would be increased by fifty per cent in nineteen years, and be properly enclosed, without expense to the proprietor, and with great advantage to the tenant at the same time. Contrast his present position with what it would be in this case. The little crop he has, despite the vigilance of himself and his herdboys, is considerably diminished by the ravages of his stock for want of enclosures. He cannot leave his farm to undertake other work of any importance, from the constantly-recurring requirements of every farm, how small soever it may be ; and yet, while tied down to his croft, he is, from its small size, not half occupied, and in winter he is almost totally idle ; while he does not improve, because he has no lease. Thus he is half starving, and more than half idle ; whereas if he were in the position we have suggested, he might be well fed, prosperous, and happy. He would work with zeal, as he would see it to be his interest ; and his increased produce

would enable him to pay his rent without difficulty, and keep his family in comfort.

The buildings upon the crofts throughout the Highlands are usually in a sad state. It is idle to talk of ameliorating the condition of the peasantry so long as their dwellings are so utterly wretched—so devoid of every comfort, or even decency. When we lay off a croft, let it under lease, and bind the tenant to work it properly and improve it, we must provide him with the means of doing so. Without the necessary buildings it is quite impossible to work crofts any more than large farms to advantage. We do not desire to see fine, or ornamental, or expensive buildings erected; this, like many other things, may be, and has sometimes been, overdone. It is possible to give a cottar such a house as he will be uncomfortable in from its very excellency, because he has not the means of keeping it as it ought to be. A friend of ours went to examine some recently-erected labourers' cottages, and on congratulating the house-wife of one of these upon her comfort, she exclaimed, "Ay, but they would need to give us a servant now to keep it." Such will generally be the sentiments of labourers' wives with large families and without assistance, when the houses are overdone. But we have not much to fear as yet in this way in the Highlands. On examining the buildings, we would commence with the dwelling-house. It should be always built with stone and lime, and slated; the least expensive form being a plain rectangle, with two rooms and a closet below, and two attics with storm-windows above. Less than this is insufficient for the decent accommodation of a family. Then, with regard to the steading, it should be built of the very plainest rubble work, and thatched with straw. We would not desire to see a single hewn stone in any of the buildings, or any ornament, saving, perhaps, a porch at the door of the dwelling-house, which would combine comfort with appearance. The propensity at present manifested

for having all the houses and parts of the steading detached—placed in every conceivable position, and at considerable distances from one another—is quite unaccountable. The increase of labour resulting from this is often very great. There would be considerable economy in building and roofing by having them contiguous; so that we are at a loss to understand why a crofter's steading under one roof is a thing almost unknown. In arranging with the tenant in regard to buildings, he will always be found willing to drive the materials, besides executing the mason-work, at his own expense, provided the proprietor does the rest. And surely these are favourable terms for the proprietor. Besides the monetary advantage of the transaction, one would think that the proprietor would be amply repaid in the satisfaction of seeing respectable houses on his property, instead of the unsightly hovels at present existing. While we would have the steading under one roof, we would have the dwelling-house always detached. There is no good reason why the dormitory of the tenant should be placed over the exhalations from a fermenting dung-heap; so that, from sanitary considerations, as well as from taste, we would place the dwelling not less than fifty yards, and, for convenience, never more than two hundred yards, from the offices. This would enable the crofter to secure the important desideratum of having a small garden attached to his house. And why should it be thought superfluous for him to have a few trees planted around him, to shelter him from the winter's blast, and to distinguish his habitation from those of his cattle? Such comforts would cost the crofter nothing; they would afford amusement for his leisure hours, and tend to elevate his tastes and inclinations. They would, in time, wean him from the gossip of the smithy, and the dissipation and ruin of the public-house, and help much to make him a home-loving husband and a better man.

All these improvements which we have suggested can

be effected with little outlay to the proprietor, and that little a mere trifle in comparison to the return. We hold that all is to be secured by efficient, judicious, and painstaking management. The proprietor should interest himself in his tenants, and especially in the smaller ones. He should notice their exertions, and express approval where he sees exertion made. This, small as it is, goes very far to stimulate to increased exertion and greater accomplishment. We would even go to the unheard-of extreme of instructing them in farming; of which, notwithstanding a life-apprenticeship, they usually know so little. First of all, and above all, it should be our aim to impress them with a sense of the *value of time*. A want of this sense is the worm that eats at the root of their prosperity, and keeps them down. Gain this point, convey a hearty salutary impression of the importance of saving time, and the battle is won. The waste of time among this class is perfectly fearful. We venture to assert, from our own observation, that the Highland crofters do not on an average work systematically, and as hired labourers do, for *one-half* of the working days of the year, each day having ten hours. We have kept this fact in view in many of the remarks we have made. How could we effect so much without expense to the proprietor or tenant, and with manifest advantage to both, but by the saving of what is at present so much wasted; we mean the tenant's time. A complete revolution may be brought about in the circumstances of crofters by turning their attention to this point, and at the same time providing them with a way of profitably spending their time. Both must go hand-in-hand; first supply them with land to improve, and give them leases to secure them in the first profits of it, and then teach them to abandon their long-fostered idle habits, and all will be well. A man who thinks it a dreadful thing to lose a sixpence will, with the most perfect indifference, spend a day idle, in which he might earn

2s. If a horse wants a shoe, a day is lost ; is the meal-girnel low, a day is spent in looking for more ; does a neighbour some miles off owe him 5s., he spends a day, worth 2s., in going to look after it. Nothing is too trifling, in fact, to form an excuse for squandering all the hours of a valuable working-day. But we must have done with this part of our subject. Let us instruct them generally in the management of land and stock ; recommend draining, point out where it is required ; get them to remove all earth-fast stones, and show them the comparative profit of keeping only the best stock. The proprietor should keep first-rate stock on the home farm ; and by giving the use of them for breeding purposes, or selling them on moderate terms to the crofters, improve their stock. Such a course will prove ultimately to be for his own profit. Let us explain the propriety of providing food for cattle and horses in spring, instead of turning them out to starve on a bare common—let us enforce the preservation of the essence of the farmyard manure, the liquid, and of keeping *together* all the manure, instead of having it spread over the homestead, and keeping every place filthy, to the discomfort as well as the loss of the tenant. We should not suffer them to cultivate their land in shreds and patches, but in equal, uniform lots ; we should rigidly stipulate against overstocking, with a view to their own and their neighbour's benefit ; we should direct their attention to improved implements—such, for instance, as Park's steel digging-forks, which we have proved to save labour to the extent of twenty per cent as compared with the spade. Finally, we would endeavour to cultivate a taste for reading ; introduce such papers as the *British Workman* among them ; perhaps establish a reading-room in a township or district of country ; and we would suppress public-houses.

Where crofts are moderately rented, and judiciously managed and looked after, as we have indicated, there is

no class more contented and happy—more independent or free from care, than the crofter. The rage for crofts is so great, that there might be four for every one there is now ; and while we would be far from advising to give every man a croft, we are sorry to see so much land lying waste and unproductive, and so many active, intelligent, able-bodied young Highlanders, either leaving the country, or struggling for an existence at home, who would eagerly cultivate it if in their power. Wherever we found an intelligent, active young man, who had saved of his own earnings a sum sufficient to start in a croft, we should consider his hard-earned capital a guarantee for his activity and his provident habits ; and so long as there was improvable land so adapted on the estate, we would by all means give him a possession as a reward for his industry—as a stimulant to others—and as being, moreover, for the advantage of the proprietor, and the benefit of the country at large.



## CHAPTER III.

PERMANENT IMPROVEMENTS :—TRENCHING—DRAINING—SUBSOILING—  
LIMING—FENCING—BUILDING—ROAD-MAKING—PLANTING.

WE have already hinted at the expediency of encouraging systematically the execution of Improvements of all sorts on a well-managed estate ; but the importance of the subject is such as demands further consideration. Permanent improvements upon farms embrace trenching, draining, subsoiling, liming, fencing, building, road-making, and planting ; but in a sketch of this nature, little more can be done than to allude to each of them. A considerable saving of expense is effected by the exercise of sound judgment and discretion in the mode of conducting these works, in comparison with the expense where the works are carried on indiscriminately, without design or pre-arrangement. Having maturely considered what is to be done on a particular farm, and fixed upon the nature and extent of the improvements, it is most economical to carry on all the different kinds of work as much as possible simultaneously ; but where it is found necessary to give precedence to any, they ought generally to be taken up somewhat in the order in which they are stated above, although exceptional cases will frequently occur. By commencing with trenching, stones of all kinds are procured. The largest go to build dykes, &c. ; the smallest to fill drains ; and the intermediate to form a sound dry foundation for the farm roads. Thus, by carrying on all these

at the same time, in many of the operations we are enabled "to kill two birds with one stone;" while clearing the trenching, we are forwarding the drains, dykes, and roads. In the improvement of waste land, ploughing is frequently, although often unadvisedly, substituted for trenching. In many cases ploughing effects the work well; but it is too often apt to be adopted from views of economy, which are ultimately found not to be substantiated. And while on many soils, and on large farms, the reclamation of waste land is admirably effected where the plough is drawn by oxen, or by three or four large powerful horses, we are ever suspicious of the operation when effected by the small farmer or crofter. His team is necessarily inadequate to such a task; the surface is skimmed over, but the land is not prepared for the cultivation of crops; and hence one reason for the scanty returns often to be witnessed. In a word, we would insist upon the crofter *trenching* his land at the outset, and thereby provide him with the elements upon which afterwards to show his skill in cultivation.

Trenching should be not less than sixteen inches deep out of the solid, and the surface-turf should be cut into pieces not exceeding a foot each way. All the stones exceeding four inches in diameter must be thrown to the surface, and those too large to be drawn off by a pair-horse sledge must be blasted. The surface-turf should not be placed horizontally in the bottom of the trench, but at an angle of  $45^{\circ}$ ; and if the subsoil is very hard or ungenial, it should not be thrown upon the surface, but simply pulverised and left underneath. The small stones should be first carted off, to prevent the risk of their being buried by the treading of horses and carts in carrying away the large stones.

Much has of late years been spoken and written upon draining. We have so many conflicting opinions upon the proper depth, the distance apart, and the best materials for

filling drains, that, without practical experience, any one who has only studied the subject theoretically feels quite bewildered. But on reflection, it is obviously ridiculous to specify or recommend a particular depth, distance, or material for drains, as applicable to all parts of the country, or even to the different fields on a farm. It must depend upon the nature of the soil and subsoil, and the locality. There are no circumstances, however, in which, where the out-fall permits, the depth of the drains should be less than three and a half feet. This is requisite as a minimum depth, in order to secure a sufficient extent of dry aerated soil, to encourage the roots of plants to penetrate in search of the necessary food, and to allow of subsoiling and deep ploughing without danger of injury to the drains. A practised eye alone can determine the number of drains necessary to render the soil thoroughly dry. We are aware that it has been often recommended to drain even dry lands, with a view to the speedy removal of surface-water, and the supply of air to the soil and subsoil; and we doubt not that, in these respects, they would be of some advantage in such circumstances; but we are extremely sceptical as to the principle, in an economical point of view. In short, we believe that the benefits to be derived from draining *dry* soils are not such as to remunerate for the outlay.

The materials used in the formation of drains are either stones or tiles; and this question, again, as to which is best, has been made the subject of much needless controversy. If the subject to be drained is a swampy meadow, free from stones, and if tiles are more easily obtained than stones, then by all means let them be used; but if, as is by far the most common case in the Highlands, the newly-reclaimed land has yielded myriads of stones of all sizes, which already lie at the sides of the drains, while tiles would have to be transported a considerable distance, and at a large expense, there can, surely, be no hesitation as to the propriety of using the stones. But, indeed, *cæteris*

*paribus*, we much prefer a well-constructed stone drain to one of tiles. By placing two flat stones, converging to a point at the bottom of the drain, and having their upper edges leaning against the sides, by setting a pretty large boulder between them, we secure a duct at the bottom equal to any tile, while the small stones placed above provide many assistant ducts, purveying for the larger one below ; and if any accident should happen to the lower opening, the drain is not so utterly destroyed as would be the case where it consisted of a single tile. We have, moreover, by the numerous openings between the stones, a more certain and constant supply of air for the subsoil, than is the case where tiles alone are used.

In endeavouring to pulverise the soil to a sufficient depth, there are two modes adopted, known distinctively under the technical terms of subsoiling and trench-ploughing. By the former is meant the stirring of the subsoil, without bringing any of it to the surface, or mixing it with the soil ; a process which is usually performed by a plough made for the purpose, following that which turns over the soil. By trench-ploughing, on the other hand, is meant simply deep-ploughing (perhaps 12 to 15 inches), which is performed by a strong heavy plough drawn by three or more horses, and by which the subsoil is to some extent mixed with the soil at the surface. We are determined as to which of these modes should be adopted, by the nature of the subsoil. If it is similar to the soil, or of a nature adapted to the necessities of the cultivated crops, we desire to mix it with the long-cultivated, worn-out surface, so as to afford a renewed supply of the elements of plants, of which the soil has been exhausted ; but if it is a hard impervious material, destitute of vegetable matter, or mayhap largely saturated with oxide of iron or other deleterious matter, it is not advisable to mix it with the upper soil ; so that in this case the use of the subsoil-plough is to be preferred. In newly-reclaimed land, which

has been brought into cultivation by trenching, it is obvious that neither trench nor subsoil ploughing are required, as the subsoil is pulverised to the desired depth by the operation of trenching ; but a vast proportion of the present arable land throughout the Highlands could be brought to yield very much heavier crops than it now does, by one or other of these operations. It is, indeed, an ascertained fact, that a thorough stirring and pulverisation of the soil is equivalent in many respects to a supply of manure, or is at all events a powerful auxiliary, inasmuch as the food of plants is in a great measure derived from the atmosphere when the soil is exposed to its influence by constant stirring.

