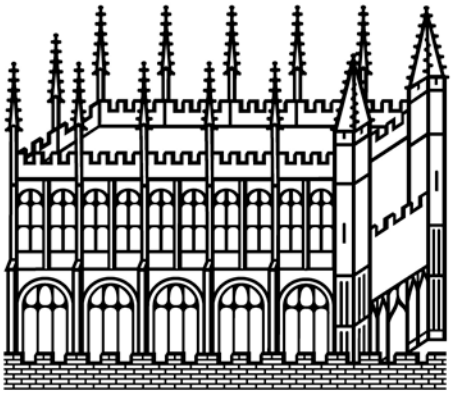

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CATTLE

AND

CATTLE-BREEDERS

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BY

WILLIAM M'COMBIE, M.P.
TILLYFOUR

SECOND EDITION, REVISED

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CONTENTS.

CHAP.		PAGE
I.	THE FEEDING OF CATTLE, ETC.	1
II.	REMINISCENCES, ...	34
III.	THE CATTLE TRADE, THEN AND NOW, . . .	67
IV.	BLACK POLLED ABERDEEN AND ANGUS CATTLE AND SHORTHORNS, ...	86
V.	HINTS ON THE BREEDING AND CARE OF CATTLE, .	99

CATTLE

AND

CATTLE-BREEDERS.

I. THE FEEDING OF CATTLE, ETC.

(Read before the Chamber of Agriculture.)

As my friend Mr Stevenson and some other members of the Chamber of Agriculture have expressed a desire that I should read a paper on my experience as a feeder of cattle, I have, with some hesitation, put together a few notes of my experience. I trust the Chamber will overlook the somewhat egotistical form into which I have been led in referring to the subject of dealing in cattle.

My father and my grandfather were dealers in cattle. The former carried on a very extensive business: he had dealings with several of the most eminent feeders in East Lothian; among others, with the late Adam Bogue, Linplum, John Rennie of Phantassie, Mr Walker, Ferrygate, &c. I cannot express how much I reverence the memory of the late Adam

Bogue, as one of the finest specimens of a kind-hearted gentleman I have ever met Other friends of my father and of myself in East Lothian I also recall with the greatest respect; among these let me mention William Brodie, John Brodie, William Kerr, John Slate, Archibald Skirving, and Mr Broadwood, farmers, all eminent as feeders of stock. My father's chief business-connection was with East Lothian; but he had also a connection with Mid-Lothian and the county of Fife, and a large trade with England. At one of the Michaelmas Trysts of Falkirk he sold 1500 cattle. He wished to give all the members of his family a good education. I was kept at school, and was afterwards two years at college; but to this day I regret my inattention when at school.

My father was very unwilling that I should follow his business, knowing that it was a very precarious one; but what could he do with me? I would do nothing else, and he was obliged to yield. I worked on the farm for years, when not away at the fairs, with the servants, and shared their diet. I cut two harvests, and during the season took charge of the cattle. My first speculation was a £12 grass-field. In this I had a partner, an excellent man, who had been a servant to my father for twenty years. It was a good year, and we divided £15 of profit. This gave me encouragement. I yearly increased my speculations, and gradually got into my father's business at the Falkirk markets and Hallow Fair. My father was very indulgent, and sent me away to a fair when a very young man, giving me authority to buy, and money to pay for, half-a-dozen beasts. I exceeded my commission and bought three little lots—about fifteen in all. The owners trusted me the money I was short. I drove them home myself—about six-

teen miles—feeling very proud of my drove. My father examined them next morning, and remarked, "They have not the countenance of beasts." Of course, this chagrined me very much. This was about my first appearance as a buyer of cattle, and some of the beasts I remember to this day. I believe there is no better way to train a young man than to put him to market without assistance. If a man cannot back himself, he is unfit for the trade of a butcher, a jobber, or grazier.

My father retired with a good name, and I retained his old customers. On one occasion only did Adam Bogue buy a beast from any dealer except from my father or myself, and he declared he was no gainer by the transaction. He purchased 120 cattle yearly. The late Mr Broadwood always bought about eighty beasts at the Michaelmas Fair. I put up the number and the size he wanted, and he bought them from me and my father for many years, always choosing middle-sized three and four year olds, and never going beyond £11 per head. The highest figure at that time for feeding-cattle at Falkirk Tryst was about £13. On Tuesday morning he came to my cattle, and inspected them first of any he looked at, and asked their price. With such a customer as Mr Broadwood I asked close. To some parties it is necessary to give halter. He then went away and examined the cattle of other dealers, but always came back in about an hour; and I think he never once failed to deal with me. He was a good judge, and did not require any assistance in selecting his stock; he came alone.

I had also several dealings with Mr Broadwood's son, but only occasionally, and he did not hold so close to me as his father had done. I also retained

the friendship of Robert Walker, the Messrs Brodie, and Archibald Skirving, and secured for myself that of Mr Buist, the late William Kerr, the late John Slate, and John Dudgeon, Almondhill. My father and I always had about the best cattle at Falkirk Tryst.

There was then a great trade with Cumberland at the Michaelmas Tryst for horned Aberdeen cattle. The animals were sent from Cumberland to Barnet in spring, and sold off the marshes fat in July and August. My best sixty generally commanded the highest price.

The late Mr William Thom was my great opponent in the horned-cattle trade, and sometimes beat me despite all my efforts. When we saw it for our interest we went in company, and attended all the great fairs in the north; and in conjunction with each other we secured a good proportion of the best cattle. Our grazing cattle were always sold separately. Mr Thom must still be remembered by many. He was a giant in strength: an honester man never lived; perhaps a little decided in his manner, but of great ability and perseverance. As copartners we were not very regular book-keepers, and our accounts got confused. At the wind-up at Hallow Fair, as we had the accounts of the Falkirk Trysts likewise to settle, we worked at them for days, and the longer we worked the more confused they became. To this day I do not know in whose favour the balance was. For the future we resolved to act separately. It was a bad Hallow Fair for large cattle. I have doubled stirks at Hallow Fair, buying them at from £2 to £4, and, to use an Aberdeen expression, turning them heels over heads. But I never could make a shilling of profit out of large cattle. At Hallow Fair Mr Thom

and I had unfortunately sixty very large cattle left over unsold from the Michaelmas, many of which had cost £13 and £14 in Aberdeenshire. Mr Thom had the selling of them. He had just one offer in the shape of three gentlemen—one from East Lothian, one from Fife, and one from Perth, who likewise joined. They were sold the next day at £12, 5s. a-head. After the bargain was struck, the gentlemen requested Mr Thom to divide them. His answer was, with a sarcastic look to his customers, "Well, gentlemen, you have been good and great friends for two days, it would be a great pity for me to make you quarrel now." Mr Thom, who was thoroughly "awake," turned upon his heel and went away. I divided the beasts for the gentlemen; and to divide a lot of beasts equally is not such an easy matter as some might suppose.

I have often been puzzled in dividing, say, forty beasts into four tens (I had often to divide lots of cattle for my customers when I was in the lean-cattle trade). The cattle are first cut through as equally as possible; the two divisions are then cut through again, and you have thus four tens. They are then examined, and a good beast is exchanged for a bad from the best to the worst side, and so on alternately until you bring them as equal as it is possible to make them. But with all my experience, I have often been unable to satisfy myself of the equality of the four tens; and when this was the case, I had to decide what was the difference and tell the buyers. If you draw, say, No. 1, being the most valuable lot, you must pay to the gentleman drawing No. 2, an inferior lot, the sum of £2, £3, or £5, as the case may be, &c. This may seem strange to a good judge of cattle, but let him

be called on himself to decide in such a case. He may naturally think a change of a beast will make all right, but he will find that in some cases no exchange will rectify the matter to his satisfaction. In connection with this let me offer my friends a piece of advice:—if they buy a cut of cattle from a dealer, say twenty out of sixty, a neutral party and a good judge ought to divide the cattle: it should not be the buyer, and much less ought it to be the dealer, because the seller knows the beasts individually; and however well you drive sixty cattle round the circle, there will always be a better and a worse side. The dealer sees this at a glance, and, if so inclined, can make the cut much as he likes. The buyer, again, if he is as good a judge as the jobber (which is seldom the case), if allowed to cut them, would be likely to make a good cut for himself, and not a fair one for the seller; but the difference will not be so glaring, as he cannot know the beasts as the dealer does. I am speaking always of a fair cut as sold from the sixty. It is not easy to explain in writing how this division is made; but as there is no doubt many a one has been bitten, I shall do my best to describe the process. Suppose the sixty beasts are well driven through one another, which is always done before a cut is attempted, and suppose the dealer is to cut the cattle, he merely gives the lot a glance; he can see in a moment the strong and the weak side, for there will be a difference. He will run off the twenty from the worst side of the sixty, and he will run the number off to a beast or two. It is very quickly done; the stick is used sharply, and in running off the twenty he can easily put six or eight of the best in the line to any side he may think fit. I do

not mean to say this is often done, but I wish to show that it can be managed.

In selling lean cattle there is a great deal to be gained by choosing a favourable stance and showing them off properly to the buyers. Cattle look best on the face of a moderate sloping bank, and worst of all at a dead wall. The larger the number shown in a lot, especially of polled cattle, as they stand close together, they look the better. I never liked to show less than forty in a lot, but sixty will look better than forty, and eighty better still. I never would break a lot of beasts except for a consideration in price, as the cattle left behind never have the same appearance. The dealer likewise knows that cattle look largest on the off-side. Many buyers like to see every beast in a lot go past them; and if the dealer can get the buyer to inspect them on the off-side, it is to his own advantage. Cattle and sheep are the better of a good rouse-up when the buyer is inspecting them. I have often seen quarrelling between the buyers and the drovers, the buyers insisting on the drovers letting them alone, while the drovers will not let them stand. I have seen a clever man keep some of the best beasts always in view of the buyers, a stick with a whip-cord being used for the purpose.

Many were the long rides, the late nights, and early mornings that Thom and I had together in the North buying drove cattle. In the end of October and beginning of November the nights get very dark. At Skippy Fair of New Deer we nearly came to grief two or three years in succession; it is held in the end of October. There was a decent man, Abel, and his wife, who lived in Inverurie, and attended all the fairs. Their conveyance was a

cart. They were honest hard-working people, and good judges of cows. They knew very well what they were about; and they required to do so, for Mrs Abel brought up, I believe, nineteen of a family: she was a very stout, "motherly" woman. They drove home likewise in the cart, always buying two cows, which they led with ropes behind the cart. A cart with a cow attached by a rope at each side will take up the greater part of a narrow road. It was very dark, and near the old Castle of Barra. Thom rode a very fast horse he had hired from Richard Cruickshank, a celebrated judge of horses, who was at that time a horse-hirer in Aberdeen. I rode an old steady pony of my own which had been sixteen years in our family. Thom was going before at a dashing pace, I considerably in the rear, when bang he came against the ropes attaching the cows to the cart. His horse was thrown into the ditch; he recovered himself, but fell again, coming down heavily upon Thom, who was very much hurt, and had to go home instead of going to Potarch Market next day. I escaped, Thom's mishap warning me of the danger. At the same fair next year we had bought, as we found on comparing our books, ninety-nine cattle, mostly stirks. It was dark before we got the animals settled for, and we had to watch them on the market-stance. While crossing the lonely moor between New Deer and Methlick, Thom was as usual a little in advance, I following on the same old pony the best way I could close at his heels, when all at once a man took hold of his horse by the reins and asked him the road to New Deer. I observed another man and a box or two lying on the road, such as are used by travelling hawkers. Thom struck at the man's head with his

stick with all his might, saying at the same time, "*Cattle of your description cannot be far out of your road anywhere.*" The man let go his hold, and Thom galloped off, calling to me to follow, which I was nothing loath to do. Thom's horse was white, and mine was a bay. The vagabonds might have seen a white horse coming on in the dark, while they did not observe the bay, and may thus have been led to suppose there was only one man. As the boxes were laid aside, I have no doubt they intended a robbery, though this did not strike me at the time. But our troubles were not yet at an end; at the same old Castle of Barra, Thom, still in advance, called out, "*The wife, the cows, and the ropes again!*" He had just time to save his distance, and save me too.

The ninety-nine beasts turned out to be only ninety-five (they were no great spec after all, leaving only £45 of profit). Thom had booked four he had never bought; and when the lot was counted to be joined to the drove, they would not number more than ninety-five. I advertised for them, and had a man in Buchan a week searching for them; and when I told Thom in Edinburgh that they could not be found, he confessed he had never bought them.

I am not sure if it was the same year we had come up to Edinburgh the Saturday night before Hallow Fair. We were rather late in getting ready to go to church. I had heard a great deal about Dr Muir as a preacher, and we went to hear him; but not being very certain of the church, we inquired at a gentleman's servant, dressed in splendid livery, very civilly, the way to Dr Muir's church. Instead of giving a civil reply, "Oh," he said, "Aberdeen awa'!" Thom, who was very impulsive,

came across the side of the fellow's head with his umbrella, and laid him flat on his back in the middle of the street, with his heels in the air. I made no remark, Thom said as little, but walked on as if nothing had happened. We heard our friend calling after us he would have his revenge; I hope it was a lesson to him to be civil in future.

I sent for many years sixty horned cattle in spring to Mr Buist, Tynninghame. They were grazed in Tynninghame Park, and he also required other forty or sixty during the season for house-feeding. I only gave up the commission business when I could carry it out no longer to my satisfaction and to the advantage of my employers. For years after I went to the Falkirk markets there was not a white beast to be seen; but by-and-by Irish-bred cattle appeared, and then the Shorthorns. The business of dealing in north-country cattle came to be worthless. I bade Falkirk adieu, and turned my attention entirely to the rearing and fattening of cattle at home. I gave up the fascinating business of a lean-cattle jobber, seeing it was done for, and I have never regretted my resolution. The lean-cattle trade was difficult to manage, and in fact was most dangerous. Many a day, when attending Hallow Fair, I have got up by four or five o'clock in the morning, breakfasted, and not tasted food till six o'clock at night. The weather was so bad on one occasion that man and beast were up to the knees in mud. I had my beasts standing near one of the gates. Mr Archibald Skirving never got further than them; he bought forty, sent them away, and returned home. As he bade me good morning, he remarked, "I would not like to be in your place to-day."

I have stood many a bad Hallow Fair, but the worst was about twenty years ago. I never was so much in want of assistance from my friends. The price of cattle had fallen very much after the Michaelmas Tryst. Turnips were bad in East Lothian. I had been on a visit to Mr Buist, and met Mr Kerr, Mr Slate, Mr Walker, &c. Both buyers and sellers anticipated a bad fair, and it turned out the worst I ever saw; it is generally either a very good or very bad market. Tuesday came, and with it a perfect storm of wind and rain—the worst market-day I ever encountered. You could hardly know the colour of the cattle, which were standing up to their bellies in a stubble-field. My friends got to the market; there were Mr Buist, Mr Walker, Ferrygate, Mr Kerr, Mr Slate, and one or two more. They gave my cattle what examination it was possible to give animals in such a stormy day. Out of about two hundred which I had, they wanted about one hundred and seventy. Mr Walker said to me, "I think you might give us a glass of brandy;" and accordingly we retired to a tent, from which we did not move for an hour, as one wanted forty, another thirty, another twenty, &c.; and of course it took a good deal of time to talk over the different lots. At last we rose. I had, while seated, drawn them as to the price as far as they would come. The weather was dreadful. I was very unwilling, and they were not very anxious, to face the storm. I was in the middle of my customers. I did what I could to get an advance on their offers, but I could not extract another farthing; and when all was settled, I gave the accustomed clap of the dealer on the hand all round, and I did not see them again till night, except Mr William Kerr, who,

with a struggle, got the length of my remaining thirty beasts, and bought ten. I think I hear the triumphant howls of the men to this day, as they started the nine score of cattle for their destinations, one lot after another, through the astonished dealers, whose cattle at that hour, I believe, were never priced. There were few sold on the first day. I could not sell my twenty remaining cattle, and could not even get a bid for them. Of all the good turns my friends did for me, this was the best. I came out with a small profit, while the losses sustained by other parties at the market were heavy. A great many cattle were sent farther south, and returned back to the north. One respectable dealer told me that no one had ever asked the price of his cattle, and coolly added, "I have taken turnips from ——, and sent the cattle home." I never lost a shilling in East Lothian, or by a bad debt, as a lean-cattle dealer.

To be a good judge of store cattle is exceedingly difficult. We have many judges of fat cattle among our farmers and butchers, and a few good judges of breeding stock; but our really good judges of store cattle are exceedingly few. A judge of store cattle ought to be able to say at a glance how much the animal will improve, how much additional value you can put upon him on good, bad, or indifferent land, and on turnips, in three, six, or twelve months. Unless a grazier is able to do this, he is working in the dark, and can never obtain eminence in his profession. Since my first speculation, already referred to—the half of the £12 field—I have bought and grazed store cattle for nearly fifty years. No one has been able to put upon paper a clear definition, such as can be understood by the reader, of the

characteristics of a good store beast. It is only practice and a natural gift that can enable any one to master the subject. There are a few rules, however, that the buyer of store cattle should be acquainted with. He ought to know how they have been kept for the previous six months, otherwise their keep may be entirely thrown away. I make it an almost universal rule (and I have never departed from the rule except with a loss), that I will graze no cattle except those that have been kept in the open strawyard, and have been fed exclusively on turnips and straw. If you can get them off yellow turnips it will be decidedly to your advantage. I have seen this proved by dividing twenty beasts, and keeping one half on yellow turnips, and one half on swedes, both lots getting full turnips. Those on the swedes shot far ahead in the strawyard of those upon the yellows. When taken up from grass, however, the cattle fed upon the yellows were equal to those fed on the swedes. They were grazed together. The difference of improvement in different lots of cattle must have often struck every observer.

I am well acquainted with the different strawyards in Morayshire, and know how the cattle are kept, and how they thrive. There are some farms on which they thrive better than others, even when their keep is in other respects the same. There are farms in Morayshire which are not breeding farms, and where the young stock does not thrive, and the calves have to be sold, and even old cattle only thrive for a certain length of time. Some farms are apt to produce cancer on the throat and side of the head. I pay little attention to this, as change of air cures the complaint. For the first two or three weeks after

a beast is attacked with this disease, it will go back in condition; but I have seldom seen much loss by it. If in warm weather, the beast may have to be taken up to avoid the flies; if the disease is inside the throat, it may interfere with the breathing, and the animal may have to be killed. I bought from the late Mr David Sheriffs, Barnyards of Beauly, in spring, ten Highlanders, every one of which had cancer in different stages. I grazed them until October, when the cancers had all disppeared, and the beasts did well (for Highlanders) at grass.

If you put upon grass cattle which have been fed through the winter upon cake, corn, brewers' wash, grains, or potatoes, and kept in hot byres or close strawyards, and look to them to pay a rent, you will find that they will soon make a poor man of you. This mode of feeding is unnatural. Before the animals begin to improve, three months will have passed. If half-fat cattle are bought, which have been kept close in byres or strawyards, and put to grass in April or the first two weeks of May, and cold stormy weather sets in, with no covering to defend them, they will fall off so much that the purchaser will scarcely believe they are the beasts he bought. Thus he not only loses all his grass, but the beasts will be lighter at the end of three months than when they were put into the field. Let me not, however, be misunderstood. I do not mean to say that a few weeks of a little cake or corn will ruin a beast for grazing; but you may depend upon it, that the less artificial food given during winter the better. When kept upon the food I have specified for months and months, they are perfectly unfit for grazing. I regard cake as the safest substitute for turnips; and corn, potatoes, brewers' wash, and

grain, as the worst. But my ambition is to graze a bullock that has never been forced, and has never tasted cake, corn, or potatoes. The store cattle I winter for grazing are all kept in open strawyards, with a sufficient covering for bad weather, and as dry a bed as the quantity of straw will permit. This is indispensable for the thriving of the cattle. They receive as many turnips as they can eat. Beasts must always be kept progressing; if they are not, they will never pay. My store cattle never see cake, corn, or potatoes. I would rather throw potatoes to the dunghill than give them to a store bullock, though I would give them to my fatting bullocks.* If I can get the bullocks for grazing that I want, I will not lose one mouthful of grass upon them. They will not go on, however, without proper care and superintendence. It requires a practised eye. If a grazier has a number of fields and many cattle, to carry out the treatment of his cattle properly, shifting and fresh grass once in ten or fourteen days should, if possible, be adopted. This has always been my practice. In one day I have observed a marked difference in the improvement of animals after the shift.

The grazier must always consider the quality of

* As to giving potatoes to store cattle, since writing the above, I wish to modify the opinion I have expressed to a certain extent. I had a conversation with Mr Hope on the subject, and he states that his belief is, that potatoes are not prejudicial to the growth of store cattle when put to grass, and that his practice is to give them potatoes. I will admit that a few potatoes may not do a store beast much harm; but in my experience in Aberdeenshire I have found that in cattle which have been fed with potatoes the black colour changes to a dusty brown; they are also bad thrivers. A beast that sports that colour is never doing well. I shall, however, prosecute the inquiry.

his grass-land, and buy cattle adapted for it. It would be very bad policy to buy fine cattle for poor or middling lands. You must always keep in view how the cattle have been kept. If they have been kept improperly for your purpose, their size, whether large or small, will not save you from loss. If the cattle are kept on cake, corn, potatoes, or brewers' wash or grain, during the previous winter, it will be ruin to the grazier. Let it not be supposed, however, that I recommend buying lean, half-starved beasts. What I wish to impress on you is, that you must keep the cattle always full of flesh; and, as a breeder, you must be careful not to lose the calf flesh. If you do so by starving the animal at any time of his growth, you lose the cream—the covering of flesh so much prized by all our best retail butchers. Where do all the scraggy, bad-fleshed beasts come from that we see daily in our fat markets, and what is the cause of their scragginess? It is because they have been stinted and starved at some period of their growth. If the calf flesh is once lost, it can never be regained. A great deal of tallow may be got internally by high feeding, but the animal can never again be made one that will be prized by the great retail butcher. Our Aberdeen working bullocks carry little good meat. Draught as well as starvation takes off the flesh. They are generally only fit for ship beef.

Let me now offer a few observations as to the breeds of cattle best adapted for paying a rent—the great object of our cattle rearing and feeding. I have grazed the pure Aberdeen and Angus, the Aberdeen and North-country crosses, the Highland, the Galloways, and what is termed in Angus the South-country cattle, the Dutch, and the Jutland.

