

not use unless it dissolved them equally and carried them effectively.

In the end I wish it quite to be understood that I fully admit what is commonly called a stimulating action. For a short time it quickens the motion of the heart; whips on the circulation; excites the nervous system; raises temporarily the warmth of the body, and seems to urge on the processes of life. But this expedition of the vital processes does not convey to me the mending of them or their maintenance. If it did, alcohol would be remedial without the dangers it so systematically induces.

NOTE.—One remarkable advantage of the temperance movement has been its influence in bringing men of different sects, creeds, and positions into common action. I have attended meetings in which representatives of different creeds, and of Medicine and Law, have joined in one object. The union has also brought together Jew and Gentile, Parsee, Buddhist, and Mussulman. I was strangely affected on two occasions by what transpired. I heard, the Chief Rabbi discussing with English clericals a lecture of mine on the Mosaic Sanitary Code in no less a place than St. Paul's Cathedral; and in another instance I was still more personally affected. The Jewish community invited me to preside and to distribute the prizes at one of their schools. I did so; and after the ceremony the choirmaster begged me to sit another moment, and, turning to his choir, bade it sing to me, without any prearrangement, two verses composed by the late Rev. Lee Richmond, beginning

“Forgive, blest shade, the tributary tear,”

verses which, fifty years ago, I had had engraved as an epitaph on my own mother's tomb, and which I had never heard or seen from that time. It was a touching indication of the communion that has commenced to exist between Christian thought and Jewish sentiment and sympathy.

CHAPTER XX.

THE NERVOUS CENTRES AND EXPANSES.

THE opinion that has been generally put forward in my time, and which has been accepted for a long series of years—I had almost said ages—is that the nerves of the body spring, as it were, from the brain as a centre, or from the elongated spinal cord, and, spreading out in all directions, return to it. We have been told with great minuteness of the construction of this cerebro-spinal system; we have examined it after death; we have examined it experimentally in various ways, and, practically, it has been the one nervous system. We have known, however, of another nervous system, the ganglia of which are planted in the body near the great vital organs, like the heart, the stomach and liver, and which has had given to it the name of the “sympathetic”—the organic, or the vegetative system. Its nerves have been traced from its centres along the blood vessels to their extreme points. It was a nervous system that especially interested the great Bichat, and many have followed his descriptions; but it cannot

be easily reached so as to be examined. I once saw it in its entirety, owing to the industry and skill of the late Dr. Amadée Deville; but I have known many medical men who have never seen it at all, and who, in their daily work, have never taken it into account in regard to seats of disease. To my mind the sympathetic system has been neglected, and the cerebro-spinal, much better known, has often been misinterpreted. To me it seems that the nervous fibres everywhere in the skin, or in an organ of sense like the retina in the eye, are simply expanses laid out to catch the impressions of the universe, which impressions are conveyed and stored in their centres, so that feeling, seeing, or hearing are practically the same acts, and that whatever difference there may be in the two nervous systems is in the centres, the cerebral centres being those of reasoning and of impressions or memory, the sympathetic of impulses and promptings to action—perhaps even centres of motives. I touch an expanded nervous surface of the skin, and the impression made is conveyed from the external vibration to the nervous centre in the brain; is recognised there, and may return by other filaments it meets there or only by those which brought it. The food taken into the digestive canal may, and does, feed the organic centres, which centres become seats of impulses communicated to the cerebral centres, and light up the reason or intelligence: hence injuries and surface irritations produce

markedly the symptoms of disease. In brief words, impulses spring from the organic centres, or, as it is vulgarly but correctly expressed, from the heart, and the reasoning power or management of them from the brain, the circulation of which, like all other vascular parts, is under the control of the organic life, and may be excited or relaxed altogether. Thus primary animation rests on the organic bases, and is derived from, if not directed by, them alone. The feelings of fear, joy, grief, love, hate, hunger, thirst, all the animal qualities, have their centres there, and failure and death are the same phenomena modified simply in degree. There might be life without a brain: there could not be without an organic nervous system; and the place where the organic and, in so far as life is concerned, the reasoning centres meet in the higher animal, must indeed be vital. Nature, the true experimentalist, teaches us on this matter on the widest and most unmistakable scale. She performs the first and greatest act of all, without which there would be no life—namely, the reproduction of the species by means of a comparatively small surface of the organic nervous system, the cerebro-spinal system having nothing to do with the impulsive desire.

In brief, the generated force of the body in health or disease is lodged in the organic or vegetative centres; the direction of the force in the cerebro-spinal.