

- 4.5 cc. dissolved in 3 cc.—0.9 per cent NaCl—No effect.  
 6 mg. dissolved in 4 cc.—0.9 per cent NaCl—Died several hours later.

## III.

- .16 mg. dissolved in .2 cc.—0.9 per cent NaCl—No effect.  
 .4 mg. dissolved in 5 cc.—0.9 per cent NaCl—No effect.  
 .8 mg. dissolved in 1 cc.—0.9 per cent NaCl—No effect.  
 1.2 mg. dissolved in 1.5 cc.—0.9 per cent NaCl—No effect.  
 1.6 mg. dissolved in 2 cc.—0.9 per cent NaCl—Died at the end of 48 hrs.  
 2.4 mg. dissolved in 3 cc.—0.9 per cent NaCl—No effect  
 2.8 mg. dissolved in 3.5 cc.—0.9 per cent NaCl—Died at the end of 46 hrs.

## CONCLUSIONS.

Our experiments show the presence of albumin globulin and alkali soluble protein in the colon.

The toxicity of the water soluble protein shows no marked deviation from that of the colon itself.

The work on the colon bacterial proteins will be continued on much larger amounts of the dried organism.

## 3010

**The influence of posture of the neck on progression of the fowl  
 (*Gallus domesticus*).**

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In the course of our investigation of the body righting reflexes in the fowl, a detailed report of which will appear shortly, we had one animal which as a result of a cranial operation assumed a peculiar posture at certain times. It would keep its head down and tail up, so that the long axis of the body was at an angle about 60° to the horizontal. When in such a condition, the animal invariably walked backward and continued to do so till it would hit the wall of the room. But when it kept its head in a normal position it could and did walk forward.

In order to find out the mechanism of this phenomenon we studied a number of normal Leghorn and Sebright Bantam fowls in which the lower portion of the neck was kept flexed upon the trunk by means of a gauze bandage. We found that these ani-

imals, without exception, in attempting to move walked backward. After the bandage was removed they immediately returned to the normal method of progression. Such test could be performed repeatedly on the same animal with similar results.

To determine whether this retrogression was not due to voluntary movements of the nature of escape reaction, we performed these tests on the decerebrated fowl. The results were the same as in normal animals, indicating that this phenomenon is of a reflex nature (forced movement).

We conclude, therefore, that normal progression in the chicken is dependent upon the posture of the neck, or the tonic state of the neck muscles. This ability is lost as soon as the posture of the neck is changed (neck ventroflexed upon the trunk), and progression is replaced by retrogression.

### 3011

#### On the existence of a pressor substance in the blood of clinical cases of hypertension.

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It is common knowledge that neither the etiology nor the pathogenesis of hypertension is understood. In a rather loose way it has been correlated with diseases of the arteries and kidneys. Whether the reduction in the cross sectional area of the vascular bed is due to anatomical changes in these structures, or to some chemical substance circulating in the blood, which is capable of exerting a pressor response, has never been answered adequately.

We have, therefore, attacked the problem by transfusing the unchanged blood of patients with hypertension into animals, in order to see whether a pressor response could be detected in the animals so treated. In such a case the theory of the reduction of the peripheral vascular bed as the primary cause of hypertension could be excluded. Likewise the hypothesis of Hülse<sup>1</sup> regard-

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<sup>1</sup> Hülse, *Z. ges. Exp. Med.*, 1922, xxx, 240 and 268.