

mean were not greater than 1.5%, while in the other two they did not exceed 3%.

Further, the curves shown in Figs. II, III, IV, V, VI and VII indicated, it will be seen, but little variation during the periods of taking the readings. The readings from day to day, however, shewed considerable variation but these were no doubt due to variations in the amount of radioactive emanation present in the atmosphere. As the

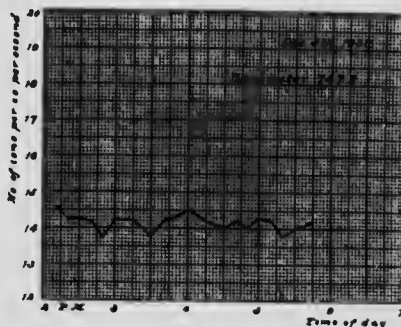


FIG. 6.

receiver was not hermetically sealed, the free interchange of air which this condition permitted could easily account for the differences noted.

A point of interest in connection with these observations and one which has been observed by other investigators was that the ionisation was greater when the barometric pressure was low than when it was high. A falling barometer would promote the effusion of gases

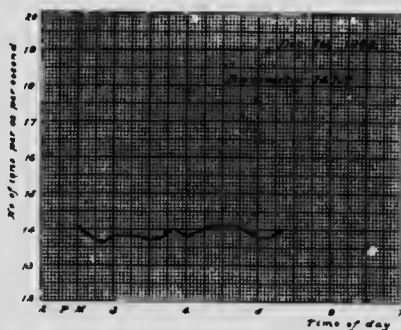


FIG. 7.

occluded in the soil, and this process of effusion would consequently result in an increase in the amount of emanation present in the air and so account for the higher conductivity.