The process of liming may almost be classed as a permanent improvement, and its application in upland districts is much more effective than even on lands near the level of the sea. It is usual to apply lime in large doses of, say, thirty bolls per acre, at long intervals, determined generally by the duration of the lease ; but it will be found better to apply it in comparatively small quantities of perhaps ten bolls per acre, at intervals of five or seven years, according to the nature and circumstances of the soil ; and if in the form of a compost, so much the better. Many proprietors, when desirous of affording encouragement to their smaller tenants, in circumstances in which aid of some kind seems called for, instead of giving money, purchase lime for their tenants to apply to their land. The effects of a small grant of money would soon pass away, while the affording of a supply of lime is always appreciated, and its application tends to raise them above the need of assistance in future, by increasing their crops.

The enclosure of a farm is next in importance to its drainage. A farm may be well cultivated in every respect, but is incomplete and unsatisfactory if unenclosed. And here we have an important reason why every farm should have as few subdivisions as possible, consistently with the

maintenance of a proper rotation of crops, and why these divisions should preserve as nearly as may be the form of the square. By attention to these rules, the least possible extent of fencing is required, and of course a saving of expense effected. But it is unnecessary to enlarge on the advantages of enclosure ; they are self-evident. It may be well, however, to inquire what is their best and most economical form. For farm purposes, the varieties of fences employed are hedges, stone-dykes, turf-dykes, wire-fences, and wooden palings. Of all these, we believe the stone dyke to be the most efficient and durable, and the cheapest in the end. The hedge is more ornamental, and may be adopted where appearance is a chief object. The wire-fence is most useful where expedition in the erection is desired. Turf-dykes are unsuitable on a farm, as they occupy too much space, afford room for the growth of weeds, are unsightly in appearance, and are moreover not an efficient fence ; while the wooden paling is in the end the most costly of all erections, is most liable to be destroyed by stock, and is only suitable for temporary purposes. It is certainly ill-adapted for the fixed and permanent enclosure of land.

Hedges have never obtained a footing in the Highlands as an enclosure, if we except, perhaps, part of Easter Ross. Our climate, generally, does not seem adapted to their rapid and vigorous growth ; but, indeed, the constant care and attention necessary to preserve them in a thriving state, will always operate against them as an economical fence on a farm.

Stone-dykes we have characterised as the best fence and cheapest in the end. If well built they give no trouble for a long series of years, and they afford no shelter for vermin or weeds, while their expense in erection and maintenance during a long lease is positively less, where the stones are not far distant, than that of any other fence. Their superiority, however, only obtains where the stones

are adapted to the purpose. If better material cannot be got than round water-washed boulders, any other kind of fence is to be preferred, inasmuch as dykes erected with such material are anything but durable, and are a constant source of annoyance and expense in repair. Our own *beau ideal* of a perfect fence for cattle and sheep (and fences in the Highlands must be proof against sheep) is a stone-dyke built in courses (we do not mean dressed), thoroughly banded,  $3\frac{1}{2}$  feet high, with a rough cope of 12 to 15 inches, having one of the cope-stones, at every interval of 6 feet, 2 feet high, with a niche on its top in which a rail of larch or fir is placed. This height of dyke, with the rail on top, is a more certain fence for sheep than a dyke 6 feet high without the rail; indeed, the latter we have frequently seen leaped by blackfaced sheep—the former never. Again, this dyke, from its lowness, is less liable to fall from the effects of time, while the top rail can easily be replaced when required, at a very trifling expense.

Turf-dykes are inexpensive, and, with three wires on the top, well adapted for the enclosure of plantations, which only require a fence from one direction—the outside; although where a fence both ways is required they are manifestly unsuitable. For the purpose specified they are much more durable with wires on top than with rails of wood; because young saplings of fir soon decay, and, moreover, their weight tends very much to pull down the dyke. So satisfied are we on this point, that we would prefer purchasing wire for the purpose to using wood, even where it belongs to the proprietor and is had free of expense.

Wire-fences are light and elegant for the internal divisions of a farm, and have the peculiar advantage of being rapidly erected. They are inadmissible as a ring-fence; but where stones are not easily procured, or the fence is immediately required, they are the best kind to adopt for

the interior of a farm. But for sheep there must not be less than six wires, and these had better be stout, say Nos. 4 and 5 wire, and the whole should be regularly tarred or painted to prevent corrosion.

Nothing is of more value to a farm than a substantial steading adequate to its extent. It should be erected by the landlord, and kept in thorough repair by the tenant. It should be built according to a regular plan provided by a qualified architect; and the convenience of its different parts and its position on the farm should be made a matter of careful consideration.

Every one knows the value of good roads, and in the Highlands of Scotland, so far as public roads and principal thoroughfares are concerned, we have every reason to congratulate ourselves on their efficiency. This is in a great measure due to the Parliamentary grant for Highland Roads and Bridges; but our district roads, even in the remote Highlands, are infinitely superior to the parish roads in many densely-peopled parts of England. There are, however, besides these, the farm-roads, which have to be maintained on every estate by the proprietor or tenant, without any aid from without. Their condition usually contrasts very unfavourably with that of the Parliamentary and district roads. Being left at the discretion of the several tenants, they usually deem it beyond their province to keep them in repair; at all events, they do not seem to consider it their interest to attend to them, and the consequence is that they are almost always in the most wretched condition. A little consideration, however, one would reasonably expect, should lead to a less short-sighted practice; for if the extra labour occasioned throughout the year by having horses carrying heavy loads up to the ankles in mud, and along deep ruts, were made matter of calculation, it would soon appear profitable to devote a few days every year of the whole force of a farm to the proper maintenance of the roads.



We have mentioned planting as one of the permanent improvements upon a farm ; but as by our original design we proposed to treat fully of the woods on the estate, we shall at the same time consider plantations, in relation to their effects upon the cultivated portion. For the present we conclude our remarks upon the arable land.

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## CHAPTER IV.

WOODS ;—PROFITS FROM PLANTATIONS — SHELTER — SOIL, POSITION,  
AND CIRCUMSTANCES IN WHICH TO PLANT — DRAINAGE OF PLANTA-  
TIONS—ENCLOSURE—MODE OF PLANTING.

WE have now to consider that interesting and very important part of an estate, the Woods. When altogether devoid of wood, an estate is cold, exposed, and uninviting ; and while there are few estates without some wood, there are fewer still on which the extent might not be profitably increased. There is no portion of landed property capable of yielding a higher return when well managed, not even excepting, in many circumstances, the arable land. The only drawback is the length of time that elapses before the revenue is realised. When we consider that nearly a life-time must pass ere the full return is secured, it need not excite astonishment that extensive planting is so rarely entered into as an investment. But its profitableness is such, reckoned over the whole requisite series of years, that a little reflection should lead to a different practice. It is doubtful whether in the Highlands generally we plant much more than we cut ; while we might with advantage plant ten times as much ; and if we enjoy the benefit of the providence of our forefathers, it is only fair that we should dedicate at least a portion of it to the securing of a similar boon to our posterity. This we say, taking the extreme view of the case, that a proprietor may not live to enjoy the fruit of his labours.

But from planting, a very great part of the advantage, if not the whole, may be enjoyed by the operator. If a proprietor plants early in life, he may possibly live to see the last tree cut ; but if this should be denied him, he may have the satisfaction of beautifying the country, affording shelter to his own and his neighbour's adjacent lands, and leaving a safe and certain patrimony to his heirs.

One great reason why the profit of planting is not observed as it should be, is, that it is not usually the same person who both plants and cuts a particular plantation. The heir to an estate finds, when entering upon possession, that there are so many acres of growing timber ; he reckons upon a periodical revenue from them, without calculating that it is the return from a sum of money thus invested by his predecessor. He just receives this revenue as he does the rental of the estate, and hence it is that the profitableness of the plantations is overlooked.

If we consider that, from first to last, an acre of well-managed thriving wood is capable of yielding a sum of L.200 in sixty years, one would think it were worthy of more consideration than is usually accorded to it. Another reason why the profitableness of planting is overlooked is, that a great part of the timber on an estate is cut down under the proprietor's direction for estate purposes—for buildings and all kinds of fences. The value of the timber thus used generally escapes notice, as it is not directly converted into money.

Profit, however, is but one of the many advantages of wood ; there are, besides, shelter (which in one sense may be considered part of the profit), ornament, and cover for game. The benefits of shelter are almost universally underestimated, while they are really of paramount importance. In this climate a single tree should not be cut without previously considering what effect it has as a shelter to the neighbouring lands. There are indeed many circumstances in which the value of a plantation as timber is only secon-

dary to its value as shelter. This is true in the case of outlying pastures for sheep and cattle, as well as in reference to the arable land. Next to nourishing food, it is known that there is nothing more valuable for stock than shelter. We need not enter into the physiological explanation of the fact. A farmer of intelligence will always be found, in his offer for a farm, to give effect to its position as respects proper shelter. He will do so both in regard to his stock and cultivated crops. These will always be found more luxuriant, and to attain maturity earlier with than without adequate shelter. Planting has, in the Highlands, been far too seldom resorted to for this purpose. There are thousands of instances in which all the expense connected with a plantation would be amply repaid in the ameliorating of the climate, apart altogether from consideration of a money return from timber. In devising extensive improvements on an estate, therefore—such, for instance, as bringing into cultivation several hundred acres of moorland in an exposed district—the laying down of beltings between the farms, or towards the most exposed directions, should on no account be omitted. In a march between two farms there must be a fence, so that although a belting necessitates the formation of a double fence, only one of them is fairly chargeable to the plantation. Again, in estimating the expense of planting in these circumstances, we set no value upon the land occupied by wood; because if, for example, from a farm of a hundred acres we reserve from five to eight acres for a belting to shelter from the prevailing winds, the remaining ninety-two or ninety-five acres are, after the plantation grows up, invariably worth a higher rent than the entire hundred acres would be without the belting. There are circumstances in which it would be advisable even to sacrifice part of the existing arable land for this purpose. We are not sure, however, whether the farmer will view in exactly the same light the adaptation of his farm as a shelter for game. Its eligibility in

this respect, we fear, will be apt to influence his offer for the farm conversely. But even with this opposing aspect, he will value shelter for its own sake ; and we do not believe that farmers usually object to a fair stock of *bond fide* game. They concede this, as of course in duty bound to do, to the proprietor. What they usually object to in this respect, and what irritates and provokes them, is not, as we have said, game, but such vermin as rabbits and rooks, and even hares, which, when in great excess, must come under the same category. But we shall come to this subject by-and-by, when treating of game. It seems superfluous to say anything in commendation of planting as an ornament. All men of taste agree in pronouncing it the *sine qua non* in scenery ; but, in this utilitarian age, we are more likely to secure it as an ornament by proving it to be a gain.

Generally speaking, then, we have stated planting to be advantageous for profit, shelter, ornament, and cover for game ; but of course we deem it so only when placed in the soil, position, and circumstances adapted to these ends. If profit is mainly sought for, we inquire whether the soil is adapted to the growth of the proposed timber—or, indeed, of timber at all ; whether it would interfere materially with the interests of the farmer ; whether the ground may not be well adapted for cultivation ; and whether it is near a seaport, or is accessible by good roads. On all these circumstances will the comparative profitableness of a particular plantation depend. Again, if shelter is our aim, we ask whether the proposed situation is that best suited for the purpose ; we must, indeed, consider and reconsider, until we are satisfied on this point, and safe from future disappointment. Planting for ornament—to beautify the country—to clothe a bleak or naked hill-side—to hide some deformity or eyesore in the landscape—to fill up a blank, or give continuity and appearance of extent to a contracted scene—these are among the most difficult, but at

the same time the most delightful of the duties of a country gentleman. These are matters in which education and taste display themselves, and from which real enjoyment is to be reaped. Who is there that has opportunity, who does not appreciate such a pleasurable employment for his leisure hours? There are circumstances in which a plantation may secure at once all the advantages stated; and of course this is to be steadily aimed at; but even where profit alone is the main object, we must protest against the total want of taste so often manifested in its position and boundaries. It is surely not necessary to outrage every feeling of taste and sense of propriety, for example, by running a fence for perhaps a mile in a straight line across an exposed, elevated, undulating surface, without the slightest regard to the situation or conformation of the soil, and by repeating the operation in other three directions, enclosing a space for plantation. The hill, perhaps naturally beautiful, is now a deformity—a blot upon the landscape, and a positive source of pain to every eye of taste. Our illustration is no fanciful piece of imagery, but a real every-day case. A piece of ground is to be planted; the forester is instructed to enclose it, and the injunction is fulfilled most faithfully. But it is only an enclosure; the simple-minded official has done his best, and therefore has done his duty; but whether the work is performed as it ought to be, is not so certain. We sincerely desire improvement in this respect. Let us, as far as possible, have profit, shelter, and ornament combined; and then not only the individual proprietor, but the public at large, will enjoy the benefit.

