§ 3. *Functions of the Brain.*

Physiologists have in all ages sought for an elucidation of the functions of the brain by the accurate examination of its structure, which evidently consists of a congeries of medullary fibres, arranged in the most intricate manner. Great pains have been bestowed in unravelling the tissue of these fibres, in the hope of discovering some clew to the perplexing labyrinth of its organization; but nearly all that has been learned from the laborious inquiry is, that the fibres of the brain are continuous with those which compose the columns of the spinal marrow; that they pass, in their course, through masses of nervous matter, which appear to be analogous to ganglia; and that their remote extremities extend to the surface of the convolutions of the brain and cerebellum, which are composed of a softer and more transparent gray matter, termed the *cortical* or *cineritious substance* of the brain.

It is a remarkable fact, that in vertebrated animals all the organs which are subservient to the sensorial functions are double, those on one side being exactly similar to those on the other. We see this in the eyes, the ears, the limbs, and all the other instruments of voluntary motion; and in like manner the parts of the nervous system which are connected with these functions are all double, and arranged symmetrically on the two sides of the body. The same law of symmetry extends to the brain; every part of that organ which is found on one side is repeated on the other; so that, strictly speaking, we have two brains, as well as two optic nerves and two eyes. But in order that the two sets of fibres may co-operate, and constitute a single organ of sensation, corresponding with our consciousness of individuality, it was necessary that a free communication should be

compose the face; but the fallacy of this criterion of animal sagacity has been shown in a great many cases.