Except the two latter, all the others have got a fair trial. I am aware that the merits of the pure Aberdeen and Angus form a difficult and delicate subject to deal with. I know that the breeders of Shorthorns will scrutinise my statements carefully. But my only object is to lay down my own experience, and I trust that I have divested myself of prejudice as much as possible. If store cattle of the Aberdeen and Angus breed out of our best herds can be secured, I believe *no other* breed of cattle will pay the grazier more money in the north for the same value of keep. But there is a race of starved vermin which is known by some in the north by the name of "Highland hummlies," which I consider the worst of all breeds. No keep will move them much. At the top of these I must place those with the brown ridge along the back. They can be made older, but it takes more ability than I ever had to make them much bigger. Keep is entirely thrown away upon such animals. As regards good Aberdeen or North-country crosses, they are rent-payers. He would be very prejudiced indeed who would not acknowledge their merits. I graze more cross-bred cattle than pure-bred polled. The Highlanders on our land are not profitable; they are of such a restless disposition that they are unsuitable for stall-feeding, however well they are adapted for grazing purposes in certain localities and under certain conditions. But, I repeat, for stall-feeding they are unsuitable; confinement is unnatural to their disposition. The last Highlanders I attempted to feed were bought at a cheap time. In the month of June they were most beautiful animals, and they grazed fairly. I tied them up; but they broke loose again and again, and ran three miles off to the glen where they had been

grazed. There was one of them that his keeper never dared to approach, and the stall had to be cleaned out with a long crook. They consumed few turnips, and did not pay sixpence for what turnips they did consume. No other description of cattle, however, is so beautiful for noblemen's and gentlemen's parks.

As to the Galloway cattle, they also have had a fair trial with me. I was in the habit of buying for years from one of the most eminent judges of store Galloways in Britain—Captain Kennedy of Bennane—a lot of that breed. He selected them generally when stirks from all the eminent breeders of Galloway cattle, and bought nearly all the prize stirks at the different shows. In fact, he would not see a bad Galloway on his manors. The Galloway has undoubtedly many and great qualifications. On poor land they are unrivalled, except perhaps by the small Highlanders. Captain Kennedy's cattle always paid me; they were grazed on a 100-acre park of poor land—so poor, indeed, that our Aberdeens could not subsist upon it. I had ultimately to break it up for cropping. If I had not been obliged to do this, I should not have liked to have missed Captain Kennedy's Galloways. Although the Galloways are such good cattle to graze—and this goes to prove the truth of my remarks as to the forcing system, the Galloways at Glenapp being wintered out—they are not so easily finished as our Aberdeen and Angus or cross-bred cattle. They have too much thickness of skin and hair, too much timber in their legs; they are too thick in their tails, too deep in their necks, too sunken in the eye, for being very fast feeders. It is difficult to make them ripe. You can bring them to be three-quarters fat, and there they

stick; it is difficult to give them the last dip. If, however, you succeed in doing so, there is no other breed worth more by the pound weight than a first-class Galloway.

As to what we term the South-country cattle, I have also given them a trial. My experience is that they are great beasts to grow; that they consume an immense deal of food, but that they are difficult to finish; and when finished they are very indifferent sellers in the London market. They generally carry a deal of offal along with them; but those who have patience, and keep them for many months, they may pay for keep. I have had a few German and Jutland cattle through my hands, but not in sufficient numbers to enable me to say anything about them worthy of your notice. After trying all the breeds of cattle I have specified, I have come to the conclusion that the Aberdeen and Angus polled, and the Aberdeen and North-country crosses, are the cattle best adapted, under ordinary circumstances, in the north of Scotland, for paying the feeder. Our cross-bred cattle, and especially the South-country cattle, are greater consumers of food than the pure Aberdeens. This is a part of the subject which has never got the consideration it deserves. When the cross and South-country cattle are two or three years old, and when the day lengthens out, they consume a fearful quantity of food. The age of cattle ought also to be taken into consideration. No doubt a young two-year-old will grow more than a three-year-old, and for a long keep may pay as well. But I have been always partial to aged cattle; and if you want a quick clearance, age is of great consequence. The great retail London butchers are not partial to "the two teeths," as they call them; and

I have seen them on the great Christmas-day examining the mouths of cattle before they would buy them. They die badly as to internal fat, and are generally light on the fore-rib. I have always given a preference to aged cattle, as they get sooner fat, are deep on the fore-rib, and require less cake to finish them. Aged cattle, however, are now difficult to be had, and every year they will be scarcer with the present demand for beef. A perfect breeding or feeding animal should have a fine expression of countenance—I could point it out, but it is difficult to describe upon paper. It should be mild, serene, and expressive. The animal should be fine in the bone, with clean muzzle, a tail like a rat's, and not ewe-necked; short on the legs. He should have a small well-put-on head, prominent eye, a skin not too thick nor too thin; should be covered with fine silky hair—to the touch like a lady's glove; should have a good belly to hold his meat; should be straight-backed, well ribbed up, and well ribbed home; his hook-bones should not be too wide apart. A wide-hooked animal, especially a cow after calving, always has a vacancy between the hook-bone and the tail, and a want of the most valuable part of the carcass. I detest to see hooks too wide apart; they should correspond with the other proportions of the body. A level line should run from the hook to the tail. He should be well set in at the tail, free of patchiness there and all over, with deep thighs, that the butcher may get his second round and prominent brisket deep in the fore-rib, with a good purse below him, which is always worth £1 to him in the London market; well fleshed in the forebreast, with equal covering of fine flesh all over his carcass, so valuable to the butcher. His outline

ought to be such that if a tape is stretched from the fore-shoulder to the thigh, and from the shoulder along the back to the extremity there, the line should lie close, with no vacancies ; and without a void, the line should fill from the hook to the tail. From the shoulder-blade to the head should be well filled up—as we say, good in the neck vein. I am aware that the preceding remarks as to the quality and proportions a beast should possess must be very unsatisfactory to you, as they are to myself; scarcely any one animal has possessed them all, and to look for the half of them in a good commercial beast would be vain. I have consulted no writer upon the subject; they are set down, and not in good order, just as they struck me at the time. Thick legs, thick tails, sunken eyes, and deep necks, with thick skin and bristly hair, always point to sluggish feeders.

In cold weather in the month of May, the old silky coat of the strawyard bullock is of great advantage. If we could get the qualities and proportions I have specified in animals, it would not be difficult to make them fat. It would be difficult only to make them lean, when once in condition. A high standing, want of ribbing-up and ribbing home, with the tucked-up flank, always denote a worthless feeder. You must all have observed how difficult it is to bring such cattle into a state for killing. It will take a deal of cake and corn to make them ripe. A great many can never be made more than fresh; it is only a waste of time and money to keep them on.

I have adverted to the way cattle should be treated in winter as stores. The earlier you can put cattle upon grass so much the better. Cattle never forget an early bite of new grass. A week's new grass in Aberdeenshire at the first of the season

is worth at least two and a half upon old grass; and it is wonderful what improvement a good strawyard bullock will make in four or five weeks at the first of the season. If kept on straw and turnips alone in winter, he may add a third or at least a fourth to his live weight. But much depends on the weather. I have never known cattle make much improvement in April, or even up to the 12th of May, because the weather is so unsteady, and the cold nights when they are exposed in the fields take off the condition the grass puts on. The grazier will find it of great advantage to house his cattle at night during this season. In Aberdeenshire the 10th of May is about the earliest period cattle should be put to grass. Where there is new grass, first year, it is a most difficult matter to get the full advantage of it. There is no other grass to be compared with it for putting on beef in Aberdeenshire. You must be careful at the first of the season, if much rain falls, not to allow the cattle to remain on the young grass. They must be shifted immediately; and no one can get the proper advantage of such grass who is deprived of the power of shifting the cattle into a park of older grass till the land again becomes firm for the cattle. I have seen a small field of new grass in the month of May or the beginning of June utterly ruined in one night, when heavily stocked with cattle. When wet and cold the cattle wander about the whole night, and in the morning the fields are little better than ploughed land. In fact, the field so injured will never recover until broken up again.

In regard to my own farms, I cut scarcely any hay. I pasture almost all my new grass, and the moment the cattle's feet begin to injure the grass,

they are removed. If cattle are changed to an old grass field, so much the better; but they will be safe on second or third year's grass, provided the land is naturally dry. By the 1st July, the new grass land gets consolidated, and you are safe. New grass fields are bad to manage in another respect. The grass comes very rapidly about the 10th June, and if you are not a very good judge of what you are about, it will get away in a few days, become too rank, and will lose its feeding qualities during the remainder of the season. By the middle of July it will be nothing but withered herbage. Young grass ought to be well eaten down, and then relieved for two or three weeks; then return the cattle, and the grass will be as sweet as before. It requires practice to know the number of cattle, and the proper time to put on these cattle, to secure the full benefits of new grass. Three days' miscalculation may cause a heavy loss. I have been bit so often, and found the difficulty so great, that I fear to extend my observations on this part of the subject, when I am addressing gentlemen many of whom make their young grass into hay, or sell the grass to the cowfeeders. The pasturing of new grass, in which the farmers of Aberdeenshire and the north of Scotland have a deep interest, may not apply to many other parts of Scotland.

I come now to the way cattle should be treated after being taken from their pastures and put on turnips. The earlier you put them up, the sooner they will be ready for the butcher. The practice of tying the cattle early up in Aberdeenshire is now almost universal; the success of the feeder depends upon it, for a few weeks may make a difference of several pounds. I recollect tying up a lot of cattle

at Ardmundo, thirty in number—a fair cut of ten being left in the field at home on fine land and beautiful grass. The thirty were tied up by the 1st of September, the ten on the 1st of October. The weather was cold, wet, and stormy; and between the improvement the thirty had made and the deterioration upon the ten, there was by my computation, however incredible it may appear, £5 a-head of difference. Mr Knowles of Aberdeen happened to see the cattle, and when he came upon the ten he asked what was the matter with them. He could scarcely credit the facts; their hair was so bad that they actually looked like diseased animals, and it was long before they took a start. I shall state the method I adopt. I sow annually from twelve to sixteen acres of tares, and about the middle of June save a portion of the new grass full of red clover, and from the 1st to the 20th of August both tares and clover are fit for the cattle. I have for many years fed from three hundred to four hundred cattle; and if I was not to take them up in time, I could pay no rent at all. A week's house-feeding in August, September, and October, is as good as three weeks' in the dead of winter. I begin to put the cattle into the yards from the 1st to the middle of August, drafting first the largest cattle intended for the great Christmas market. This drafting gives a great relief to the grass parks, and leaves abundance to the cattle in the fields. During the months of August, September, and October, cattle do best in the yards, the byres being too hot; but when the cold weather sets in there is no way, where many cattle are kept, in which they will do so well as at the stall. You cannot get loose-boxes for eighty or a hundred cattle on one farm. I generally buy my store cattle in

Morayshire. They have all been kept in the straw-yard, never being tied. When the cattle are tied up on my farms, a rope is thrown over the neck of the bullock; the other end of the rope is taken round the stake; two men are put upon it, and overhaul the bullock to his place. When tightened up to the stall the chain is attached to the neck, and the beast is fast. We can tie up fifty beasts in five hours in this way. When tied, you must keep a man with a switch to keep up the bullocks. If you did not do this you would soon have every one of them loose again. They require to be carefully watched the first night, and in three days they get quite accustomed to their confinement, except in the case of some very wild beast. I never lost a bullock by this method of tying up. This system is like other systems—it requires trained hands to practise it.

I never give feeding cattle unripe tares; they must be three parts ripe before being cut. I mix the tares when they are sown with a third of white pease and a third of oats. When three parts ripe, especially the white pease, they are very good feeding. Fresh clover, given along with tares, pease, &c., forms a capital mixture. I sow a proportion of yellow Aberdeen turnips early to succeed the tares and clover. I find the soft varieties are more apt to run to seed when sown early than yellow turnips.

It is indispensable for the improvement of the cattle that they receive their turnips clean, dry, and fresh. When obliged to be taken off the land in wet weather, the hand should be used to fill the turnips from the land to the carts. The turnips should be pulled and laid in rows of four or six drills together on the top of one drill, with the tops all one way and the roots another; but it is better that parties

should follow the carts and pull the turnips from the drills, and throw them into the carts at once. It is an invariable rule with me that the turnips are filled by hand in wet weather. Advantage should be taken of fine weather to secure a good stock of turnips, and a good manager will always provide for a rainy day. A very considerable proportion of turnips should be stored, to wait the severe winters very often experienced on the north-east coast. If I had sufficient command of labour, I would store the greater part of my Swedish turnips (if ripe). I would, however, store only a proportion of the Aberdeen yellow, as they lose the relish, and cattle prefer them from the field; but I require a proportion of them for calving cows in frost. Frosted turnips make cows with calf abort, and rather than give calving cows such turnips I would order them straw and water. Fresh Swedish turnips are indispensable to feeding cattle during the winter. It is a sorrowful sight to see a gang of men with picks taking up turnips in a frosty day, leaving a third of the produce on the land, and the turnips going before your bullocks as hard as iron. We have almost every year a week or ten days' fine weather about Christmas, and this should be taken advantage of to store turnips, if not stored previously. I have tried all the different modes of storing recommended. I shall not enter on the minutiæ of the subject, as it is now generally so well understood; and I need only urge here that the roots should not be bled in any way, that the tops should not be taken off too near to the bulbs, that the tails be only switched, and that they be pitted and secured *every* night to keep them free from frost and rain. I have adopted my friend Mr Porter of Monymusk's plan (in a late climate and where Swedish turnips in

some years never come to full maturity) of pitting them upon the land where they grow, from one to two loads together; and, although not quite ripe, I have never seen a turnip go wrong when stored in this manner. The land also escapes being poached, as the turnips are carted in frost, and at a time when the other operations of the farm are not pressing. A foot of earth will keep them safe, and they are easily covered by taking a couple of furrows with a pair of horses on each side of the line of pits.

In a week or ten days after the first lot of cattle is taken up from grass, a second lot is taken up. This is a further relief to the pastures, and the cattle left in the fields thrive better. This taking up continues every week or ten days to the end of September. At this period all feeding cattle ought to be under cover that are intended to be fattened during the succeeding winter. The stronger cattle are drafted first, and the lesser ones left until the last *cull* is put under cover.

It would be of no use to attempt to feed cattle, unless you can command a staff of experienced men to take charge of them. However faithful in other respects, these men must have a taste and a strong liking to cattle—they must be their hobby. Even with men of the greatest experience, the difference in the thriving of the different lots upon the same keep is great. They must not be oppressed with having too many in charge, or the owner will suffer by his ill-judged parsimony. From August till November a man may take care of, and pull turnips for, thirty cattle very well, or a few more, if the cattle are loose; but when the day gets short, twenty to twenty-five is as many as one man can feed, to do them justice, if tied up. Good cattlemen are inval-

uable. They must not only know what to give the cattle; but the great secret, especially when cattle are forced up for show purposes, is to know *what not to give them.* An inexperienced man amongst a lot of feeding cattle must be a great loss to his employer. Like everything else, the proper management of the animals cannot be learned in a day—the cattleman must be always learning. For myself, I can only say that, long as I have traded in cattle, have studied their treatment, have considered their symmetry, I am learning something new every other day. As regards the treatment of cattle when put upon tares or cut clover, there is no danger; but with turnips an ignorant man may injure the cattle in one week so much that they may not recover it during the season. The cattle must be gradually brought on, giving them a few turnips at first, and increasing the quantity daily, till in from ten to fourteen days they may get a full supply. When improperly treated the cattle scour and hove, the stomach getting deranged. It is a long time before they recover, and some never do well. We generally cure hove by repeated doses of salts, sulphur, and ginger. Occasionally a beast will hove under the best treatment; but if you find a lot of them blown up every day, it is time to change their keeper. In cattle which are being forced for exhibition, hove is generally the first warning that the constitution can do no more. I have seen cases so obstinate that they would swell upon hay or straw without turnips. Putting the animal out to grass for a couple of months will generally renovate the constitution and remove the tendency to hove; and after being taken up from grass, with a man in charge who knows what to give and *what not to give,*

the animal may go on for a few months longer, and with great attention may at last prove a winner. Occasionally an animal may be found whose digestion no amount of forcing will derange, but such cases are very rare. Cattle feeding in the stall should be kept as clean as the hunter or valuable race-horse, and their beds should be carefully shaken up.

I change the feeding cattle from tares and clover on to Aberdeen yellow turnips, and afterwards to swedes, if possible by the middle of October. I do not like soft turnips for feeding cattle. The cattle that I intend for the great Christmas market have at first from 2 lb. to 4 lb. of cake a-day by the 1st of November. In a week or two I increase the cake to at least 4 lb. a-day, and give a feed of bruised oats or barley, which I continue up to the 12th or 14th of December, when they leave for the Christmas market. The cake is apportioned to the condition of the different animals, and some of the leanest cattle get the double of others which are riper. The cattle being tied to the stall places this quite in your power, while in the strawyard it could not be done. When ten or twenty beasts in the strawyard stand together, the strongest take the greatest share, and these are very often the animals that least require it. I consider the stall a great advantage over the strawyard in this respect, as you can give each beast what you wish him to have. My men are told the quantity of cake and corn which I wish every beast to receive. You must all have observed the inequality in the improvement of cattle in the strawyard when ten, fifteen, or twenty beasts are fed together. I have seen the best beast in a lot when put up, the worst

when taken out. The first three weeks after the cattle are put upon cake along with their turnips, they will put on as much meat as they will do with an equal quantity of cake for the next five. It is absolutely necessary to increase the quantity of cake and corn weekly to insure a steady improvement; and if cattle are forced upon cake and corn over two or three months, it will, in my opinion, pay no one. To give unlimited quantities for years, and to say it will pay, is preposterous. To give fat cattle the finishing dip, cake and corn, given in moderation and with skill for six weeks before the cattle are sent to the fat market, will pay the feeder; but to continue this for more than two months will never pay in Aberdeenshire. This is no doubt a bold assertion, but I believe it to be correct. The cake and corn given to cattle day by day loses its effect, till at last you bring the beast almost to a standstill, and week after week you can perceive little improvement. Cake, and still more corn, appear to injure their constitution; grass, turnips, and straw or hay are their only healthy food. For commercial cattle, and for commercial purposes, two months is the utmost limit that cake and corn will pay the Aberdeenshire feeder. There can be no substitute for grass, straw, and turnips, except for a very limited period; though in times of scarcity, and to give the last dip to fat cattle, the other feeding materials are valuable auxiliaries.

I have kept on a favourite show bullock for a year, thinking I would improve him, and given him everything he would take; and when that day twelvemonth came round, he was worse than a twelvemonth before. You can only torture nature so far; and if you force a yearling bullock, he will

never come to the size that he will attain if kept on common fare. If you wish to bring a bullock to size for exhibition, give him as much grass and turnips as he can eat. Begin to force only when he is two and a half to three years old, and by the time he is four years he will not only be a neater but a larger animal than if he had been forced earlier: forcing in youth deteriorates the symmetry of the animal as well as diminishes his size. I am speaking only of Aberdeen and Angus cattle, but I believe the breeders of Highlanders are also well aware of this fact. I am not speaking of pounds, shillings, and pence, or of the profit to the farmer; for who would think of keeping beasts bred to himself older than rising three years old? Calves dropped early should go to the fat market at the age of two years.

A word as to show bullocks. I believe they are the most unprofitable speculation an agriculturist can interfere with. To keep a show bullock as he ought to be kept will cost from 12s. to 15s. a-week, which amounts to about £40 a-year.

The method I adopt as to using cake and corn is the following:—On the different farms where I feed the cattle, I put a fourth part of their number only upon cake and corn at one time, and six weeks (which is about my limit of time for cake and corn, &c., paying the feeder) before they are to be sent to the fat market. When the six weeks are expired they are sent away; another fourth part of the original number take their place, and get their six weeks' cake. When they leave, the other cattle in succession get the same treatment. When turnips are plentiful the system works very well. The cattle draw beautifully, week by week, from the different farms, and come out very ripe. I may

mention that almost all the cattle I graze are generally kept during the previous winter upon as many turnips as they can eat, and are in high condition when put to grass. I believe, however, that in the south of Scotland, where there is more corn and less grass land, this method would not be suitable. Large bills for cake are not easily paid, and when paid swallow up our profits. When cattle are fed almost exclusively upon the produce of the farm, the feeders know what they are about; but this method of feeding requires time and patience, and there is a long outlay of capital. Still, if the system is adopted and judiciously managed, upon medium or high-lying and low-rented land, the cattle treated as above ought to pay the rent and leave a fair profit to the feeder. There is no doubt that in the north, and especially in Aberdeenshire, there is a rage for fine cattle; and on my part it has almost amounted to a "craze." I would have been a richer man to-day if I had not been so fastidious in my selections; but I cannot endure to look at, and never will tolerate, a bad beast on my land. The gentlemen I buy from know my weakness, and they say, if they are anxious to sell, We must let M'Combie have a "pull." Many are the lots of beasts I have bought and culled, and I had to pay for it. Sellers have served me right. Still there is a fatality follows me that I fear it is hopeless now to endeavour to get over. A good bullock will always be a good one, and will easily be made ripe—requiring little cake or corn—and come right out at last.

The following is the system I have adopted in the selection of the cattle I have wintered. I buy the best lots I can find during the summer, fit for

wintering and keeping on to the following Christmas. I then cull the worst of the different lots, feeding the culls and wintering the tops. By this method I secure a lot of wintering cattle for the great Christmas market of the ensuing year, without one bad or indifferent beast among them. The price I have obtained for several years, with the exception of the culls of my winterers, has been £35 a-head.

In Aberdeenshire I consider that a large bullock ought to pay 25s. to 30s. a-month for keep, if he is properly treated. We often get less, and sometimes a little more, owing in some measure to the way in which the cattle are bought, the price of beef at the time, the season of the year the cattle are bought, and the time they are sold. Before we were threatened with the cattle plague I always made a point of buying my beasts early in the season, beginning in January and buying monthly up to May. I had thus a chance of the best lots, whereas, if I deferred making my selections, these went into other hands.

II. REMINISCENCES.

Fifty years ago, and for many a long year thereafter, there were no shorthorns in the north. There were few turnips grown, and few cattle fed. The great firm of the Williamsons, who rented St John's Wells, Bethelnie, and Easter Crichie; James Allardyce of Boyndsmill; the Harveys of Beidlestone and Danestone, and a few others, were almost the only parties who attempted the feeding of cattle. Mr Harvey of Ardo, who was then tenant of Danestone, died only the other day, aged ninety. Messrs Williamson and Reid were the great Aberdeen butchers at that period, and the feeders had either to sell to them or send their cattle on to Barnet Fair on their own account, or in the hands of the jobber. The journey occupied a month, and hay was their food. The cattle stood the road best upon hay, and it was surprising how fresh and sound the drovers took them up. Disease was unknown; the lung disease, the foot-and-mouth disease, are comparatively recent importations.

