

the impressions made by these agents, and must be modified in exact conformity with the physical laws they obey. Thus, the structure of that portion of the nervous system which receives visual impressions, and which is termed the *retina*, must be adapted to the action of light; and the eye, through which the rays are made to pass before reaching the retina, must be constructed with strict reference to the laws of optics. The ear must, in like manner, be formed to receive delicate impressions from those vibrations of the air which occasion sound. The extremities of the nerves, in these and other organs of the senses, are spread out into a delicate expansion of surface, having a softer and more uniform texture than the rest of the nerve, whereby they acquire a susceptibility of being affected by their own appropriate agents, and by no other. The function of each nerve of sense is determinate, and can be executed by no other part of the nervous system. These functions are not interchangeable, as is the case with many others in the animal system. No nerve, but the optic nerve, and no part of that nerve, except the retina, is capable, however impressed, of giving rise to the sensation of light: no part of the nervous system, but the auditory nerve, can convey that of sound; and so of the rest. The credulity of the public has sometimes been imposed upon by persons who pretended to see by means of their fingers: thus, at Liverpool, the celebrated Miss M'Avoy contrived for a long time to persuade a great number of persons that she really possessed this miraculous power. Equally unworthy of credit are all the stories of persons, under the influence of animal magnetism, hearing sounds addressed to the pit of the stomach, and reading the pages of a book applied to the skin over that organ.

In almost every case the impression made upon the sentient extremity of the nerve which is appropriated to sensation, is not the direct effect of the external body, but results from the agency of some intervening medium. There is always a portion of the organ of sense interposed between