

he could estimate the coagulation time of the blood, and each of these he called a coagulometer.

He may justly claim to have made contributions to the building up of a scientific system of therapeutics of the disorders of the blood:—

(1) By devising a coagulometer.

(2) Establishing by coagulometrical observations that the blood may often be rendered more coagulable by the ingestion of calcium salts, and in particular of calcium chloride.

(3) Showing that there is a certain determinable optimum addition of calcium salts which cannot with advantage be exceeded.

(4) Showing that an increase of coagulability may be expected from the ingestion of calcium salts in particular where we have to deal with a defect of coagulability dependent upon a diminution of the content of the blood in lime salts.

(5) Suggesting a method of establishing the lime salts of the blood by which the existence of this deficit may be determined.

(6) Demonstrating that internal hæmorrhage and hæmorrhage from operation wounds may be checked or kept under control by the exhibition of calcium chloride.

(7) By demonstrating that calcium chloride will often control or abolish chilblains and urticaria (in particular the form of urticaria which supervenes upon the administration of diphtheria antitoxine and upon the consumption of acid fruits and vegetables).

(8) Showing that the ingestion of blood-decalcifying agents such as citric acid and the administration of soap, is followed by a diminution of blood coagulability and correspondingly increased lymph effusion.

(9) And by bringing out more clearly the fact already demonstrated by Vierordt, that the ingestion of alcohol is followed by a diminution of blood-coagulability.

He says, in the incidental references which have from time to time been made in the medical press to the prophylactic administration of calcium chloride to patients on the eve of operation, and in the reports of a recent discussion in the course of which the efficacy of this treatment in the case of jaundiced persons was debated, he says it appears to have been overlooked that it would be both practicable and appropriate before proceeding to operate in a case where hæmorrhage was feared, to determine whether the patient's blood has acquired the particular degree of coagulability which is desired. Severe intestinal hæmorrhage supervening in the course of typhoid fever is still referred to in medical literature as if it were an unforeseeable and altogether legitimate sequela of the ulcerative processes in progress in the intestine. In point of