I was in the lean-cattle trade when foot-and-mouth disease first broke out, and got a sad fright when I came up to Falkirk and found my drove affected. When it got into a drove on their transit, the loss was heavy. At that time the cattle were

not made more than half fat, else they could never have performed their journeys.

I was well acquainted with the Messrs Williamson, and, when a boy, was the guest of the late George Williamson, St John's Wells; of the late James Williamson, Bethelnie; and of William Williamson, Easter Crichie. George Williamson was a great wit, and many are the anecdotes I have heard him tell. One of these I recollect. He was passing through Perth with a large drove of cattle, the bells were ringing a merry peal for the peace—St John's Wells said it was a sorrowful peal to him, for it cost him £4000. He told that the Messrs Williamson and Reid came to buy a lot of cattle at Bethelnie, and they were not like to agree, when Bethelnie's grieve volunteered the statement—much to the chagrin of James Williamson, but to the delight of Messrs Williamson and Reid—that there were turnips to put over to-morrow and no longer. Messrs Williamson and Reid did not advance their offer under these circumstances.

James Williamson was a smarter man in some respects than George; he had great taste as a farmer, but lacked the wit of his brother; while William of Easter Crichie, St John's Wells' eldest son, and a member of the great firm, took matters more coolly than either, but was a capital judge, and a good buyer of drove and store cattle. They have all gone to their rest, but have left a name behind them which will not soon be forgotten in Aberdeenshire. As a firm they were the largest cattle-dealers in Scotland of their day. William Williamson was most hospitable, and many were the happy evenings I have spent at Easter Crichie. It was a great treat to hear him when he became eloquent

upon the Haycocks, the great Leicestershire graziers, and the bullock he bought from Mr Harvey and sold to Mr Haycock that gained the prize against all comers at Smithfield. The Williamsons were the largest buyers in spring, not only in Aberdeenshire and the north, but in Forfar and Fife, shires. At one time they had little opposition in the spring trade, and old St John's Wells' advice to the members of the firm, when they went to Forfar and Fife, was to "bid little and lie far back." The Williamsons generally brought down from Fifeshire on their spring visits a lot of the best Fife cows, and no doubt their blood are in many of the Aberdeen cattle to this day. The Williamsons also bought largely at the Falkirk Trysts. Although they had the spring trade mostly to themselves, it must not be supposed that the summer trade was equally in their hands. For a time, however, it was doubtful if they would not concentrate the whole business in their own firm; as when they had heavy stocks on hand, and prices showed a downward tendency, they adopted the daring expedient of buying up almost all the cattle for sale, that they might become the exclusive owners. This might have succeeded so far, but it was a dangerous expedient, and could not continue; and other energetic men, both in the north and south, began to oppose them. My own father became their greatest opponent, and, though single-handed, for years conducted as large a business in summer as themselves.

Mr James Anderson, Pitcarry, who is still alive and tenant of Pitcarry, was also an extensive dealer, and sent large droves to England — a man who through life has enjoyed the respect of all classes,

of great coolness, and proverbial for his rectitude. The writer was sleeping with him at Huntly the night of an Old Keith market; and in the morning Mr Anderson was in the middle of a deep discussion, when his topsman knocked at the door. On being asked what he wanted, he said he had lost four cattle. "Go and find them," was Mr Anderson's answer, and he immediately resumed the discussion. My father often told how Mr Anderson and he were at a dinner at Haddington, given by the East Lothian Farmers' Club, on the day of the cattle market, when Mr Rennie of Phantassie was chairman, and where, after dinner, a discussion arose about an Act of Parliament. Mr Anderson told them they were all wrong, and that the contents of the Act were so and so. The books were brought from the Council Chambers, when Mr Anderson was found right, and all the East Lothian gentlemen wrong. He is a very well-informed man, and has all the Acts of Parliament at his finger-ends. I was present at a Hallow Fair when a cross toll-bar was erected, and many paid the toll demanded. At last Mr Anderson came up with his drove, and having the Act of Parliament in his pocket at the time, he broke down the toll-bar and sent the keeper home to his honest calling.

But James Milner, Tillyriach, was perhaps the most remarkable among all the cattle-dealers of the time. He was a very large tall man, with tremendously big feet—a great man for dress—wore top-boots, white neckcloth, long blue coat, with all the et-ceteras, and used hair-powder. He was, withal, very clever, and had an immensity of mother-wit. He rode the best horse in the country, kept grey-

hounds, and galloped a horse he called the "Rattler." The rides he took with this animal are the talk of the country to this day. The Rattler was very fast, and would jump over anything. There was no end to the hares Milner killed. He was tenant not only of Tillyriach, which was at that time the property of Sir William Forbes of Craigievar, but he rented Carnaveron and other farms in the Vale of Alford. His position was good: he dined with the gentlemen of the neighbourhood. On one occasion he had Sir William Forbes to dine with him at Tillyriach, and collected all the horses, cattle, and servants from his other farms, and had them all coming as if from the yoke when Sir William arrived. Milner wanted allowances for several improvements from his landlord, and, among the rest, allowance to build, and payment for, a large dwelling-house; but he outwitted himself for once, as Sir William was afraid of the man, and refused to give any allowance whatsoever, remarking that his wealth in cattle and horses was so enormous that he might build himself in so that he would never get him out. However, Milner built an additional large dining-room at his own expense, and it being finished all but the chimney-top, he got up one summer morning very early, ordered his men and horses along with a mason to follow him, and went to William Laing, one of his sub-tenants, of whom he had a host, quietly removed a new dressed granite chimney-top which Laing had lately erected, without being detected by the inmates, and had it placed upon his room ere ever it was missed. There it remained for fifty years, until the houses at Tillyriach were taken down. Milner was very fond of a lark; he was the best possible neighbour; but if he

took offence or considered himself slighted or overlooked, he would have his revenge. There was a rather troublesome neighbour who had offended Mr Milner, and of whom he could not get the better, except in the following way:—He put a large drove of cattle among his corn during the night, and was there in the morning with his appraiser to pay the damage. The damage is never in such cases estimated at the loss sustained by the owner, and a man may easily be ruined in that way. Mr Milner was the Captain Barclay of the Vale of Alford. He must have the best of everything—the best horses, the best cattle; and at the first cattle-show in the country, at Kincardine O'Neil, he gained the first prize for the best bull. He had the finest horses in the country, and it was worth something to get a "lift" of Milner's horses; and the most grievous fault his servants could commit, was allowing any other horses in the country to take as heavy loads as his.

Tillyfour and Tillyriach adjoin, and are now one farm.* My father was in Tillyfour, and Milner in Tillyriach. The crop was all cut by the sickle, and wonderful were the prodigies performed by some of the shearers. When the harvest came near a conclusion, there was generally a severe "kemp" between neighbours who would have "cliach" first. One season Milner had fallen much behind his Tillyfour neighbours, and it became clear that Tillyfour was to gain the victory. Milner ordered Rattler to be saddled, and he was not long in galloping with such a horse, and on such an emergency, over the length and breadth of the Vale of Alford. He collected the whole country, and cut the last stand-

* For description of a day at Tillyfour, see Dixon's 'Field and Fern,' Part North, p. 158-181.

ing sheaf on Tillyriach in one night. The first thing heard at Tillyfour next morning was one volley of firearms after another, which was continued through the day, with a relay of shooters, and in the very teeth of my father's people. It cost Milner a great deal of Athole-brose* and powder, but he did not mind trifles to gain his point. It was the custom at that time that the party who finished harvest first communicated the intelligence to his neighbours by the firing of guns.

Another anecdote or two of Milner, and I have done with him. As he was dressing at the glass one morning, at an inn in the south, and in the act of powdering his hair, and tying his white neckerchief, which he always wore on high days and holidays, James Williamson of Bethelnie said to him, "Ah! what a pretty man you are, James!" "Yes," said Milner, with an oath, "if it were not for these ugly skulks of feet of mine." He always carried large saddlebags on his horse on his journeys, well replenished with all necessary auxiliaries for a change of dress, as when he went north he had often to dine with the Highland proprietors, and Milner was not the man to go otherwise than in full dress. He took a good deal of liberty with his fellow-cattle-dealers, who were not so exact as to their wardrobes, and carried generally in their pocket only a spare shirt and a pair of stockings. Milner's traps were a great additional burden on his horse. While going north he thought proper, one morning, to fasten them on my father's horse. My father took no notice of this at the time; but falling a little behind before coming to the top of a high hill, he contrived to unloose the mouths of the bags. The cattle-

* Whisky and oatmeal mixed.

dealers always dismounted at the top of a hill, and walked down, either leading or driving their horses before them to the foot. My father dismounted, put the whip to his horse, a very spirited animal, and down the hill he galloped. First one article of clothing, then another, went helter-skelter along the road for a mile, one here and one there—ruffled shirts, white neck-cloths, long coats, cashmere vests, boot-tops, pomatum boxes, cotton stockings, &c. &c.—not two of them together. It took Milner a long time to collect the contents of his bags; he was very sulky during the day, and his own horse carried the saddlebags in future. On a journey in the north, his comrades proposed that he should dress himself (and he did so to some purpose), and call on a gentleman, a large owner of fine stock, but whose land-steward and the cattle were some forty miles distant from the manor-house. Mr Milner did so; was well received and hospitably entertained; and at parting the gentleman gave him a letter to his land-steward, with instructions as to the sale of his stock. Milner was very quick, and he had his doubts as to these instructions; and as from forty to fifty miles was a long journey out and returning, he became anxious to know the contents. He returned to his friends, and communicated his suspicions to them. One more daring than the others proposed that the letter should be opened; a tea-kettle was got, the water brought to the boil, the wafer put to the steam, and the letter opened. The contents read thus:—"Be sure and sell the *old cows*, but do not sell the bullocks upon any account." I need not say what a rage Milner was in; calling the gentleman out was the least punishment he might expect.

On one occasion he was in the south, where he

bought cattle as well as in the north, and had an appointment to purchase a rare lot of cattle. James Williamson, Bethelnie, was also anxious to secure the same lot. The two were at the same inn; and after Milner went to bed, his shoes were turned out of his bedroom to be brushed. Williamson got hold of them, and had them put into a pot of water and boiled for hours. He contrived to do away with his stockings in a way I shall not mention. When Milner rose to continue his journey, he might have got the better of the loss of his stockings, but his shoes were a hopeless case, and he was obliged to defer his journey. New shoes had to be made; and as Milner's feet were so large, lasts had first to be made; and thus it took several days to get him fitted out for the road. James Williamson, meanwhile, bought the cattle and had his laugh at Milner, who reaped a share of the profits. It is now about half a century since Milner died, at a comparatively early age; but there still remains a lively impression of his person and exploits among the older residenters of the Vale of Alford.

James Allardyce of Boyndsmill, tenant of Cobairdy, was also a great farmer, but of a different stamp. He was a friend of the late Duke of Gordon, who introduced him at Court; he also always wore powder. Many were the stories he told of his journey to London, and the great personages he was introduced to there. He was the best chairman at a public meeting I ever saw; and at a public sale it was a perfect treat to hear him. He was a master of the art of pleasing, and no man could put a company into equal good-humour. He had something to say in every one's praise, and no one else could say it so well. He spoke the dialect of his own

county (the kingdom of Forgue) and never affected the English language. He fed—such feeding as they got!—sixty bullocks annually, which were always sold to one or other of the dealers, and went to Barnet Fair. Cobairdy's winterers and their prices were an interesting topic of conversation every spring, as the season came round.

The great English dealers were the Armstrongs, James and Thomas, the Millers, Murphy, Robert M'Turk, Billie Brown, John Elliot, the Carmichaels, &c. &c. The Armstrongs were from Yorkshire; they bought largely of our good beasts at Falkirk, Falkland, and Kinross. Their credit was unlimited. They paid the cattle, not with Bank of England notes, but with their own private bills; and whereas they left home without more money than was necessary to pay the expenses of their journey, they would return with hundreds of pounds. For example: they would buy a lot of cattle for £860, give their acceptance for £1000, and get the balance (£140) from the seller. At last, however, they became bankrupt, and paid 3s. per pound. My father lost £3300 by them; and a great many of the returned bills are still in my possession. Messrs John and William Thom lost about the same sum. The Bannermans of Perth lost £4000—in fact, were ruined by their loss. My father and the Thoms stood out. The Thoms lost very heavily by the Millers also. My father's losses by bad debts were fully £10,000 in all. John Thom of Uras, Stonehaven, was also one of the firm that lost heavily, and has always, to his credit, paid 20s. in the pound. It was a saying of an old friend of mine that no great breeder or great cattle-dealer ever died rich; and this has held good in the great majority of cases. John Elliot and William Brown bought

largely of our Aberdeen cattle, and attended Aikey Fair as well as Falkirk. Brown, who was very clever, had raised himself from being an Irish drover. He rented a farm in the neighbourhood of Carlisle, and died a few years ago much respected. Elliot was a Carlisle man, and so were the Millers. Elliot latterly became a Smithfield salesman, but died many years ago. But Robert M'Turk stood, in my estimation, at the top of the tree. I have known him buy seventy score of Highlanders at the October Falkirk Tryst without dismounting from his pony. I have seen seventy-five score of Galloways belonging to him in one drove passing through Carlisle to Norfolk. I have known him buy from a thousand to two thousand of our large county cattle at Falkirk, sweeping the fair of the best lots before other buyers could make up their minds to begin. He rented large grazings in Dumfriesshire, where he wintered and grazed the Highlanders, and which, I believe, his relatives still retain. He was a warm friend, and very kind to me when I was almost a boy, and on a busy day he trusted me to cull the beasts he had bought from myself. I shall never see his like again at Falkirk or any other place. I have a vivid recollection of the stout-built man upon his pony, buying his cattle by the thousand; his calm and composed demeanour was a striking contrast to the noise made by some jobbers at our fairs in even the buying of an old cow. Although plain in manner, he was a thorough gentleman, devoid of slang and equivocation. He was the Captain Barclay of Dumfriesshire, and furnished an exception to my friend's remark, for he died in independent circumstances. He paid for all his cattle ready money.

The Carmichaels were another extensive firm of

English dealers; they bought largely at Falkirk, Aikey Fair, and in the north. Robert Carmichael, of Ratcliffe Farm, near Stirling, was many years appointed a judge of Highlanders at the Highland Society's shows. But we had also the Hawick Club, a set of giants—Halliburton, Scott, and Harper—a very wealthy firm; and James Scott died the other year worth seventy or eighty thousand pounds. As a company they seldom bought runts—a term by which our Aberdeen cattle were known to the English jobbers; they bought large lots of Highlanders, especially Highland heifers, in October and November; but they were open at all times, when they saw a good prospect of profit, to buy any number, or any sort. I once came through Mr Harper's hands at a bad Hallow Fair with seven score of Aberdeen runts in a way I should not like often to do.

The business of the "Club" was principally confined to the months of October and November, but individually they had large stakes in the country. James Scott was one of the largest sheep-farmers in Scotland, and one of the greatest buyers of sheep at Inverness. I could tell many anecdotes of the firm of Halliburton & Co., but I fear tiring my readers. I will, however, venture on one or two. As I have already mentioned, they were very powerful men. On one occasion Halliburton had arrived at Braemar very tired to attend the fair. He had fallen asleep on the sofa, and a thief was busy rifling his pockets, when he awoke, took hold of the thief, held him with one hand as if he had been in a vice, and handed him over to justice. It was told of James Scott, who was a very quiet reserved man, that once when he was in the Highlands he was insulted by a party

of Highland gentlemen; from better it came to worse, and ended in Scott nearly killing every man of them. Halliburton was much respected, but he was a great declaimer as to prices of cattle falling when he was a purchaser. At an Amulree market he was very early on the market-ground. A soft-looking country man, well dressed, came up with thirteen very fine polled cattle, which Halliburton bought at a price that *satisfied even him* as to their cheapness. He took James Ritchie, an Aberdeen dealer, to see them. On hearing the price Ritchie was astonished. "Oh," said Halliburton, "I have have often told you, James, what country men would do, but you would not believe me." The seller was very anxious to get the money, as he said he had horses to buy; but Halliburton told him horses were dangerous, and he must wait his time. He began to be suspicious that all was not right, and in a short time the seller was apprehended for stealing the cattle from Wemyss Castle. He was tried at Perth, and transported for fourteen years, and Halliburton and Ritchie had to give evidence. The judge said to Halliburton at the trial at Perth, "You surely must have known the cattle were too cheap." Halliburton answered, "My lord, the next market would have proved if they were too cheap or too dear."

The payments at Falkirk were all made through the bankers; there were always from four to six bank-tents on the muir. When I took payment for my cattle I went generally with the buyer to the bank-tent. This was merely a common tent, with a bank-office attached. The banker calculated the amount, and received the money, which he put to my credit, and after I concluded my business I got an order for the amount on Aberdeen. This avoided

all risk of forged notes, &c. Strange payments were sometimes offered. On one occasion an Irishman, who appeared to have been "holding his Christmas," bought sixty horned cattle from me, the best in the fair, at £14, 14s. a-head—a long price at that time. The beasts were good, and the price was good. He presented first £70 in gold; he then took out a handkerchief, the contents of which were £100, £20, £10, £5, and £1 notes. Such a miscellaneous payment I had never seen offered, and I believe no one else had, at Falkirk or any other place. It would have been hopeless for us to attempt counting it, and Mr Salmon, agent for the Commercial Bank, took the business in hand. Looking first at the confused mass of notes, all "head and tail," and then scanning the appearance of my customer, he began his task; but with all his practice it took him a quarter of an hour to assort the payment. He threw back two £1-notes to the buyer, who got into a towering passion, and, with words that I cannot put upon paper, asked him if he thought *he* would offer forged notes. Mr Salmon meekly replied that M'Combie might take them if he pleased, he had got nothing to do with that, but he would not. Our Irish friend then exchanged the notes, for he had no want of money. I did not even know the gentleman's name; I never saw him before, and I never, to my knowledge, saw him afterwards.

There were in such large markets as Falkirk and Hallow Fair great chances of good prices to be had at times. When cattle were selling dear, buyers from England, Wales, Ireland, and all parts of Scotland, congregated at Falkirk: they were not all judges alike, and some sellers at such a time were always sure of a good price. For the amusement of

my readers, I will give a few examples. On the second day of an October Falkirk Tryst (I had sold out, as I generally did, the first day), I was standing with a dealer from the north who had forty or sixty—I think sixty—two-year-old polled stots to sell. He had just parted with a customer for 2s. 6d. a-head, having offered them at £8, 15s., and refused £8, 12s. 6d. A gentleman's land-steward came through the lot of cattle with a milk-white horse, and his eyes looked first to the right and then to the left with wonderful quickness. He asked the price of the cattle. I thought the seller's conscience a trifle lax when he asked £13, 13s. a-head. Being very young I turned my back, as I could not keep my gravity. The owner then asked what he would give. £11, 11s. was the answer. No sooner were the words out of the man's mouth than down came the clap, "They are yours." I could stand it no longer, and drew back aghast. The buyer became suspicious that all was not right; and my father, who was held in great esteem both by buyers and sellers, acted as umpire, to whom both parties referred the transaction. Being the only witness, I was closely interrogated by the umpire, the buyer, and the seller. I told the price asked and the price offered. The matter had now assumed a serious aspect. My father, after hearing the evidence, which was not denied, and the price having been fairly offered and accepted, could only decide one way. I recollect his words when he gave his decision: "Well, sir, the beasts are dear according to this market, but they are good growers, and you will soon make them worth it; my decision is, you must take them." They were paid for, and went across the ferry to Fife again. In a rising market I have seen cattle

raised £1 a-head; and if the jobber does not take a price when there is a rise, and fairly in his power, he is a fool, for he will soon find out that the buyers will have no mercy upon the sellers when in their power. In all my experience, the above, in a dull day, or any other day, was the most glaring start I remember.

I never attended the fairs in Angusshire, but on one occasion Mr Thom hauled me off to Forfar market in the beginning of November, before Hallow Fair of Edinburgh. We were in partnership at the time, and bought seventy small polled stots to take to Hallow Fair, to which we had sent off two or three droves the week before. We could get but one drover, a townsman, to assist in lifting them, and had to turn drovers ourselves. We had not gone above a mile on our way to Dundee with the cattle when it came on a fearful night of rain, and got very dark. Mr Thom quarrelled with the drover—a useless creature—and sent him about his business, so that we were left alone with our seventy beasts in the dark, on a road with which we were entirely unacquainted. We went on for hours, not knowing where we were going, till at last we came to a bothy, where we asked the servants what we were to do with our charge, and if we were on the road to the ferry at Dundee. We were told, first, that we had taken the wrong road, and were miles out of our way; and second, that we might put the cattle into a field close at hand. We put the cattle up accordingly, and went to a public-house near by, which was kept by a very decent man, Edward, a cattle-dealer. We got supper, and took an hour or two in bed; and between one and two o'clock in the morning, the rain having abated and the moon

risen, we started the drove and had the beasts at Dundee and across the ferry by the first boat at eight o'clock in the morning, with no assistance whatever. We now started fairly on our destination for Edinburgh, and having got food for the cattle and bread and cheese for ourselves, about three miles up the south side of the Tay we hired a sort of drover, and bent our way by Rathillet. About dark we arrived at —— (Mr Walker's), where we not only got as much turnips and straw to our beasts as they could eat, but were ourselves treated like princes by Mr Walker. He gave us the best bed in the house, would not let us go without a good breakfast in the morning, and would accept of scarcely any remuneration. We started for Lochgelly after breakfast, but Mr Thom persuaded me to turn off and take Falkland market, which was held that day, while he and the drover proceeded straight to Lochgelly with the cattle. Falkland was far out of the way, but he assured me there were plenty of horses to hire there, and that I could easily join him at Lochgelly at night. When I got to Falkland I found there were only four beasts in the market that suited our trade, which was not encouraging, as I did not want plenty of money if I could have got anything to lay it out on. I found also that Mr Thom had been mistaken about the hiring. Not a horse was to be got at any price, and I had no help but to set off on foot for Lochgelly, on a road I had never travelled. I had scarcely left Falkland when I was overtaken by a heavy rain which continued throughout my journey. I had first to climb a long steep hill for about three or four miles, and when at last I got to the public road, I found it one mass of mud, in consequence of the large coal traffic, and the

heavy fall of rain. I had a deal of money with me, and as it was quite dark, I was rather uneasy about it, meeting so many miners and coal-carters under such circumstances, and in a part of the country with which I was utterly unacquainted. The road is a very long one, and with such a protracted soaking in the mud, my feet began to fail me. I at last reached my destination, however; and with considerable difficulty—for I had never been in Lochgelly before—I hunted up Mr Thom, whom I found comfortably quartered beside a good fire, with supper before him. But my troubles were not yet over. One of the servants at the place was leaving, and what was termed a "foy" was being held that night. She had collected a great number of her friends, who kept the house in an uproar the whole night. We went to bed, but could get no sleep, the row these revellers made was so great, and our bedroom door was all but broken open two or three times. Our remonstrances had no effect, and sleep being out of the question, we got up about one o'clock, hunted up our drover, and started our drove once more, although the night was as bad as could be. By about nine o'clock A.M. we arrived at Queensferry; but by this time I had strained my leg, and was unable to proceed. I was therefore left on the north side in charge of the cattle, while Mr Thom crossed to the south side to procure the necessary food for the other droves during the market. It will thus be seen that we droved the seventy catle from Forfar market all the way to Queensferry in two days and three nights during the short day of November, going out of our way once as much as six miles. I cannot say what the distance was exactly, but it must have been at least seventy miles—a feat in

cattle-droving unparalleled in my experience. After a day's rest I crossed the ferry with the cattle, assisted by the drover. The beasts were dreadfully jaded, and with difficulty reached their destination, within a mile of the market-stance. The journey had told severely upon them, and two went down immediately on reaching the field. We tried every means to stir them, but failed. They were hand-fed, and with great difficulty got to the market, where they were quickly sold, though how they were got to their destination I never learned.