On deciding upon the ground to be planted, let us consider what preparation is necessary to secure the success of the work. First of all, it must be drained. We can no more rear healthy trees than we can grow vigorous crops on a swamp. Yet if this is well known, it is certainly not generally acted upon. We have only to look at any plan-

tation to discover the loss sustained by this generation from the neglect of drainage on the part of our progenitors. Healthy, full-sized timber is never to be seen on wet ground ; and yet we go on, even at this day, planting in such soil, utterly regardless of drainage ; or, at all events, considering it a matter of doubtful importance, and acting accordingly. How often do we find a plantation in which almost the only vigorous trees are those along the turf-fence that was cast up for its enclosure, from its affording a dry bed in which the roots of the trees find subsistence. In these cases we have a proof of what the plantation might be if it had been drained ; while we find that the whole interior is, perhaps after from thirty to sixty years' growth, scarcely fit for paling rails. With these beacons before us in all parts of the country, one would think it scarcely possible that similar land would continue to be planted without proper drainage ; but such is the fact. Above all, then, previous to planting, let us see that the land is either naturally dry, or made so by draining.

All whins, or broom, or brushwood, must, where present, be cut out before planting, if we wish to give the plants a fair start. They will not thrive without a proper circulation of air and diffusion of light ; so that the clearing away of all obstructions of this nature is essential.

Having thus prepared the soil, the space must be thoroughly enclosed. Planting is sometimes hastily proceeded with before the enclosure is completed, and the protection of the plants is intrusted to a herd. This plan, we venture to say, will not be tried without being repented of, inasmuch as the most careful and faithful servant will be baffled in his attempts to preserve it from the depredations of cattle or sheep. The cheapest fence, and speediest in erection, is, as we have stated on a former occasion, a turf-dyke, with wires on top ; and for outlying moor-ground we think it most suitable, although in many situations the stone-dyke will be preferable.

The ordinary mode of planting in the Highlands, especially when it is carried on to a considerable extent, is by the fork ; and although this is at the outset very much less expensive than pitting, we are satisfied that, upon the whole, the latter mode is more remunerative. A pitted plant gets the start by several years of one merely thrust into a slit in the soil ; so that if a comparison be patiently instituted between the two processes and their results, pitting must be preferred.

In extensive plantations it will generally be found that there are considerable diversities of soil in different parts of them ; so that it should be studied to set in the various situations such species of plants as are ascertained to be best adapted to these soils. Much of the success of the wood will depend upon attention being paid to this point.

On completing a plantation, it is not to be thought that the work is at an end, and that we have merely to wait until the fruit of our labour be reaped. The work is in reality but begun ; for there is no part of an estate which requires more constant care and attention than the wood. After planting, every year demands watchfulness to secure its preservation and proper development. The enclosure must be carefully preserved, else the neglect of a slight breach may cause much injury to the growing plants from the inroads of cattle or sheep. But here we have often to contend with less obvious but more destructive enemies than even these ; because they despise our enclosures, and defy all efforts to exclude them : we mean rabbits. Wherever young plantations are formed, therefore, rabbits must be exterminated, else the money expended is thrown away.

We must throughout pursue systematic, regular, and judicious thinning, if we hope to see wood succeed. With a view to this being done as it should, let it be endeavoured to secure the services of a thoroughly practical forester—a man of sound judgment, and, if possible, with some taste.



Every operation connected with wood — the planting, draining, enclosing, thinning, manufacture, and sale, all require so much judgment, that there is no official connected with landed property of more importance, or in whose selection more care should be exercised. On the skill of the forester so much of the prosperity of the wood depends, that, where there is considerable extent, there should always be a forester whose time may be entirely devoted to its care, and who has a thorough knowledge of his business.

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## CHAPTER V.

MOOR-GROUNDS:—USED FOR PASTORAL AND SPORTING PURPOSES—  
MARCHES OF HILL-GROUNDS—DRAINAGE OF HILL-GROUNDS—PROPER  
STIPULATIONS IN LEASES OF MOOR-GROUNDS—HEATHER-BURNING.

WE find by the recently-published agricultural statistics that the total area under tillage in Scotland is three and a half millions of acres, while the total extent is nineteen millions of acres ; thus showing that there is little more than one-sixth of Scotland cultivated—the rest being pasture and wood. Confining our attention to the Highlands, the proportion under cultivation is very much less ; so that the moor-ground is to us of such importance as to deserve very careful consideration.

Moor-ground is valuable not only as pasture for sheep or cattle, but also for the game with which it abounds. There are many parts of the Highlands where the latter produces a higher rent than the former. So much, indeed, is this the case of late years, from the progressive increase in the rents of shootings, that game is to a large and annually-increasing extent supplanting cattle and sheep, by the formation of deer-forests and game-preserves. The rents derived from this source, however, we cannot consider as of so permanent or certain a nature as the rents for pastoral purposes. The demand for shootings may possibly subside as suddenly as it arose, in yielding to the capricious influence of fashion. Grazings will be ever

valuable for their legitimate use—the production of food for man ; while shootings or deer-forests may in another generation be numbered among the things that were. We see nothing at present to indicate such a change ; and happily it may never come ; but conceiving the pastoral uses of moor-ground to be more stable and more valuable to the country at large, we shall, in the first place, consider it in this aspect. In bygone times, moor-ground was deemed valueless, or so nearly so as not to be worthy of consideration as a matter of rent. Where a more business-like management has not been recently adopted, such will still be found the case through a large portion of the Highlands. A certain sum per acre is required for the arable land, and the moor-ground is given in common to a number of tenants as an outrun, without charge. The extent of this outrun is not considered : it may be one thousand acres, or it may be ten thousand, according to the conformation of the property, or the distance of the arable land from the hill marches. Thus, in many instances, where a tenant has had the luck to be situated in the neighbourhood of an extensive range of hill-pasture, and has the prudence to take advantage of it, he has usually enriched himself ; while his less fortunate neighbours have just had to content themselves with their lot. Upon the whole, however, while, under these circumstances, the landlord has received no rent, the tenants have benefited little in comparison with what might have been expected. From the moors being in common, there being no definite rules as to the respective rights of the different tenants, the benefits of the grazing were in a great measure thrown away. The sheep and cattle grazed promiscuously ; every man looked after his own stock, and *only* his own, in so far as the advantage of his neighbour was concerned. The tenants wasted the time which ought to have been devoted to the improvement and proper working of their farms in looking after a few sheep, whose whereabouts it

was always difficult, and often impossible, to ascertain. It was not worth any individual tenant's while to devote his time entirely to his own sheep-stock, and it would not repay the expense of a shepherd; consequently none of the tenants were acquainted with the stock or its management. It was, indeed, differently managed every successive day, when a different tenant thought proper to go to the hill. Each tenant, as he required one or two, or a dozen of his sheep, for any purpose, had to gather, and dog, and worry the whole stock in attaining his object. This was so constantly occurring, that it is scarcely to be wondered at that, although the proprietor sacrificed the rent, the possession of the land was in reality no great boon to the tenants. The value of arable land and hill-ground should be separately estimated, and they are both more valuable when together in the same possession.

In proceeding, in conformity with this view, to allocate a certain extent of hill-ground to an arable farm, it is desirable that the extent should, where practicable, bear a due proportion to the arable land. In the case of small farms, if the moor is adapted for sheep, it should be made large enough to keep a sheep stock sufficient to occupy the time of a shepherd, otherwise it should be confined to the wants of the farm as an outrun for cattle. As the hill-marches between tenants have been, in most cases, handed down from a remote period without alteration, they are not usually defined suitably to the requirements of the present day. So that, in apportioning the hill-grounds anew, the marches should be carefully examined, and so adjusted as to bring each grazing as nearly as possible to a regular compact shape, and to have the marches in such a way as to be most easily herded. This latter point is too often overlooked. The ridge of a hill, for instance, makes a much better march than a water-course; unless it be the course of a large river, which may constitute a fence. Where there are hill-lochs of considerable size, the march

might be brought in their direction, when they are otherwise suitably placed ; because, so far as they extend, they form a natural enclosure, and save labour and expense in herding or artificial enclosure.

We have already spoken of the inestimable advantages of plantations as a shelter for cattle or sheep. It is a matter which receives more consideration, and will continue to do so as long as farming advances. We only add here, that, in laying off hill-marches, and at the same time considering the land best suited for planting, it would be well to form a plantation in the march between two farms, when otherwise suitable, to serve the double purpose of an enclosure for the farms and shelter for the stock.

When we determine the extent of land which it may be desirable to attach to each farm, either as a sheep-range or as an outrun for cattle, we proceed to define the boundaries as nearly thereto as the position and conformation of the ground will admit—always keeping in view that it is more important to secure the best natural march, than to have the precise proportion of pasture to each farm originally contemplated.

The chief remunerative means, if not indeed the only one, of improving hill-pastures, is draining. Until lately, a man who would propose to drain hill-grounds would be almost deemed insane ; but there is a great change taking place gradually, though slowly, in this respect. Many hill-farms have been surface-drained, and thereby improved to an almost incredible extent ; but the example is, as yet, very tardily and hesitatingly followed. Doubtless the day will come when an instance of an undrained hill-farm will be as rare a spectacle as a drained one is now. The expense of draining is on some soils much sooner repaid than on others. It will not pay, for instance, to drain moss-land, as the grasses natural to such soil, when in a moist state, give way, after draining, to absolute sterility. It is found that where there is naturally a luxuriant herbage, draining

is most remunerative. The coarse innutritious grasses are replaced by tender succulent herbage, which always attracts and nourishes the stock.

In negotiating in regard to sheep-farms, the incoming tenant should always be bound to take the stock of the outgoing tenant at valuation; and the outgoing tenant should always by his lease be entitled to have his stock taken in this manner. The object of this arrangement is to save the outgoing tenant, by special stipulation, from being in the hands, and at the mercy of, the incoming tenant, as would otherwise be the case. It is in all cases a mutual advantage. The outgoing tenant cannot dispose of his stock to advantage otherwise at the term of removal; and as the incoming tenant cannot keep a strange stock on the ground, it must always be his interest to purchase the existing stock, of what character soever it may be. But while there is thus a benefit to both tenants, the incoming one may, in the absence of stipulation on the part of the proprietor, take advantage of the exigency of the outgoing, when at that particular season he has no market for his stock, and is bound by his lease to remove them. A proprietor, therefore, consults the interests of his tenants, and directly, but not less obviously, his own interests, by adopting this regulation.

To encourage the surface-drainage of hill-pastures, and at the same time to secure their permanency and efficiency, the proprietor might allow his tenants one-half the expense of such drainage, payable at the end of the lease, upon their being delivered up at that time in thorough repair. The succeeding tenant will give an additional rent owing to the drainage, that will certainly yield at least twenty per cent on the proprietor's outlay.

*Heather-burning.*—In letting sheep-farms the tenant is usually held bound not to burn any heather without the proprietor's permission, or not to burn more than a certain proportion of the extent—as a tenth—in any one year.

