

in this country. The reason there given is this: The mother's system is influenced and changed by the young she carries in her womb, and if the male parent be of a different breed, her blood is contaminated, and she rendered similar to a mongrel for the remainder of her life. This assertion may startle many, but it is claimed that no physiological *fact* is more susceptible of proof than this, and a few instances noticed by Dr. Harvy, Physician to the Aberdeen Royal Infirmary, would seem to demonstrate such a *fact*. He speaks of a young chestnut mare, seven-eighths Arabian, that belonged to the Earl of Moreton, which was covered by a quagga, a species of wild ass from Africa, and marked somewhat after the manner of the zebra. The mare was covered but once by the quagga, and after the pregnancy of eleven months and four days gave birth to a hybrid, which had distinct marks of the quagga in the shape of its head, black bars on the legs, shoulders &c. Two years after, also the third and sixth years respectively, the same mare was covered by a very fine black Arabian horse, and produced three foals, all of which bore unequivocal marks of the quagga.

Another case similar to the foregoing one: A mare belonging to Sir George Ousely was covered by a zebra, and gave birth to a striped hybrid. The next year this mare was covered by a thorough-bred horse, and the next succeeding year by another horse. In this instance also both the foals were striped, and in other regards partook of the zebra. It is a matter of common observation that when a mare has borne a *mule* she is never after fit to breed colts, as they will have large heads, and otherwise resemble the mule. Each of the mares alluded to were, in the first instance, covered by animals of a different *species* from themselves; but other cases fully as conclusive where they had only bred from horses of different *breeds* in successive years, and yet the offspring partook of the characteristics of the horse by which the *first* impregnation was effected.

Mr. McGillivray speaks of several colts in the royal stud at Hampton Court, that were sired by the horse *Actæon* that did not resemble *Actæon*, the paternal parent of the foals, but did bear a resemblance to the horse Colonel, from whom the mares had brought colts the year previous to their being covered by the horse *Actæon*. Again, of a colt, the property of the Earl of Suffield, which was got by the horse Laurel, that it was strongly intimated by the jockeys at New-Market that he *must* have been got by the horse Camel. This resemblance was, however, accounted for by the fact that the mare had been previously impregnated by Camel.

Similar instances have also been observed in regard to other species of animals. Mr. McG. mentioned the following: "A pure Aberdeenshire heifer was served with a pure Teeswater bull, to whom she had a *first cross calf*. The

following season the same cow was served with a pure Aberdeenshire bull; the produce was cross calf, which at two years old had very long horns, the parents both hornless. Another A pure Aberdeenshire cow was served with a cross bull, i. e., an animal produced between a first cross cow and a pure Teeswater bull. This bull she had a cross calf. Next season she was served with a pure Aberdeenshire bull; the calf was quite a cross in shape and color. The same gentlemen, who is good authority, say "many more instances might be cited. Almost all cattle and horses they are of every day occurrence."

This mode of impairing the purity of the blood of animals has been styled *crossing* the system of the mother. Dr. Harvy also records numerous instances of similar results as having occurred in the *human* family, but these are not included in this article. It is inferred that the reason why so many inferior animals are to met with, the progeny of parents of pure lineage, is almost wholly owing to the blood of the mother having been previously contaminated by the cross-bred young she has carried. Of the *modus operandi* of this contamination there is explanation given which is generally satisfactory but it seems probable that inasmuch as the *ear blood* must circulate through the veins of both mother and offspring, the system of the dam comes modified and rendered in a greater or lesser degree similar to her mongrel young. Surely that in view of the vast interest involved in this subject, "the theory thus vindicated by these other eminent breeders," renders this subject worthy the special attention of all those interested in agricultural pursuits in our country. *Country Gentleman*.

### The Mutual Relations of the Vegetable and Animal Kingdoms.

[The following paper was read by Mr. J. Hobson, of Long Sutton, Lincolnshire, at the last monthly meeting of the London and Country Farmer's Club, on June 3rd.]

When the subject on the card was first suggested, it was in the hope that some accomplished member of the Club, specially qualified such a task, would give us the benefit of researches on a theme of such unbounded interest. Failing that, when the committee brought me with the charge of this paper, from very time I became deeply sensible how unqualified I was to grapple with a subject of such gigantic proportions, and I should be peculiarly unfortunate if any one present whom I am a stranger (for none else are engaged) should expect anything from this paper original in science or novel in practice do not pretend to advance anything which is easily accessible to any of my brother farmers.