At a very good Hallow Fair, I had forty small-horned Cabrach beasts and forty small polled stirks standing alongside of each other. I had been within 7s. 6d. a-head of selling them once or twice, when a stranger priced them, a very well-to-do and apparently young man. My price was £7, 7s. a-head for the eighty. He just took one look through them, and said, "Well, I shall have them, and you meet me at the Black Bull at eight o'clock, and I will pay you for them." It not being the *custom of the trade* to get all our askings, I was a little nervous about my customer, but found he was all right. I met him at the Black Bull at the hour mentioned. He was in great spirits, and paid me in Bank of England notes.

Arthur Ritchie, Bithnie, a cattle-dealer from Aberdeen, used to tell the following story: In a bad Hallow Fair, towards sunsetting, a gentleman came round and asked the price of a lot of cattle. Arthur had given him a large halter, and he got an offer which he accepted. It was a great price for the market. The buyer refused afterwards to take them, and my father was made umpire. The buyer said that a glimmer came over his eyes, and he

thought them better when he offered the price. However, he got ashamed, and took the cattle. An old respected servant of my own, who assisted me for years in the buying and selling of cattle—James Elmslie, very well known here and in the south—had sold twenty beasts very well at Hallow Fair for me. There was a "buffalo" among them of the worst type—a great big "buffalo dog." The buyer, when he paid them, said, "Well, James, if they had all been like the big one, I would not have grudged you the price." "Ah, sir," said James, "you would have difficulty in getting a lot like him!" I could scarcely keep my gravity. A very grave and solemn conclusion to a sale occurred to me at Hallow Fair. I had sold twenty beasts to a very rich farmer near North Berwick, who had bought many lots from me. He had employed a marker, who had just marked nineteen out of the twenty. The buyer was joking with me about the dearness of the cattle, when, in a moment, he dropped down dead, falling on his back, and never moving or speaking more. The event created such a sensation, that no more sales were made that day.

The English dealers seldom came north except to Aikey Fair. Then we had the Armstrongs, the Millers, Murphy, and other English dealers, and it was quite a sight to witness the droves going south; but Aikey Fair has now lost its ancient glory, and is only the shadow of what it was. It was a sight I shall never witness more to see the whole hillside covered with innumerable herds of "Buchan hummlies." Mr Bruce of Millhill showed the largest lots, and stood at the top as an exhibitor. Talking of Buchan, the names of Bruce, Millhill, and Smart, Sandhole, were household words at my father's

board. My father and myself have bought thousands of cattle from them; no agriculturists have ever been more respected in Buchan. Mr Bruce, perhaps, was as solid, but Smart was the more dashing man. I have never met any one who would do the same amount of business with as few words as Smart, and do it as well. As one example: He brought sixty beasts to Mintlaw market—cattle were low-priced at the time. I had the first offer of them: he asked £12, 12s. a-head. I offered £12, and we split the 12s. The whole transaction did not take up half of the time I require to write it. Mr Bruce and Mr Smart were the best judges in Buchan. We had other great exhibitors, Mr Bruce, Inverwhomrey; Mr Scott, Yokieshill; Mr Milne, Mill of Boyndie; Mr Paton, Towie; Mr Milne, Watermill, &c. Mr Mitchell, Fiddesbeg, the Browns, the Rattrays, Hay of Little Ythsie, and Wm. M'Donald, were all extensive dealers in cattle in those days. The following anecdote of William M'Donald was told by my father: It had been a very good September Falkirk market, and Mr John Geddes, Haddoch, who was an extensive home grazier and dealer, had a large stock of cattle on hand. M'Donald and my father were both anxious for the chance to buy them, and pushed through their business at Falkirk as fast as possible to get to Haddoch. At that time the dealers accomplished all their journeys on horseback, and prided themselves on the fleetness of their saddle-horses. My father thought no one his match in the saddle. He reached Haddoch on Wednesday at midnight—the first cattle-market day at Falkirk being on Tuesday—but the first thing he observed on drawing near to the house, which remains on the farm to this day, although a new one has been

built, was the main room lighted up. On coming nearer, he heard voices fast and loud, and one was that of M'Donald! It was all over! M'Donald had fairly beat M'Combie in the chase. My father got hold of Mrs Geddes, worn-out and disappointed, and got quietly to bed; and I have often heard him tell how M'Donald's peals of laughter rang in his ears as the punch-bowl went round, even to the dawning of the day. Neither M'Donald nor Haddoch knew my father was in the house. He left in the morning for Clashbrae, where he bought some smaller lots from the farmer there, who was a local dealer.

A word as to M'Donald: He was a stout-made middle-sized man, and spoke so fast over the "bowl" that no one could follow him. He had a good deal of mother-wit; and his great ambition was to be the owner of large droves of cattle. I have seen a drove belonging to him a mile and more long. Mr John Geddes was a man of high standing and great firmness of character. He wore the broad blue bonnet, with a long blue coat and clear buttons, and boot-hose, and rode a very fine cob pony with a long tail. He was of great strength of constitution, and could have sat twenty-four hours with the punch-bowl before him (it was always the bowl at Haddoch), and risen as sober as when he sat down. Such were the habits of those days. I never pass on the railway from Huntly to Rothiemay, but on casting my eye over the old house I recall the night described so graphically by my father. He and Haddoch had large transactions. After a bad October Tryst, where my father had sixteen score of Aberdeenshire cattle, and when he lost £4 a-head upon every beast, Mr Geddes returned him £70 as a luck-penny upon a large lot he had bought from

him. There have few men appeared in the north of greater influence or of higher moral worth than the late Mr John Geddes of Haddoch. His landlord, the late Duke of Gordon, was proud of him, as well he might be.

It was the general custom that the dealers came to the market-ground with their cattle, and immediately before them, to the part of the market-stance where they wished them to stand. It was quite a sight to see Mr Geddes on an Old Keith market-day (Old Keith Market, like Aikey Fair, is now only a shadow of its ancient greatness), with his broad bonnet, the long blue coat, the overall stockings, and mounted on a strong bay pony with its tail to the ground, at the head of a large lot of heavy cattle. Every one made room for his cattle, as he rode before them to the upper wall; it would have been of no use to resist, as the weight of his animals would have soon cleared the road for themselves; and as soon as the large black mass of horned cattle appeared in the valley below, the cry was, "There comes Haddoch! We must clear the way, or else his cattle will soon clear it at our expense." After the first lot was stationed, another and another followed in succession, which were placed beside the others, till perhaps there were 200 altogether; the different lots being all kept completely separate for the inspection of purchasers. Mr Geddes never went south with cattle, but sold them all at home. In a bad year he once got as far south as Tillyfour with 120 cattle in November. They were at Tillyfour a night, and my father bought them in the morning, but they were about a mile on the road before the bargain was struck. No one could have seen Mr Geddes without pronouncing him a man of mark.

But the greatest dealer the county could claim, and one at the same time deeply engaged in agriculture and its interests, was Mr James Innes of Durris. Mr Innes was born at Leuchars in Morayshire; his father was Sheriff of Kincardineshire, and proprietor of Leuchars; his brother, Cosmo Innes, Esq., was Sheriff of Morayshire. The father of Mr James Innes bought the lease of the estate of Durris for ninety-nine years from the trustees of the Earl of Peterborough for £30,000 and an annual feu-duty of a few hundred pounds. Owing to some new views of the law of entail, the Duke of Gordon, the legal heir of the Earl of Peterborough, turned Mr Innes out of the estate after he had expended £95,000 in improvements, and after the case had been in court for fifteen years. Mr Innes farmed extensively, having had seven or eight farms in his own occupancy at the same time. He rode on horseback yearly to Falkirk, and bought a large lot of Highland cattle. He generally had 200 cattle, 1500 sheep, and from ten to twelve pairs of horses on his farms. Mr Innes's horses went at the top of their speed in cart and plough; they had all breeding. No standing was allowed when the horses were in harness. In a busy day in harvest, and when the horses were yoked double, you would have seen Mr Innes's horses driving in the corn at a smart gallop. The harvest-carts were wide, railed and framed on both sides, with one or two cross bearers. In a "leading" day Mr Innes was a sure hand at the fork in the stackyard, and the man on the stack and the man on the cart had to look out. Mr Innes was no trifler, and would not be trifled with; but if an accident happened he made no remarks. He did not transact business by commission, but purchased both

the cattle and sheep himself. The aged West Highlanders were sent to the wood during winter; the year-old Highlanders were put into the straw-yards; and the four-year-old Aberdeens were bought for stall-feeding. Black-faced wethers were sent to the low pasture and for turnip-feeding. An annual sale of cattle and letting of grass took place about the 20th May. Mr Innes was famed for growing turnips. He gained the prize of £50, given by the Highland Society for the best field of turnips in the north of Scotland, twenty acres of yellow and ten of globe turnips. Deacon Williamson's six and eight year old Aberdeen work oxen—these were not the days of quick returns in cattle—consumed them, and they went to the Greenland whale-ships at last. Mr Innes was the poor man's friend, and a kind master to his servants, but a cool determined man. Although standing almost six feet three inches in height, he was a splendid horseman; when crossing the Dee he made his horse jump into the boat with himself upon his back. He galloped as the crow flies from one farm to another, and was at the head of everything himself. He was an intimate friend of the late Lord Kennedy, Captain Barclay of Ury, Farquharson of Finzean, Davidson of Balnagask, and Cruickshank of Langley Park. He sometimes took a holiday with them; and even entered for a time into some of their frolics, when his seedtime and harvest were finished: he was quite fit to keep his own with them. He was well educated, wrote out his leases, collected his rents, could floor any one in court, and was very popular as a justice.

Mr Cruickshank of Langley Park and Mr Innes afterwards quarrelled: the quarrel originating at Blackhall. There had been a good deal of chaffing

between them, which ended in a row. Cruickshank went home and wrote a challenge to Innes, and Innes went home and wrote one to Cruickshank. They met and fought at Laurencekirk: Major C. Robertson, Kindface, Invergordon, was Cruickshank's second, and Dr Hoyle, Montrose, was in attendance as surgeon. —— —— was Innes's second, and Dr Skene, Aberdeen, his surgeon. After the first fire the seconds stopped proceedings; but Mr Innes's mother had intercepted a letter, which she gave to her son after the first duel, and Mr Innes forthwith sent another challenge to Cruickshank. They fought again at Bourtreebush, half-way between Aberdeen and Stonehaven. Mr John Stewart, late in Angusston (who was a great friend of the laird of Durris) was standing with Mr Innes at the Plainstones, in Aberdeen. Mr Innes looked at the town clock, and said, "My time is up; but you will meet me at breakfast to-morrow at Durris at eight." He did not say what he was to be about. Mr William Walker, who was afterwards three years overseer to Mr Innes at Durris, tells that he thinks it was in June or July 1819 that his father's servant and himself were carting home fuel from near Bourtreebush, when they observed two carriages on the turnpike from Aberdeen driving at a furious pace. The carriages stopped in an instant within 300 yards of the inn; several gentlemen alighted and walked into the nearest field, and in a few minutes shots were twice exchanged, one party and carriage leaving twenty minutes before the other, in the direction of Stonehaven. At the second shot Mr Innes was wounded in the thigh; and it was a close shave on the other side, for Mr Innes's ball went through Mr Cruickshank's whiskers. Mr Innes, however, kept his

appointment with Mr Stewart next morning. Mr Stewart said that he met him at Durris House at breakfast. He came down stairs with his wonted agility, in the best of spirits, and shook hands with him; but he seemed to tremble a little, and his hands fell downwards, and although he never mentioned the duel, Mr Stewart afterwards heard he was wounded in the groin. For the above account of the second famous duel fought between Mr Innes and Mr Cruickshank of Langley Park, I am indebted to Mr William Walker and Mr John Stewart, late of Anguston. The two were, however, great friends ever after.

I was well acquainted with Alexander Davidson, the notorious poacher and smuggler. He was a very powerful man, and his whole body was covered with hair like that of an ox. He was a favourite with many of the gentlemen, and was often sent for by them to show his feats of strength and agility. He could shoot in a direct line from Braemar to Aberdeen with very little interruption. From many of the proprietors he had permission to take a run through their property; others winked at him: from myself, then acting for my father, he had permission to go on his course. He was very polite in his askings, and put it thus: "Will you have the goodness to allow me to go through your property when I am on my annual tour? I will not poach it; I will keep the straight line, and only kill what may be on my way." I believe Davidson was true to his promise; but if he was refused permission, and if any attempt was made to entrap him, he had his revenge: he would shoot and poach on that property for days, and no one could take him. In the year 1820 Mr Innes and Mr Davidson of Balnagask gave their support to Davidson against Lord Kennedy and Mr

Farquharson of Finzean, who laid a bet of £50 that Davidson would not run without clothing from Barkley Street, Stonehaven, to the gate of Inchmarlo in a given time. It was thought that Davidson's feet must fail him. At the Bridge of Banchory there was a posse of wives, with Mrs Duncan the toll-mistress at their head, ready to make an onslaught on poor Davidson. They had been hired, some at five shillings, some at ten, and the leader, Mrs Duncan, at twenty shillings, and came prepared with their aprons full of stones and other missiles, and Mrs Duncan had in addition a large knotty stick. When Davidson came in sight he saw the trap that was laid for him, and drew up for breath before he came within the enemy's reach. The fearful rush and the unearthly appearance of Davidson took his enemies by surprise; their missiles fell wide of the mark, and with a few tremendous bounds he passed the wives and the bridge. Mrs Duncan was in a towering passion because Davidson had escaped, after all her generalship, and declared, not in the most becoming language, "that it was not a man, but a beast." Davidson was safe, and reached the gate of Inchmarlo up to time, and pocketed the £50. Davidson was at last found dead on the hills, with his faithful pointer standing over him.

Captain Barclay of Ury and Mr Innes laid a heavy bet with Finzean that they would produce six better men in Durris than Finzean could do in all his estates. The men were selected, and the day was fixed; a long and strong rope was procured, which crossed the Dee, and twelve yards to each side extra, to allow the men to be tied in at regular distances from each other. At the place chosen to decide the wager the river had sloping banks on each side.

Those who got the first start were sure to pull the others probably nearly through the river; the tide would then be turned, and the other party be as successful with their opponents. So matters went on several times, until it was found necessary to stop, and no decision could be given. The poor men got a proper ducking, and some of them were even in great danger of being drowned or hanged, as they were all tied into the ropes.

I was very well acquainted with the late Captain Barclay, who was the lineal descendant of the author of the 'Apology for the Quakers,' and claimant of the earldom of Monteith, and was familiarly designated "the father of the shorthorns." Though Captain Barclay remains without a national acknowledgment of his merits, no man deserved better of the farmers of Scotland; for he was their firm supporter through life in good and bad report. Captain Barclay was in many respects a remarkable man—one not to be forgotten by any one who had once met him. I have been many a day in company with him, and have the most vivid recollection of him as he examined the stock in a show-yard. Pacing along from class to class, I think I see him drawing his open hand leisurely down over his chin, and, as he met an acquaintance, saying in his deep sonorous voice, "How do you do?" laying the emphasis on the "how," and passing on. No one would have made any mistake as to Captain Barclay being a gentleman, although his dress was plain—a long green coat with velvet collar and big yellow buttons, a coloured handkerchief, long yellow cashmere vest, knee-breeches, very wide top-boots with long brown dirty tops, and plain black hat, generally pretty well worn. When at home he wore knee-

breeches with patches on the knees, coarse stockings, and large shoes. Captain Barclay carried through with energy whatever he took in hand. The "Defiance" must go its twelve miles an hour including stoppages. He took a great delight in driving the "Defiance," wearing the red coat with the "Defiance" buttons; and on one occasion he drove the mail from London to Stonehaven out and out. His horses were the strongest and his fields the largest in the country. He said "he did not like a field in which the cattle could see one another every day." He put four horses in his waggons, and never sent less than 20 bolls (16 quarters) of grain to Aberdeen upon a waggon. It was a great sight to see four or five of Captain Barclay's waggons going down Marischal Street. The houses shook, the inhabitants were alarmed, and nervous people thought the houses would tumble down. Captain Barclay could not tolerate a boaster or puppy in any shape. A few years before his death he happened to be in the coffee-room, Market Street, Aberdeen, one evening along with some of his friends. A fast young man took out £20 and boasted he would run a mile in a certain time: he was not aware that Captain B. was present. The Captain covered the money, and the £40 was lodged with the stakeholder. "Now, my man," said the Captain (turning the quid of tobacco once or twice in his mouth, and taking his hand down from his nose to his chin), in his prolonged solemn tone, "we will put you to time." The race was run and lost. The Captain was walking one day in his park when he came on an intruder in the shape of an ass. He seized the donkey and threw it over the wall of the park. To his astonishment the animal was returned. The Captain pitched him

over again, and again he came back. This was repeated several times, till at last the Captain went outside the wall and found that it was a gypsy that was his match. He was so much pleased with the prowess of the man, that he took him to the mansion-house of Ury, treated him to all he could eat and drink, and gave him permission to graze his donkey as often as he liked on the policies of Ury. One morning, when the Captain was driving the "Defiance," there was a plain country woman sitting behind him. A gentleman wished to deprive the woman of her seat. The Captain remonstrated with him and bade him let the poor woman alone. The stranger did not know that it was Captain Barclay, and went on from better to worse, till he told the Captain if he would stop the coach and come down he would settle the matter with him. The Captain immediately stopped the coach, saying, "I suppose I must gratify you," gave the reins to Davie Troup, and jumped down with his top-coat on. The stranger advised him to strip. "Oh no," said the Captain, "that would be troublesome." His opponent, a very strong man, rushed at him like a bull-dog. The Captain put on his guard, looked at his antagonist for a moment or two, turned the quid of tobacco once or twice in his mouth, and then gave him a blow that felled him to the ground like a log of wood. He got to his feet again, when the Captain doubled the dose. The stranger was satisfied, and said, "You must either be the devil or Captain Barclay of Ury." "I am not the former," said the Captain, "but I am the latter." A stranger would hardly at first sight have got an adequate impression of Captain Barclay's power, but his appearance grew upon you when you came close to him; you then

saw his great strength. He was a very round-made man, shaped for great endurance, which was put to a severe test when, in 1809, he walked a thousand miles in a thousand hours. His man Cross, who attended him, described to me the difficulty of his task in keeping him awake. At first he had to apply the stick and the lash, and the Captain growled most hideously at him; but latterly, when he saw he was to win, he improved in strength and spirits every hour till the end. After two days' rest he went on the Walcheren expedition. When past sixty he would walk twenty or thirty miles to dinner. I could relate many interesting reminiscences of Captain Barclay, but as most of them have been published already, I have only given a few well-authenticated anecdotes, which, so far as I know, have never before appeared. He was found dead in his bed in 1854: and in him the tenant-farmers of Scotland and the poor of his own neighbourhood lost one of their best friends.

While speaking of Milner I referred to the great feats performed in those days with the sickle. I remember a Highland woman, "black Bell," who made sixteen to eighteen threaves (384 to 432 sheaves) daily in harvest of good-sized sheaves; but George Bruce, Ardgows, in the parish of Tough, could shear thirty-six threaves in a day, and bind and stook it. However incredible this may appear, it is a fact. I have seen him shearing after he was an old man; he drove the "rig" of say eighteen feet from side to side, and never lifted his hand till he had a sheaf. He used a long sickle, and drew the corn to him. I cannot describe his method properly. He was a tall, thin, wiry man, with very long arms. My father used to tell how my grandfather sent two men and two

women to give George Bruce a day's shearing, and how George came with a little girl (who did little or nothing but make bands for her master), and how my grandfather asked him "if that was the way he intended to pay his debt." George replied that "he could put his four shearers on one 'rig'"—they were fully an average of the shearers in the country—"and he and the lassie would take the other." They started accordingly, and Bruce kept ahead of them throughout the day.

III. THE CATTLE TRADE, THEN AND NOW.

The lean-cattle trade is a most dangerous one, and I would not advise any young friend of mine to engage in it. I believe for one who has succeeded twenty have gone down. This is true, at least, as far as droving from the north to the south of Scotland and England is concerned. Home jobbers have been more fortunate, though I am not acquainted with many who have done much good. There are many temptations connected with it, and it requires a strong mind to resist them. I have only given the bright side of the picture; but let us look for a moment at the other. I have told that great chances are got by some at times; these, however, are exceptional to the general rule. Lean cattle are sold by value as well as fat, and if well bought will be easily sold. I found it the safe plan to buy a small drove well. It was only a little trade that I carried on—I never had fewer than from seven to ten score, and my largest droves never exceeded eighteen score; as a consequence, my losses were not heavy nor my profits very great. When I was in the trade the price of cattle was very low, which lessened my risk, but I have known £2 a-head lost over a large drove. During the French war the price of

cattle became very high; and £4 a-head, and even much more, would sometimes be lost or gained on droving cattle.