Heather-burning is a continual source of disputes between proprietor and tenant: it is, therefore, most important that fair and equitable rules should be adopted in regard to it, such as are capable of being put in practice without difficulty,—not in the usual arbitrary manner, but with equal regard to the rights and necessities of landlord and tenant. It is well known that periodical heather-burning is, throughout a great part of the Highlands, essential to the welfare of the sheep-farmer. It was at one time thought to be prejudicial to the game, in destroying the cover; but, fortunately, this idea has been of late years abandoned. The most successful game-preservers now know that the burning of heather is as essential to the well-being of the game as of the sheep. Many, however, still adhere to the old notion that the interests of the sportsman and grazier are, in this respect, antagonistic; but we feel assured that a jury of the most intelligent and experienced gamekeepers in the country would unhesitatingly pronounce it to be quite as beneficial to the one as to the other, when properly done. It is a pity, therefore, to see so many instances in which the sheep-farmer is sacrificed to support the prejudices of the inexperienced sportsman. We are persuaded that the gradual diminution of game, which is so observable in many parts of the country, is to a considerable extent attributable to the *want* of heather-burning. Grouse never breed in very long heather, neither do they usually lie in it. Nests are seldom found in heather of more than a foot in length; and where they may be found in the close neighbourhood of rank heather, the young birds are injured, and often die by eating the decayed fibres that are accessible to them; they are also liable to disease from the damp unhealthy position in which they are placed at this tenderest age when they begin to leave the nest. In fact, heather, of a moderate growth, affords better shelter to the young brood than very old heather, because the old is always bare and

thin, except at the top, and the young birds are thereby more exposed to cold and damp. The happiest condition in which a young nest can be found, is in growing heather of perhaps a foot long, and in the immediate neighbourhood of very young heather after recent burning. They have thus the best shelter, with ready access to their best food—the tender shoots of very young heather. Sportsmen are apt to be misled by the fact that, when out shooting, they usually find birds in thick cover; but this is in a great measure accounted for, from the birds at once running into the thickest shelter upon the alarm given by the distant shot. In short, to secure the most favourable state of heather for the benefit of the grouse, it must be burned by rotation, a certain portion every year, so as at all times to have heather of the different ages necessary for food and cover. The extent to be burned in each year on a particular farm must be regulated by the nature of the ground, in regard to its capability of yielding heather. There is a great difference in the crop of heather which grows on different soils. If it grows rapidly, it must be oftener burned, to prevent its getting at any time too rank; and consequently the proportion burned on such land in one year must be greater than on land on which it grows more slowly. The proportion burned in each year may be from a seventh to a tenth of the whole extent: it is in rare instances that the proportion can be less than a tenth, without danger of allowing the heather to grow so long as to be positively injurious to the game. Thus would we have heather periodically burned with a view to the benefit of the game; and just in the same manner would we proceed were we consulting alone the good of the sheep, for some well-grown heather is equally valuable to them, especially on wintering ground. The interests of both are in this respect identical. Much of the misunderstanding that exists on the subject is due to the mistaken zeal of many gamekeepers, unaccustomed to power, who are in



this matter placed in absolute command of the fortunes of the grazier, and who take care to avail themselves of such an opportunity of showing their power. Much is, on the other hand, due to the rapacious but equally mistaken demands of the tenant, doubtless excited in a great degree by the extremities to which he is driven by the absolute power of the gamekeeper. According to the nature of the ground, the tenant should, by his lease, be bound to burn only a certain fixed proportion in each year ; and in case of disputes in regard to the extent burned, or any other matter in connection therewith, it should be referable to the factor, whose decision should be final. We say the factor, and not the gamekeeper, because it is surely due to the position of a respectable tenantry to have a right of appeal to the factor from the one-sided views of the gamekeeper ; and because the factor is more likely to take an unbiassed view of any case in dispute than the gamekeeper, who is in fact a party in the dispute, and cannot, therefore, be an impartial judge. There are many gamekeepers, and we know such, intelligent, educated men, and men of discretion, in whose hands we should feel perfectly safe ; but as there are many others of a different stamp, we must protest against the tenants being placed entirely under their authority, in a matter which so seriously concerns them as this.

It may be said that the gamekeeper is not usually invested with authority, in this or any other matter, to which a tenant becomes a party by his lease. And in point of form this is true ; but the tenant is usually bound not to burn heather without the proprietor's permission. The proprietor delegates his power to his gamekeeper, and hence, practically, the position of the matter is as we have represented it. It may be said, again, that if a tenant agrees to bind himself by such a regulation as this, he must just be content to take the consequences. But when a tenant agrees to such a stipulation, he does so in

the belief that his interests will be safe in the hands of the proprietor; and, in most instances, if he only came in contact directly with the landlord, he would find such confidence not to be misplaced. As the interests of the proprietor are so bound up with those of his tenantry, he will find it profitable, therefore, to afford the tenants every facility to prosecute their avocations to the utmost advantage—to protect them from the undue interference of officials—and to encourage in them that manly spirit of independence, without which they cannot reflect credit upon him as proprietor, or be useful and valuable members of society.

## CHAPTER VI.

GAME :—RELATION OF LANDLORD AND TENANT—OPPOSITE VIEWS IN REGARD TO GAME—INJURY TO CROPS—EXTENT OF INJURY EXPLAINED AND ILLUSTRATED—WHAT CONSTITUTES EXCESS OF GAME—REMEDIES FOR INJURIES TO FARMS—DEER FORESTS—SOCIAL AND ECONOMICAL EFFECTS.

THROUGHOUT the Highlands the relation between landlord and tenant has hitherto been different in many respects from what it is in other parts of the kingdom. Here the relation comprehends more than is included in being simply parties to a business transaction, in which nothing further is looked for on either side beyond the strict fulfilment of a stipulated contract. As in ancient times the Highland Chieftain was looked up to as a leader, a protector, and a father to his faithful retainers, so to this day, and in these peaceful times, do the occupiers of land in the Highlands respect and honour their landlords. The tenantry here have descended in direct lineal succession on the same possession, even to as great an extent as the proprietary ; and the principles held by their fathers, their attachment and adherence to their landlords, have been faithfully handed down and imbibed by their posterity. And who would not desire to foster and preserve this happy relic of feudal times, and save it from the rude grasp of the prevailing mammon-worshipping, time-serving spirit of the age ? How much more honourable and gratifying it is for a proprietor thus to live in the affections of

his tenantry—to be loved and honoured while he lives, and to be truly mourned over when he dies—than, living or dying, to be cared for by none of them. By all means, therefore, let us cherish this mutual feeling of respect and regard, and let us jealously watch against any bone of contention that may arise to disturb it. We are assured, then, that there is nothing that has already done more to alter this feeling, or that is more calculated to uproot it entirely, than game. As this is a matter which affects not alone the social, but the economical relations of landlord and tenant, and which agitates the length and breadth of the land, we shall endeavour dispassionately to consider it in all its bearings.

In every question of the kind there are parties on both sides, who, in the heat and excitement of controversy, and from feelings of aroused antagonism, go into opposite extremes. On the one hand, there are advocates of the doctrine that wild animals, as such, should be common property, and the privilege of taking or destroying them universal. In this dogma the rights of property are radically interfered with; but, apart from this aspect of the question, we cannot doubt that the adoption of such a principle would lead to the most disastrous results, and be anything but conducive to the interests of the country. Without entering into it at length, we merely say that these views, if adopted, would very soon prove suicidal. While in the unpeopled or thinly-inhabited wastes of our colonies no other principle could operate, in this densely-populated country, the universal privilege of destroying and appropriating game would inevitably lead to its speedy extinction. Even as matters now stand, with the great care and expense devoted to its preservation, it is extremely questionable whether, with the rapid march of improvement and extension of trade, and the progressive opening up and development of the resources of the country, game can be maintained to the present extent. Exist-

ing symptoms would point to the conclusion that it cannot; but if we could conceive it to be everybody's right to destroy it, and nobody's duty to preserve it, a very short time, indeed, would number it with the things that were. But while we advocate the preservation of existing rights in game, we deprecate the extreme extent to which these rights are in many cases exercised. While we would uphold the landlord's rights, we would also maintain those of the tenant. How should a landlord expect to reap the full money-value in the shape of rent from his tenants, for the privilege of raising crops upon his land, and at the same time rear and preserve on the same land, for his special pleasure, such a stock of game, in the shape of deer, pheasants, black game, hares, or rabbits, as to eat up a large share of the tenant's produce with impunity? In any mercantile transaction, such an outrage upon the most common principles of equity would be absolutely ridiculed; but here, even the least murmuring, on the part of the tenant, is often rewarded with odium, and it may be persecution.

The amount of injury suffered by tenants from game is much greater than the proprietor, or even the tenant himself, usually supposes. It is at all times difficult to estimate the precise damage done by any means to a growing crop, and the difficulty is increased when the destroying agency is game. They are perpetually and secretly at work, from the moment the shoot is above ground, until the crop is safe in the homestead. A proprietor often does not see his farms until he comes to shoot over them towards the beginning of September, when all vegetation is in its prime, and at a time when it is impossible to see all the damage done, except in those parts where the loss of crop is entire. Misapprehension is apt to arise, from concluding that the extent of mischief done is confined to those parts where the crop is a total failure; whereas these portions may not represent a tithe of the real injury. A large

extent of the crop may be kept down for a great part of the season, and yet, when land is highly cultivated, it may at last prevail in some degree, and to a superficial eye appear to be what it ought to be; whereas the mischief done is generally more serious, because of greater extent, than on those parts where the damage is apparent at first sight. It is even possible that the injury to a tenant from game may exceed the whole rent of the land. It may be thought that this is scarcely possible, inasmuch as in such a case it would be better for the proprietor not to let land in those circumstances at all, but permit it to run waste, and thus avoid remonstrance and annoyance from the tenant. And it may be said further, that, notwithstanding an overwhelming stock of game, such land would yield a considerable rent as pasturing ground alone. We concede this, and would even recommend the non-letting, or, at all events, the letting only for pastoral purposes, and at a correspondingly reduced rent, such land as is surrounded by excessively stocked game-preserves. It is, in fact, as we stated at the outset, not practicable systematically to let arable land at its full value, and at the same time to rear and preserve such a stock of game as to eat up and otherwise destroy a large proportion of the crop.

It would be easy to show how injury may be sustained by a tenant from this source to an extent exceeding his entire rent. The expenses of cultivation, with manures, taxes, improvements, &c., far exceed the amount of rent; so that the tenant requires to raise crops of a value many times the amount of his rent before he can be remunerated. In former times it used to be said that the returns from a farm should be three times the amount of the rent; being one rent for the proprietor, a second for expenses of cultivation, and the third for the farmer. Of late years, however, farm-rents and the expenses of cultivation have very materially increased; and it is only by still further increasing the expenses, by draining, liming, and the exten-

sive application of portable manures, that the farmer of the present day is enabled to maintain his ground. Thus he must raise produce many times the value of his rent ; but say, for our present purpose, four times ; and we see at once, that if a fourth part of this crop is either prevented from growing, or destroyed after it has grown, by means of game (and this is by no means an unheard-of case), a loss is incurred equal to the rent of the land. Again, by the destruction of a particular crop—as, for instance, turnips—the farmer suffers a far greater loss than the market-value of that crop ; inasmuch as its evil effects will infallibly pursue him to the end of the rotation upon that portion of his farm, and it may be upon other parts of it. For the sake of example, let us follow out the injury done in this assumed case. In the first place, it is practically found (although, with our present limited knowledge of the application of chemistry to the arts, it is difficult to account for it entirely), that, where the turnip crop does not come to maturity, the succeeding crops will invariably be inferior, although the land may have been liberally manured. If it were intended to eat off the turnips with sheep, the comparative deficiency of succeeding crops might be accounted for by the want of manuring, and other beneficial influences which the soil derives from this process. But even where the turnip crop was to have been pulled and carted off, the deficiency is in a great measure to be explained by the soil being deprived of the roots and shaws, which would have been left on the ground with a highly manurial effect. But the mischief does not end here. By the partial loss of his turnip crop, how is the farmer otherwise affected ? We assume that he conducts his farm systematically, and preserves, as he is usually bound to do, a strict rotation. He has the proper stock of cattle to consume his straw and turnips ; but as his turnip crop is deficient, he must either half-starve his stock, or sell out a part, which in other circumstances he would have been able to keep. If

he unhappily adopts the former alternative—and such is the usual way—it is impossible to estimate the damage he suffers; it may be in dairy produce, in the growth of young animals, or the weight of grown ones. If, on the other hand, he lessens his stock, as in the circumstances it is his wisdom to do, he not only loses the profit he was entitled to make by the feeding of the animals disposed of, but he diminishes his farmyard manure, and thus lessens his crops for the succeeding year. In this way every operation of the farm is injuriously affected. We have certainly not magnified the evils produced in this respect by an excessive stock of game; indeed, much more might be said to the same effect; but we have said enough to convince any unbiassed mind that it is no chimera that farmers talk of, when they complain of the grievances they suffer through game; and we are satisfied that if proprietors realised the extent of the mischief, and consulted their own permanent interests, there would be less cause of complaint than there is now.

As an indirect, but serious evil, resulting from the same source, we may state that an excess of game retards improvement. An enterprising tenant is disheartened beyond conception by seeing the crops, on the production of which he had bestowed much thought, care, and capital, destroyed by every species of game or vermin. His regrets are not exhausted in the mere pecuniary loss—he feels his skill baffled, his praiseworthy pride in proving himself a master of his business is hurt, and his enjoyment in watching from day to day, that finest to him of all sights, a magnificent crop of standing corn, is utterly destroyed. His zeal gives place to indifference, his enthusiasm to disgust, and his characteristic hopefulness to unmitigated despair. His pioneering aspirations and improving schemes are nipped in the bud, and through this means alone his usefulness and his influence are lost to the proprietor and the country.



