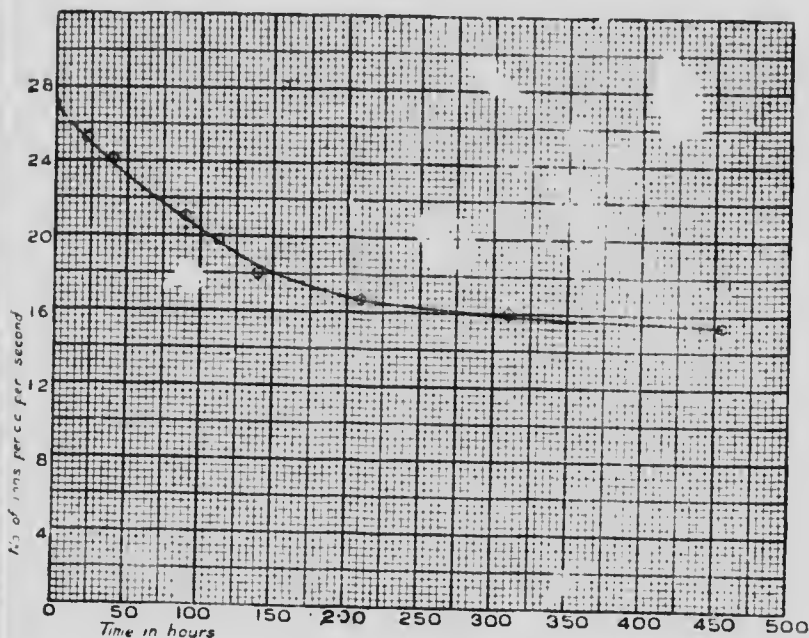


T (hrs.).	n.
0	27.0
22	25.2
40	24.1
75	21.4
113	19.8
139	18.0
209	16.7
310	16.0
454	15.4

A curve plotted from these readings is shown in fig. 2.

Fig. 2.



The decrease in the ionization clearly indicates the presence of some radioactive impurity in the gas. From the shape of the curve it may be estimated that the number of ions made per c.c. per second would finally fall to about 15. From this the number of ions per c.c. per second initially due to the radioactive impurity was about 12. As this number of ions had decreased to 6, or to one half, in about 90 hours (3.8 days), it may be concluded that the impurity was radium emanation. In the gas from the Presb-Lite tank this