My father when a young man went to the far north — to Caithness, Sutherland, Skye, and the islands — and bought large droves of Highland cattle and brought them home. They were disposed of often by public roup in this county, or driven to the southern markets. At that time there were few regular markets in these counties, but the dealers when they went to the country cried a market, announcing that they would meet the sellers on a certain day and at a convenient place, and in this way the trade was carried out. Large profits were obtained; but the dealers were liable to heavy losses, especially in spring, the cattle being then but skin and bone, and many dying in the transit. My father lost in one night, after swimming the Spey, seventeen old Caithness runts. There were no bridges in those days. It came on a severe frost after the cattle had swam the river. The value of bone-manure was unknown, and their bones bleached in the sun on the braes of Auchindown for more than thirty years, and remains of them were visible within the last few years. My father not only carried on a very large trade to the Falkirk markets, but also a very extensive business to England, and had a salesman who attended all the great English fairs, particularly in Leicestershire, who sold drove after drove that were bought by my father here. Referring to documents in my possession, I find he had in one year 1500 head of cattle at the October Tryst of Falkirk, 800 of which were Highlanders, and the remainder Aberdeen cattle. The Highlanders were grazed in Braemar, on the

Geldie, Boynach, and Corryvrone, the property of the Earl of Fife. His books show a clear profit at that fair of £2000, and the year following of £1500. Prices of cattle were very high during the war. I observe the prices of three heavy lots of horned Aberdeen cattle sold in Cumberland—viz., £22, £23, 10s., and £25 a-head. A Carlisle carrier, I have often heard my father say, was the purchaser. He declared he bought them for eating up his horse-litter.

Steam navigation and the use of bone-dust being both introduced about the same time, shortly produced a complete revolution in the cattle trade; feeding soon became general, from the larger breadth and heavier crops of turnips grown; droving annually diminished, till now it has all but ceased, almost all the herds in Aberdeenshire being fattened, besides many brought in from north and south.

The late Mr Hay, Shethin; Mr Lumsden, Aquhorthies; and his brother, Mr Lumsden, Eggie; Mr Milne, Fornet; Mr Mitchell, Fiddesbeg; Mr Stoddart, Cultercullen; Deacon Milne, and Deacon Spark, took the lead; and to these gentlemen the credit is due for being the first to introduce a proper and profitable system of feeding cattle in Aberdeenshire. More attention was also paid to the breeding department. James Anderson, Pitcarry, was the first man who shipped a beast from Aberdeen to London; his venture was two Angus polled oxen. The late Mr Hay, Shethin, was the first who sent cattle by rail from Aberdeen; his venture was a truck of Highlanders.

The shipping of cattle gradually and rapidly increased, and soon became a great trade from our

ports, many sailing-vessels, as well as steamers, being brought into requisition. Lean cattle were sent by sea instead of road. We had at that time no railway, and the expense was heavy. On a fat bullock it was from £2, 10s. a-head to £3 by steamer; by the sailing-vessels, however, it was only about £1, 10s. a-head. Sometimes they made quick passages, but this was uncertain; and I have known them a month at sea. I have seen the same cargo of cattle driven back to Aberdeen two or three times. I have been in the hold of the vessel when they were driven back, and shall never forget the scene when the buckets and water were brought forward; you would have thought the ship would have rent asunder by the struggles of the cattle to get at the water. I have sent cargoes of lean cattle by sailing-vessels to Barnett, Woolpit, &c. I have had them driven back after being days at sea. It was while inspecting one of these cargoes that I witnessed the scene of watering I have described. I lost money by that branch of my business, and I gave it up. Although the loss by deterioration of condition must have been great, it was astonishing how few deaths occurred in the sailing-vessels; the proportion was greater in the steamers. A year seldom passed without the shippers having heavy losses. I was owner of part of the cattle when every beast on board the Duke of Wellington, except three (one belonging to me, and he had to be carted from the boat, and two belonging to Mr Farquharson of Asloun), was either thrown overboard or smothered in the hold. The sailors told that a blackhorned Bogieside ox, belonging to Mr Hay, swam for several miles after the ship. I have made inquiry of the cattle-man as to the scene in

the hold of a steamer in a storm amongst the cattle. He said, "I went once down to the hold amongst them, but I was glad to get back with my life; and although you had given me the ship and all upon her, I would not have gone back." He declared that, though you had set a hundred men with heavy flails in operation at one time beating upon the side of the ship, it would not have been worse than the legs of the cattle beating upon each other and all within their reach.

The owners of the Aberdeen steamers have always been anxious to accommodate their customers; and about twelve years ago they raised an insurance fund for the protection of the shippers. They laid past one shilling for every beast they shipped to meet deaths and accidents, and they have most honourably paid the losses incurred by the shippers of cattle. It is a good arrangement for both parties; it gives confidence to the shippers, and no doubt has a tendency to make the owners more careful in not sending their ships to sea if danger is apprehended. The cattle go well by sea when the weather is moderate, but in rough weather they are safer by rail. The above description will give some idea of the hardships the poor beasts endure in the hold when overtaken by a storm. I have seen my own cattle, after they were taken from the hold of the steamboat at London, so changed in appearance that I could not identify them, and could not tell whether they were black or grey. I should most seriously advise the Railway Company to adopt some method of insurance, to avoid the unseemly squabbles that are daily occurring with the senders of live cattle and dead meat. It is not my province to make any remarks on the late rise of the freight

on cattle by the Steamboat Company and the Railway. The matter is in their own hands; but I think conciliation, owing to the present state of feeling, might have been their wisest policy; however, we will allow them to be the best judges. It will now be our study, for our own protection, to exert our influence in the proper quarter to have our grievances removed. The method of transit is an important subject to the owners of the cattle, to the landowners, and to the consumers. I have no doubt whatsoever that a legislative enactment will make all right by-and-by. I cannot leave this subject without noticing Scott, the cattle-traffic manager of the Caledonian Company at Aberdeen, and John Henry, the cattle-traffic manager of the Aberdeen and London Steam Navigation Company—men who deserve to wear a better coat, and who have done everything in their power for the interest of the senders of cattle. I believe there is difficulty in avoiding causes of complaint at all times where there are so many servants, and the senders of cattle are sometimes themselves to blame. I have never myself lost a beast by rail; I prepare my cattle for their journey before they start from home. My heavy cattle are turned out three different times at least before they are sent to rail. I walk them in a lea field: the first day they are put out four hours; I then give them a day to rest; turn them out again on the second day and increase the distance, and they come quite fresh out of the trucks at London. What can an owner of cattle expect but that some will go down if he take his cattle six, eight, or ten miles without their ever having left the stall for five or eight months before, and put them on to rail? Many hundreds of good oxen have been

lost in this way, or crushed and bruised. Cattle when tied up are kept in an unnatural state; they often take founder when at the stall as a consequence, and sometimes paralysis; but such moderate exercise as I have described tends to bring them back to their natural state. I have often been asked the question by those who had seen my Christmas market cattle—"How is it that your beasts are so good upon their legs compared with others?" The first day after the cattle are put out for four hours they will not look so well, and will return to the stalls very much fatigued; but on the second and third days of their exercise they will recover their wonted appearance. They will walk eight or ten miles in a morning and go fresh into the truck, and on reaching their destination will come out and stand well up in the market.

Founder generally yields to bleeding and two or three doses of salts with sulphur and ginger: I never saw this treatment fail. Paralysis is a more serious matter: in that case the firing-iron must be applied, and after the most skilful treatment the results are often very unsatisfactory. Cattle of all ages that are confined are liable to paralysis of the hind quarters; the complaint, however, is most prevalent among young bulls, and although removed, they generally lose from six to twelve months' growth. Cattle that have been confined to the stall, and even straw-yard cattle, are utterly unfit for the road, on account of the softness of their hoofs, and when put to it at once, are very apt to take paralysis if not carefully prepared by previous exercise. A certain season of the year is more especially to be guarded against—viz., from the middle of March to the middle of May. Cattle that

have been two weeks at grass may, however, be safely droved.

Every one who has been in the cattle trade will recollect the losses he has sustained in spring, in the transit of cattle, by the animals throwing their hoofs; and we can all remember how often we have seen our beasts, especially in dry warm weather in spring, lying on the roads, and how we had to cart them home or to the nearest slaughtering shop. It there be a separation of the hoof at the top from the skin, and if a white frothy substance oozes out at this break, it is a sure sign that irreparable injury has been done. The beast will pine on for six months, and at last throw the old hoof when a new one has grown up. This is a more teasing case to the owner than when the hoof is thrown at once. The animal should be slaughtered immediately, if at all in condition, as it will not only lose condition every day till the hoof comes off, but be a bad thriver ever after. Five or six miles of bad driving at this season is enough to do the whole business. If cattle should cast their hoofs, or even one hoof, suddenly, if at all in condition, they should also be slaughtered without delay, as they will pine for six months and be a daily grievance to the owner. If it be a young or valuable breeding animal, however, it should be bled, and get two or three doses of cooling medicine to remove the inflammation; then soiled in a loose-box, and his feet well bound up with tow and tar. If animals are not slaughtered, I would recommend soiling in all cases, if possible. But "prevention is better than cure;" and all this can be avoided if we will only take proper precautions. I shall state the method I adopt in my practice, and I have paid dearly for my experience. I generally buy a good

many beasts in spring in Morayshire, and sometimes winter a lot or two there. Until within a few years we had no railway conveyance, and the cattle all came by road. Before the time appointed for lifting the cattle, I sent across three or four able-bodied men who were acquainted with the dressing of the feet. Beginning their operations at the most northern point of the county, and going from one farm to another where the cattle were wintered, they dressed every hoof of every bullock that required it. By dressing, and by the proper training of the cattle before starting, I have brought home thousands of them safe and sound. Proper attention was no doubt paid to the droving, the men who had charge of them being trained to the occupation. Short stages and plenty of food are indispensable to their safe arrival. It is of great importance, in order to cattle thriving upon grass, to have their feet properly dressed; and many of our careful farmers have their cattle's feet dressed every year before they are put out to grass, even although they are not sent from the farm. The general method adopted in dressing is to take up the leg with a rope run from the couple; this, however, must be a severe strain on the beasts. The method I adopted when I was in the lean-cattle trade was different: the bullock was driven to a wall; a man, or two men, secured him by the nose and the back of the neck. The fore feet were easy to hold up—one man could generally manage them; but the hind feet were not so easy a matter, and it always required two, and sometimes three, strong men to hold them up It is done entirely by method: not allowing the beast to stretch out his legs is the whole secret. The bullock has no power if his legs are kept close to

his hind quarters; but if he is allowed to stretch them out, he will throw off any number of men. Two men, one on each side, put their backs close to the hind quarters of the bullock, and keep in his leg, not allowing him to strike it out. There he is fixed; and the topsman, who is generally an adept at the business, dresses the foot.

Before the introduction of railways shoeing was sometimes required, but more frequently in autumn than in spring. In bad weather many of the cattle had to be shod, else they never could have performed their journeys. In wet weather their hoofs wore through to the sensitive parts, and they got lame; but when properly shod, they immediately recovered and took the front of the drove. The following may appear incredible, but it will show the proficiency some men attained in the art. Robert Gall of Kennethmont on one occasion shod seventy cattle to me in one day, near Perth, and no rope ever touched them in the field. It should, however, be remembered that cattle, after being driven a distance, get more easily handled. Robert Smith, one of the few of the old race of drovers now alive, and who is still in my service, assisted in this great performance. I should explain, for the sake of the general reader, that the inside hoof of the fore foot is generally the first to wear through. Many of the cattle had only one or two hoofs shod, others perhaps three or four, and an exceptional beast would have every one of the eight done. The shoes were made at the Crossgates of Fife; they were sent by coach to different cattle stations, and the men, by rotation, had to carry a supply upon their backs. It may seem a strange fact that no other blacksmith could make nails equal to those

made at the Crossgates. The men would not hear of any others; they said they would not drive. The Crossgates blacksmith not only supplied the Scotch drovers, but also the English lean-cattle jobbers.

As to fat cattle for market, after they are trained, they should not go a yard except by rail or steamboat. As to trucking store cattle, this must be regulated entirely by the season of the year and the weight of the cattle, &c. I have always had a reluctance to truck store cattle if I could possibly avoid it, not only for the expense, but for the risk incurred from dirty and infected trucks. I would recommend, if the cattle have a distance to travel in March, April, and May, and until they have been fourteen days at grass, that they should be trucked. But I have often been astonished at the recklessness of farmers buying cattle in a fair, going straight to the nearest station, and turning them into any dirty truck they can get—(when are trucks other than dirty?) The danger is great; despite the utmost circumspection, even the most careful may sometimes be caught. If those who act so escape, it is not owing to their good management. I would recommend my friends, when they go to a fair for the purpose of purchasing cattle, to take a confidential servant of their own along with them, or else make it a part of the bargain that the owner keeps the cattle for a certain time, till the buyer can get the trucks properly cleaned—which I find no difficulty in getting done—so that before they allow their cattle to be trucked they may be satisfied the trucks are thoroughly cleaned. They should be washed over with chloride of lime, or, what is still better, given a fresh coat of paint. Three to four shillings will paint a truck; that is a small matter—say

sixpence a-head; but care must be taken that the paint is dry before the cattle are put into the truck, else the beasts will be poisoned. If this is neglected, there is great risk of bringing home foot-and-mouth disease, or even the lung disease. Some say that it was impossible to attend to such an operation—that business called them home, and that people would not take home their cattle. I have never found any difficulty in my own experience; but I must allow that some sellers are too distant to send the cattle home. In such an emergency the beasts should be laid past upon a little hay or straw for a day in the neighbourhood; there is always a field to be had, or the market green. What is a day, or a man or two, and a night's hay, if your beasts come safe? Disease has been carried in this way to hundreds of steadings, and the results have been most disastrous. The day's rest will be a great advantage to the cattle after the fatigue of standing in the market. The main object with store cattle should be to keep them sound on their feet and free from disease. If their transit is to be by rail, the quality of their food for a day or two is of minor importance; they will soon recover.

It would be foolish to truck store cattle after they have been at grass for a few weeks. Their feet get hardened, and in the end of May, and in June, July, and August, there is no risk of injuring the beasts by driving in easy stages from ten to fourteen miles a-day. At that season cattle can hedge it; they will live almost on what they pick up on the road-sides as they go along. Your cattle arrive safe and sound, and free from all trouble and risk as respects trucks.

In the dead-meat trade there has now sprung up

a new trade and almost a new race of men. The quantity of dead meat sent from Aberdeen regulates the Newgate market. Mr Bonser, the great dead-meat salesman, states in his evidence before a committee of the House of Commons, "that there are no others that know the beasts for the London market equal to the Aberdeen butchers, and from no other place does it arrive in the same condition; and this may be owing to the cold climate." Mr Wilson of Edinburgh put the question to the Chamber of Agriculture, "What is the reason that the Aberdeenshire cattle proved better and carried more good flesh than any other cattle?" Mr Wilson's question is perhaps not very easily answered, but I should give as some of the reasons the following:—The Aberdeenshire farmers have turned their attention almost exclusively to the breeding and feeding of cattle. They have continued for a long period, without regard to price, in many cases, to introduce the best blood into their herds. By a long-continued infusion of first-class animals, and weeding out inferior animals, they have established a breed unequalled for meat-producing qualities in Britain. The Aberdeenshire turnips have been proved by analysis to be of a very superior quality, and it is likewise a good grazing county. Another point is the great attention paid to calves after weaning, and not allowing them to lose the calf-flesh, which, if lost, can never be regained. But the indomitable perseverance of the farmers in selecting good and weeding out inferior animals is, I think, the main cause.

It will be seen by the following table that the dead-meat trade has become one of the great institutions of the country. There are hundreds engaged

in the business, and it is yearly increasing. Amongst the greatest senders are Messrs Butler, Skinner, Wishart, and Wisely, and White of Aberdeen; but a great deal of dead meat is also sent from the rural districts. When the supply is short, some of our most enterprising butchers attend the Glasgow market, bring down cattle, and slaughter them in Aberdeen, and send their carcasses to London. I have known Mr Butler bring down fifty in one week. The following table shows the number of cattle and tons of dead meat sent to the London and other markets during 1865 and the six previous years; it also shows what was sent by rail and sea respectively:—

	Cattle.		Dead Meat.	
Year.	Rail.	Sea.	Rail.	Sea.
1859	13,130	7,282	6,905 tons.	48 tons.
1860	13,993	3,782	5,769 „	53 „
1861	8,852	8,324	8,041 „	127 „
1862	6,281	4,518	9,392 „	76 „
1863	9,623	4,163	9,395 „	58 „
1864	7,624	3,551	9,840 „	2 „
1865	9,031	4,558	10,074 „	61 „

Taking the year 1865, there were 10,074 tons of dead meat sent by rail, and 61 tons by sea. Calculating that 6 cwt. was the average weight of the cattle, this will show that 33,783 cattle were sent away from Aberdeen as dead meat, against 9031 live cattle by rail and 4558 by sea, so that 20,194 more were sent away dead than alive. The live cattle would weigh 7 cwt., or 1 cwt. more than the dead.*

* Since the amalgamation between the Caledonian Railway and the Scottish North-Eastern took place, the returns of cattle and dead meat sent to London and elsewhere have not been given to the public. The Caledonian Company refused repeatedly to give them, and when pressed by myself, offered to let me have access to the accumulated pile of forwarding-

I have stated that almost a new race of men has sprung up within the last forty years. Very few are now alive that were prominent in the cattle trade at that time; there are, however, some alive that I may name: Mr Anderson, Pitcarry; Mr

notes for the last four years! The following valuable statistics, compiled by Mr James Valentine, Aberdeen, show that the proportion of dead meat sent to London is on the increase:—

1. The *cattle and dead meat sent by sea* during the past three years stood:—

Year.	Cattle. Number.	Dead Meat. Tons.
1866,	5483	499
1867,	2770	487
1868,	6313	380

2. *Of dead meat booked "through" per Great North of Scotland Railway,* the amount for five years was:—

Year.	Tons.	Year.	Tons.
1864	1848	1867	3414
1865	2874	1868	3544
1866	3346		

3. The number of *cattle-hides* passing through the hands of the dealers in Aberdeen during 1867 was, in whole, 49,181. In 1868 the number was 42,115, besides 13,167 from the county, and 3125 from Kincardineshire. If we set down each animal slaughtered at 6 cwt., this would give a total of 17,500 tons; or, deducting the town's consumption (say 2500 tons), 15,000 tons sent south for the year. Probably, however, though hides to this amount dealt with in Aberdeen, represent meat as stated, part of the meat may be included in the category "booked through per Great North." Supposing, therefore, that the whole amount of dead meat despatched from Aberdeen from every quarter, in 1868, was 15,000 tons, we may assume that, in addition, 7500 cattle were sent south. The tendency of late years has undoubtedly been to send fewer live stock and more dead meat to the London market, and also to send more cattle by sea and dead meat by rail.

Lumsden, Aquhorthies; and Mr Stoddart, Cultercullen. These must always hold a prominent position in the cattle trade of Aberdeenshire, as Mr Anderson was the first man that shipped cattle from Aberdeen, and Messrs Lumsden and Stoddart distinguished themselves in Aberdeenshire as two of our best judges, and were amongst the first to see and take advantage of steam communication. They are now the oldest of the Aberdeen shippers of cattle. They were some of the first to develop and mature that system of feeding which has made Aberdeenshire celebrated through Britain. The Aberdeen butchers have a higher standing than can be claimed by their brethren in any other part of the kingdom. The butchers in other cities are generally only purveyors, and never dispute the honours of the show-yard with the grazier or breeder. They buy their weekly supply at their weekly markets; but many of the chief Aberdeen butchers do not depend up on the market for their supplies, but feed large lots of fine cattle and sheep themselves to meet emergencies, upon which they can fall back. They do more than this; they are the largest and most successful exhibitors at our great annual fat shows. They are not only great purveyors themselves, but they supply a good proportion of the Christmas prize animals to the chief butchers of London, Birmingham, Liverpool, Newcastle, York, Darlington, Edinburgh, Glasgow, &c. The names of Martin, Stewart, Knowles, &c., are celebrated not only in Great Britain, but in France. Such men are public benefactors, and entitled to the gratitude of their country. Messrs James and William Martin (butchers to the Queen) kill and retail 40 beasts and 100 sheep weekly. Messrs Knowles, Stewart,

and Milne, have grand retail trades, but Mr White perhaps retails as much as, if not more than, any of them. It is a great sight to see the display of meat and the immense crowd of purchasers in his shop on a Friday forenoon. Mr White is a man who has raised himself to the highest position by his steadiness and persevering energy. He is one of those men who cannot be kept down.

These butchers are also great senders of live cattle to London. At the great market they stand pre-eminent. The Messrs Martin, who stand at the top, send as many as 100 or 150 cattle, worth from £35 to £50 a-head. Messrs Stewart, Knowles, Wishart, and Wisely, &c., send yearly splendid lots. Messrs Wishart and Wisely, as feeders and dealers, are gradually drawing to the top. They feed a great many superior cattle, and put an immense number through their hands. Many of them they send alive to London, but they also send an enormous quantity of dead meat. No men in the trade know their business better. Mr Martin, however, must still stand at the top. As an example, I may mention that he exhibited a four-year-old Highlander at Birmingham, London, and Liverpool in 1868, which gained the first prize at each of these places. His head now adorns Mr Martin's shop in New Market, alongside of the royal arms, the firm being butchers to her Majesty. It is a perfect model of what the head of a Highlander should be. Deacon Milne, however, surpassed them all for several years, if not in numbers, in the quality and value of the animals he forwarded to the great Christmas market. For several years Mr Skinner, Woodside, has sent about 100 valuable animals to the Christmas market. He is one of the greatest

senders of dead meat, and he also feeds a large lot of bullocks. To speak of all the senders of dead meat, butchers, and jobbers, in the city and the provinces, would be a hopeless and an endless task. I believe there cannot be fewer than 500 in Aberdeenshire alone; and, long as I have been connected with the cattle trade, I could not name one in ten.

