TABLE II.

Temp.	Concentration.	Spec. Conductivity.
25°C	Water	2.314×10^{-6}
"	4.4×10^{-8}n HCl	2.314×10^{-6}
"	8.8×10^{-8} "	2.314×10^{-6}
"	17.7×10^{-8} "	2.314×10^{-6}
"	44.4×10^{-8} "	2.250×10^{-6}
"	111.1×10^{-8} "	2.314×10^{-6}
"	244.4×10^{-8} "	2.70×10^{-6}

TABLE III.

Temp.	Concentration.	Spec. Conductivity.
25°C	Water	2.025×10^{-6}
"	4.4×10^{-8}n HCl	2.076×10^{-6}
"	8.8×10^{-8} "	2.076×10^{-6}
"	13.3×10^{-8} "	2.104×10^{-6}
"	26.6×10^{-8} "	2.189×10^{-6}
"	71.1×10^{-8} "	2.70×10^{-6}
"	159.9×10^{-8} "	3.176×10^{-6}

The above tables and the curves plotted in Figs. III, IV and V, shew that on the addition of the first few drops of $\frac{N}{10000}$ HCl there was very little change in the conductivity of the solution, but as the HCl solution became more concentrated the conductivity gradually increased.

Experiment IV.—To 75 c.c. of redistilled water there was added a drop $\left(\frac{1}{27} \text{ c.c.}\right)$ of $\frac{N}{1000}$ $AgNO_3$, thus giving a 4.94×10^{-7} normal solution of silver nitrate. To this solution was added, drop by drop, a $\frac{N}{10000}$ solution of HCl. The variation in conductivity for different concentrations of the hydrochloric acid is shewn by the numbers in tables IV, and the curve in Fig. VI.