LV.—*On the Blood and Fibre.* By John William Griffith, M.D., F.L.S.

To the Editors of the Annals of Natural History.

Gentlemen,

As Dr. Barry has noticed in the last Number of your valuable Journal some observations I made in a former Number* on the Blood and Fibre, I shall feel obliged by your inserting the following remarks, extracted from my paper in the Medical Gazette in reply to Dr. Barry:—

"I leave the reader to judge whether the *description* of the fibre in the blood-corpuscles, given by *me,* is sufficient to authorize any one to give an opinion as to whether I have seen it or not. I believe that the consideration of the abstract appearances presented by objects under the microscope, serves very often rather to call forth the powers of the imagination as to what might cause such appearances, than as the means of making out the real structure of bodies; and, in examining different structures, we ought to avail ourselves of the assistance of all the means of investigation in our power—as dissection, chemical agents, heat, maceration, &c. Were these made use of in all cases, I feel convinced we should arrive at more satisfactory and less discrepant results. Now the effect of maceration in the case of muscular fibre convinces me that no such arrangement as that of a double spiral can exist; otherwise why do we have the separation into discs? This has been accurately figured and described by Mr. Bowman, and every microscopist must have seen it. As regards the formation of the tissues of the body from the blood-corpuscles, there seem to me insuperable difficulties in these views. In addition to the majority of the appearances which have been observed in the blood having occurred *after the blood has left its vessels,* in many cases *they have been seen taking place,* under the microscope, in the blood removed from the body. Can these appearances be called vital? Have we any right to believe that they take place in the living body? Moreover, where do these *forming* or *perfected* fibres, &c. pass through the capillaries? And how is it we do not find in certain cases fibres, epithelium-cells, &c. existing in the arteries, veins, or capillaries?

"I must say, however, that no views have been yet advanced which will explain some of the appearances presented by muscular fibre. Some of those which have been figured by Dr. Barry certainly cannot be explained on the views advanced by Mr. Bowman; although I believe the appearance figured by him in the 'New Cyclopædia of Physiology' to be the real structure of the muscle in its ordinary form.

* Annals and Mag. of Nat. Hist. No. 68. Feb. 1843.

"Dr. Barry cannot, I feel convinced, imagine that I am exceeding the bounds of propriety in publicly noticing what he was kind enough to show me in private. Feeling assured that his object is no other than the advancement of science, I can only say that I have no other motive; but advance these objections to his views with the idea that it is the duty of every one who has the opportunity to throw his mite into the common heap; and that the opposition of any theory will either bring forward evidence explaining the difficulties, and thus fixing truth on an immoveable basis; or bring up some new views, by means of which the old difficulty will be solved, and the same truth irresistibly founded."

9 St. John's Square, April 1843.

PROCEEDINGS OF LEARNED SOCIETIES.

ROYAL SOCIETY.

December 8, 1842.—The following papers were read, viz.:—

"Observations on the Blood-corpuscles, particularly with reference to opinions expressed and conclusions drawn in papers 'On the Corpuscles of the Blood,' and 'On Fibre,' recently published in the Philosophical Transactions." By T. Wharton Jones, Esq., F.R.S.

The author points out what he considers to be important errors in the series of papers by Dr. Martin Barry, which have lately appeared in the Philosophical Transactions, and are entitled, "*On the Corpuscles of the Blood*," and "*On Fibre*." He alleges that Dr. Barry has generally confounded the colourless corpuscles contained in the blood with the red corpuscles of the same fluid; each of which latter kind consists of a vesicle or cell, with thick walls, but in a collapsed and flattened state, and having therefore a biconcave form, and in consequence of its thick wall being doubled on itself, presenting under the microscope a broad circumferential ring, which is illuminated or shaded differently from the depressed central portion, according to the focal adjustment of the instrument: while the colourless corpuscles, on the other hand, are of a globular shape, strongly refractive of light, and granulated on their surface, and are of less specific gravity and of somewhat larger size than the red corpuscles. The author quotes various passages from Dr. Barry's papers in proof of his assertions, and refers particularly to fig. 23 of his second paper on the corpuscles of the blood. He farther states, that Dr. Barry's description of the appearances of what he terms the red corpuscles, in paragraphs 53, 68, and 76 of his second paper, can, in fact, apply only to the colourless corpuscles: and he observes, that even when Dr. Barry does, at last, in his "Additional Observations," advert to the distinction between the red and the colourless globules, he considers the latter as being merely "the discs" contained in the red globules appearing under an altered state.