But what constitutes an excessive stock of game? We have said, and we confidently repeat, that farmers do not object to a fair stock of game, which it is conceded to be the undoubted right of every proprietor to preserve for his own benefit or enjoyment. Our forefathers could have no conception of what a modern game-preserve consists. In those days game had merely a place in the equilibrium designed by the wisely ordained laws of nature, wherein the productiveness of every species is uniformly in the inverse ratio to its powers of self-defence; and the stock of game was, so to speak, natural and moderate, holding the position designed for it by the decrees of an all-wise Providence—proportionate to its importance and value, but subservient to the interests and prosperity of other species, and above all to those of man. By the hand of man, however, this equilibrium has been destroyed; and hence the evils complained of. All those animals whose instincts led them to prey upon game have been destroyed—such, for instance, as wild-cats, weasels, eagles, hawks, ravens, &c. And not only these; but, such is the *furor* with which the preservation of game is pursued, to the utter ignoring of all other interests, that we have known instances in which even a domestic cat could not be kept without being waylaid and destroyed by the game-keepers as a suspected poacher. Thus the farmer is further injured by having his premises filled with another species of vermin, which speedily devours the remnant of produce secured by his untiring vigilance from the ravages of the game outside. May it not be deemed an excess of game when three or four hundred blackcocks are found by the farmer in his morning walk snugly set down on the tops of his stooks. We have known instances in which, from their unceasing attentions in this way, a field that was estimated to yield six qrs. per acre only yielded two! Ay, we have seen portions of a field on which the stooks were so thoroughly lightened in this way, that the

lucky owner was entirely saved from the labour of threshing them! How shall we characterise the state of the game where, perhaps, in a large field of thoroughly enclosed turnips, a premium may be offered for the discovery of a single unbroken bulb; or where the farmer, in his homeward walk at dusk, is gratified with the sight of perhaps fifty hares in his promising braird? Is it to be wondered at that a rent-payer should occasionally give vent to a little grumbling in such circumstances?

Further, we humbly conceive that, where pheasants, for instance, are hatched in hundreds by common fowls, reared by hand like poultry, and let loose upon the tenantry when they arrive at maturity, to be afterwards regularly fed by the proprietor each successive winter when the farmer's crops are secured in the stackyard—when thus they are found so tame that they cannot even be frightened out of the farmer's growing crops, and when he might kill them with a walking-stick if he dared—then, we say, they are removed entirely from the category of game, and cannot, in the proper understanding of the word, be considered game in any sense—except a legal one. When deer in the same way are imported as calves, and reared like cattle in a court, they are so tame and domesticated as to be but remotely allied in nature and habits to the original wild animal. It would be as well for the farmer in the immediate vicinity of such preserves that the proprietor let loose a number of cattle in his standing corn. There are few farmers indeed who would not much prefer such an alternative, as they could then give them a certain portion of the crop, limit them to that, and save the rest; while in the case of deer such a mode of arrangement is unhappily not in their option. And while we admire and appreciate the noble sport of legitimate deer-stalking, in their native glens and fastnesses, and even the less exciting, but equally healthful grouse-shooting, we cannot help viewing the modern amusement of killing half-tamed deer,

or house-fed pheasants, in a totally different light. In this, as in most other human aims, the enjoyment is in the pursuit, and not in the attainment of the object ; so when we withdraw the necessity for pursuit, as is to a considerable extent done by this mode of rearing game, the excitement and the pleasure sought for are in a great measure lost.

The diseases to which game of all sorts have been subject of late years doubtless arise in a great measure from overstocking, thereby showing its futility and suicidal tendency, as well as its injurious effects upon the tenantry. We now, therefore, proceed to suggest the remedies calculated, if not to remove, at least to mitigate the evil.

There are no two classes of men whose interests are more thoroughly bound up together than those of proprietor and tenant—so that an alleged grievance on the part of a tenant should at least be patiently inquired into, and removed if it be substantiated. In most cases the proprietor's interest is affected only remotely, but not the less surely ; so that he has every inducement, by equity, duty, and interest, to consult and provide for his tenant's advantage. The maxim of a good landlord will be, "Live and let live ;" and the tenant's rejoinder will be, "Give honour to whom honour is due."

There is no other remedy for such a state of matters as we have represented, where it exists, than to reduce the stock of game, and to permit the farmers to destroy rabbits and hares on their arable lands. In the case of rabbits, where they are fully established, nothing less will do than to appoint men to the special duty of destroying them, till they are entirely rooted out ; because they are so incredibly prolific that no ordinary means will suffice to keep them down. They may increase fifty-fold in a single year ; and surely the pleasure of shooting a few hundreds at a battue once a-year, out of the myriads on the ground, is dearly purchased in the uni-

versal discontent prevailing among the tenantry all the year round. We are assured that, where rabbits abound, they are more destructive and vexatious to the tenantry than all the game put together. And if the tenants saw that the proprietor consulted their advantage, so far as to set on foot measures to exterminate *them*, they would feel gratified by the interest thereby manifested in their prosperity; so that not a word might be heard of damage suffered by game, properly so called.

Another remedy for the evil suggests itself, in having the damage valued and paid for from year to year. When a tenant's provision for his family is at stake, and no alternative offered, he may be driven to this, which is, however, at best a last resource. It is, as we have already said, always difficult, if not impossible, to estimate the amount of injury done; and, moreover, it is calculated to produce misunderstanding and ill-will between parties whose mutual interests so eminently demand cordiality and concord.

In the case of injury done to farms in the vicinity of deer-forests, we can see no remedy but a reduced rental. Where the forest was established previous to the tenant's occupancy, he took possession of it with his eyes open, and agreed to give a rent suitable to the circumstances. He has, therefore, no ground of complaint whatsoever. But if the forest is established subsequent to his entry, he is entitled either to a permanent reduction of rent, or remuneration for the total damage done by the deer each year. It may then be the proprietor's interest to enclose the adjacent farms with deer-proof fences; but where a deer-forest is worthy of the name, it is next to an impossibility to erect such a fence as will be really proof against them.

In the remarks we have thus felt called upon to make in reference to game, let it be distinctly understood that we are far from having any blind aversion to it, or in-

tention to decry the sporting pursuits of our aristocracy. On the contrary, our natural sympathies, and we may add matured convictions, are most thoroughly in favour of this exciting, healthful, manly recreation. It is not only useful as well as delightful to individuals, but—speaking as we do of the Highlands—it is highly beneficial to the country at large. Game is, in fact, one of our natural products, and every one is interested in seeing it, as such, turned to the best advantage. But, inasmuch as we consider that the fruits of the earth and the welfare of our agricultural population have even a higher claim to our consideration, as being at the very foundation of all other prosperity, we have endeavoured to point out in what respect these interests are interfered with, or ignored, in pursuing the success of what may be safely called the minor product. And let us hope that our remarks, dictated as they are by actual observation, and, we trust, in a spirit of moderation, may not be altogether without effect.

Further, although we have instanced cases in which oppression may be, and too often is, unfortunately, suffered by excess of game, we must not omit to bear testimony to the fatherly interest taken by very many of our Highland proprietors in the welfare of their tenantry; and the writer can speak from experience, as he has the happiness to hold land from one of the best of them.

The annually-increasing extent of deer-forests must be fraught with serious and important results to the country. From the retired habits of deer, it is essential to their settlement and increase that all human habitations be removed, as far as possible, from their haunts. Consequently, the propagation of their species involves, to a certain extent, the expulsion of the rural population from the country, or their concentration in towns and villages. It thus acts as a direct check upon the increase of the population; and when it does not involve the entire expatriation of the people, it tends to increase pauperism

and vice, by the overcrowding of towns and villages with a people whose previous habits unfit them for the kind of work required in towns, even when such work is in demand.

The progress of the country is likewise retarded in many collateral respects. Under different management, these deer-forests might not only maintain the population formerly dispersed throughout their straths and glens, but, by improvement and increased cultivation, and from the higher skill in the management of stock to which we are daily attaining, a much larger population would be required and maintained in comfort, and the produce increased. Besides the loss of population, we incur the loss of a large quantity of the staple food of the people. Those extensive tracts of land now under deer, formerly teemed with flocks and herds, which, after supplying the wants of the home population, were annually exported in great numbers to meet the demand of our manufacturing brethren in the South. To this extent, therefore, the nation becomes less self-supporting than it once was, and we must look elsewhere to meet the deficiency. The supplanters of these flocks—the deer—are, as is well known, of no value in a commercial point of view, so that there is no compensating supply in this way for the loss sustained. When a proprietor converts a large portion of his estate into a deer-forest, instead of desiring to see increased traffic, and more of the stir and bustle of active business, as he would otherwise naturally do, he now seeks stagnation and stillness—he courts solitude and isolation, and aims at the reconversion of the country into the desolate hunting-ground that it was a thousand years ago.

These are some of the results of the extensive establishment of deer-forests as they affect the country at large, or, as we might say, politically and socially considered. We have, however, economic results which may in some measure compensate for our losses in these respects.

Deer-forests invite gentlemen of fortune to spend their leisure and their money in the country, and to buy up our encumbered estates. The money thus brought to the Highlands, which would otherwise go to enrich Continental watering-places, or other places of amusement, finds its way into all the various branches of trade which are peculiar to us, and thus of course stimulates and improves them. Proprietors are benefited by increased rents, inasmuch as deer-forests yield a much higher rent than the same land would for grazing purposes. Sheep-farmers at this moment enjoy advantages from them in the enhanced prices of beef and mutton, and of wool. We have no doubt that the much-increased value, especially of wool, in late years, arising as it does from its too limited supply for the wants of manufacturers, is to some extent due to the diminished quantity afforded by the Highlands, by the conversion of sheep-walks into deer-forests. The price will continue to increase, too, in direct proportion to the extent of stock which, from the farther extension of forests, may continue to be withdrawn from the market. Colonial produce might be expected to prevent this result; but sheep markets perhaps suffer less from competition in this way than any other.

For the purposes of the manufacturer a certain proportion of home-grown wool is found necessary to mix with colonial wools to improve the staple, so that any extent of importation cannot very seriously affect the market for home wools. Again, while salted beef and pork may be always imported so as to check the home market, these cannot supply the place of mutton to the fastidious taste of Englishmen; and as salted mutton is not likely soon to prevail upon our tables, the sheep-farmer at home may be said to have the market in his own hands. Thus, while the country may suffer from deer-forests, the landowners and tenants individually benefit. Another class of persons who benefit are the gamekeepers; but if we descend to the gillies

who are employed by sportsmen in assisting at the shooting-season, we find them, on the other hand, most injuriously affected. They would not indorse this statement, we do believe; but as we happen to be too conversant with the fact, we confidently affirm it. They acquire a taste for the excitement of the gun and the chase, which, while admirably adapted to the position and circumstances of men of wealth and leisure, has the worst possible effects upon the minds and habits of the peasantry. This taste for excitement has a necessary consequence in the distaste for the dull routine and monotony of a fixed vocation and constant work. We have too palpable a proof of this in the fact that, from the time sportsmen leave the country until they return, a period extending over at least three-fourths of the year, the gillies are almost entirely idle, and more or less dissipated. They receive high wages during the shooting-season, and, with what trifling sums they may now and then obtain for a chance service in the interval, they live upon these all the year round. Their dissipated tendencies, alas! so natural to them, are from motives of mistaken kindness too much encouraged during the excitement of sport to permit us to imagine that they could lay such habits aside during, we had almost said, their nine months' torpidity.

Game often suffers grievously from the indiscretion of inexperienced or unprincipled sportsmen. This, like all other species of animals, is subject to the vicissitudes of the seasons—being in one year more prolific than in another—in this season early and robust—in that, late and weak, and at all times liable to diminution from disease—so it becomes the sportsman to ascertain its condition before he commences to shoot. In an unpropitious or disastrous year it will be his duty to limit his excursions to the moor, and in time lay by his gun, if he would hope to enjoy it in years to come.

Every proprietor knows what the result would be of letting his farms from year to year, and perhaps to different



men each successive year. He must expect similar results to follow the letting of shootings for a single year, to persons of whose antecedents he perhaps knows nothing, and who, at all events, have no permanent interest in the preservation of the game. As with farms, so with shootings—Let leases be the rule, and yearly tenancy the exception.

Farmers and their servants have perhaps more in their power in regard to the preservation or destruction of game than sportsmen are usually aware of. With a view, therefore, to the success of the game, if not from higher considerations, we recommend the sportsman to cultivate friendly relations with the farmer, and to endeavour to meet his wishes as far as possible in regard to the preservation of his crops and heather-burning. As there is little to be gained by enmity, and everything to be won by amity, let us beware of selfishness; and by "each man looking also to the things of others," he will assuredly find it the speediest and pleasantest means of attaining his own ends. We shall then have harmony for discord, co-operation for antagonism, and success instead of disappointment.

## CHAPTER VII.

THE PEASANTRY :—CAUSES OF ALLEGED DEFECTS IN CHARACTER—  
METHODS OF IMPROVEMENT — CONCLUDING REMARKS ON THE  
MANAGEMENT OF ESTATES.

THE condition of the peasantry must interest and affect all who are concerned in the management of land. The daily increasing interest in the welfare of the humbler classes, on the part of their superiors, is a happy proof of our social advancement, and we earnestly wish it God speed. But in what direction soever we move in connection with this most difficult of problems—the elevation of the peasantry—we are met with obstacles of every possible kind, so that the utmost forbearance and untiring application must be exercised by any one who would, with success, adopt practical measures in their behalf. It seems a prevalent idea that the chief characteristic of the Highlander is laziness—inveterate laziness. Without any desire to screen our countrymen from merited aspersion, we must say that this fault is much exaggerated ; and in so far as they deserve this character, we pity more than we blame them ; but, in so far as its results affect the interests of their employers, these we rather blame than pity. And why ? Because it is the consequence of being uncared for on the part of those whose duty it is to look after them. They are ignorant, because they have not been educated ; they are indolent, because they have little encouragement to exert themselves,

being furnished with no field for their ambition ; they are often filthy in their habits, from their extreme poverty ; and they are reckless and improvident from that stupidity and want of thought natural to creatures that have been despised and neglected. But where they have been placed in more favourable circumstances, we deny that any of these characteristics is applicable to them. Where they have been cared for, encouraged, educated, what do we find ? That they challenge comparison with the natives of any other country for industry, ingenuity, provident habits, and sustained application to any work they undertake.

