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## ❧ Original Contributions ❧

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### ELECTROCARDIOGRAPHY AND ELECTROPHONOGRAPHY AS AIDS IN CLINICAL DIAGNOSIS\*

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New power in clinical diagnosis comes most often through the invention of new methods of investigation. I desire to speak briefly to-night of certain rather recent applications of electrical methods of examination to the clinical diagnosis of conditions of the heart. I shall deal (1) with the method of recording the electrical currents in the form of the so-called electrocardiogram set free in the heart muscle just previous to each heart beat, and (2) to a method of recording the heart sounds in the form of the so-called electrophonogram.

It has long been known that when an irritable structure like muscle undergoes excitation certain electrical changes take place at the point of stimulation, which increase the electrical potential there as contrasted with the remaining portion of the muscle which is at rest. If an electrode be applied to the excited point of the structure and another to some more distant resting point in it, and these be connected with a galvanometer the direction and intensity of the electric current produced in the muscle can be directly measured. From the form of the curve obtained

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