

too far.¹⁷ But Sir J. Sebright, declares,¹⁸ that by breeding *in-and-in*, by which he means matching brothers and sisters, he has actually seen the offspring of strong spaniels degenerate into weak and diminutive lapdogs. The Rev. W. D. Fox has communicated to me the case of a small lot of bloodhounds, long kept in the same family, which had become very bad breeders, and nearly all had a bony enlargement in the tail. A single cross with a distinct strain of bloodhounds restored their fertility, and drove away the tendency to malformation in the tail. I have heard the particulars of another case with bloodhounds, in which the female had to be held to the male. Considering how rapid is the natural increase of the dog, it is difficult to understand the large price of all highly improved breeds, which almost implies long-continued close interbreeding, except on the belief that this process lessens fertility and increases liability to distemper and other diseases. A high authority, Mr. Scrope, attributes the rarity and deterioration in size of the Scotch deerhound (the few individuals formerly existing throughout the country being all related) in large part to close interbreeding.

With all highly-bred animals there is more or less difficulty in getting them to procreate quickly, and all suffer much from delicacy of constitution. A great judge of rabbits¹⁹ says, "the long-eared does are often too highly bred or forced in their youth to be of much value as breeders, often turning out barren or bad mothers." They often desert their young, so that it is necessary to have nurse-rabbits, but I do not pretend to attribute all these evil results to close interbreeding.²⁰

With respect to *Pigs* there is more unanimity amongst breeders on the evil effects of close interbreeding than, perhaps, with any other large animal. Mr. Druce, a great and successful breeder of the Improved Oxfordshires (a crossed race), writes, "without a change of boars of a different tribe, but of the same breed, constitution cannot be preserved." Mr. Fisher Hobbs, the raiser of the

¹⁷ Stonehenge, 'The Dog,' 1867, pp. 175-188.

¹⁸ 'The Art of Improving the Breed,' &c., p. 13. With respect to Scotch deerhounds, see Scrope's 'Art of Deer Stalking,' pp. 350-353.

¹⁹ 'Cottage Gardener,' 1861, p. 327.

²⁰ Mr. Huth gives ('The Marriage of Near Kin,' 1875, p. 302) from the 'Bulletin de l'Acad. R. de Méd. de Belgique' (vol. ix., 1866, pp. 287, 305), several statements made by a M. Legrain with respect to crossing brother and sister rabbits for five or six successive generations with no consequent evil results. I was so much surprised at this account, and

at M. Legrain's invariable success in his experiments, that I wrote to a distinguished naturalist in Belgium to inquire whether M. Legrain was a trustworthy observer. In answer, I have heard that, as doubts were expressed about the authenticity of these experiments, a commission of inquiry was appointed, and that at a succeeding meeting of the Society ('Bull. de l'Acad. R. de Méd. de Belgique,' 1867, 3rd series, Tome 1, No. 1 to 5), Dr. Crocq reported "qu'il était matériellement impossible que M. Legrain ait fait les expériences qu'il annonce." To this public accusation no satisfactory answer was made.