

of the brain upon the nerves of the opposite side. Willis proved also that the *Rete Mirabile*, the remarkable net-work of arteries at the base of the brain, observed by the ancients in ruminating animals, does not exist in man. He described the different Pairs of Nerves with more care than his predecessors; and his mode of numbering them is employed up to the present time. He calls the Olfactory Nerves the First Pair; previously to him, these were not reckoned a Pair: and thus the optic nerves were, as we have seen, called the first. He added the Sixth and the Ninth Pairs, which the anatomists who preceded him did not reckon. Willis also examined carefully the different *Ganglions*, or knots which occur upon the nerves. He traced them wherever they were to be found, and he gave a general figure of what Cuvier calls the *nervous skeleton*, very superior to that of Vesalius, which was coarse and inexact. Willis also made various efforts to show the connexion of the parts of the brain. In the earlier periods of anatomy, the brain had been examined by slicing it, so as to obtain a section. Varolius endeavored to unravel it, and was followed by Willis. Vicq d'Azyr, in modern times, has carried the method of section to greater perfection than had before been given it;⁵ as Vieussens and Gall have done with respect to the method of Varolius and Willis. Recently Professor Chaussier⁶ makes three kinds of Nerves:—the *Encephalic*, which proceed from the head, and are twelve on each side;—the *Rachidian*, which proceed from the spinal marrow, and are thirty on each side;—and *Compound Nerves*, among which is the *Great Sympathetic Nerve*.

One of the most important steps ever made in our knowledge of the nerves is, the distinction which Bichat is supposed to have established, of a *ganglionic system*, and a *cerebral system*. And we may add, to the discoveries in nervous anatomy, the remarkable one, made in our own time, that the two offices—of conducting the motive impressions from the central seat of the will to the muscles, and of propagating sensations from the surface of the body and the external organs of sense to the sentient mind—reside in two distinct portions of the nervous substance:—a discovery which has been declared⁷ to be “doubtless the most important accession to physiological (anatomical) knowledge since the time of Harvey.” This doctrine was first published and taught by Sir Charles Bell: after an interval of some

⁵ Cuv. p. 40.

⁶ *Dict. Sc. Nat.* xxxv. 467.

⁷ Dr. Charles Henry's *Report of Brit. Assoc.* iii. p. 62.