2. That the process of clotting liberates a vasoconstrictor substance which acts on the coronaries, the renal vessels and the limb vessels. It acts directly on the muscle coat and it is not a proteid body.

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General physiological properties of diaphragm muscle.

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Strips of the diaphragm of the cat, both curarized and non-curarized, have been excised after death and experimented with in moist chambers at room temperature. Their great resistance is demonstrated by the facts that they remain irritable two to three times longer than, and do several times the amount of work done by, a leg muscle, such as the extensor longus digitorum. Moreover, the diaphragm is not paralyzed by curare until long after the leg muscles have ceased to act. A most striking phenomenon is the tendency of the diaphragm strips to yield rhythmic twitches. This is much more pronounced than with the control leg muscles. It may be made manifest by the action of solutions of certain electrolytes, where the twitches are irregular in extent and duration; and by weak faradic currents, which insure more regular responses. With 40 to 100 faradic stimuli in the second, the twitches occur at a rate of from 2 to 4. They are much more marked in non-curarized muscle. When irregularities due to the stimulated current are excluded, the following factors may possibly interact in the production of the rhythmic responses: (1) There may be present the Wedenski effect; (2) the weak stimulus may affect from time to time different groups of fibers within the muscle, the irritability of the groups varying; (3) polarizing factors may be present. The relations of these and other possible factors are not yet established. A strip of diaphragm muscle as a whole has a decided power of rhythmical response, but it is not yet certain whether this power is possessed by the individual muscle fibers.