

an immense diversity of influences then must some of them have been in contact with during their continuance in time and space, and, if sensitive to these, what a diversity in size, form and color is to be expected as a result. This helps to account for much of the marvellous diversity which we actually do find in nature everywhere around us

It is specially desirable to note here, that these influences we have been considering, which accomplish the change in organisms, are wholly external, acting from without, just as we saw that those which make uniformity were internal, acting wholly from within.

But there are several other influences at work in Nature producing variety in organisms, some of which we as yet know little or nothing about, hence the expression, "accidental variation." But as accident is not recognized in science, every effect having unquestionably an efficient cause, whether within the range of our ken or no, I prefer "individual variation" to express the idea associated with these peculiarities that unexpectedly show themselves, and which are often seized upon by breeders for the improvement of stock, and for the production of fancy and ornamental forms. This has been carried to an astonishing length in some departments, and these varieties may appear in Nature as well.

Here then the question arises, do these variations, by whatever cause produced, or by whatever name called, going off in opposite directions, ever attain a point of complete separation: that is, when individuals that have come from a common stock are brought together from the extremes of unlike, will Nature in them fail to acknowledge their original relationship. Consideration is required here. We know that many animals go in flocks, herds, coveys, swarms, &c., and that each of these aggregations incline to keep by themselves, and do not readily mingle in Nature; that an individual from one of these will be refused admission into another of the same kind, and can only obtain it by conquering a position. This we see frequently amongst domestic animals, and if the external forms are diverse the trouble is all the greater, so that it may require time, restraint, compulsion even, to get them at first to live together. This being accomplished, all our information goes to prove that no matter what external difference separates them, internally they are yet one. Mr. Tegetmeyer, the celebrated writer on poultry, when describing how he had bred the golden, the silver and