

## STOCK.

## Establishing a Herd.

[Read before the Live Stock Breeders' Convention, by Walter Lynch, Westbourne, Man.]

The subject that has been assigned me, "Establishing a Herd," is a very large one—so large indeed that it embraces the whole science and practice of breeding. The great breeders of the past, whether of horses, cattle, sheep, or pigs, spent their lives in establishing herds, and the scientific breeder of today is doing the same thing, and I think I am safe in saying no one has ever yet quite satisfied himself that he had reached perfection.

I have neither time nor ability to give you a scientific paper on this subject, and in the brief time at my disposal to-day can only glance in a desultory way at some of the more important features of the subject that must be taken into consideration by any one starting to establish a herd.

The herd I am about to establish will not be a pure-bred one: it will be one in which the operator must take such materials as are within his reach, and breed them up to something better, and of a more uniform type. In that operation the first fact he must recognize is that all our domestic animals are, in their present state, largely artificial productions, and in that state have acquired artificial habits, and artificial wants that must be provided for. He must also understand that in the artificial improvement of these animals man has added nothing to them, has infused no new elements into their construction, and that whatever their original type may have been, it contained within itself the elements of improvement, and that whatever improvements have been made, have been made along natural lines, by natural forces, out of the material supplied in the original pair of the species. No one doubts, or can doubt, that all improvements in natural products have been made by selection, and by the operation of that law of nature that causes like to produce like.

These are lines on which all improvements have been made, and these are also the lines on which any retrogression will be made, and the beginner must thoroughly master these facts before he can hope for any success in his undertaking. He will hardly need to be told that this principle of selection has been in operation in animal life ever since there have been animals. In a state of nature the agents to enforce it were strength and fighting ability, the delicate and timid gave way to the robust and aggressive, and the species was perpetuated by the best and strongest specimens. This is the survival of the fittest. But in their domestic state this selection must be made by the breeder, and it is the only factor in the whole process of breeding that is absolutely under his control, and on his skill and judgment in selecting his animals will depend his success as a breeder. And selection implies something more than mere ability to distinguish between a good and a bad animal; they must be selected with reference to the animals with which they are to be mated, as well as for their own good qualities, for an animal may be a good one in itself, and yet be a very bad one to mate with some other very good one; and here is where a skilful breeder's selection ought to be an improvement on nature's. A hundred years ago a great breeder said: "What has been created by art must be continued by the same means," and time has proved the truth of his proposition.

The law of like producing like, while it may not be more important than judicious selection (indeed neither of them could accomplish anything without the other), is more difficult to understand, and is continually producing results that are often attributed to other causes. It, too, has been in operation ever since the first animals were created; and if it has been a potent factor in their improvement, will be an equally potent one in their degenerating. For if the original pair of the species contained within themselves the elements of improvement, and our improved animals have been evolved from those elements, it follows they must contain within themselves the elements of retrogression on those same lines; and if the practice that has produced the improved animal of to-day were reversed, it would return them to the type whence they originated. And it is this feature of the principle that causes a tendency in all improved natural products to revert to their original type. We often hear it said that these two tendencies are contradictory and antagonistic, but this is a very superficial view of the subject, and by looking a little deeper we will see they are the same principle, and operating in exactly the same way, as I shall endeavor to show you by a specimen of the most unscientific breeding a man could possibly follow.

Take for example a mare of no known breeding, with a perfect hind end, but with a fore end so defective as to bring her below an average mare, and mate her with a horse of no known breeding, with a perfect fore end, but with a hind end so defective as to bring him below an average, and you might possibly make such a hit as to have a perfect foal. Suppose it be a mare, and mate her with a horse exactly like herself, and this principle of like producing like, might give you a perfect foal, or it might give you one a good deal below an average; for, although the parents were perfect, the component parts of their direct progenitors totalled something less than an average animal. This is also the reason why a second or third cross is often less satisfactory than the first, if the sires have not been judiciously selected.

"Stonehenge," writing on this point, says: "It is known by experience that the good or bad points of the progenitors of the sire or dam are almost as likely to appear again in the offspring as those of the immediate parents, in whom they are dormant." Hence, the rule in breeding is, that like produces like, or the likeness of some ancestor.

