

dance when they so exist in the general mass of the blood. We believe that there is much truth on both sides of the question; and, although we do not believe that the white corpuscles are generated in inflamed vessels or contiguous parts, yet we think that there is strong grounds for stating that, in consequence of the non-appropriation of the nutritive material by the tissues, the white corpuscles accumulate within, and exudation corpuscles are left unassimilated without the vessels. While within the white corpuscles, having a tendency to move more slowly along the sides of the vessels at all times, now move still more sluggishly; every pulse-wave bringing new accessions to the spot: and it is yet a question whether the formation of new cells does not go on within, from the non-appropriation of the plasma as takes place without the vessels in the form of exudation cells.

Mr. Capenter, in his *Physiological Treatise*, remarks:—

Now the recent microscopic observations of Mr. Addison and Dr. Williams which were made independently of each other, have established the important fact that a great accumulation of white corpuscles takes place in the vessels of an inflamed part: this seems to be caused at first by a determination of those already existing in the circulating fluid towards the affected spot; but partly by an actual increase or generation of these bodies, which appear to have the power of very rapidly multiplying themselves.—The accumulation of white corpuscles may be easily seen, by applying irritants to the web of a frog's foot. Mr. Addison has noticed it, in the human subject, in blood drawn by the prick of a needle from an inflamed pimple, the base of a boil, the skin in scarlatina, &c. And the Author, without any knowledge of these observations, had remarked a very obvious difference between the proportions of white corpuscles, in blood drawn from a wound in the skin of a frog immediately upon the incision being made, and in that drawn a few minutes after, and had been led, like the observers just quoted, to refer this difference to a determination of white corpuscles to a part irritated. The absolute increase, sometimes to a very considerable amount, in the quantity of white corpuscles in the blood of an inflamed subject, has been verified by Mr. Gulliver and several other observers. These facts, therefore, afford strong ground for the belief, that the production of fibrin in the blood is closely connected with the facts previously urged, there scarcely appears to be a reasonable doubt, that the elaboration of fibrin is a consequence of this form of cell-life, and is, in fact, its express object.—This view derives farther confirmation from the following recent experiment of Mr. Addison's. "Provide six or eight slips of glass, such as are usually employed for mounting microscopical objects, and as many smaller pieces. Having drawn blood from a person with rheumatic fever, or any other inflammatory disease, place a drop of the colourless liquor sanguinis, before it fibrillates, on each of the large slips of glass; cover one immediately with one of the smaller slips, and the others one after another at intervals of thirty or forty seconds: then, on examining them by the microscope, the first will exhibit several loose blood corpuscles in various conditions, and numerous white molecules distributed through a more or less copious fibrous net-work; and the last will be a tough, coherent, and very elastic membrane, which cannot be broken to pieces nor dissolved into smaller fragments, however roughly or strongly the two pieces of glass be made to rub against each other. This is a 'glaring instance' of a compact, tough, elastic, colourless, and fibrous tissue, forming from the colourless elements of the blood; and the several stages of its formation may be actually seen and determined.

We gather from these observations, and from those of others, that there is an increase of the white corpuscles of blood in inflamed parts, as well as in the mass of blood; and it also appears that their accumulation, within and without the vessels, is due to a failure