We have a peasantry in the Highlands whom we lodge in hovels of mud—whom we drive out of their native glens and straths, where they lived in a comparatively happy state of almost savage barbarism—and crowd them into those parts that are not so capable of supporting sheep ; we extort rents for the miserable plots allotted to them—give them no stated employment—leave them as ignorant as cattle—and then abuse and execrate them because they are not all that we wish them to be.

We have seen many instances of disappointment, from hasty efforts to improve and reclaim them. It is not to be expected, after ages of such a state of matters as we have indicated, that by a sudden outlay of money, or by offering them certain advantages, we can at once transform them into intelligent, active, and respectable men. It must, of course, be a work of time ; and where time and patience are bestowed upon them, we never fear for the result. In commencing a proper system of management on a neglected property, the circumstances of the people should be considered ; and, in so far as the peasantry are concerned in any changes contemplated, they should be approached in a kindly, conciliatory manner ; their prejudices should be humoured, and their wishes consulted to some extent. This, with firmness and determination, will invariably secure the desired results, much more effectually, speedily,

and pleasantly, than by the harsh, dictatorial style too often adopted.

In connection with Highland property, there exists a great evil, which lies at the root of many others--viz., the thirst in our landed aristocracy for the possession of a large extent of territory. They would seem to congratulate themselves upon being possessed of so many square miles of land, rather than upon the number of pounds sterling of revenue. The proprietor of an improvable Highland estate of £1000 a-year has perhaps £30,000 in cash besides. Instead of laying out his money in improving this property, to yield a return of from five to seven per cent, he buys another estate yielding at the most three per cent ; and, of course, having exhausted his capital, he leaves both estates *in statu quo*. He thus loses half the revenue he might have, by his preference in this instance. The evils attending the prevailing disposition are not confined to the owners of the land, but extend to their tenants and dependants, and to the whole community. To this source may be traced much of the poverty and distress, and the heart-rending ejections, of which we have seen and heard so much of late years in the Highlands. The recent alteration in the entail laws has already done much, and will yet do much more, by enabling embarrassed proprietors to dispose of part of their property, to their own relief and that of their dependants ; and, at the same time, tending to remove the "dog in the manger" system that has existed, whereby a man could not himself turn his property to any account, neither was it in his power to hand it over to another who would.

As a first principle in the management of land, the owner should have sufficient capital to work it, so to speak. We would esteem a man mad if he were to purchase a cotton-mill with all the capital of which he was possessed, having neither money nor credit with which to carry on the operations. But it is quite a common thing

for a man to purchase an estate, although, instead of having surplus capital, he has even to borrow half the purchase price, at a considerably higher per-centage than the property yields. It is no wonder, then, that, where such a practice is prevalent, tales of distress and misery should occasionally reach our ears. When these things are heard of, it is loudly declared that the Highlands are unfit for cultivation, from the barrenness of the soil and the unfavourable climate!—that the people should emigrate, and the country be turned into sheep-walks or deer-forests. These are the panaceas so often held out for the Highlands by professed friends of the people. Where, we would ask, is there destitution to be found on the estate of an intelligent, solvent, *resident* proprietor? We have no hesitation in saying that, if the land were treated like any other raw material, we could, by increasing the arable land, and improving its culture, double our present produce, and maintain a much larger population, and in greater comfort too.

It is good policy for the holder of land who has no money, to sell part, and improve the remainder with the proceeds. We have endeavoured to show how capital is to be thus expended remuneratively in the Highlands, and the whole country thereby directly benefited. Where it is desired to turn an estate to the best advantage, the first thing to be done is either for the owner himself to understand and undertake its management, or to procure the services of a person who is conversant with such matters, and who will really give his time to the work. It seems strange that, in so many cases, the care of estates is intrusted to persons who, during their whole previous lives, have known little or nothing of country affairs; who, while they ought to be able to advise as to the best system on which to cultivate a particular soil or farm, perhaps do not even know one variety of the ordinary cereals from another; and who, instead of being capable of advising as to the management of plantations, do not perhaps know

the names of the different varieties of the fir tribe! Such will not be found the case in the care of any other species of property; but any one considers himself, and seems to be considered, quite capable of the management of land. We can conceive no more fit or pleasant employment for a proprietor, than to look after the management of his own property; but where he has not the time, taste, or disposition to do so, his first care should be to secure the services of one to whose judgment in country matters he can trust, and in whose advice he can place confidence, in any matter connected with the estate. It would seem as if the mere collection of rents and keeping of accounts were the only things requisite; but if an estate is managed as it should be, these will be found but a small part indeed of the factor's duties.

As in all affairs, from those of the State, down to those of the household, their efficiency depends upon their management; so, let it not be imagined that landed property can be an exception to the rule. In feudal times, when the value of an estate was estimated by the number of retainers that could be procured from it for the chase, for plunder, or for war, its management was a matter of little moment; but when land comes to be viewed as an investment for money, or a source of revenue, everything depends upon its proper management.

On a large estate, and even on a small one, not a day passes in which there is not something to be done in connection with one or other of its various duties. In reference to the arable lands, we have farms to be let—regulations as to cropping to be watched over and enforced—improvements to be suggested and carried out, and arrangements to be made in regard to them. We have encroachments to check, disputes to adjust, and a thousand other everyday occurrences to attend to. Then, in regard to woods, there are plantations to be formed, fenced, and drained; growing woods to be thinned, and the proceeds

sold to the best advantage, and the full-grown timber to be sold or manufactured. But we have said enough. Where we have the due discharge of the duties required in the management of an estate, the office of factor is far from being a sinecure ; it is, on the contrary, a laborious and an anxious life ; and yet the management of many estates consists in a visit once or twice a-year to collect the rents. Can it be imagined that these lands are at all fully developed, or that they yield the revenue of which they are capable ? We say, in a word, that everything depends upon constant, careful, and skilful attention ; and without this, the tenantry must be harassed, the peasantry neglected, and the proprietary sacrificed.

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## CHAPTER VIII.

THE LABOURING CLASSES IN CANADA AND IN SCOTLAND :—EMIGRATION  
—COMPARATIVE VIEW OF THE LABOURER IN BOTH COUNTRIES—  
WAGES IN CANADA—POSITION OF GENTLEMAN FARMER THERE—  
HOW CLIMATE OF CANADA AFFECTS LABOURERS—PROPRIETY OF  
CULTIVATING WASTE LANDS AT HOME RATHER THAN IN CANADA  
—SETTLER ON CANADIAN OR ON HIGHLAND WASTE LAND—MEANS  
SUGGESTED TO IMPROVE POSITION OF LABOURERS IN SCOTLAND.

It has been customary of late years, for those who pre-  
scribe for Highland ills, and Highland wrongs, to advocate  
extensive emigration to Canada. Whether this has been  
resorted to as a summary means of getting rid of the diffi-  
culties and distresses resulting from the mismanagement  
of Highland property, or as positively the best mode of  
advancing the interests of the peasantry, we need not now  
inquire. Emigration has been loudly urged, if not insisted  
upon ; and large sums have been expended by proprietors  
in encouraging and assisting the people to leave. The  
wisdom of this policy may be discussed, as it affects the  
land so abandoned, the people themselves, or the land of  
their adoption ; and while every able-bodied labourer we  
lose is a loss to this country and a gain to the colony, it  
would be well to consider the relative position of the emi-  
grant here and there.

In former papers we have stated our views regarding



the circumstances and habits of our peasantry at home ; and having recently had an opportunity of associating with them in their adopted homes in Canada, our conclusions are the result of personal observation, and not of hearsay evidence. Let us look, then, at the comparative actual position of the agricultural labourer and mechanic in the Highlands of Scotland, and in Canada West at this time, showing on which side the advantage lies, and endeavouring to point out the obstacles that trammel the progress of the labourer at home.

The common belief is, that, when a labourer or crofter leaves this country for Canada, he greatly improves his position ; and that if his fellows knew their own interest, and could overcome their natural reluctance to leave the land of their nativity, they would emigrate to a much larger extent than they now do. Experience teaches a different lesson. While emigration is certainly an alternative which should be embraced by all who cannot earn a livelihood at home, it is, on the other hand, a very questionable step, on the part of any one who is not in that unhappy predicament. It may be thought superfluous to enunciate a view so generally acted upon ; but we know that when emigration is urged in a district, with a view to throwing off the redundant population, comprising its present or threatened pauperism, when the tide fairly sets in, the very strength and pith of our peasantry make common cause with them and go too—or even go alone ; while the faint-hearted, poverty-stricken objects, whom it is the main object to move, lose courage at the eleventh hour, and stay behind. This is a common case. Every inducement is held out to encourage our paupers to emigrate, but usually taken advantage of only by those active, able-bodied men whom we cannot spare. These are the men who are invited to emigrate by emigration agents and others interested in the colonies ; but these are they whom we would, for their own and their country's good, dissuade from leaving.

The wages of farm-servants in this country at present vary from £14 to £20 per annum, exclusive of board, lodging, and fuel. In Canada West, the wages of the same class are from £24 to £30, being an increase of more than fifty per cent. Day-labourers at home earn on an average from 2s. to 2s. 6d. per day over the whole year, while in Canada they might earn about precisely double that amount. Mechanics, such as carpenters and stone masons, can in the same way obtain about double the amount of money for a day's work that they can in this country. These, doubtless, are the facts that induce so many of our best men to emigrate; but it may be asked whether money is a certain exponent of the advantages or disadvantages of both countries relatively considered? Is money of the same value on both sides of the Atlantic? Will a sovereign procure the same amount of the necessaries and comforts of life there that it will here? If so, it might appear that Canada should be the labourer's choice. But we must answer the question in the negative. It was our uniform experience during a short visit to that country, that money is of less value both in the States and in Canada than at home. Everything that involves labour is expensive, as labour is scarce; and who is there, or where is even the labourer himself, who is not largely dependent for his comforts on the labour of others? A day-labourer, for instance, requires lodgings, and for these he will have to pay four times as much as he would in this country. His clothing will cost him fifty per cent above the home price. Everything he requires, in fact, is dearer in Canada, except his food, and even that is now quite as dear. We must except, however, tobacco and whisky, for these are much cheaper. But this boon is somewhat modified by the consideration (as shortly stated in an emigration pamphlet before us) that "no one can prosper if he be not sober; without sobriety he will not have strength to undergo the fatigues of his daily labours; and,

besides, an intemperate man will immediately become marked."

There is no class more out of place in Canada than that of the so-called gentleman farmer. Any of these who emigrate with a view to improving their circumstances must be grievously disappointed. Unaccustomed to hard work, they must either waste their capital in paying high wages for hired labour, or become slaves themselves in doing drudgery of every kind, to which they have not formerly stooped. Accustomed at home to the advantages of educated society, they find themselves in Canada either wholly isolated, or associated with men whose education has been that of the hands and not of the intellect. It is not difficult to understand therefore, that, when the excitement of novelty subsides, a man who has formerly enjoyed every comfort, and appreciated good society, should repent having taken a step which entails upon himself and his family a life of privation and toil, and deprives them of all the amenities with which their previous life has been associated.

It must further be considered that the climate of Canada is not so adapted to out-door labour throughout the year as it is at home. Some kinds of labour, such as that of the stone mason, are at a complete stand-still during winter; so that if he should get twice the amount of wages during summer that he would here, he would not even be in so good a position as at home. Railway labourers and others are in the same way thrown out of employment during a winter which extends over half the year. Hard labour under a Canadian summer sun will be found much less agreeable, and more trying to the constitution, than in the mild, equable climate of this country. If intending emigrants, in good circumstances at home, were to work a week chopping wood at midsummer in Canada, it would cool down considerably the ardour of their desire for change. With all the profusion of the necessaries of life, it is a rare

sight to see a corpulent man in Canada. We are just reminded, in connection with this subject, of the fable of the dog and the wolf. It will be remembered that the wolf was particularly enamoured of the dog's account of his high-feeding, and made up his mind to join him, until he espied the mark of the chain on his neck. He then bade a very abrupt farewell to his friend's gastronomic advantages, when only to be secured on such hard terms. We advise our labourers to take a lesson from the wary wolf, and to consider well the terms on which the boasted high-feeding of Canada is to be obtained, before they close with them.

The prevalence of fever and ague throughout Canada is another difficulty for which emigrants, in common with natives, must be prepared. Apart from the extreme discomfort and distress attendant upon this disease, the emigrant must lay his account to a loss of time, which will materially lessen the difference between the wages he will earn in Canada and those he was accustomed to at home. But we are far from having any disposition to throw a gloom over life in Canada. There are, despite these disadvantages, the elements of greatness and prosperity in the country, the development of which is as yet but in the bud. There is, everywhere, evidence of rapid progress. Its public works, its endless railroads, the beautiful cities and towns of Canada, are proofs of the mettle of our countrymen, of which they and we have every reason to feel proud; while nature has not been more bountiful in any part of the world. With its magnificent lakes and rivers, its forests, and fertile soil, it is impossible to conjecture what the future of this great country may be. But still we have, at home, advantages political, social, and religious, which must for a long time cast those of any other country into the shade.