I have briefly noticed the cattle trade in connection with the Aberdeen butchers: let me now glance at the shippers and jobbers of the provinces, as it is from them that the raw material is furnished. The following remarks apply to Aberdeen, Banff, and Moray shires: our provincial jobbers are a host in themselves, and are a very heterogeneous multitude; from the man who can pay thousands, through all the intermediate stages, down to the man that buys a beast and cannot lift it unless he can sell it there and then for a profit. We have a large class of the first, who can not only pay their hundreds but their thousands. We have an intermediate class that job, generally occupiers of two and four horse farms. There is no end to their peregrinations, toil, and industry; in summer, in winter, in fair and foul, by night and by day, by moonlight and by starlight, they scour the country, and collect cattle from all points of the compass, and sell them at the fairs to farmers, butchers, and dealers. We have also the dealer of smaller pretensions, who can only afford to buy a beast or two, which he drives to market himself; such a beginning, however, I have known end in becoming the proprietor of £25,000 worth of landed property. We have the cow-jobber, and it is sometimes a very lucrative business; many have been very successful in the trade. Mr Forrest was a cow-jobber: he rented all the grass land

round Hamilton Palace for many years from the Duke of Hamilton. He bought nothing but cows, and it was said he would ride 100 miles to buy a farrow cow. He died worth a fortune, and proprietor of a good estate. We have the jobber who buys only lean store cattle, and the jobber of fat cattle alone. Banffshire can claim a Stoddart, and Morayshire the two M'Kessocks, the Laird of Ardgay, and the tenant of Balnaferry; and I do not know which to admire most, the daring and skill of the laird, or the caution and skill of the tenant, Macdonald of Blervie, through whose hands three-fourths of the store cattle in Morayshire pass. We have in Aberdeenshire Mr Reid, Greystone, in the Vale of Alford; Mr Stoddart, Cultercullen; the Messrs Bruce in Alford, Clova, and Strathbogie; and Mr Mennie of Huntly. Mr Reid, Greystone, has attained the highest position as a feeder and grazier amongst British agriculturists. His stock have for many years taken a most prominent place at our national shows at London, Birmingham, Liverpool, York, Newcastle, Leeds, Edinburgh, &c. &c.

IV. BLACK POLLED ABERDEEN AND ANGUS CATTLE & SHORTHORNS.

It is not my purpose to treat of shorthorns: I may, however, glance at some of the principal breeders of that kind of stock in the north. Mr Alexander Hay, Shethin, was the first who introduced shorthorns into Aberdeenshire. He bought the celebrated bull "Jerry" from the late Mr John Rennie of Phantassie; and he was the first shorthorn that crossed the Dee. I should have mentioned his brother, the late William Hay, Shethin, the celebrated breeder of shorthorns, and one of the greatest feeders in the north. He was the first man in Aberdeenshire who gained a prize at the Smithfield Club Show, the animal being a Hereford ox; and he was also the first that sent cattle by railway to London. He and the Messrs Cruickshank, Sittyton, had everything their own way in the show-yard for years. The late Mr Grant Duff of Eden was one of the greatest and most systematic breeders of shorthorns in the north. He paid 170 guineas for "Brawith Bud," and she made his "herd's fortunes." He astonished the country by his crosses between the shorthorns and West-Highlanders. He was dead against the system of forcing for the show-yard.

Foremost among eminent breeders of shorthorns

in the north at the present time are the Messrs Cruickshank, Sittyton. Their fame is European; they own the largest herds of shorthorns in the world. It is only necessary to name "Fairfax Royal," "Prince Edward Fairfax," "Velvet Jacket," "Matadore," "Lord Sackville," the "Baron" by "Baron Warlaby," "Master Butterfly," the "2d John Bull," "Lancaster Comet," "Lord Raglan," "Ivanhoe," "Lord Garlies," "Malachite," "Windsor Augustus," "Sir James the Rose," and last, though not least, "Forth"—to show the distinguished position their herd has taken. Suffice it to say that no other breeder of shorthorns can claim having owned such an array of first-class bulls. Amongst the eminent breeders of shorthorns, Mr Campbell, Kinellar, occupies a distinguished place. I believe no one is a better judge of shorthorns, and no other has been more successful as a breeder. Mr C. began to breed this class of stock about twenty years ago, and "Lord Scarboro'," "Mosstrooper," "Beeswing," "Garioch Boy," "Scarlet Velvet," and "Diphthong," are some of the celebrated bulls that have been introduced into the herd. "Scarlet Velvet" and "Diphthong" gained the Aberdeenshire challenge-cup in 1862-63. At his annual sales his bull calves bring high prices; for some as much as sixty, eighty, and a hundred guineas each have been paid. His stock has for years taken a high position in our show-yards. Mr George Shepherd, Shethin, who succeeded his father-in-law, Mr Wm. Hay, had one of the largest herds of shorthorns, which were mostly sold off some years ago. Mr Shepherd's herd was of the highest blood, and won many prizes. The bull "Cherry Duke the Second," bred by Mr Bolden and bought by Mr Shepherd, jun., from

Mr Atherston, was invincible. After gaining every prize in the north and the challenge-cup at Aberdeen, he finished his honourable career as a prize-winner at Edinburgh, when, in 1859, he took the first prize in the aged bull class. Mr Milne of Kinaldie is an eminent breeder of shorthorns; he has distanced all other competitors with his cows. Mr Marr, Uppermill, has got some of the very best shorthorns in the country; and his brother Mr Marr, Cairnbrogie; Mr Scott, Glendronach; Mr Bruce, Broadland; and Mr Mitchell, Haddo—are all eminent breeders of shorthorns. Their bull calves command high prices at their annual sales. In Banffshire we have that veteran and successful breeder, Mr Longmore, Rettie, whose stock has long borne a high character. In Morayshire we have two eminent breeders—Mr Geddes of Orbliston and Mr M'Kessock, Balnaferry, who have everything their own way in the show-yard north of the Spey. Mr Geddes stood at the top of the Highland Society's prize-list at the Inverness show as the owner of the best aged shorthorned bull, and was a winner along with Mr John M'Kessock in the class of shorthorned heifers. Mr Stronach of Ardmellie was a successful breeder of shorthorns. He sold off his stock some years ago. His farm was only 100 acres, but his stock fetched high prices. One yearling quey brought £54, and a cow £53. The proceeds of the sale amounted to about £1000—a large sum, considering the smallness of the farm. Mr Stronach was for many years a successful competitor at the local shows, and sold a cow to Mr Cruickshank that carried the first prize at one of the Highland Society's shows at Aberdeen. Mr Stronach crossed the yellow Highland cows and heifers with shorthorn

bulls, and the result was very successful. Mr Stronach was also an exhibitor at the Paris show.

I have only glanced at the breeders of shorthorns in the north; in conclusion, I may notice some of those noblemen and gentlemen who have distinguished themselves as breeders of Aberdeen and Angus polled cattle. Among these the late Hugh Watson, Keillor, deserves to be put in the front rank. No breeder of polled Aberdeen and Angus will grudge that well-merited honour to his memory. We all look up to him as the first great improver, and no one will question his title to this distinction. There is no herd in the country which is not indebted to the Keillor blood. For many a long year Mr Watson carried everything before him. He began to exhibit in 1810, and won during his lifetime some 200 prizes for cattle, sheep, and cart and thoroughbred horses. The heifers which he exhibited at Perth in 1829 were greatly admired; and the Smithfield heifer of '29 was so good that she was modelled, and her portrait is in the volume 'Cattle' of the publications of the Society for the Diffusion of Useful Knowledge. He gained the Pureell challenge-cup at Belfast for an Angus ox, which was kept by the Prince Consort at the Royal Farm, Windsor, till his death, when his age was seventeen. As an example of the longevity of the race, Mr Watson's celebrated cow, "Old Grannie," the first cow in the Polled Herd Book, died at thirty-five years of age. Mr Watson bred many celebrated bulls, but "Old Jock" was *facile princeps*. He carried everything before him, and in 1844 was sold for a hundred guineas—a large price at that time. To "Angus," who fell into my hands, I am indebted for some of the best blood in the male line.

Mr Watson also bred "Strathmore," "Windsor," "Pat," and "Second Jock," which last beat all the bulls in a sweepstake at Perth in 1852, after he was thirteen years old.

Mr Bowie, of Mains of Kelly, has been a most successful and energetic breeder of polled cattle. To him I am indebted for "Hanton," who, with "Angus" and "Panmure" in the male line, were my "herds' fortunes." He also bred "Cup-Bearer," who did so much good for Lord Southesk's herd. "Second Earl Spencer" and "Cup-Bearer" were 1st and 2d prize bulls at Berwick. At our national shows Mr Bowie has been the most successful prize-taker in the Bull classes. Where he has exhibited he has generally carried the first honours. At Aberdeen, at Berwick, at Dumfries, and at the Royal Agricultural Society of England, his bulls were invincible. It is most deeply to be regretted that the plague got into his stock, and he has sustained a heavy loss. Still he came out better than any of his neighbours. He saved twenty-three cattle; and his herd will, I trust, in a few years attain its wonted position. I have drawn, at one time or another, largely from Mr Bowie's stock, and have paid him high prices—as high as a hundred guineas for bulls, and forty, fifty, and sixty guineas for females. Mr Bowie is one of the best judges of Aberdeen and Angus cattle in Scotland.

Lord Southesk was one of our most enterprising breeders of polled stock; and before the plague decimated his fine herd last year, it was almost the best in the land. There has been a herd of pure Angus cattle at Kinnaird for fifty years; but when his lordship succeeded to the property it got a fresh start. He introduced "Cup-Bearer" by "Pat" from

Mr Bowie's herd, and he did good service. The well-known "Druid," of show-yard celebrity, was descended from "Cup-Bearer" and from "Dora," bred to Mr Ruxton of Farnell. "Windsor" was afterwards introduced. He was bought from George Brown, Westerton of Fochabers, for two hundred guineas, and took the first prize at Edinburgh in the aged bull class; the silver medal to the breeder came to Tillyfour. He was carried off by the plague, at nine years of age, last winter at Kinnaird. "Druid" was a great prize-winner, and gained more than £100 in his different journeys, and a host of medals. The Kelso heifers were very superior, and "Quadrona" gained the first prize at Smithfield in the female polled class. It is deeply to be regretted that Lord Southesk's fine herd suffered so heavily by the rinderpest. This has been indeed a national loss. Lord Southesk spared no expense in purchasing the finest animals, and had an able assistant in his brother, the Hon. Charles Carnegie, M.P., who is not only a good judge, but knows the pedigrees of the different polled herds better than any other man.

William Fullerton, late of Mains of Ardovie, now of Mains of Ardestie, was a celebrated breeder of Angus cattle; but pleuro-pneumonia got into his herd, and he lost no fewer than eighty cattle by the disease. One bull that recovered was good enough to go to Glasgow and take the first prize in the aged bull class. His bull "Panmure" gained the first prize at the Highland Society's Show at Dundee in the aged bull class, and Mr Fullerton also carried off the prize for the three best cows. "Panmure" was sold to the late Mr Taylor, Wellhouse, Alford, and some of my best stock trace their descent from

"Panmure." The late Lord Panmure sent the late Mr Phillip, the great painter, to Wellhouse, to take the bull's portrait. Not satisfied with Mr Phillip's first sketch, he sent him back; and Mr Phillip lived at Wellhouse for weeks, and painted "Panmure" a second time. Mr Fullerton is one of our best judges, and to him I am indebted for my best stock in the female line. It was at his sale I purchased the "Queen," whose descendants in the female line have, except in two or three solitary cases, driven competition before them in Scotland, England, and France. Many of my best stock trace their pedigree from the "Queen."

The Ballwyllo herd have long been celebrated, and were a tower of strength at the Angus Agricultural Society's shows. The late Mr Robert Scott was a most enthusiastic and successful breeder. The prizes gained by the Ballwyllo herd were very numerous. At Aberdeen, in 1847, Mr Robert Scott gained the first prize for a cow from the Highland Society; and at Windsor, in 1851, he gained the first prize in the cow class for the same animal, which was bred at Tillyfour. He also gained the first prize in the aged bull class at Perth, and the first prize in the yearling heifer class. Both animals were bred at Ballwyllo. The Ballwyllo stock have taken a prominent place at Dumfries, and at the Royal Northern Agricultural Society's shows. Since Mr Robert Scott's death, Mrs Scott, his mother, has most enthusiastically stuck to the Angus Doddies; but it is a matter of deep regret that she also was a severe sufferer by the rinderpest.

Mr Mustard, Leuchland, is a very old breeder, and I believe no purer stock exist in Forfarshire. Mr Mustard never forces his stock for the show-

yard, and seldom sends any except to the county show, where they are always winners. I have often admired the purity, style, and condition—as it ought to be in a breeding stock—of the Leuchland herd. Mr Lyell, of Shielhill, brother of Sir Charles Lyell, has a very good herd of polled Angus cattle. His bull "Prospero" gained the first prize at Perth in the two-year-old class, and at Battersea Park he won the first prize in the aged bull class. Mr Leslie of the Thorn is also a most successful breeder. He came out so strong at Stirling that he beat all and sundry for yearling bulls, and followed up his conquests by selling "President the Fourth" at an almost fabulous price.

From Angus we come north to Kincardine, and we there find the celebrated breeder since 1826, Mr Robert Walker, Portlethen. It would be endless to attempt to sum up his victories, local, national, and international, they are spread over such a large surface. Mr Walker was a most successful competitor at the International Show at Paris, and refused £230 for his prize bull. His bull "Porty" was sent to Inverury, and took the first prize. There was no Aberdeen show at that time. "The Banks of Dee" carried everything before him, and his descendants gained seven firsts and a second in one year in the show-yard; but although Mr Walker had never bred another animal save "Fox Maule," his celebrity as a breeder would have been established. "Fox Maule" was one of the best polled bulls ever exhibited. Mr Hector, late in Fernyflat, was a very celebrated breeder of polled cattle, and his stock was of the very highest order, and gained many prizes at our national shows. The Crathes stock is of long standing. The late Sir Thomas Burnett was a most suc-

cessful breeder, and stood in the front rank for many a long year. The Crathes herd was a tower of strength, and under the able management of Mr John Davidson they were dangerous antagonists. I have had many encounters with them in the Aberdeen show-yard, and have got soundly beaten. "The Banks of Dee," mentioned above, was the most celebrated bull of his day, and took the first prize wherever he was exhibited, local and national. Sir Thomas had his portrait taken and engraved. The prizes gained by the Crathes stock count by the hundred. On the lamented death of Sir Thomas Burnett he was succeeded by his brother, Sir Alexander Burnett, who kept up the stock; and at his death he was succeeded by the present proprietor, Sir James Burnett, who has added drafts from the best stocks in the country. There is no doubt the Crathes herd will remain true to its ancient fame.

In Aberdeenshire the breeders of polled cattle are very numerous, but we shall only mention a few. William M'Combie, of Easter Skene, has always stuck to the polled breed, and his stock have been conspicuous as prize-takers. His cow, "Queen of Scots," beat Lord Southesk's "Dora" and ten other fine cows in 1853, and "Roderick Dhu" gained the first prize the same year, while "Alastor the Second" beat "Fox Maule" at Aberdeen—the only time that animal ever was beaten. One ox I purchased from Mr M'Combie gained the first prize at Glasgow at the last fat show held by the Highland Society.*

* Mr M'Combie has taken a very prominent position since the above was written. At the Highland Society's show at Aberdeen he gained the first prize for the best yearling bull, the first prize for the best two-year-old bullock, and other prizes.

Colonel Fraser, of Castle Fraser, has also stuck to the Aberdeen and Angus polled cattle. His stock take a prominent place at the Royal Northern Agricultural Society's shows.* They are not pampered for show-yard purposes, but he has bred from the best blood, and his stock always take a good place where exhibited. In the Garioch, as a breeder of polled cattle, Mr Stephen, Conglass, stands pre-eminent. The Conglass stock have been handed down from father to son, and the son has not allowed them to lose their position. Mr Stephen gained the Fat challenge-cup by a three-year-old ox, bred to himself at Aberdeen in 1864. At Poissy he carried off the first prize for the best heifer, beating all and sundry.

In Banffshire, Mr Walker of Montbletton is the most celebrated breeder. He has twenty breeding

* Since the first edition of this book was published, Colonel Fraser's stock has taken a leading position. At the Royal Northern Agricultural Society's show in 1867, he gained the Polled challenge-cup. The cup has to be gained for three successive years by the same party, and with different animals, before it becomes his property. I had gained it the two preceding years, and it was now fairly within my grasp. It was my last asking, but it was dashed from my lips, and went for the time to Castle Fraser, instead of going to Tillyfour for ever. Colonel Fraser likewise gained the first prize for the same cow at the Highland Society's show at Glasgow in 1867; and again carried first honours with a younger cow at the Highland Society's show at Aberdeen last summer.

Mr M'Combie of Easter Skene's farm-manager has great merit by his indefatigable exertions in bringing up the Easter Skene stock to its high position. He is an old and respected servant of my own, and nothing gives him so much satisfaction as to beat his old master. Mr Hampton, manager for Castle Fraser, deserves equal credit for his unwearied exertions in improving the Castle Fraser stock.

cows, and has carried almost every medal and prize at the Banff and Turriff shows for polled cattle, as well as many of the highest prizes at the Royal Northern and Highland Society's shows.

In Morayshire we have Mr Brown, Westerton, who is well known as one of our best judges of polled cattle. Mr Brown's herd came first prominently into notice at the Highland Society's show at Inverness in 1856, when he carried off the highest honours for heifers, and was second to "Hanton"—who never was beaten but once—in the aged bull class. At the Highland Society's show at Aberdeen, he was first with "Windsor" in the two-year-old class. Mr Brown's skill was tested as to the purchase and sale of "Windsor;" he bought him from me as a calf in low condition, under £40, and sold him to Lord Southesk for 200 guineas. At Elgin, at Aberdeen, and at the Highland Society's shows, Mr Brown was a most successful competitor. But at the Dumfries show, Mr Brown, Mr Collie, and myself got pleuro-pneumonia into our stock, and it decimated Mr Brown's valuable herd. Mr Brown's character as a judge stands in the front rank with the breeders of Aberdeen and Angus stock, and he has often been put on to act in that capacity by the Directors of the Highland and Royal Northern Agricultural Societies.

Mr Paterson, Mulben, is a great and fortunate breeder of polled stock. Mr Paterson commenced to breed in 1846. His celebrated "Mayflower" was the first-prize cow at the Highland Society's show at Perth in 1861; "Malcolm" was first at Elgin and Aberdeen, and second at Perth; and "Prince of Wales," bred to Mr Brown, Westerton, was first at Aberdeen in 1862, and first at the Highland Society's show at Stirling. It would be a hopeless as well as

an endless task to record Mr Paterson's victories at the Highland and Royal Northern Societies' shows at Elgin, Aberdeen, Banff, Huntly, and Dufftown, where he has often got everything his own way.

Mr John Collie, Ardgay, was a celebrated breeder, and was one of the most dangerous men to face in the show-yard I have ever encountered. He gave me a sound drubbing at Edinburgh in the Cow class, and beat me for a first place out of my own kennel with "Fair Maid of Perth," which he bought from me at 81 guineas; but not satisfied with that, he took a second place with "Mayflower," bred to Mr Paterson, and left me with the bronze medal for my cow prize. I am indebted to Mr Collie for some of my best animals — viz., "Zara," the second-prize heifer at Battersea, and "Kate of Aberdeen," out of "Zara," and many others. He has been a very successful exhibitor of stock, and has distinguished himself at Elgin, Aberdeen, the Highland Society's shows, and the great International Exhibition at Paris. The ox I gained the Smithfield prize with in 1864 was bred to Mr Collie.

Perhaps the Ballindalloch herd of polled cattle are the oldest in the north; they have been the talk of the country since my earliest recollection, and were then superior to all other stock. The herd has been kept up to its wonted standard, and even raised higher, by the present proprietor, Sir George Macpherson Grant, of Ballindalloch and Invereshie, by selections from the best herds in the kingdom. Coming fast into notice is the Drumin herd; it consists of about twenty cows and their followers. Mr Skinner has improved his stock by drafts from the best herds in the country. He never forces for the show-yard, but his stock have been very successful

at the Spey and Avonside Agricultural Society's shows. He has won the first prize for cows for the last two years—no small victory, when he had Sir George Macpherson Grant and Mr Paterson to contend against. He has also had his fair share of prizes for bulls, heifers, and bullocks. A bullock bred at Drumin took the first prize at Liverpool, in the Polled class, in December last. Mr Skinner has not exhibited his stock at the Highland Society's shows, but there is no doubt we shall see them there by-and-by.*

* Mr Skinner was an exhibitor at the Highland Society's show at Aberdeen last summer, and gained the first prize for his two-year-old heifer.

V. HINTS ON THE BREEDING AND CARE OF CATTLE.

It has been suggested to me that I should add my experience as a breeder of Aberdeen and Angus stock to my observations on the feeding of cattle. It is with considerable hesitation that I have ventured to put upon paper my views upon a subject on which there is such diversity of opinion. It will, however, lessen the field of controversy, that my practice and observations apply only to the Aberdeen and Angus breed; although I presume what applies to one breed may apply in a great degree to all. My observations may be of some use to those readers who have not devoted much attention to the subject; they may prove of interest even to more experienced breeders, should I be able to adduce facts that may have escaped their notice, or in confirmation of their own observations. I can hardly speak with the same authority as a breeder, generally, that I can as a feeder; yet I have been a close observer now for many years, and devoted my earnest attention to the improvement of the Aberdeen and Angus polled breed of cattle, with respect to size, symmetry, fineness of bone, strength of constitution, and disposition to accumulate fat, sparing no expense in obtaining the finest animals from the purest stock.

Laying the foundation of a breeding stock will be the first matter under consideration. We are met here at the very outset by the advocates of blood and those of selection. Much may be said and volumes have been written in favour of both. My experience leads me to take a middle course between the two, and to keep in view both the one and the other. With respect to the qualifications of a successful breeder, Darwin writes: "Not one man in a thousand has accuracy of eye and judgment sufficient to become an eminent breeder. If gifted with these qualities, and he studies the subject for years, and devotes his lifetime to it with indomitable perseverance, he will succeed and make great improvements; and if he wants any of these qualities he will assuredly fail." Darwin's view will be found pretty correct. Many breed with a certain success, and even rush to the top for a time in the show-yard, but it is only those described by Darwin who will finally succeed. In laying the foundation of a breeding stock there is generally one of two objects in view: either, first, to raise up a herd the best of its race, with a view to competition in the show-yard and to improve it to the utmost; or, second, to breed commercial cattle for commercial purposes with the greatest possible profit. The first requires independent means; and, to secure success, skill, perseverance, and patience under heavy disappointments. The second can be attained by ordinary prudence. If the first object be the one aimed at, the selection should be made from the most established herds, and of animals of pedigree, and possessing the characteristics of the race you intend to propagate. But my attention will be more particularly directed to the second. There are few that have hatfuls of

money to expend upon the purchase of high-bred animals; nor is this necessary in order to secure a profitable return from a breeding stock.

