

currents in the trolley wires and rails, but must be due to large currents flowing at no great distance from the building, approximately at the level of the laboratory where the experiments were conducted. This may be due to a power line connecting the street-railway power house to a distant part of the system, or to a return current along some metal pipe-line.

A current variation of 50 amperes per second in a single conductor 200 metres from the building or a smaller current at a proportionally smaller distance would give deflections of the order observed.

The departure of the writer for England made it impossible for him to pursue these experiments further, and to locate the exact cause of these disturbances. The results obtained are communicated with the hope that they will be of some use, in view of the ever increasing number of electric traction lines, and the trouble they must necessarily cause to all who attempt delicate electrical measurements in their neighborhood.

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