If, however, one cannot live comfortably in this country, he should have no hesitation in joining our self-

exiled countrymen in Canada ; and we sincerely advise all in such circumstances to act upon the sentiment. But we have no less hesitation in advising those who can earn an honest livelihood at home, to stay at home ; for if people would bestir themselves, and work in our own favoured country, with the same zeal, constancy, and determination with which they will be obliged to labour if they go there, they will have a better living, make more money, and enjoy more of all that makes life desirable, than would fall to their lot in Canada. Let the pauper emigrate, if he will ; encourage the able-bodied beggar or vagrant to go abroad. Expatriate every lazy, idle, good-for-nothing drone, and send him to Canada, which will be found the best self-acting treadmill. Send these men to Canada, and stern necessity will convert them into useful members of society. They will find there, little of that maudlin sentimentalism which fattened them in idleness at home ; and they will be astonished at their own capabilities, as many have been before them, when they find there is no alternative. But let us beware of encouraging our active, intelligent, enterprising countrymen to emigrate ; let us rather throw every obstacle in their way, by opening up new avenues for the exercise of their skill, and affording them every reasonable facility of labouring with advantage to themselves and the country at large.

We often see farms, the arable land of which is, upon the whole, pretty compact, but with the headlands grown over with every species of noxious weeds, and the fields perhaps adorned with cairns of stones, and clumps of thorn or brush, and other obstructions ! We suppose no imaginary case when we speak of the tenant of such a farm commencing to reclaim some waste land at a distance, totally unconnected with the rest of his arable land, while he neglects the glaring eyesores in the body of his possession nearer home. The isolated undertaking

may be more costly, precarious, and difficult of access than that under his eye : and how do we characterise such a proceeding? We say it is folly : and yet is it not in precisely a similar manner that we, as a nation and as a community, send our labourers to cultivate our vast wastes in Canada, while we neglect our extensive wastes at home? Such a strange anomaly must be attributable to errors in our government, our laws, or our management of the land. Let us see what these are, and what it is that hinders the advancement or elevation of our peasantry on their native soil. What have we in our power to effect the desired change?

It is not in the people that the fault lies, or to them that we have to look for redress. The people are industrious, provident, and persevering, when they receive the smallest encouragement, or see the most remote prospect of success. But this prospect must be held out by the landholders, supported by the State. The landed proprietors hold the keys of the fortunes of the peasantry, and if they would but exercise their powers and fulfil their duties as the guardians of the people, by the appointment of God, the cup of prosperity would overflow. To what purpose are our millions of acres of improvable waste lands allowed to lie unproductive? It is said they are generally incapable of remunerative reclamation ; and no doubt there are circumstances of soil, position, altitude, or climate, where such an assertion holds good. But we deny its applicability in general terms, so long as we see so many thousands of acres in our own locality now lying waste, which we know to be adapted to the raising of every species of cultivated crops. We can point out 20,000 acres of such land within twenty miles of Inverness, the so-called capital of the Highlands. Is this on account of an adverse climate? Are the waste lands not in the same climate with our present fruitful fields? Is it on account of their altitude? Have we not waving corn-

fields and a prosperous tenantry in the heights of Strathspay and Badenoch, in the braes of Urquhart, and in the very mountain-gorges of the Monilia. And yet why are these more favoured lands not reclaimed? Not because they are not eminently adapted for cultivation — not because the people are unwilling to undertake the task (on the contrary, they are only too eager to do so), but because the soil is not free. The entail laws so bind the hands of proprietors, that though they should have every disposition to improve, they cannot; neither can they treat with tenants on eligible terms; and, moreover, they cannot sell their lands to others who would improve them. The repeal of this law is one of the palpable modes by which it is in the power of the Legislature to advance, especially the Highlands of Scotland, in which the evil effects of the law have been very severely felt. Tens of thousands of acres might thus pass into the hands of capitalists of every calibre. We might have our reclaimable moors sold out to industrious farmers in lots, as is now done in the forests of Canada. And if this were done, the grand climax of the emigrant's ambition—the goal to which he aspires, and which is the most attractive motive in inducing him to emigrate, viz., the possession of a piece of land of his own, on which he might labour and expend all his energies, with the satisfaction of leaving a certain patrimony to his family—this, we say, would be attainable at home as easily, and with as great a prospect of satisfaction, as it would be in Canada, or in any other country.

Let us institute very briefly a comparison in detail between the settler in Canada and the supposed settler on a piece of native waste land loosened from the trammels of the law. In Canada the settler purchases a station of a hundred acres in the interior of the country, for which, supposing that he does not penetrate into the extreme backwoods, he will at present pay by instalments a price of about

L.3 sterling per acre. He commences operations by cutting down and burning the timber upon a small portion around the site of his future dwelling. He then erects a log hut, and proceeds to improve the land, erect buildings, and procure stock as time and circumstances permit. The mere clearing of the land of timber is estimated to cost about L.4 per acre, leaving all the stumps of the trees in the ground. Thus before a man begins to crop the land, he must lay out or engage to pay L.7 per acre ; and then it must be remembered that it is far from being such arable land as we are accustomed to see. Drainage is rarely thought of, and where it is, the expense is additional to the sum for clearing. In this country there are, as we have already stated, thousands of acres of improvable land, worth at present a rent of from 4d. to 2s. 6d. per acre, or say an average of 1s. 6d. per acre. Conceiving that such land were in the market, it would be worth, at thirty years' purchase, L.2, 5s. per acre ; but if sold in small portions, it may be supposed worth L.3, or the same price as the waste lands in Canada. It may be thought strange that we should estimate our own wastes at no higher value than those of Canada. But it will be seen that we have taken the proper data, the present average rental, which we have certainly not understated ; and thirty years' purchase is the average price of lands in this country, only after deducting public burdens. Now, a large extent of these moors might be brought into cultivation by the plough for the sum spent in Canada for clearing the land, viz. L.4 ; but supposing the thorough trenching of the land, and removing of every stump, stone, or other obstruction, to cost double this sum, viz. L.8, it is less than the expense would be in Canada to complete the operation in the same way. For it must be obvious that, in bringing woodland thoroughly into cultivation, the uprooting of the stocks is by far the most serious part of the operation. It costs no more, then, to bring waste land into cultivation here than it would do in Canada ;



but if it should cost double, there surely are advantages in this country which would meet and compensate for that difference. We have the advantages of society, good roads, convenient, long-established markets, fiscal regulations, mild climate, and a thousand special privileges, all of which we should appreciate more than we now do if we once felt the want of them. These are matters which rarely enter into the calculations of the emigrant, and when he finds serious drawbacks to his Utopian anticipations, he must just submit to them. It is of little avail, however, that waste lands could be purchased and brought into cultivation as easily in this country as in Canada, so long as our laws prevent their being thus thrown into the market.

In Canada the laws facilitate the transfer of land ; in this country they almost put a veto upon it. The entail laws prevent it ; and where they do not apply, the cumbrous, antiquated processes necessary, and the excessive and multifarious fees exigible under our present system, would more than eat up the whole proceeds of the sale of small tracts of land such as we speak of. In a word, then, if it is inquired by what means we would make the Highlands of Scotland and its peasantry prosper, we say it could be done by abolishing the entail laws, extending the drainage grant, simplifying the law as to the transfer of land, and encouraging the opening up of the country by means of railways.

The Drainage Act, so far as it has gone, has worked well, and we can see no good reason why it should not be extended, seeing that the principal and interest of the loans are repaid with certainty within twenty-two years. It has, indeed, been urged against the repeal of the law of entail, that it would tend to the extinction of the aristocracy, and encourage too great a subdivision of land. But the lands of a large portion of our nobility, and many of the oldest families in the country, are not entailed, proving that entail is by no means necessary to the handing down of lands for ages in direct succession in a family. Individuals, no doubt,

benefit by the law, but they do so at the expense of the community, and to the prejudice of the nation at large.

The last of the means suggested, whereby Government could benefit the Highlands, and thereby establish on a firmer basis the British empire, is the encouragement of railways. This is a means more readily attainable, and not less important, than those we have already stated. The extension of railways to the extremities of the country would not be subject to the opposition that invariably attends any attempted change in the law on the part of those whose interests might be affected by such changes.

## CHAPTER IX.

RAILWAY EXTENSION:—GOVERNMENT ASSISTANCE TO RAILWAYS IN THE HIGHLANDS—MEANS BY WHICH SUCH ASSISTANCE SHOULD BE RENDERED—HOW RAILWAYS IN THE HIGHLANDS SHOULD BE PECULIAR—ELEVATIONS—ROAD-CROSSINGS—STATIONS—CLAIMS OF DAMAGES—CONCLUDING REMARKS.

EVERYBODY admits that railways are an advantage ; that they are, in fact, the pioneers to all progress, and in our day absolutely essential to it. It is a result of the extension of railways that any large tract of country lying out of their line, or not penetrated by them, is left behind in the rapid march of improvement which characterises the happy age in which we live. And while in one part of the country a railway is found necessary to the carrying on of the trade of the district, and is constructed as a consequent to that trade, in other parts a railway may be demanded as much with a view to arouse the dormant energies of the people, and to open up, encourage, and develop its traffic. As in the human body the extremities are most sensitive to sudden changes of temperature, being farthest from the heart, so in the body politic, those who are situated farthest from the established centres of wealth and trade are most susceptible of adverse influences, and require some protection or aid from without to assist the sluggish natural flow of the circulating medium. It is reasonable, then, that the extreme Highlands of Scotland should look for assistance from Government, in constructing at least one main artery,

as it were, to connect the more remote parts of the country with its heart, and be made to feel that it is a part of the State, enjoying the sympathies and affections which every member of a body deserves.

The time was when Government was compelled to penetrate the Highlands with military roads, to enable it to keep the clans in subjection ; and if the descendants of these clans were now of the same turbulent spirit with their Irish brethren, and let their voice be heard in times of scarcity by means of murder, rapine, and insurrection, the Government of the present day would find it necessary to encourage railways, if only on the same principle that they once constructed these roads. But there is no lack of pleas on which Government should be urged to assist in this matter. The scarcity of labourers is already severely felt to have an adverse influence on the development of the resources of the country. Pauperism is on the increase. It is the cream of the population that rises to the surface, and is being gradually drafted off to enrich other countries ; while the less buoyant and less valuable portion of the people remains at home.

Although Highlanders are not peculiarly a military people, they have, hitherto at least, been no less so than their Lowland countrymen ; but if they continue thus to desert us, we may find ourselves some day in an awkward predicament. When Highland regiments are wanted to sustain the honour of the British flag on foreign shores, or if they should ever be needed to defend our hearths at home, where are they to be found ? Their mettle and nerve will, alas ! be sought in vain among the pale-faced denizens of our large manufacturing towns. Let us, then, be wise in time, and by moderate precautionary measures, such as we speak of, save the country and the people from retrogression. We have seen it recently urged that there is no foundation for alleging the Highlands to be depopulated, inasmuch as the population is now greater than it

has been at any previous time. But this by no means meets the case. The Highlands are now, doubtless, more populous than they ever were; but how much more so would they be were it not for adverse influences? The population of the kingdom has increased nearly 50 per cent within the last fifty years, while the Highlands have by no means increased in a corresponding ratio. And while other districts have been densely peopled for many generations, and do not admit of an increase—or, it may be, from the progress of art and the advance of skill in every department of labour, may even rather admit of a decrease of the population—we are not warranted to infer from this that therefore the less favoured Highlands must not be expected to support a greater, or even its present population. The Highlands have never been developed; and the same progress of art and skill which enables a rich district to reduce its labourers, is the very means which ought to increase the people on the half-tilled lands or hitherto uncultivated wastes of the Highlands.

There are abundant precedents for Government aid to railways in our circumstances. In how many ways have the Irish been thus assisted in times of difficulty, and at other times too? Has not the Canadian Government—and if we look from home, how has the United States Government assisted in establishing so necessary a means of civilising, enlightening, and enriching its people, and making them indeed a great nation? Almost every State in Europe shows a similar example. And while our Government wisely abstains from interference with our railways generally, and rather leaves them in the hands of the people, the exception does not affect the propriety of the rule. In the Highlands, the people having no manufactures or foreign trade—depending solely on agriculture—having even this source of wealth annually drained away by an absentee proprietary; and, moreover, being thinly peopled in proportion to the extent, they cannot alone construct their railroads.

Admitting that Government should assist in this matter, it will be asked, how, or by what means, is this proposed to be done? We answer, in two ways.

1st, By relinquishing some of the usual stipulations as to the mode of construction, which, though well enough adapted to rich and populous districts, are totally unnecessary in the Highlands; and,

2d, By voting a grant in aid of their construction.

