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**Unidirectional Block in Cardiac Muscle.**

RICHARD ASHMAN AND ROBERTA HAFKESBRING.

*From the Department of Physiology, Tulane University of La.*

In a previous paper<sup>1</sup> experiments were reported in which a unidirectional block was produced by asymmetrical compression applied at the middle of transverse strips from the turtle ventricle. It has since been found possible to induce a similar one-way block by means of 2 oblique cuts, starting from opposite points near the middle of the lateral edges of the strip and converging toward the center, but leaving a bridge connecting the two halves of the strip. Thus the central end of the one half of the strip is wedge-shaped. Responses to induction shocks applied to either end of the strip were recorded by the string galvanometer.

In 30 of 41 experiments, partial or complete block occurred at the bridge when the impulse was required to travel through the wedge before reaching the bridge. When the impulse came from the opposite end of the strip, there was either no blocking or the degree of block was definitely less. In 10 of the 41 experiments, the reverse result was obtained. In one experiment, conduction was equal in the two directions.

Although these results are much less conclusive than those previously reported, it seems clear that here also a similar juxtaposition of the more and of the less depressed muscle determines the direction in which blocking shall occur, namely, the impulse may be blocked if it invades the less before reaching the more depressed tissue; it is transmitted if the more depressed muscle is first to be invaded.

In those cases in which, with slower rates of stimulation, there was conduction in both directions, the impulse was usually transmitted more rapidly in the expected direction.

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<sup>1</sup> Ashman, R., and Hafkesbring, R., *Am. J. Physiol.*, 1929, xci, 65.