

system, and practice has also demonstrated that so called nervous persons are not the most susceptible to inflammation, as is exemplified by their receiving injuries giving rise to excessive pain without the inflammatory process being established.

When we place the web of a frog's foot under the microscope the currents of blood are seen moving in every direction with but slight interruptions, but on irritating a point the rapidity of the flow is decreased in the immediate neighbourhood of the irritated point in proportion to the extent and intensity of the application, the corpuscles become wedged in side by side until the flow is at last entirely arrested, while the blood is seen to move with increased rapidity through the neighbouring vessels. If weak irritants are used the arteries, veins, and capillaries are seen to dilate moderately, while stronger applications *speedily* dilate the vessels, the motion of the blood gradually decreases until it ceases to move, and becomes coagulated.

Hence it seems inflammation consists of stagnation of blood in the midst of increased flow, and the question naturally arises, what is its cause? Is it an atonic condition of the vessels, or a morbid condition of the blood, or both? That it is both, seems more than probable, for in the first place the vessels are seen to dilate and become more tortuous, and secondly there is multiplication of white globules, with increased adhesiveness; these white or lymph globules always entangling more or less of the red blood discs in proportion to the stimulant and health of the animal; as is well shown in frogs kept for experiment, for after much handling the result is obtained with less irritation. But the most striking phenomenon observed is the appearance of excessive formation of white blood globules in the part irritated, which some pathologists suppose is produced by an increased quantity of oxygen coming into contact with the protein contained in the blood, that this oxydized protein consolidates, forming corpuscles having oil globules for nuclei, the process being similar to that which takes place by bringing oil or milk globules in contact with serum, the globules taking on albuminous coats, the red blood discs supplying the oxygen for this purpose, which only obstruct the vessels when they become entangled by the white corpuscles, the current from behind forcing them forward and jamming them into the interstices between the white corpuscles until the vessels assume an uniformly red appearance, the liquor sanguinis being deposited outside by osmotic force, this action depending on a chemical affinity