a slight increase in the percentage of the basophiles and a definite increase in the size and granular content of these cells. The granules stained a purple-red which varied to a dull brick-red; in normal female rats (virgin and killed during the normal oestral cycle) the basophiles take a deep blue stain. The changes in the basophiles were most marked in those animals in which the suppression of the oestral cycle was most evident.

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Variations in Contour of the Records Found in Serial Electrocardiograms of the Dog.

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In the course of some studies we had occasion to take serial electrocardiograms on 3 normal dogs twice a week over a period of 4 months. The dogs were trained to lie on their right sides while the electrocardiograms were taken. The limbs were shaved and flannel bandages soaked in concentrated saline bound around them. Copper wire spiral was then applied tightly over the bandage and connected with the electrodes. The skin resistance was found to be low with this procedure (below 1000 ohms) and no polarization was encountered.

The serial records obtained in each dog over the period of 16 weeks revealed irregular fluctuations in the form of the electrocardiograms. These variations were not progressive, could not be related to environmental factors, and varied within the wide limits illustrated in Fig. 1. These results were obtained in spite of the fact that every effort was made to take the successive electrocardiograms under identical conditions as regards the position and posture of the animal. These normal variations in the electrocardiogram of the dog are probably due to variations in the position of the heart at different times. The relative mobility of the dog's heart as compared to the human is such that it is almost impossible to manoeuver it into exactly the same position time after time. These effects of position involve changes in the amplitude and even direction of all the complexes of the electrocardiogram, especially the T wave. Sim-

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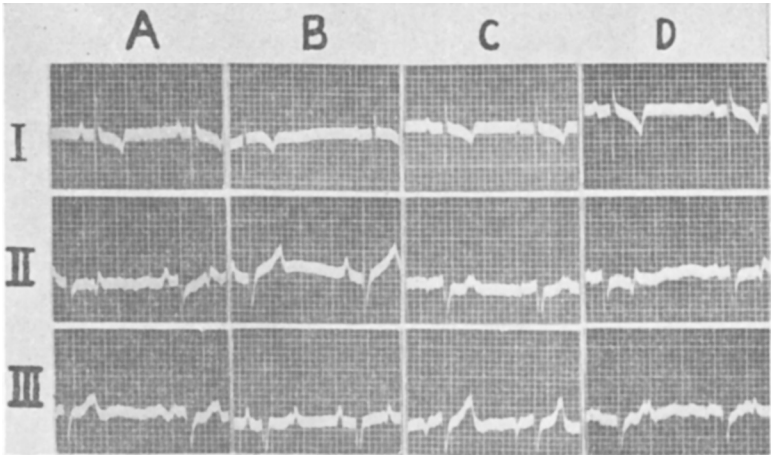

FIG. 1.
Electrocardiograms showing the range of variation observed in a normal dog, under identical conditions, during a period of 16 weeks. These records (segments A-D) are typical of a large number.

ilar variations in the electrocardiogram of one of these animals were observed when repeated records were made with the animal in the normal standing position.

Conclusion. Repeated electrocardiograms in the normal unanesthetized dog, involving repeated preparation of the animal for this procedure, show significant variations. These variations are probably accounted for by the relative mobility of the dog's heart as compared to the human, and must be taken into account in the interpretation of the results of experiments requiring repeated records over a period of days.