

the progeny might be different from the parents, then the characters of the species would speedily become changed, and it would practically cease to be the same. Again, it is necessary that the reproduction of species should be pure or unmixed; for an indiscriminate hybridity would soon obliterate the boundaries of species. It is impossible, therefore, to separate the idea of species from the power of continuous unchanged reproduction, without depriving it of its essential characters.

In like manner it is obvious that we must assume a separate origin for each species, and that we need not assume more than one origin. Practically, species remain unchanged, and do not originate from one another; and if all the individuals of a species were destroyed except one pair, this would, under favourable circumstances, be sufficient to restore the species in its original abundance.

The questions which have been raised as to the origin of species by descent with indefinite variation, and as to the possible creation of individuals of the same species in different places or at different times, are not of a practical character, at least in zoology proper, and the whole burden of proof may be thrown on those who assert such views.

We are thus brought to the definition of species, long ago proposed by Cuvier and De Candolle, and may practically unite in one species all those individuals which so resemble each other that we may reasonably infer that they have descended from a common ancestry. All our practical tests for the determination of species resolve themselves into this general consideration. The only modification of this statement on which even a Darwinian can insist, is, that a sufficient time and great geological changes being given, one species may possibly split into two or more; and since this is an unproved hypothesis, we may practically neglect it, except as a warning to be very sure that we do not separate as distinct species any forms which may be merely varieties of a single species, an error exceedingly prevalent, and which vitiates not a little of our reasoning on such subjects.

The origin of the first individuals of a species may be, and probably is, a problem not within the province of natural history. In the case of vital force it is the same as in the case of gravitation and other forces. We can observe its operation and ascertain the laws of its action, but of the force itself we know nothing. It is to us merely an expression of the power and will of the