In regard to the first-mentioned mode of relief, we have to take an example from our enterprising, far-seeing brethren in America. When American railways are mentioned, the mind is apt to revert instantly to the constantly-recurring accidents recorded from time to time. The general belief in this country is, that cheapness of construction in American railways is only obtained at the hazard of life; and we are aware that, in suggesting the adoption of any of their principles of construction, we do so at the risk of having the idea pooh-poohed at first sight. But a little inquiry will show such opinions to be quite unfounded. It must be remembered that there is a greater number of miles of railway in America than in all the rest of the world put together; and that the proportion of accidents to the extent of railway is not greater than in other parts of the world. Add to this the consideration that the earlier railways in a new country must necessarily have been constructed in the roughest and most primitive manner, seeing that the active disposition of the people would not permit them to delay until they could construct them on the most approved principles, and of the most permanent materials. The wonder is rather, in the circumstances, that the work has been so well done, and that the danger attending them has not been greater. On the more recently constructed lines, risk of accident has been reduced to a minimum, while the strictest economy is preserved consistently with this result. It is from these railways, then, that we propose to take a lesson, inasmuch as

the circumstances of the Highlands are in many respects akin to those of the United States and Canada at the present day. Their railways traverse a thinly-populated country; so must ours: their railways are projected mainly as a means of opening up the country, bringing the land into cultivation, and creating traffic; and our railways must be constructed with similar ends in view. For such purposes, then, it is manifestly inexpedient, and, in fact, suicidal, to insist that the works be constructed in the most permanent manner possible, or in the same elaborate, costly, magnificent style that may be well enough adapted to the more wealthy and populous districts. With us the question is, whether we shall have cheap railways or none at all. And we are decidedly in favour of the former alternative, seeing that we can have the permanence, the elegance, and the adornments afterwards from the surplus proceeds of the traffic. It seems strange that in the matter of railways we should not be led by the same principles which guide us in the affairs of private life. A settler in the Canadian bush does not squat in the open air because he cannot afford to build a substantial stone and slated dwelling. He first builds a log-hut; by-and-by he erects instead a neat wooden framehouse, to be ultimately succeeded by the more permanent residence of stone. Let us proceed on the same wise principle in regard to our railways. It is the extravagance and attendant ruin, of which we have seen so much in this country, that proves the main barrier to railway extension.

We cannot help adverting here to the fact that this very error has been committed on the farthest north railway yet existing. In spite of the abundant beacons before us, and notwithstanding every protestation at the outset that a different policy was to be pursued, the Inverness and Nairn Railway has cost about double the amount originally calculated upon. And while the shareholders get no dividend, or  $1\frac{1}{2}$  per cent (instead of the 7 per cent

promised in the prospectus), the original small wooden stations, so well suited to the wants of the district, or at all events, so suited to the financial position of the company, are replaced by handsome capacious stations, adapted to the trade as it may be a century hence, at the important depots of Culloden, Dalcross, and Cawdor! We anticipate the early satisfying of the equally necessitous claims of Millburn, Cairnlaw, and Alturlie Point! We have no fault whatever to find with the stations in themselves—far from it; they are not only pleasant to the eye, but advantageous to the public; but we do most emphatically, and, as shareholders, most feelingly, object to them so long as the dividend is at or about zero. In private life there are many things which a person may desire, and which would perhaps add unmistakably to his comfort or his pleasure, but which he must forego for want of funds. We never think of defending a man's extravagance—or perhaps we should say his wickedness—in building a fine house for himself at other people's expense, on the ground that it is an ornament to the town, or an advantage to his large family, or because another man built a similar house at his own expense! But we digress: suffice it to say that railways in the Highlands, if to be made at all, must be made in accordance with the known wants, resources, and condition of the country, and not in adaptation to the wants of other more favoured localities.

Let us examine, then, in what respects railways in the Highlands should differ from others. As to elevations or gradients, the time has gone by for being frightened at the idea of crossing a hilly country by means of a railway. The Inverness and Perth Railway Bill was rejected by Parliament on account of its altitude and the impracticability of its gradients. The greatest height here was 1470 feet above the sea, and the severest gradient 1 in 75. We travelled a few months ago by the Baltimore and Ohio River Railroad, which crosses the Alleghany Mountains



at an elevation of somewhere about 2000 feet above the sea, and by gradients as steep as 1 in 40. The Americans found no difficulty here too great for their zeal and determination to surmount, although the conformation of the country is vastly more formidable to the construction of a railway than anything we have seen in the Highlands of Scotland. The old-fashioned notions about gradients must therefore be abandoned.

The next thing we advert to is the road-crossings. We are in the habit, in this country, of incurring great expense in either bridging or erecting a porter-lodge at almost every road-crossing. In America, on the other hand, all roads are crossed on the level, with the simple precaution of erecting a notice-post, with the words "Look out for the Locomotive" painted upon it in large letters. The people instinctively attend to the simple direction, so that accident from collision in this respect is unheard of. Surely the expense of erecting bridges over Parliamentary roads, with the attendant embankments, parapets, and alterations, might be thought sufficient in the Highlands, where we are not yet affected by excessive traffic, without incurring similar expense at every secondary district road, or even byway. We erect a lodge and keep a salaried gate-keeper at such a crossing as that over the Longman Road, at Millburn, on the Inverness and Nairn Railway—a road in the maintenance of which the chief expense is to keep the grass down, and where half-a-dozen vehicles may not pass in as many weeks! And while we are subjected to this ridiculous expense for the safety of the lieges, forsooth, we find a main line of railway running, without the slightest protection, through the centre of a principal street of the city of Baltimore, U.S.—a city containing 200,000 inhabitants. And if a railway can thus run through this city, and through a large portion of the bustling cities of America, without danger or inconvenience, there is surely

something that demands amendment in our fixed and unalterable regulations on the subject. Our Parliamentary rules are, in fact, framed with a view to a rich and populous country, and carried out to the letter in the unpeopled wastes of the Highlands. Here lies our mistake ; and if we are to have railways throughout the Highlands, it must be rectified. A railway train, in passing unprotected through a large city, does not by any means occasion such danger as a four-horse coach does. This may seem paradoxical ; but the truth is, that a steam-engine is much more securely under the control of its driver than a team of spirited horses is ; and, further, railway-cars never travel through a city at a greater rate than two or three miles an hour—the pace of an ordinary street-cart—and there is a bell continually tolling upon the engine as a warning, while a four-horse coach comes rattling through our streets at the rate of ten miles an hour.

In respect to these matters—the gradients and road-crossings—it is to the Legislature we must look to have the law so altered and relaxed as to suit the circumstances of the country ; but it is to ourselves we must look for redress from the prevailing extravagance in the style, design, and extent of stations and other buildings. These, of course, swell the unnecessary additions to the expense imposed by Parliament, and should be jealously guarded against, if we desire railways at all, or if, having them, we wish them to pay. Look at the railway stations in America—they are usually of the simplest and most inexpensive construction, being merely adapted to the requirements of the trade, and no more.

It is easy to reveal the secret of the cheapness of constructing railways in America. They cost on an average L.8000 per mile, with labour double what it is in this country. If, then, the raw material were on a par on both sides of the Atlantic, we should construct our railways, at

the same rate, for L.4000 per mile. But it is not thus on a par. Land is on an average of much less value in America than here, although we have shown that great part of their *waste* lands is not so. Wood, too, is, of course, much cheaper in America; but these (with exemption from claims for imaginary damage) exhaust the elements which give advantage to America in facilitating cheap construction. Their iron is chiefly imported from this country, and must, consequently, be dearer; stone is more difficult to be procured; and, moreover, the interest of borrowed money is much higher. So that, if their advantages are met by countervailing disadvantages, we ought, from cheaper labour in construction and correspondingly lower working expenses, to be able to make our railways for less money, and to yield higher dividends than they do in America, if we but adopted their economical principles of construction. If we took more latitude in our gradients, got free from the erection of bridges or lodges at our road-crossings, contented ourselves with plain wooden sheds at the stations, and built all other necessary works more with a view to their stability, and less with a view to ornament or embellishment, we might have the Highlands enlivened in every direction by the sound of the steam-whistle, every Highland glen might have its railway, and the days of destitution, famine, and clearances, would be for ever passed away.

Before leaving this part of our subject, we must advert to yet another method by which Government may assist us, without expense, in procuring railway communication in the Highlands. It is by ignoring or repudiating all exorbitant claims of damages by individual proprietors and corporate bodies. It is too bad that railway companies should in these days be under the necessity of buying up the good-will of every small proprietor who may on the most trivial pretence threaten opposition. If Parliament ceased to listen to such claims, railway companies would

not have to fear their opposition, and would be saved those heavy "douceurs" which so cripple the resources and swallow up the rightful dividends of the undertakings. Parliament now listens to these absurd claims, and to this fact we are further indebted for the expensive deviations from the simplest line which we so often see. If two lines are equally easy of construction, or nearly so, it is, of course, the duty of a railway company to select that which may be least offensive to the taste or prejudice of the proprietor through whose land the line passes. But it is surely unfair, on the other hand, that the necessities of the public should be kept in subordination to the caprice or whim of anybody who chooses to put himself in their way.

In the Highlands especially, railways are a benefit to all classes, and to none so much as to the landowners through whose property the lines pass; so that the very mention of damages seems ridiculous, when the advantages are so great and so self-evident. Such are the benefits resulting to the landed interest from railway communication, that instead of anticipating claims for damages, on the score of affecting the amenity of residences, or the revenue of ordinary road-trusts, and such like, we might rather expect the landholders to come forward, offering their lands, free of all charge, to any company who would undertake to supply them with such a boon as a railway. The grounds on which these claims for compensation are made are so utterly untenable that we only wonder that they have ever been given effect to.

We heard not long ago of a proprietor exacting damages on account of having the amenity of his residence disturbed by the passing of a railway on the opposite side of a broad navigable river! The Inverness and Aberdeen Junction Railway, on equally good grounds, has had to pay heavily for anticipated damage to the trade and revenue of the Findhorn Bridge! And why has it not to compensate the

steamboat companies along the coast for the presumed loss of traffic they will sustain? Why are not all the common carriers along the road compensated for their loss? Are there not vested interests at stake in these cases as well as in the other? It will be difficult to define the limit to which the principle, when admitted at all, is to be confined. Has not every shopkeeper the same grounds for demanding compensation from the community, for the injury he sustains by the establishment of a powerful opposition shop in the same line? The Findhorn Bridge Trust urges that it has had an act of Parliament to authorise its proceedings, and that money has been lent on the security of the presumed revenue. And has not the most humble trader a similar plea on which to demand public redress? He erected premises, and perhaps borrowed money for the purpose; his trade has been established as much as any other under the sanction of the laws; the support of his family is at stake, and still we never think of protecting him from the effects of opposition. It seems even absurd to suppose such a case; but we are unable to discern the difference between doing this and indemnifying a road-trust, or any other interest, for their real or imaginary losses. Such proceedings it is that cause the public to withdraw its confidence from railway projects, and they are the great causes of the notoriously unremunerative character of railway investments. In rich and populous districts the rapid increase of traffic may in time obliterate the effects of such outlays at the commencement; but the farther north railways are established, the less able are they to sustain such burdens.

If railways are to penetrate the Highlands, it can only be by constructing them on the most economical principles, and by repudiating all such unfair demands upon their capital as we have endeavoured to indicate. The public must keep these principles steadily in view, and be determined to act upon them, while, after all, our resolutions must be sup-

ported by Parliament before they can be fully carried out. This is the first means by which Government can assist us ; the other is by granting a sum of money in aid of these works.

We have already shown cause why we should expect such assistance, and we have given abundant precedents for it, so that little remains to be urged on this part of the subject. There are two ways in which such assistance might be afforded—either by guaranteeing a certain moderate percentage to the shareholders, or by gifting absolutely a certain proportion of the expense. We should prefer the latter—for this reason, that, by guaranteeing a percentage, the company has not the same inducement to economise in construction and working ; while by granting a sum—as, say, a third of the cost—the public confidence in the project is established, and the directors have the same reason to economise that they would have without such assistance, as all the savings would go to increase the dividends of the shareholders.

It is the duty of all interested in the welfare of the Highlands to agitate this matter, so as to bring the public attention and that of the Legislature to bear upon it ; and we have little doubt that, if our claims were properly urged, they would very soon be assented to.

In the earlier papers of this series, we endeavoured to direct attention to the proper management of land in the Highlands, with a view to the benefit of the whole country as much as to the advantage of landed proprietors as a class. It is impossible, indeed, to sever the interests of one class from those of another in this respect, as it is obvious that every acre of land reclaimed is an advantage, in some way or another, to all classes of the community.

In directing attention to the subject, we have stood on the broad grounds of the public good, and viewed the whole question as a national one. In the latter papers we have

endeavoured to point out in what respects the law, as it at present exists, is ill-adapted to the progressive spirit of the age, and positively obstructs our progress; and while showing how Government can assist us negatively by removing obstructions, we have attempted further to show how it should assist us positively and directly. It is our earnest hope, therefore, that, by directing attention to these all-important subjects, something may be done for the advancement of the Highlands; and therein we shall feel amply rewarded for our trouble.

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