

bestow our warmest praise on the manner in which the author has executed the task entrusted to him. The "Vegetable Physiology" is one of the most instructive, and, at the same time, entertaining books with which we are acquainted; the style is pleasing; the illustrations apt; every page is a happy combination of the *utile* and the *dulce*. The volume, moreover, contains about sixty-four woodcuts. If the succeeding numbers of the Popular Cyclopædia sustain the reputation which the one before us must attain, they will form an instructive and highly useful series of works, "popular" in every sense of the word.

*A Series of Anatomical Sketches and Diagrams, with Descriptions and References. Part IV.*  
By THOMAS WORMALD and ANDREW M. McWHINNIE. Highley, London, 1841.

As we have only seen one part (IV.) of the present work, we are unable to give any idea of the plan upon which the authors propose to conduct it, or of the extent, &c., to which it may probably reach. We must, therefore, confine our observations to the number now before us. This number, or part, contains four anatomical sketches which are well calculated to fulfil the double purpose of refreshing the ideas of the practitioner upon anatomy, and of aiding the pupil in his dissecting-room labours.

In the first plate we have two sketches, representing the course of the thoracic duct in the neck, and the distribution of the laryngeal nerves. In the second plate is represented the axillary plexus; in the third, we have the anatomy of the axilla; and, in the fourth, we find two very excellent views of the elbow-joint.

The sketches in the present part are executed in a careful manner, and with much fidelity; and we have no doubt but that the work will prove an acquisition to students and junior practitioners.

### ON SLEEP;

WITH ARGUMENTS IN FAVOUR OF THE DOCTRINE OF AFFLUX OF BLOOD TO THE BRAIN DURING THIS STATE.

(Read before the Royal Physical Society of Edinburgh.)

By LEWIS ASHENHEIM, M.D. L.R. C.S.E., &c.

BEFORE entering on his subject, Dr. Ashenheim examines the various theories respecting sleep, which have been advanced by Scaliger, Blumenbach, Cullen, Ferriar, Darwin, Combe, and other writers. He then proceeds to deliver his own views in the following terms:—

"Although, as before stated, I have at present no satisfactory theory to offer, yet I have my opi-

nions as to what may be the cause of sleep; and although these opinions may perhaps have been precipitately formed and ill digested, yet, in some points at least, they are borne out by analogy. It is my belief, that in sleep there is an afflux of blood to the brain, notwithstanding the high authorities that are opposed to this view; and my reason for so believing, is the occurrence of some of the symptoms which present themselves in compression of the brain, which is often owing to a determination of blood to, or an effusion of the same on the surface, or in the substance of the brain. Let us now examine some of these symptoms; in compression of the brain, the pulse is slow, so is it in sleep; in compression of the brain, the surface is often natural, so is it in sleep; in the disease, the limbs are relaxed, so are they in sleep; in compression, there is insensibility to light and sound, so is there in sleep; in the former, there is stertorous breathing, so is there sometimes in the latter. Now, although I cannot at present prove to you that there is really an afflux of blood to the brain during sleep, and drawing my conclusions, as I do, from the above corresponding circumstances, yet it cannot be deemed presumptuous in me to advance, that such *may* actually be the case. Blumenbach has endeavoured to prove, that the circulation is diminished, and the quantity of blood less in the brain during sleep, and in doing so, he quotes a case of a patient of his, who had been trepanned, and in whom the brain was observed to sink during sleep, and to swell when he was awake. McNish and others join Blumenbach in his conclusions. But they seem to have forgotten one important fact, and that is, that the brain was subjected to the atmospheric pressure. The question may then be asked, why did it swell when the man was awake? *that* I answer thus, that as in the waking state, the circulation is more rapid than in the sleeping, the brain is in a fitter condition to resist the pressure. In a conversation which I lately had with a friend upon this subject, it was argued by him that there is *not* an afflux of blood to the brain during sleep, and, in endeavouring to prove this assertion, he quoted cases of children and others, who, after losing a great quantity of blood, had died in a state of complete sopor, and in whom he said that there possibly could not have been an accumulation or pressure of the vital fluid upon the brain, as *that* had, before death, been literally drained off; the little remaining, having been inadequate for the carrying on of the vital functions, which had been the cause of death. If then, he argued, there was not sufficient blood to sustain life, if the organs did not receive the quantity essentially necessary for their existence, how can you account for the profound sopor which ensued, sleep, according to your view, being caused by an afflux of blood to the brain? I confess that, at first, this startling argument somewhat staggered my belief in the theory which I had adopted, but on reflection I found that the very facts brought forward to weaken my views were actually the means of strengthening them. In Abercrombie's work on the brain, we find allusion made to the observations and experiments of the late Dr. Kellie of Leith. That much lamented gentleman bled animals to death, and almost invariably found, that while all the other organs were found completely blanched or drained of their blood, the