I would recommend the following method: I shall suppose a farmer wishes to buy twenty cows to stock his farm (Aberdeen and Angus cattle). His entry is, say, at Whitsunday. He must have a bull to serve his cows. He should be selected from an established herd and from a race of good milkers. The farmer must be a good judge, or employ one in whom he has implicit confidence to act in his behalf. In his selection he must have a certain model in his eye, such as he wishes to propagate. I assume that he considered that his farm is adapted for the rearing of the Aberdeen and Angus breed of cattle, and is convinced of their hardihood of constitution being adapted to his soil and the climate. He ought to keep to certain ground in his selection; that, namely, where the polled breed are still in a state of purity, as in Angus, Aberdeen, Kincardine, Banff, and Moray shires. He ought to visit the Alford district, and all to the west of Alford. On the Spey he will find cattle well worth his attention. They are not of large size generally, but many of fine quality. In the neighbourhood of Dufftown, and west from Dufftown, there are many useful beasts. The Mearns and Angus he should carefully examine, visiting the farms where polled cattle are bred. The wealthy breeder, No. 1, may look to the honours of the show-yard; but No. 2, with his limited means, must have regard only to his ultimate profit.

As it is a Whitsunday entry, he ought to have the lot made up, and the bull put to them in season, that he may not lose a year. The cows he buys will give milk to the house, and the two-year-old heifers will

be easily kept on. I speak on the supposition that cows and heifers are bought, but the majority should be heifers. He ought to attend all the fairs in his power through spring, and be on the instant ready to pick up a suitable beast wherever it appears, which he can always do at market value. He ought to select the best heifers or cows (duly informing himself as to their breeding) from the different districts I have named. The produce, after a first-class bull, will be astonishing. The cows that throw the best calves should be retained, while those that "cry back" should be dismissed, and their places filled up with a new selection. By careful breeding for two years there will be a most useful profitable breeding stock established, and there is no doubt that even some good races may be secured. We have ample experience and proof of this in the good calves thrown by our worthless little black polled country cows, and it is on my experience of this fact that my recommendation is founded. For two-year-olds rising three, out of small cows, I have at Christmas got £40 from the butcher. Purity of blood in the male will be found highly to improve inferior races. A herd of breeding stock without the risk of haphazard will be secured at a moderate cost—one that will be profitable to the owner.

The following remarks apply partly to a show-yard herd, and partly to one for commercial purposes. In the original selection, as I have already observed, the breeder must have in his eye the model he wishes to propagate. The animals selected should approach the desired type as nearly as can be obtained; and by careful and repeated selections the ideal may be reached. The selector must be well satisfied as to soundness of constitution, especially in laying the

foundation of a show-yard herd. If male or female have hereditary defects of constitution, their progeny will inherit them. Show-yard stock, being pampered for exhibition, are more liable than the common stock of the country to be affected with hereditary diseases. Pedigree is of the most vital importance. We ought always to prefer a bull of high pedigree, with fair symmetry and quality, to another bull, though much superior in appearance, but of questionable pedigree. If the latter be turned to a herd superior in blood to himself, incalculable mischief may be done. Breeders have not given the subject the attention it deserves. I have paid dearly for my experience in the matter. But bulls, even from the purest herds, will not all produce stock alike. Some will give a majority of bull calves, others a majority of heifer calves; some will be famous for getting fine bulls, and others for getting fine heifers, while others produce little to boast of in the one or the other. No one can affirm that he has a first-class sire till he has been tested. If the result be satisfactory, money should be no temptation; he must not be sold. It must not be forgotten that the male has most influence in breeding; but without first-class females the descendants will not shine generally in the show-yard. Breeding for the show-yard must not be left to haphazard; nor is the breeder likely to be successful if pride and conceit be his besetting sins. Take the following by way of illustration: At perhaps a distant sale a fine cow is bought, or it may be at market. Attention to pedigree is ignored; the age is perhaps considered of no consequence. On her arrival she is examined and applauded by friends and neighbours. The inspection may cost the owner gallons of whisky; but

she is to prove a mine of wealth. Great hopes are entertained of her progeny. The calf is expected to be first-class. After days of care and nights of dreams and anxious watchings, with unnecessary aid in calving, the calf at last sees the light of day. The owner is disgusted at the result. The cow yields little milk, either for the calf or the family. She is sent where she should have gone years before —to the butcher. The disappointed owner in future buys the cheapest animals that come to hand. If pedigree be ignored, and the sire be of doubtful antecedents, except in an accidental case, the progeny will be at the best of medium quality; but by ordinary precaution such loss may be avoided.

Breeding in-and-in has some advantages and many advocates. It is a knotty point to touch upon. At the commencement I stated that my own experience led me to adopt a middle course; that experience has not been in favour of the system. By adhering to it I found that quality was maintained, and even improved; but size was reduced, and symptoms of delicacy of constitution were manifested. It may be pursued for a time, until the type is developed, but to continue for any length of time to breed *in* and *in*, is not only against my experience, but, I believe, against nature.

In looking over a herd of breeding cattle, I have often seen the owner or the cattle-keeper pointing out a cow that throws a good calf, and never threw a bad one, and at the same time telling you how great a milker she is. It would be difficult to buy such a cow too dear. Most of the above remarks may apply alike to the home farm of the proprietor, to the large and small farmer, and to the crofter with one cow. It is well known to breeders of cattle,

and I believe of sheep, that there are particular races that are celebrated, and upon which you can calculate that they will never propagate an inferior animal. Specimens not so desirable will now and again appear, but the blood is there, and the divergence will not be great from the desired type. Again, there will be one race noted for producing celebrated males, and another for producing celebrated females. A bull may be introduced that is a great getter of bull calves, yet the change may not be to the advantage of the owner, as the female calves will not be bred of so high an order. Professor Thury, of Geneva, has written a very interesting paper on the law of the production of sexes. In a letter to me, dated 14th February 1864, he says: "There are, if the owner pleases, two periods of heating: the one the general period, which shows itself in the course of the year, following the seasons; the other, a particular period, which lasts in cows from twenty-four to forty-eight hours, and which reveals itself a certain number of times. It is this particular period, lasting from twenty-four to forty-eight hours, the commencement of which gives females, while its termination gives males. In order that we may obtain a certain result, we must not cause the same cow to be covered twice in succession at an interval too short, for the (generative) substance of the bull preserves itself for a time sufficiently long in the organs of the cow. In the experiments made in Switzerland we have taken the cow at the first certain signs of heating, for the purpose of obtaining heifers, and at the termination of the heating for the purpose of obtaining males. The result of these experiments is, that we do not yet know what is the relative length of time which gives females, and the

time which gives males; this would form an interesting subject of examination. I am of opinion that various circumstances must be regarded as influencing the relative period, so as to alter the moment of (conception), and that the season must exercise considerable influence. I am of opinion that in such questions as that which forms the subject of my little work, we physiologists should learn much from men of practice and experience, such as you, who have afforded proofs of their knowledge. The best results will follow when the raisers and experimentalists direct their attention to the same object." I would here acknowledge the courtesy and kindness of Professor Thury in so readily responding to my inquiries. The experiments conducted in Switzerland were decisive in support of Professor Thury's theory. In a trial of twenty-eight cows, it proved correct in the whole number.

In the selection of the male, you will have to consider the faulty or defective points in your cows with a view to correct them. As far as possible—pedigree being right—you ought to purchase the bull that is strong upon the points where your females are faulty. If this is not duly attended to, the defect or malformation may be aggravated. But although the bull selected possesses the excellence wanting in the cows, he ought, of course, not to be very deficient in other points, else the cure may be worse than the disease. If possible, he should be taken from a pasture not superior to your own. Docility of temper in male and female is indispensable. Inexpressible mischief may be done by the introduction of wild blood into the herd, for it is sure to be inherited. I have suffered seriously by this error.

To be good behind the shoulder, good in the girth, and well down in the fore-rib, are the qualifications most difficult to attain. Lightness of the fore-rib shows a tendency to delicacy of constitution, and strength and soundness are most important to the success of the breeder. Depth of rib is more important in the male than in the female. Lightness of the fore-rib may be tolerated when milk is the object (and many great milkers are so characterised), but not where the production of beef is the object. Then you must study to combine quality with weight. Quality ought to be the first consideration, but we must never forget that all must come to lbs. at last.

I have already given my opinion as to the shape and quality of a perfect breeding and feeding animal. I shall only here remark that it is indispensable in our cold climate that the animals should have a good coat of soft silky hair to defend them from the cold blasts of autumn, winter, and spring.

The Rev. H. Berry, in his Essay on Breeding, remarks: "A person selecting a stock from which to breed, notwithstanding he has set up for himself a standard of perfection, will obtain them with qualifications of different descriptions, and in different degrees. In breeding from such he will exercise his judgment, and decide what are indispensable or desirable qualities, and will cross with animals with a view to establish them. This proceeding will be of the 'give-and-take' kind. He will submit to the introduction of a trifling defect, in order that he may profit by a great excellence; and between excellences perhaps somewhat incompatible he will decide on which is the greatest, and give it the preference. To a person commencing improve-

ment, the best advice is to get as good a bull as he can; and if he be a good one of his kind, to use him indiscriminately with all his cows; and when by this proceeding, which ought to be persisted in, his stock has, with an occasional change of bull, become sufficiently stamped with desirable excellences, his selection of males should then be made, to eradicate defects which he thinks it desirable to get rid of. He will not fail to keep in view the necessity of *good blood* in the bulls resorted to, for that will give the only assurance that they will transmit their own valuable properties to their offspring; but he must not depend on this alone, or he will soon run the risk of degeneracy."

I agree generally with the above extract from Mr Berry's most valuable prize essay; but I must take exception to at once using even the best bull indiscriminately for a large and valuable herd of breeding cows. I hold that every bull must be tested, and when the result is found satisfactory, *then, and not till then*, use him indiscriminately for all your cows. My experience coincides with Mr Berry's where he says the wise breeder "will not fail to keep in view the necessity of good blood in the bulls resorted to, for that will give the only assurance that they will transmit their own valuable properties to their offspring; but he must not depend upon this alone, or he will soon run the risk of degeneracy." To keep up a breeding stock to a high point of excellence is very difficult. The breeder ought to be always buying and selling and incorporating different *strains* together. There will be many blanks, but there will be a prize; and when you hit, and the incorporation proves a lasting benefit and is stamped on the original herd, it is a great prize you have won. I therefore agree

with Mr Berry that we must not depend alone upon the good blood of the bull.

Having done my best to explain how I think the foundation of a breeding stock should be laid, I shall now give my opinion and experience how the herd should be treated, and how it should be kept up. The cows, heifers, and bulls should be kept fresh, not fat, nor too lean. The calves should have a different treatment. All breeding cattle tied to the stall should be let out every day for two or three hours, or at least every second day, unless the weather be very wet or stormy. The finer the quality of the stock the less rich will be the food they require. It is only throwing away your means to give high-bred cows with calf, or heifers rising two years old, a full supply of turnips. A few to keep them fresh and healthy, and plenty of straw, is all they should be allowed. Bulls that are apt to accumulate fat should also be stinted, else they will soon be useless as stock-getters. After calving, the cows, to secure a flow of milk, should receive a full allowance of turnips, but the increase must be gradual, as the cow has been stinted, or ought to have been, before calving. Before calving, milk-fever, or dropping after calving, is to be guarded against. I have three or four cases with only one recovery. I now bleed and physic every cow two or three days before calving. I stint them in their food two or three weeks, and have never lost one where this practice was fully carried out.

The lean cow is as apt to go down as the fat one. Some think warm weather is the cause. I believe it has nothing to do with it. The grass being generally luxuriant in warm weather, and many cows going off in milk-fever at that season, has led

to this error. Milk-fever may, however, be produced by giving cold water immediately after calving, &c. Cows may be attacked immediately or in a few hours after calving; when four or five days have passed, the animal may be considered safe. There are different causes, no doubt; but bringing a cow from poor pasture and putting her on a rich and luxuriant one without stint, or from straw and giving her a full allowance of turnips up to the time of calving, are two of the greatest predisposing causes. As an example, I bought a cow in July off a poor pasture and put her on a rich one; as she was low-priced I did not use the necessary precautions: she went down in milk-fever. A respected old servant bought a fine polled cow. I was walking across the field with him, and we came upon his cow. It was in July, and the grass was very luxuriant. I asked if he had bled the cow, as she would calve immediately. He said, "No, I have not; and I never saw them bled except at Tillyfour." To my sorrow and to the man's heavy loss the cow died of milk-fever.

Milk-fever is thought by many to be incurable. Mr Sorely, veterinary surgeon, late of Alford, has been most successful in its treatment; and if the cows are not very far gone before he is called, he generally effects a cure. I would recommend those not acquainted with the treatment of this dreadful calamity to communicate with him. The symptoms are known by the cow getting restless, lifting her legs and setting them down again, a wild appearance, and attempting to poke her keeper: then succeeds a quick motion in the flank; she begins to stagger, falls, but recovers herself again. This is repeated several times, till she is at length no longer able to rise. Her head will be turned to one side;

she loses the sense of feeling, and although pricked with a sharp instrument gives no sign of pain; and if not relieved, death closes the scene. If the sense of feeling returns, it is the first sign of recovery. The moment that milk-fever is observed the veterinary surgeon should be called in. There is little risk with a heifer with her first calf, and I never bleed or physic a heifer in calf, because she has not attained her growth. In her case "the additional nutriment goes to increase of size, instead of becoming the foundation of disease."

Red-water is also a very fatal complaint among cows. They generally take it about the thirteenth or fourteenth day after calving. Many farms are almost exempt from this disease. It is very fatal, but if taken in time it can generally be cured; heavy losses are, however, experienced every year by it. I have only had two or three cases of red-water, and I do not therefore enlarge upon it. My observation has led me to believe that the theory of the late Mr Peter Smith, veterinary surgeon, Alford (who gained the Highland Society's prize for the best essay on red-water in cows), is correct, that the disease is generally most prevalent on farms where the land is black and of a moorish tendency. The veterinary surgeon should be called in *instanter*. Garget in the udder, or weed, is also to be guarded against. After calving, some cracks and sores appear in the udder; they get very troublesome. The teats must be drawn and clean milked out; blood will sometimes appear with the milk; the cow must be secured, if necessary, to effect this. The udder should be bathed with warm water, and well rubbed over with hog's lard, and to this treatment the complaint will generally yield. The too

hastily drying the cow, and frequent carelessness in not milking clean out, are the general causes of this complaint. It may, however, assume a more serious aspect; the milk gets coagulated in the udder, and the result will be the loss for yielding milk of one, two, or more of the quarters of the udder, if the proper remedies are not instantly adopted. Mortification sometimes ensues; diseased portions will break off from the udder, and it may end in the death of the animal. Putting the calf to suckle the cow will be useful in effecting a cure; but often the teats become so painful that the cow will not allow the calf to approach her. I cannot impress too strongly on the breeder that, as soon as symptoms of garget are observed, the cow must be firmly secured and the teats properly drawn three or four times a-day. If this is neglected or inefficiently performed, the result is scarcely doubtful. Very often there will be only matter to draw, but it must be withdrawn from time to time as it collects. The teaching of experience is costly in such a case; and here the care of honest, intelligent servants is invaluable.

When the calves are taken from their dams there is the greatest danger of garget, and this is always an anxious time with the breeder. The cows must be allowed to go gradually off their milk, the greatest care being taken to draw the teats once a-day when necessary. The food must be restricted till the milk disappear; and as some cows that have been suckled will not allow their teats to be drawn by the hand, the calves must be put to them once a-day till the milk cease.

The proper age for breeding.—The proper age for breeding may depend upon circumstances, breed,

&c.; but, dealing as we are with the Aberdeen and Angus, I would say that heifers should never be put to the bull before they are two years old. There is, no doubt, some force in the argument that by breeding earlier keep is saved; but the answer to this is that growth is diminished, while calving is attended with danger. I had six heifers bulled when they were one year old. They had all difficulty in calving; three of them required assistance, and were very much torn and lacerated before the calves could be extracted, and the mothers have never attained the size of the other cows in the herd. Nor has the argument much force with me that the one-year-old is surer to stand to the bull than the two-year-old. I maintain that we have this very much in our own power, and that the two-year-old, with proper treatment, and at little cost, is as sure to stand to the bull as the one-year-old, while she will attain to a larger size. The treatment I adopt with yearling heifers intended for breeding purposes is the following—and I have seldom or never failed in getting them in calf: They are not starved to interfere with their growth, but through the summer, when rising two years old, they are kept on the very worst grass on the farm, and on the refuse of the grass rejected by the other cattle, which are removed to fresh pastures. In winter and spring, up to the time of serving with the bull, they get an average barrowful of turnips amongst every three, and no more. By this treatment the heifers will just be fresh, and will stand to the bull as readily as yearlings. I grant that if you were to put them on luxuriant pasture, and give them full allowance of turnips through the winter and spring, they would be fit for the butcher, and not for the bull. The advantages more than

counterbalance the disadvantages. Their parts will be strong and open, and they will calve with safety; while, on the other hand, the calving of those served at a year old will always be attended with difficulty; the parts will often be injured and lacerated, and mortification of the womb and the death of the animal may follow.

I need not tell my readers that the bull should not be allowed to go with the breeding cows or heifers, as the almost universal practice now is to keep them separate. The advantages of this must be manifest to every one. The symptoms of coition are so well known, that I shall not enlarge upon them; but if cows are confined to the house, there are some shy animals that require the greatest attention to detect them, while the majority are easily observed by their lowing and agitated appearance. In the former case the animal will not blare, neither will there be much difference in her general appearance; but her external parts will be red, and a transparent liquor will be discharged from the vagina. Let her be put out with another, which will prove her at once. In some seasons, although the cows and heifers are in a breeding state, it is, even with the best management, difficult to get them in calf. This becomes a source of great annoyance and loss to the breeder. A cow should never be allowed the bull sooner than five or six weeks after calving; to do otherwise will prove a failure, and will be detrimental to the animal. If a cow or heifer should miss to stand to the bull before the end of May, and the weather get warm, it is difficult to get them in calf; they may run on for months every two or three weeks. Many a good breeding animal has been lost in this way, and gone to the butcher,

their owner having despaired of getting them in calf; whereas, if he had had patience until September or October, when the cold weather sets in, in all likelihood they would have been got in calf. I had three cows out of four, that had run on the whole summer, got in calf in one day. An early spring calf is preferable to a late one, and most desirable; but my doctrine is, that a good calf never can come wrong. It is trying to the breeder to see his fine cows running on, but we must not despair; we must not lose a chance, for we will generally catch them, and sometimes when we least expect it. When a cow assumes the appearance of what we term a regular buller—when she is running every day, or every second or third day, or when one or more retire from the herd and assume the habits of the male—then, and not till then, does the case become utterly hopeless. I had two fine cows I was obliged to quit; they assumed the habits of the male, absented themselves from the rest of the herd, went through the field lowing, roaring, and pawing the ground with their feet, their lowing being that of the male and not of the female, and their shapes and looks were completely changed. Some friends, in whose opinion I have confidence, think this disease hereditary.

I would recommend, when cows and heifers are not standing to the bull, to give a dose or two of medicine. A change of the bull may succeed; and leading the cow or heifer six miles out and six miles in, when coming in heat, will sometimes be effectual. I was led to this practice by observing that cows or heifers that had run on the whole season up to the time of exhibition, when put to the bull on their arrival from the show, were got in calf at once. I

naturally concluded that the exercise which they had undergone was the cure. I adopted the principle, and have succeeded in several cases, though not in all; and I know of some other breeders who have also been successful.

A cow goes nine months with young, generally ten or fourteen days longer. I have known one go twenty-seven days past her time. They generally go longer with a bull calf than a heifer. It is almost a sure sign that all will be right if the cow go past her time; when matters are wrong the birth is generally premature. Slinking is one of the greatest pests to which a breeder is subjected. The symptoms are as follows: a yellow mixed with red, glairy, offensive fluid will be observed running from the vagina, a flow of milk to the udder, and a loosening of the couplings behind; in a day or two premature labour follows. No time is to be lost on these symptoms being observed. The cow should be immediately removed to a separate apartment, and kept by herself for two or three weeks. If the premature birth should take place before the cow is removed, the fœtus and after-birth must be instantly buried, and not only the stall where the cow was standing, but the whole of the byre should be thoroughly washed over with hot lime, or chloride of lime. It is well known that if one cow abort, others are apt to follow. I recollect that almost every cow out of forty, belonging to the late James Walker, Wester Fintray, aborted. One half were polled, the other shorthorns.

When a cow is with calf she has strong sympathetic feelings. The fœtus and after-birth from a cow that has slinked are very offensive, and if left within reach, the other cows will sniff at it, and bellow

around it; and in a short time more of the cows will abort. Many reasons have been given as the cause of abortion; from my own observations, frosty turnips are one great cause, and I never allow my cows to get these. If I happen to run short of fresh turnips from the store, and frosty weather continue, I order the cows straw and water, and perhaps a little cake or corn at the same time. I have paid dearly for this experience also. I believe hove to be another cause of abortion; and that particular atmospheric conditions have a good deal to do with it. The skilful veterinary surgeon should be consulted; he will probably recommend physic to cool the system, the fœtus and placenta to be buried, the animal separated, and the cow-house disinfected. The cow should be fattened and sold, unless she be a very valuable breeding animal, as the chances are that she will slink again. I have indeed seen a cow, after slinking, breed regularly for many years; but the sure way is to get quit of her to the butcher, if she is not a valuable breeding animal.

I have explained, under the head of Milk-Fever, the treatment previous to calving; I shall add that a cow ought to be let dry six weeks at least before calving. It is well known that a cow that is milked up to the time of calving proves very deficient as a milker for the season, even although she had formerly been a good one. It prevents improvement of condition; and from a very lean cow there is not much to be expected.

As to natural labour a very few remarks will suffice. The cow should be disturbed as little as possible, and no assistance rendered where it is not necessary. When the water-bag comes away, the hand should be introduced to ascertain whether the

calf is coming the right way; its fore-legs protruding to the passage, and its head lying upon them or a little between them, is the natural position when all is right. We must have patience, and, if possible, allow nature to effect its object; but if six or eight hours shall have passed, assistance must be given. In my practice I have observed that when the water-bag comes away in the early stages the labour is protracted. I have seen many tail-presentations, but I have found them easily dealt with by pushing back the hind-quarters and getting hold of the feet; pushing backwards, forwards, and upwards the hind-legs, and bringing them to the level of the passage, the calf will be easily extracted. In unnatural labour the veterinary surgeon should be immediately called in. Skellet 'On the Parturition of the Cow' is the most valuable authority I am acquainted with on unnatural labour, but I fear it is out of print.

