It is therefore concluded that the diminution of cardiac output following digitalization of dogs is due to diminished filling of the heart, as the result of diminished venous return, which in turn is due to widespread peripheral vasoconstriction and redistribution of blood. There is no evidence that the reduced blood flow is due to a cardiac action of the drug.

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Relation of Protein Denaturization Rate to Specific Antibodies.

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Horse proteins injected in routine doses intravenously into normal dogs are so completely denatured by the end of about 4 days that they no longer call forth recognizable anaphylactic reactions on massive blood transfusion into partially exsanguinated horse-serum-hypersensitive dogs.[1] Representing this normal denaturization rate by the coefficient 1.0, the following approximate coefficients summarize our present data:

Horse protein denaturization rate in:

(a) Normal dogs	1.0	
(b) Horse-serum-immune dogs[2]	0.7	
(c) Cow-serum-hypersensitive dogs	0.5	
(d) Horse-serum-hypersensitive dogs[1]	6.0	to 8.0
(e) Desensitized H.S. hypersensitive dogs	4.0	

The rapid protein denaturization in hypersensitive dogs, therefore, is apparently due to some specific antibody which is absent or inoperative in immune dogs. This is best explained by the assumption that anaphylactic antibodies and immune antibodies are of different chemical compositions and of different physiological functions, both conceivably defensive in character.

[1] Manwaring, W. H., *et al.*, *J. Immunol.*, 1927, xiii, 357.

[2] Manwaring, W. H., *et al.*, *J. Immunol.*, 1928, xv, 351.