

tion of the hyperæmia. As already stated in a publication in 1842, I have never seen in any organ or tissue of an animal, from any irritation whatsoever, a measurable dilation of fibreless capillary vessels; and, although such a change is asserted to occur, to the present time, by Vogel, Rokitsky, and others, yet I can only explain the discrepancy from these latter having failed to make comparative measurements. Those made by Leber¹ give Omm, 005; a difference too slight to be taken into consideration, and attributable alone to the measurement, for it is well known that it is quite impossible to measure the same body twice without obtaining a slight difference in the result. On the other hand, if dilatation of the capillaries does not occur in hyperæmia it is quite as difficult to prove they undergo narrowing or contraction. They only mode in which the latter could possibly take place, is by condensation and contraction of the tissue with which the capillary walls are firmly connected.

Dilatation of the arteries and veins, however, frequently occurs, and this condition determines a retardation of the current of blood through them. Further, simultaneously with hyperæmia of a tissue, fusiform dilatations are observed in those capillaries and arteries surrounded by the annular fibrous tunic, and likewise the experiments of Weber have proved their contractility under galvanic stimulus. Experience confirms the view that diminished contractility of the arteries participates in the production of hyperæmia. When an artery becomes calcified, hyperæmia is easily induced in the organ which it supplies with blood.

14. *Stasis.*

Stasis, or stagnation of the blood, as the term indicates, is the cessation of the circulation. It occurs in the arterial and venous, as well as in the capillary system. The alterations which the blood undergoes under these circumstances are the same in the three systems, and are only modified through the constitution of the latter. In this place, I shall treat only of stasis in the capillaries, and propose to devote a separate chapter to that of the larger vessels.

If the capillary vessels are stopped up with blood corpuscles, all movement of the sanguineous column ceases, the so-called lymph corpuscles increase in number and the lymph space has disappeared. The blood corpuscles themselves undergo the following changes:—They become grouped frequently in regular columns, resembling piles of