But if the owner of this perfect mare be wise, he will not throw her away because she threw a bad foal to a horse bred like herself (an accident), but he will look around for a horse possessing her good qualities, and who came by them in a legitimate way—that is, through a line of ancestors possessing those same good qualities, and by breeding her and her progeny to horses of that kind, their qualities will become fixed characteristics of her race. And here is where the value of pedigree comes in. What is usually spoken of as pedigree (a certificate of breeding) is of no use by itself; it bears the same relation to an animal as the table of contents does to a book,—the matter is there all the same, with or without it,—it shows you what the contents are, but you must study the book itself to know whether the logic is good or otherwise. Or perhaps it more closely resembles the title deeds to your farms. They may show regular transfers from the crown (through a number of owners) to yourself, but they do not show the quality of the farm, or how many undischarged mortgages or tax sale deeds are registered ahead of yours. You must examine both the farm and the records to know what your title is worth.

And while I am on this subject of pedigrees, I may as well go a little further with it, though I know I shall bump up against the prejudices of a good many good men. It is a fact beyond question that Britain leads the world in their domestic animals; and if I ask the question why it is so, I will be told it is owing to their climate being so much better suited to animal life. Now, I doubt very much whether any country has a climate more suited to all kinds of animal life than all the rest of the world. Other countries—our own continent, for instance—have as varied and vigorous a fauna as Britain. Yet, if we want a race-horse, or a draft-horse, or a carriage-horse, or a saddle-horse, or cattle, or sheep, or pigs, of almost any breed, we like to trace them to British herds; and I believe there is a better way of accounting for it than climate, and it is one that exactly agrees with the principles I have already indicated. Britain is a country of wealthy men, and men of wealth and a taste for breeding have for generations devoted their wealth and abilities to the improvement of their stock. Money has not been spared in procuring the best specimens of their kind, and these have been bred with skill and judgment. It is also a small country, and consequently the breeders are nearer each other, and have opportunities of seeing each others' stock and of knowing all about them and their ancestors for generations. Hence, when a man wants a change of animals to head his herd—for it is on the sire he must depend for improving them—he has less difficulty in finding what he wants. He can visit a dozen breeding establishments in a few hours, and perhaps in each of them will find the type of animal he wants, and he can also find out all about their ancestors and their own performance, and if he finds a strain in their breeding he does not like, he can pass on until he is suited; or, failing that, choose the least objectionable one. He is, in fact, reasoning more intelligently, because he is nearer his facts. This, I believe, the logical explanation of the superiority of their stock, even after making a very large allowance for climate.

But I suppose I have given you as much of this doctrine as you care to hear. I have given you firstly, secondly, thirdly, and lastly. And now, in conclusion, which is, as usual, the beginning of the sermon. If I were a young man with limited means, about to establish a herd, I would first of all decide what kind of an animal I wanted to breed. Then I would secure a sire of the type I wanted, and I would see that he was no chance production, but that he inherited his type legitimately. I would choose the sire first, because I would want to have money enough to get a good one, and also because it is easier to get a few females to mate with a male of any particular type than it is to get a male suitable to mate with a number of females in which there is sure to be some difference of type. This may seem a little contradictory, but it is not, as any one will find, by experience, who tries it.

In choosing an animal of any kind, and more particularly one for a sire, I would like to see him in fairly good condition—not fat, but with enough flesh on him to show where he was inclined to put it. There was a time when I thought I wanted to see an animal skin poor to judge him, but after I had got left a few times, I began to find out I did not know nearly as much as I thought I did. And now, when I meet a man who wants to see an animal dead poor to judge what it will be like in good condition, I think he is just as big a fool as I was when I wanted the same thing. The man does not live, nor ever did live, nor ever will live, who can tell exactly what difference flesh is going to make on a skeleton he knows nothing about. If I thought that pure-bred animals were necessarily delicate, as some do, and gave worse results than those having only 90 per cent. of the same blood, the first question I would ask any man who tried to sell me a ram or a boar, or the service of his stallion, would be, Is he pure-bred? and if he said he was, I would tell him to pass by on the other side of the road. I would not let him look over my fence, for health and vigorous constitution would be the first considera-

