

weight. The blood cells are not respiratory, but phagocytic in function. They ingest muscle tissue at the inception of the pupal stage, dead tissue during each moult, and invading bacteria and protozoa. The blood plasma has among its functions the following: water storage; transportation of digested food; occasional food storage; respiration, subsidiary to the tracheal system; protection against predators through reflex bleeding of distasteful plasma; immunity against microorganisms; and mechanical pressure for emergence of the insect from egg, moulted exoskeleton, and pupal case. Clotting, when exhibited at all, appears so slow as to be of no apparent protective value.

## KANSAS ASSOCIATION OF BIOLOGY TEACHERS

The Kansas Association of Biology Teachers in their annual meeting at Topeka on November 3, elected the following officers for the coming year:

*President*—Dr. J. A. Trent, K.S.T.C., Pittsburg.

*President-elect*—Dr. John Breukelman, K.S.T.C., Emporia.

*Vice-Pres.*—Mr. Ira Hassler, Chapman.

*Sec.-Treas.*—Miss Gladys Beck, Kansas City.

Dr. D. F. Miller, of the Ohio State University, addressed the Association on "The Uses of Materials in the Teaching of the Biological Sciences." Dr. Breukelman discussed "The Aquarium as a Teaching Device," and Miss Frances Hutchinson discussed "Practical Biology" at the meeting. Dr. Dellinger, the retiring president, addressed the group on "The History of the Kansas Unit, and of The National Association."

The Kansas Association is cooperating with the State Department of Education in the preparation of a Course of Study for high school biology for the State of Kansas. A committee was also appointed to assist the Advisory Committee of the State Textbook Commission in the selection of a suitable textbook for the high schools of the State.

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