It has sometimes been said that our domestic races do not differ in constitutional peculiarities, but this cannot be maintained. In our improved cattle, pigs, &c., the period of maturity, including that of the second dentition, has been much hastened. The period of gestation varies much, and has been modified in a fixed manner in one or two cases. In some breeds of poultry and pigeons the period at which the down and the first plumage are acquired, differs. The number of moults through which the larvæ of silk-moths pass, varies. The tendency to fatten, to yield much milk, to produce many young or eggs at a birth or during life, differs in different breeds. We find different degrees of adaptation to climate, and different tendencies to certain diseases, to the attacks of parasites, and to the action of certain vegetable poisons. With plants, adaptation to certain soils, the power of resisting frost, the period of flowering and fruiting, the duration of life, the period of shedding the leaves or of retaining them throughout the winter, the proportion and nature of certain chemical compounds in the tissues or seeds, all vary. .

There is, however, one important constitutional difference between domestic races and species; I refer to the sterility which almost invariably follows, in a greater or less degree, when species are crossed, and to the perfect fertility of the most distinct domestic races, with the exception of a very few plants, when similarly crossed. It is certainly a most remarkable fact that many closely-allied species, which in appearance differ extremely little, should yield when crossed only a few more or less sterile offspring, or none at all; whilst domestic races which differ conspicuously from each other are, when united, remarkably fertile, and yield perfectly fertile offspring. But this fact is not in reality so inexplicable as it at first appears. In the first place, it was clearly shown in the nineteenth chapter that the sterility of crossed species does not depend chiefly on differences in their external structure or general constitution, but on differences in the reproductive system, analogous to those which cause the lessened fertility of the illegitimate unions of dimorphic and trimorphic plants. In the second place, the Pallasian doctrine, that species after having been long domesticated lose their natural