A word here as to free-martins. When a cow produces two calves, the one a male and the other a female, the female is called a free-martin. The almost universal belief is, that the free-martin will not breed; and generally this holds good. I have had, however, in my practice two free-martins that have bred. One of them proved one of the most useful animals and best breeders in the herd, and produced some of my finest females; but her own appearance lacked that female style which shows itself in a high-bred herd.

And here I may remark that those who act as judges at our cattle-shows, if they are judging males, ought to judge them as males and not as females; and if they are judging females, they ought to judge them as females and not as males. Some may under-

stand what I mean. As I consider it one of the most important qualifications in a judge to have the discernment I refer to, and as many are appointed judges, even at our national shows, *who never should have been appointed, and many act who never should act*, it ought to be put out of all doubt. As an example, when a bull shows the head of a female and a want of masculine character, he should be rejected. Masculine character in the bull is of the greatest importance to the success of the breeder—effeminacy in the male must be shunned as the most deadly poison. On the other hand, let that female be rejected by the judge in the show-yard, and by the breeder in his selection, that looks as much like a male as a female. However long she may have been kept up for show-yard purposes, or whatever enormous quantity of beef she may have put on, if she have the head of the ox (I do not say of the bull, because I have never seen a female so characterised) she must be put aside, unless very superior in other respects. Such animals will seldom pass muster with the first-class judge, but *even he must be upon his guard.* I have often seen great blunders committed, especially with heifers, the owner of which may, for the sake of winning the prize, have fed them for years without hope of propagation. I have seen them carry the prize to the exclusion of the really useful breeding animal, and when the show was over they were sold to the butcher. I would not propose any rule to be laid down to exclude animals from our exhibitions on account of their condition, because the proper amount of flesh can never be satisfactorily settled; nor can it be definitely fixed when an animal should be excluded as being too fat for breeding. The experiment was tried at some of our national

shows, but utterly failed, as the jury could not agree. The rules of the Highland Society are good so far as they go—viz., that unless the owner of cows that have not had a calf in the year of the exhibition, and of the two-year-old heifers that have been awarded prizes, can certify that the animals have had a calf —the cows in four months and the heifers in nine after the exhibition—the money prize will be withheld. But this does not cover the difficulty, as the prize-money is of secondary importance to the majority of exhibitors—being first on the prize-list is their main ambition; but, I believe, it is all that rules can reach. The only safeguard lies with the council and the directors—and the strong moral force of the exhibitors ought to be brought to bear upon them—of our national and local cattle-shows. They ought to appoint no one, however highly connected, unless he is *acknowledged a judge by the exhibitors of the class of stock to which he is appointed.* If the right man be put in the right place, there will seldom be cause to complain of overfed useless breeding animals gaining the prizes; but if ignorant forward men are appointed, you are certain to see the fattest animals at the top of the prize-list. At one of our great shows the same judges were appointed for cattle and sheep;—they were unexceptional judges of cattle, but knew very little about breeding-sheep. There were two pens of breeding-ewes in competition: one of the pens was from a first-class stock of sheep, but from hill pasture; the other was from a jobber, who had selected them from the common sheep in the country, but had grazed them with the cows on the farm, and they were in high condition—they wanted style and breeding. The judges were hesitating as to which of the pens the prize should be awarded to, when one

of them exclaimed, "Stop, stop; let me in o'er till I handle them!"—an Aberdeen man likes something that will handle, whether ox or sheep. He went, and after he had performed the handling proof, which required little time and less skill, "Ah!" he exclaimed, pointing to the fat ewes, "that's the sheep!" and the ticket was fixed accordingly. This anecdote was related to me by the owner of the fat ewes, who was present.

No butcher, except he be well acquainted with the treatment of a breeding stock, ought to be a judge of breeding animals. With fat stock one of the judges ought always to be a first-class butcher.

In natural labour the after-birth generally comes away soon after calving. Many remove it immediately; this, however, should never be allowed, as the cow will chew it greedily, and it acts as physic to her. If the after-birth should be retained, as it generally is in cases of premature labour, this need cause little alarm to the owner. I have never seen any danger from allowing it to remain, and I prefer letting it alone, as it will rot away of itself, to the danger of tearing it away; but the cow should be removed from the others. I believe the opinion to be erroneous that there is danger from the after-birth being retained for any moderate length of time; but the womb itself will sometimes follow the calf, and this requires prompt treatment. I have known of its being successfully returned without the aid of the veterinary surgeon, but this should never be attempted by an unpractised hand if you can command the surgeon's attendance. It is a very common occurrence that two or three months before calving the vagina protrudes when the cow is lying: when this occurs she should be kept well up behind, else it

may bring on premature calving. When the cow calves the danger is over.

If the calf is to be milked from the hand it should be taken from the cow as soon as it is dropt, and before the mother sees it; if allowed to remain with the cow for some time and then removed, it will be a cause of great irritation to the mother and very prejudicial to her milking. When it is to be suckled, the calf should be left quietly with the cow: and by licking the calf and eating the placenta the cow will be settled, the calf will get to its legs, and all may be expected to be right. A warm drink should be given—cold water must be avoided—and the cow made comfortable. She should be milked out after first suckling, and this will require to be repeated two or three times a-day for a few weeks, until the calf is able, and can with safety be allowed, to take all the milk. In a day or two after the calf is dropt it ought to be muzzled, and allowed a limited time to suckle the mother three times a-day. It must not be allowed a full allowance for the first fourteen days after birth. A confidential servant must remove the muzzle, stand beside the calf until it has taken a safe allowance, and then return the muzzle. When the calf has got the cud, which will be observed about fourteen days after its birth, it will then be safe to remove the muzzle. I muzzle all my calves, to prevent them from eating straw, hair, &c., which they cannot digest, and which accumulate in the stomach and prove the death of the animal. Many thousand calves are lost in this way, the owner never suspecting the cause. If the calf is opened up after death, there will be found in the stomach a large, firm, round ball composed of straw, hair, and other substances, with knots of curdled milk conjoined.

After the calf has got the cud, and is fourteen days old, it may be allowed to suck at pleasure. It must be seen, however, that the calf has ability to clean out the udder of the cow; if part of the milk is retained, the cow must be milked by the hand.

Plenty of good milk is the proper foundation to make a good animal; if stinted when a calf, a year's growth is lost. Selling a great deal of butter and rearing a good bullock are incompatible. Many good calves are milked from the pail, and they thrive better after they are weaned; but it will generally be found that the sure way to make first-class calves is to allow them to suckle. There will be many drawbacks at the expense of the calf if it is brought up from the pail; drafts will be required by the housekeeper for milk, butter, and cheese for the family, which cannot be made if the calf is suckled by the mother in the field. The plan adopted by some of giving skimmed milk to the calf cannot be too much reprobated; and to give old milk to a new-dropt calf is perfectly preposterous: it is unnatural, and will probably prove the death of the calf.

The calf should be allowed to suckle or be fed from the pail for six or eight months. It has then strength to stand weaning, and, if properly cared for, will not be checked in its growth, and it will retain the good calf-flesh it has put on. The loss of the calf-flesh cannot be remedied, and great care should be taken to avoid this. If the calf-flesh is lost the animal will be reduced in value, and can never be made to yield first-class meat. Great care, therefore, must be taken by the breeder when his calves are weaned.

To guard against Black-leg, the calves should be

immediately corded in the dewlap,* and receive, along with other nourishing food, each 1½ lb. of oilcake a-day. This treatment is absolutely necessary during their first winter. The open strawyard for calves is of great importance. If they are kept regularly growing on, black-leg will be prevented. While proper treatment is adopted, there will be little to fear from that dreadful scourge.

I have never lost more than two of my breeding stock from Quarter-ill. There is no question that the cause of this dreadful malady is sudden transition from a restricted diet to a full and nutritious one, from a poor pasture to a rich and luxuriant one, or from a poor pasture in autumn to a full allowance of turnips; the increase of blood on the system is so great that the constitution cannot stand it. I have seen almost every calf on several large farms carried off by black-leg. There is no secret as to its prevention. Keep the young calf gradually growing, never let him want; give 1 to 2 lb. of oilcake a-day; and keep up the irritation by cords with a good hold of the dewlap. After the first winter, black-leg is little to be feared. I have had a case or two in two or three year olds, but it is very uncommon. Prevention is the only safeguard, for I have never seen black-leg cured. To some 1 to 2 lb. of oilcake a-day may look an expense that the calves cannot repay; but if any of my friends will divide a lot of their calves, and give the one lot turnips and straw, and the other turnips, straw, and 1 to 2 lb. of oilcake daily to each calf, if they are dissatisfied with the result on the 1st of May I shall

* I have been accused of cruelty for cording the dewlaps of my calves. The pain must be of short duration, as it is done by a sharp instrument in a moment.

pay the balance. I shall not enter upon the point of the great additional value of the manure, but leave that to the chemist.

I allow my calves to suckle till October, and the late ones two or three months longer. Butter and even corn are but secondary to our cattle, and in these days of progression we must advance with the times or go down.

As to Navel-ill, much has been written on the deadliness of the complaint. I have never had any loss from it. Diarrhœa is a very common complaint with calves, and I have lost one or two by it, but, I believe, owing to carelessness. It will generally yield to a dose or two of castor-oil. The Knee-ill is more to be dreaded. The complaint is worse some seasons than others, and some, under the best treatment, will die. The calf gets down and is unable to rise; on examination it will be found that one or both, generally of the fore-legs, are very much swollen at the joints; the calf is very much pained, especially if moved, and the disease acts very much like rheumatic fever on the human body. I cannot assign any cause for this disease, as I have seen calves seized with it that were kept warm and comfortable. In some cases it may be attributed to some particular atmospheric influence. It is very difficult to remove. The calf will be down for weeks, and in some cases they never get up. Very little can be done for them, and any treatment I have seen adopted is of small value. Rubbing turpentine daily into the swollen joints is useful, but attention to the general health is of the greatest consequence —such as counteracting costiveness in the bowels, &c. I have seen splints of wood introduced, and also tying out the leg with bandages; but I have no

great faith in any such treatment. Rubbing daily with turpentine, and attention to the general health, is all I can recommend. Costiveness of the bowels, if not counteracted, may end in serious consequences. I had a case of a calf that got very costive—so bad that it moaned dreadfully from pain. I lost all hope of saving it. I thought of injections, and had them administered repeatedly for hours; to my astonishment the calf recovered and did well. Castor-oil is the safest medicine for calves. Let me here record an observation for which I am indebeted to Mr Sorely, late veterinary surgeon, Alford. (While I have seen some with as good hands as Mr Sorely, I have never had the fortune to meet another with as clear a head.) The first question he asks when told that a calf is ailing, is, "How old is it?" If the calf is very young, and violently ill of any complaint, the great chance is, that it will not recover; whereas, if it be three weeks, and, still more, two or three months old, the probability is that it will.

As to the castration of calves, it is such a simple process that it is unnecessary to say much on the subject. The only thing I would recommend is, that the breeder, if he does not castrate his calves himself, should not allow the operator to cut away any part of the purse, as it should be recollected a good purse in the London market will be the next criterion to the butcher after the flank, and a good purse is always worth £1 to a bullock in London. If the purse should get much swelled after castration, warm fomentations should be applied two or three times a-day, or even a poultice if the case be very bad. If there is an accumulation of pus, it may be necessary to puncture the purse, and the animal will soon be relieved.

Rheumatism, I have no doubt, is hereditary. I have seen it in the fourth generation; little, if anything, can be done for it. At certain seasons of the year it will appear, and wear off again. Howk is perhaps the complaint to which my cattle are most liable. I have repeated cases of it every year. The animal is observed to be stiff and staring in his coat, eats little, and, as the disease advances, retires from the rest of herd. When taken up, his skin along the back will be found adhering to the flesh, and if pressed on the spine he will nearly crouch to the ground. If a hold is taken of the skin—which is very difficult to accomplish—and it is lifted from the flesh, when let go it will give a crack similar to the sound that follows when you give a knock to the common corn-basket. This is a never-failing symptom. I treat the complaint very successfully with doses of salts and sulphur. If the animal is taken up in the early stages of the disease, the skin may only be adhering to a part behind the shoulder-blade; but in a day or two the adhesion will be found to extend along the whole of the spine; or, *vice versa*, it may begin across the kidneys and go forward to the shoulder-blade. I regard indigestion as the cause, and some cattle take it in particular fields worse than others. Diseases of the tongue are rare: I have had some half-dozen cases. A cure is utterly hopeless, and the animal should be sent to the butcher without delay. When examined, the root of the tongue, or one side of it, will be found very much inflamed, and warts will also generally be observed. The animal will be found frothing at the mouth in the field; and if in the stall, a great deal of frothy matter will be seen before him. I never

knew one recover, and I have attempted all sorts of treatment.

Foul in the foot is very serious when it gets into a lot of heavy feeding cattle in winter; the loss it entails is sometimes very heavy. It assumes several phases. If there be but a crack between the claws without swelling, it is easily managed. The old plan of taking a hair-rope and drawing it several times through is very good practice, and with a little caustic applied, a cure is soon effected. There is another form of the disease more difficult to treat: there is the great swelling between the claws; it becomes a hard substance and very painful; the animal gets feverish and is scarcely able to rise, and if got up holds out the afflicted leg. He is off his food, and sinks rapidly in condition; and the pain is excruciating. I apply a succession of poultices, and when the lump breaks the danger is over: tow and tar are then applied to the sore, a cotton bandage put on between the claws of sufficient length to secure the application, and the ends made fast by a woollen garter cut from an old stocking. If the disease is neglected the consequences may be fatal; it is worst in winter when cattle are at the feeding-stall. I regard it as infectious. If it get into a byre of weighty fat cattle the loss will be heavy. I have seen a bullock drop in value £3, £4, or even £5; and several animals lost by carelessness. I had a bullock out upon turnips, which had been neglected, and was pronounced by my veterinary surgeon incurable.

As to Foot-and-mouth disease, it is a light matter among stirks and lean cattle—they will be little if any the worse of it; but it is very serious amongst heavy feeding cattle and milch cows. If fat cattle

are attacked, they should have their turnips sliced, with crushed oilcake and meal. There is no treatment of any avail in the fever stages. When the fever is gone, there will be a beast or two out of a lot whose feet will require attention. The horn of the hoof gets loosened from the flesh. The animal may require to be thrown and the dead horn cut away. It must be remembered that it will never attach itself again. The veterinary surgeon should generally perform the operation, unless the owner is skilful himself. Cows require great attention. The disease seats itself in their udders, and unless they are most carefully milked out they may be rendered useless as milkers—losing one, two, or even all the quarters of the udder. The foot-and-mouth disease is very infectious. I recollect having carried it home from a neighbouring farm, by merely handling a bull which was down with the disease. I came straight home and handled the first beast opposite the door in one of my own byres; in three days he was seized with the complaint; and in two or three days thereafter nearly every beast through the steading was down with it. Out of forty fat cattle thirty-eight had it, only two escaping. Upon inquiry I found that one of them had had it before. I lost from £4 to £5 of condition on an average off every one of the thirty-eight. From the same farm and at the same time a veterinary surgeon had been called in. He went straight to another farm six miles distant, and in a few days every animal there was seized with the same complaint. It is the general belief that an animal will not take the foot-and-mouth disease twice. This is a mistake. I have a cow that took it twice, but there were seven years between the attacks.

I have had the Lung disease on two farms; all known treatment is unsatisfactory. I believe, if the attack be violent, no treatment will save the animal. It is sometimes difficult to know it at first. There will generally be a cough, but it is not the clear cough of the animal in health. It is compressed, and the animal coughs unwillingly and with evident pain. The particular cough cannot be mistaken, and the grunt is a never-failing symptom. There is generally one lung more affected than the other. The ear being applied to the chest will discover the impeded circulation. Many cattle take the disease so slightly that it is never discovered. Some have little if any cough, and the pile continues soft and healthy. I recollect a milking cow which I was suspicious had the disease. I made her be run out; there was no acceleration of breathing; her coat was fine, and there was no diminution of the milk; but she gave a grunt which confirmed me in my opinion that she had had a slight touch of the complaint. The grieve, a most intelligent man, was satisfied that the cow was healthy. I fattened her, and for my own information had her slaughtered at home. It was three months after, and the *post-mortem* examination showed one of the lungs, to the extent of about the size of a crown-piece, adhering to the ribs—a sufficient proof that my conjecture was correct. Many take the disease that are never suspected. I had a bullock showing some symptoms of the disease in a byre amongst ten. The others were, to all appearance, in perfect health. I sent them immediately to London. My salesman was instructed to inspect the carcasses after they were slaughtered, and to report. He did so carefully, and there was not one of the number but had their

lungs more or less affected. Mr Collie, Ardgay, Morayshire, had a byre of cattle slaughtered under the same circumstances, and with the very same result. Pleuro-pneumonia is not so infectious as foot-and-mouth disease, but if it get into a farmsteading it is most difficult to get clear of. I have known cattle infected in three days. I had bought a lot of cattle from a farm in Morayshire where the disease has never been up to this hour. It was in the month of April. There were two or three of the lot that I did not think profitable to graze. I tied them in a byre where infected cattle had stood. They were only to be kept a week or two, and I had no idea of danger. One of them took the disease very badly in three days after he was tied up. I have known it lie dormant in the system (as to any visible appearance) for three months and a half. I found the general period of incubation from five to six weeks. I have taken the greatest pains with the byres where the infected cattle stood, having the wood-work taken out, the roofs and greeps carefully scraped and washed with soap and warm water, lime-water, and afterwards with chloride of lime; and yet, after all this labour, I have seen the disease break out again and again. After repeated outbreaks, I not only removed the wood-work, but the whole of the stones in the stalls and greeps, and buried them. I had the roofs and stone mangers, &c., carefully scraped, and washed with soap and warm water, and afterwards with chloride of lime. They were then closely painted, and lastly coal-tarred; but it was only after five or six months' perseverance that I got clear of it. Having heard a report that a cow belonging to my cousin, Mr M'Combie, editor of the 'Free Press,' was labouring

under pleuro-pneumonia, I went to see her. Mr Sorely, veterinary surgeon, was in attendance. As there had been no disease in the neighbourhood for five years, I was unwilling to credit the report. But a more marked case I have never witnessed; and the *post-mortem* examination showed all the symptoms of the fell disease. Mr Sorely, Mr M'Combie's overseer, and I, all agreed that as a wood dividing-partition had been allowed to remain since the time of the previous infection, and the cow was seen chewing pieces of the wood that had got rotted at the base, the wood had retained the poison, and the cow had been infected from the chewing of it. The breath is the cause of the infection when cattle are housed together and the disease introduced. It generally attacks the animals standing at the walls first. The breath is driven by different currents through the building to the walls, where it is stopped; it rebounds, and hence the beasts at the walls generally fall the first victims—so, at least, I have found it in my experience. I had forty beasts divided by a stone-and-lime mid-wall to the level of the side-walls; up to the roof there was a strong and close division of wood. Unfortunately there had been a small aperture about two feet square left open. I made an observation to the cattleman that I should not be at all surprised if the disease came from the infected byre through the opening to the byre where the cattle were sound. The first or second day thereafter the animal standing below the aperture was seized, and got down in the disease.

In treatment I have no confidence, having tried everything that could be tried and completely failed. I would, however, recommend that neither hay nor straw be given to animals labouring under the dis-

ease. I lost a valuable bull, after he was recovering, from this cause. He was allowed to eat too freely of hay, which he could not masticate; and when opened after death, an ordinary bucketful of hay was found in his stomach, as dry as when it was eaten. I have come to the conclusion that no animal should be allowed hay or straw while unable properly to masticate its food. It is well ascertained that when the poison is lying dormant in an animal, it will infect the other cattle before it is visible in itself. As a confirmation of this fact, I had a sale of breeding stock after the Dumfries show, on Thursday, 30th August 1860. The cattle seemed to be in perfect health on the day of the sale; about three-fourths of them were removed on Friday. The day following—viz., Saturday—a cow was taken ill. I entertained fears that it might turn out pleuro-pneumonia; and circulars were sent to the parties who had removed their cattle. The buyers isolated the cattle bought at the sale from their own stock. Two of the beasts that had been removed died, other two took the complaint and recovered; but fortunately it did not spread amongst the buyers other stock. The cow first taken ill recovered, and another that was left over took the disease and recovered. But, further, a bull was withdrawn from the sale and sent home to Tillyfour from Dorsell the night of the sale, to all appearance in perfect health, though he afterwards died of the disease. He was watered at a watering-place on the roadside, where a crofter's cattle watered daily. The crofter's cattle went down in the disease, and one of them died. Many were the weary days and restless nights I endured when the disease got fairly developed through two of my largest steadings. It is in such cases

that the value of a clear-headed veterinary surgeon is appreciated. I would not be well away from one steading, when a messenger would meet me with intelligence of some disaster at the other. I had many beasts being fed on other farms as well as those on my own—not fewer than 400 one way or other. I have said how much I am indebted in such emergencies to the advice and counsel of a clear-headed veterinary surgeon. The disease was in the midst of my breeding stock, and two or three had succumbed to it. Mr Sorely and I were brooding over this state of matters, when I asked him whether he could do anything to save the herd. He said, "I will think over it till to-morrow." He came on the morrow, and seven successive evenings, and administered to each animal a drench, and he would trust no one but himself to do it. I believe there were three changes of medicine; not one animal which got the medicine took the disease, although they had been standing in the midst of it. There was one worthless old milk cow amongst the others, that I did not think worth the trouble of giving the medicine to; she took the disease, and was fed with gruel for fourteen days, and recovered, while the others continued in perfect health.

I have related the diseases that are of a local character, as they have come under my own notice, without any desire to set myself up as an authority. My experience has led me to differ in many respects from eminent authorities. I have merely stated my own experiences during a lifetime that has been devoted to the management of cattle; they are written with no view of superseding the valuable assistance of the veterinary surgeon; but every farmer ought

to know and be able to treat the local diseases incident in his neighbourhood which are not of a dangerous character. When they are dangerous, the owner ought to be able to distinguish them at once; and in that case not a moment should be lost in calling in the aid of a veterinary surgeon.

THE END.

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