tions in choosing my stock. But if I did not believe it, as I certainly do not, the purer his blood the better he would suit me. Then I would buy the best females my means would admit of doing, as near the desired type as possible, always preferring a lesser number of good ones to a larger number of inferior ones. Then I would breed and continue to breed them and their progeny to males of the same type, though they might in some cases be both defective in the same minor points. I would try to fix what good points I had in my herd before I risked too much to overcome the weak ones. I would not choose a sire because he looked nice and sleek when loaded up with flesh, and was good in some points where my females were weak, if he was weak in more important points where my females were strong. I would not risk losing the substance by grasping at the shadow. I would not make violent crosses; I would not breed one kind of animal to-day and another to-morrow. I would use my best judgment and the best advice I could get in starting, and then I would keep straight ahead until I "made a spoon or spoiled a horn." And I would not expect too much. I would not expect to produce a cow that would make four pounds of butter and five pounds of beef a day at the same time without pretty good feed and care. In short, I would not breed a bobtail cow to a muley steer, expecting to get both tail and horns. I would expect at least two or three times a week to meet men who had learned the whole science of breeding, some morning before breakfast, who would show me I was all wrong and that I ought to be using the muley steer; but I would just let them do their talking, and would do my own thinking. And when some enthusiast came along who wanted to breed some of the ribs out of my cows, I would consider very seriously whether it would not be better to have a few more bred into them. I would expect to be told "the breed goes in at the mouth," and I would say, "All right, so does the butter, and cheese, and wool, and bacon, and lard, and mutton, and the very vim and stamina of life." I don't care how much breed or feed goes in at the mouth. What I want to know is, What results do they give? If a profit, then the more that goes in in that way the better. The animal that gives the best returns for what goes in at its mouth is the breed and type of animal I want. The man who wants to get a good deal of something for a little of nothing had better let breeding alone and go in for patent medicine.

Some years ago I used to meet a gentleman who was a bit of an enthusiast in breeding, who told me of a wonderful young bull in Southern Manitoba, and every time I met him he was louder in his praises of this bull. He had seen him a young calf, and he was a good one then, and had improved every day since, until he was really a marvellous bull, and he thought I was losing an opportunity in not getting him to use in my herd. About this time I met another gentleman from the place where this bull was bred and owned, and I asked him about him. He said he had never seen him, but had heard him spoken of as an exceptionally fine young bull. "But," said he, "I would not take him as a gift to use on my herd, because I know the stock he comes from, and if he is anything like the animal they say he is, he is not a representative of his ancestors."

That, gentlemen, is the way to choose a sire. It is the course I should follow; and if I never reached perfection with my herd, I should expect to gradually but surely approach my ideal.

## The Bath and West of England Show.

The Bath and West of England and Southern Counties Show, held at Taunton, May 29th to June 3rd, was successful in drawing together a large representation of high class stock of the various breeds. Heavy horses were largely represented by Shires, although there were also a few good Clydes. Hunters made a good showing. Hacks and ponies were light in numbers. In Shires, Sir Walter Gilbey, Bart., was the most successful exhibitor. Mr. Deadman won a championship Clyde prize. In cattle, Devons, Shorthorns, Herefords, Sussex, Jerseys and Guernseys were all out in good numbers, running, as a rule, between 30 and 40 entries. Aberdeen-Angus, Keries and Dexters were present, but not numerous. In Shorthorns, Mr. Dean Willis was the most successful winner of premiums, taking six out of seven firsts, also two championships. Sir W. Williams, Bart., and Mr. A. C. Skinner were the chief Devon exhibitors. In sheep, Leicesters, Cotswolds, Devon Longwools, Southdowns, Hampshires, Shropshires, Oxford-Downs, Somerset and Dorset-Horns and Exmores were all represented. In the champion prize for three yearling ewes, all breeds were allowed to compete. The Longwools were quickly dispatched to their pens, leaving Mr. Ellis' Southdowns, Mr. Flowers' Hampshires, and Mrs. M. Barr's Shropshires to fight the battle. The decision was given in favor of the Southdowns.

Sir Walter Gilbey has been elected president of the English Royal Agricultural Society for the year following the Darlington show. The Society has now a balance on hand of £40,638; the membership numbering 11,119. The entries for the Darlington show number 1,703, compared with 1,861 at Cambridge. The number of horses exceeds that at Cambridge, there being 650, compared with 617; 518 cattle, compared with 659, and 505 sheep, against 588.