

a kind are alike in colour and shape; but as soon as they are tamed this uniformity disappears. Wild rabbits are as alike as peas in a pod, so are wild geese, wild horses and cattle are generally all of one colour,—domesticated, as you all know, they are met with of all colours and combinations of colours; so, too, they begin to shew other qualities till then latent. Probably the first improvements arose accidentally, that is, without man's interference; but once established, no doubt he availed himself of them, and soon learned that it was in his power to develope still farther these useful points. Thus originated what we call breeds—and the way to establish a breed is to select from your stock the animals, both male and female, that have the desired points, *i. e.*, the greatest perfection, and breed from them alone; but it requires a great many years of careful selection and of close attention to several other things, presently to be mentioned, before any acquired quality will be transmitted with anything like certainty from parent to offspring.

There is one very curious unexplained fact that has, no doubt, caused much disappointment to you all. It is this, that an animal never forgets the male by whom she has first bred. It is very marked when a mare has had her first colt by an ass, every one of her subsequent progeny will shew unmistakable points of an assine character. A blood mare in England was covered by a quagga, a peculiarly marked wild ass from Africa, and the mule was striped like its father; the mare had several colts afterwards by blood stallions, but they were all marked like the first foal. A bitch will, in every litter, have a part of her pups like the dog that first lined her, thus I have myself verified in several instances. One spaniel bitch cohabited for the first time with a dog that had lost his tail, in that and in several after litters were pups equally tailless. How often do we hear a person complain that a fine mare has never bred after herself, but been the mother of awkward, worthless colts, or that a cow, famous as a milker, never had a calf worth raising, no matter what bull had leaped her. But knowing the fact, I now state to you how easily is the failure accounted for, and it will impress upon you the necessity of great care in selecting a good male in the first instance. To talk of a cow's imagination may seem rather absurd, but there are some practical truths connected with conception and gestation that seem to prove the lower animals to have some such mental quality. An English gentleman had a gelding very peculiarly and handsomely marked, and wished very much to match it, so he tried the experiment of turning loose with it, in a paddock, a fine young mare in heat; after an hour or so the mare was

taken out carefully blindfolded and covered by a stallion she had never seen, and then again turned in with the gelding,—in due time she dropped a foal marked precisely like the horse. Here the imagination must have been impressed—how otherwise can it be explained. Last summer I told a man of this, and he said it explained a circumstance that had puzzled him a good deal. He had two mares, a bay and a calico, they were both in heat and playing together, and they were both covered by the same bay horse the same day; the bay mare had a calico colt, the calico mare a bay. In neat stock, fancy colours and shape are not much sought for, but here is a hint that horse-breeders might turn to good account. The Bible gives us an instance of the same kind. The agreement between the patriarch Jacob and Laban, his father-in-law, was, that all the lambs and kids that were born speckled and spotted should be set apart as Jacob's hire—so he took rods, and peeling the bark off in rings and spots, placed them so that they would be before the eyes of the females when the flocks of males met them at the watering places; here they conceived, and the effect was that a very large proportion of the young were marked as Jacob wished. It is also said that he only used them when the strongest of the flocks were in heat. So that in this old time some of the laws which govern the breeding of animals were well understood and acted upon, *viz.*, to breed from the best, and to influence the yet unborn young through the imagination of the mother.

As the instinct of love preserves a race, so is there another instinct which contributes, when animals are in a state of nature, to preserve it in all its pristine vigor and perfection—it is the combative principle, which, in the rutting season, becomes so excessive in some of the brute creation as to amount to fury; and even in domestic animals often leads to fierce combats for the possession of the female.\* Were this not so the race would rapidly deteriorate and soon become extinct. I have no doubt that one great reason why both our horses and neat stock have, of late years, so materially degenerated, is the circumstance that often colts, and generally young bulls, are used in breeding, thus, from a mistaken idea of economy, doing the stock an injury that only great subsequent care can remedy; and many a fine young bull has been ruined by serving all the cows in a neighbourhood, begetting little sickly runts of calves fit neither to raise nor fatten.

Having now touched upon the three great laws that govern the reproduction of animals, I will mention a sub-law

\* Nature in this effects not only a selection, *viz.*, that the strongest, bravest and most mature males alone beget the young, but it prevents the young male from seriously injuring himself by excess.

which experience has established, applying it more particularly to the breeding of horses. The horse differs from all other domestic animals in this: he may have, in great perfection, speed, endurance, and a good disposition, but if he is not handsome his other good qualities are, in a great measure, overlooked, and his value is materially lessened. The law is this, never let there be a great difference in size between the mare and horse. You have all noticed how often the young of a poney mare will be clumsy, ungainly brutes, without action, speed or bottom, loggy and heavy headed. The cause is, that the small mother cannot, either before or after birth, furnish the young with the nourishment it requires properly to develop its form. And the crossing of the heavy, highly fed imported horses with our under-sized mares has resulted in this, that our present breed has deteriorated in many respects and improved in none. How rarely do we see a horse of any age perfectly sound; and where can you find the hardy little colt that would do his seventy miles a day without injury to his appetite, once common enough in the country? The most serviceable horses we now have are those that retain, in the greatest degree, the good qualities of the Canadian, or of those English horses first imported, as the Stag, Randolph, and some others. The old Duroe was, I believe, a Messenger.

When I was in England I visited the Queen's stables in Windsor, and there saw the saddle-horses used by Her Majesty and the late Prince Consort. They were all medium sized horses. Amongst them were four white Arabians, a present from the Sultan of Turkey, and two Barbs from the Emperor of Morocco,—not one of them was fifteen hands high. The English hunter is not large, but where will you find combined, in one animal, the same courage, speed and bottom. The race horse is almost worthless for any other purpose than the one usually assigned him; here everything has been sacrificed to the one great object—speed or a great stride. The drawings of them in the illustrated papers of the day are not at all exaggerated. They are called full-blooded horses, but it would be as great a mistake to cross our mares with one of them as some of the studs that travel the country. Until we adopt a better system of feeding and grooming, and this will only go hand in hand with a better system of farming, we must be content with a medium sized breed of horses. That a horse may be small and yet possess all other desirable qualities, is proved by the Arabian, the Hunter and the Morgan. I am aware that the heavy horse will, other things being equal, sell much more readily, and for a better price than the other; but I think any one of experience will join me when I say, that