

of combining ideas, and of retaining them in the memory, the greater do we find the development of the cerebral hemispheres. These parts of the brain are comparatively small, as we have seen, in fishes, reptiles, and the greater number of birds; but in the mammalia they are expanded in a degree nearly proportional to the extent of memory, sagacity and docility. In man, in whom all the faculties of sense and intellect are so harmoniously combined, the brain is not only the largest in its size, but beyond all comparison the most complicated in its structure.*

A large brain has been bestowed on man, evidently with the design that he should exercise superior powers of intellect; the great distinguishing features of which are the capacity for retaining an immense variety of impressions, and the strength, the extent, and vast range of the associating principle, which combines the simple groups, and forms them into abstract ideas. Yet the lower animals also possess their share of memory, and of reason; they are capable of acquiring knowledge from experience; and, on some rare occasions, of devising expedients for accomplishing particular ends. But still this knowledge and these efforts of intellect are confined within very narrow limits; for nature has assigned boundaries to the advancement of the lower animals, which they can never pass. If one favoured individual be selected for a special education, some additional share of intelligence may, perhaps, with infinite pains, be infused; but the improvement perishes with that individual, and is wholly lost to the race. By far the greater portion of that knowledge which it imports them to possess is the gift of nature, who has wisely implanted such instinctive impulses as are necessary for their preservation. Man, also, is born with instincts, but they are few in number, compared with those

* All the parts met with in the brain of animals exist also in the brain of man; while several of those found in man are either extremely small, or altogether absent in the brains of the lower animals. Soemmering has enumerated no less than fifteen material anatomical differences between the human brain and that of the ape.