corresponds to the distribution of the "light" cells (Hesse) in its medullary tube and is probably not connected with the skin. Specimens of amphioxus tend to collect in the darker parts of an aquarium. They also swim away from a source of light. Amphioxus is therefore negatively photodynamic and negatively phototropic.

37 (129). **"The relation of blood platelets to thrombus formation": J. H. PRATT.**

In the frog, rabbit and dog experimental thrombi three to ten minutes old were studied. In the youngest thrombi there was agglutination of blood platelets or spindle cells and agglutination of erythrocytes without evidence of fibrin formation. The fusing and distortion of the erythrocytes were marked. The erythrocytes were sometimes broken up into small granular masses which simulated blood plates. By the use of a sodium metaphosphate solution it was possible to distinguish the blood platelets from the degeneration products of the erythrocytes.

38 (130). **"Conditions of bacterial activity in the intestine in cases of advanced, apparently primary, anemias": C. A. HERTER.**

The author reported results of the coördinated studies of 15 cases of apparently primary advanced anemias, in ten of which the blood picture was that of pernicious anemia. The studies related to the occurrence of phenol in the urine and in the feces; of indol in the feces and indican in the urine; of skatol in the feces; to the Ehrlich aldehyde reaction of the urine; to the Ehrlich aldehyde reaction of the feces; and to the hydrobilirubin reaction of Schmidt. In the case of indol, phenol and skatol, quantitative studies were made. The observations established the fact that in so-called primary, pernicious and allied anemias the indications of excessive putrefactive decomposition are almost regularly pronounced. These changes are associated with definite and characteristic departures in the bacterial activity of the intestinal flora studied in fermentation tube experiments. A careful study of the microscopic fecal fields, of the sedimentary fields in fermentation tubes, of the anerobic plates from the sterilized feces, and of the results of a modification of Welch's incubation test for the gas-bacillus, indicates that

in nearly every instance examined the peculiar Sacchus-butyric type of bacterial decomposition here found is dependent upon *B. welchii* (*B. ærogenes capsulatus*). Evidence is furthermore brought forward to show that this organism is a prominent and perhaps specific factor in some cases of advanced "primary" anemia. The overgrowth of the gas-bacillus is associated with a partial disappearance of *B. coli*. During convalescence the gas-bacillus recedes numerically and *B. coli* resumes a dominant position.

39 (131). **"Absorption of typhoid bacilli from the peritoneal cavity"**: **B. H. BUXTON** and **J. C. TORREY.**

Shortly after injection of typhoid bacilli into the peritoneal cavity of a rabbit the organs in most experiments are found to be invaded by the bacilli, more particularly the liver and spleen, in which there may be enormous numbers. By means of injection of lamp black, the peritoneal path for this rapid rush to the organ is shown to be by way of the anterior mediastinal lymphatic trunks. Even in five minutes after injection the trunks and the anterior mediastinal lymph node are markedly blackened.

On plating out the lymph nodes after injection of typhoid bacilli, they are often found to contain many millions of bacilli, and, as a general rule, if there are many bacilli in the lymph nodes there are also many in the organs.

40 (132). **"The dicrotic elevation at different points of the arterial tree"**: **PERCY M. DAWSON.** (Presented by **J. R. MURLIN.**)

In a number of dogs the form of the pulse-wave was studied by means of the Hürthle manometer. The arteries upon which the observations were made were the following—aorta, brachiocephalic, innominate, carotids, thyroids, vertebrals, internal mammaries, axillaries, brachials, left subclavian, celiac axis, superior mesenteric, left renal, inferior mesenteric, left iliac, deep femoral, femoral, saphenous and peripheral end of the carotid, *i. e.*, a side branch of the circle of Willis. The exact values of the apex and base of the pressure triangles were determined from readings of the systolic and diastolic pressures obtained by means of a valved manometer.

A careful study and comparison of the results has led to the following conclusions.