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causes increase in the work done by the heart, hence these nerves should be called augmentors rather than accelerators.

Application of the Rapidly Interrupted Current to the Heart itself. In addition to the white dots seen at the points of application of the electrodes and the dilation and blue appearance following the use of a weak or moderate current, another effect noticed in the alligator, on the use of a very strong current deserves mention. From the part where the electrodes touched the auricle, a considerable area took on a pale, even whitish aspect and seemed to diminish in size; by gradually moving the electrodes along, more and more of the auricle passed into the same condition. The part involved was thrown out of action, as in the case of the dilated position. This condition seemed to be one of pronounced contraction, probably tetanic, and confirms the view that the white dots seen in all cases just where the electrodes touch are caused by the contraction of the muscle fibres.

THE CARDIAC RHYTHM OF FISHES AND THE ACTION ON THE SAME OF CERTAIN DRUGS AND POISONS.

The object of the investigation was (1) to ascertain whether there were considerable physiological differences in the hearts of different fishes, and (2) to ascertain the laws regulating the rhythm of some one fish heart specially suitable for investigation, and (3) to determine the action of certain drugs and poisons on the fish's heart; these being, many of them, such as have been studied in their influence on the heart of the frog.

In general it may be said that the hearts of fishes are so sensitive to changes in normal conditions, and that most fishes are so easily killed, that it is not possible to pursue prolonged investigations on their hearts *in situ*. This remark applies especially to the Selachians, whose hearts, from many points of view, are exceedingly interesting.

Batrachus Tau (toadfish), is a fish of great vitality, resisting unfavorable conditions admirably, and its heart has a corresponding vital resistance, and being excellently suited for experimentation, this fish was the subject of a majority

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