

departing from the parental type in many characters.⁶³ Metzger, as stated in the ninth chapter, found that certain kinds of wheat brought from Spain and cultivated in Germany, failed during many years to reproduce themselves truly; but at last, when accustomed to their new conditions, they ceased to be variable,—that is, they became amenable to the power of inheritance. Nearly all the plants which cannot be propagated with any approach to certainty by seed, are kinds which have been long propagated by buds, cuttings, offsets, tubers, &c., and have in consequence been frequently exposed during what may be called their individual lives to widely diversified conditions of life. Plants thus propagated become so variable, that they are subject, as we have seen in the last chapter, even to bud-variation. Our domesticated animals, on the other hand, are not commonly exposed during the life of the individual to such extremely diversified conditions, and are not liable to such extreme variability; therefore they do not lose the power of transmitting most of their characteristic features. In the foregoing remarks on non-inheritance, crossed breeds are of course excluded, as their diversity mainly depends on the unequal development of character derived from either parent or their ancestors.

Conclusion.

It has been shown in the early part of this chapter how commonly new characters of the most diversified nature, whether normal or abnormal, injurious or beneficial, whether affecting organs of the highest or most trifling importance, are inherited. It is often sufficient for the inheritance of some peculiar character, that one parent alone should possess it, as in most cases in which the rarer anomalies have been transmitted. But the power of transmission is extremely variable. In a number of individuals descended from the same parents, and treated in the same manner, some display this power in a perfect manner, and in some it is quite deficient; and for this difference no reason can be assigned. The effects of injuries or mutilations are occasionally inherited; and we

⁶³ Downing, 'Fruits of America,' p. 5: Sageret, 'Pom. Phys.,' pp. 43, 72.