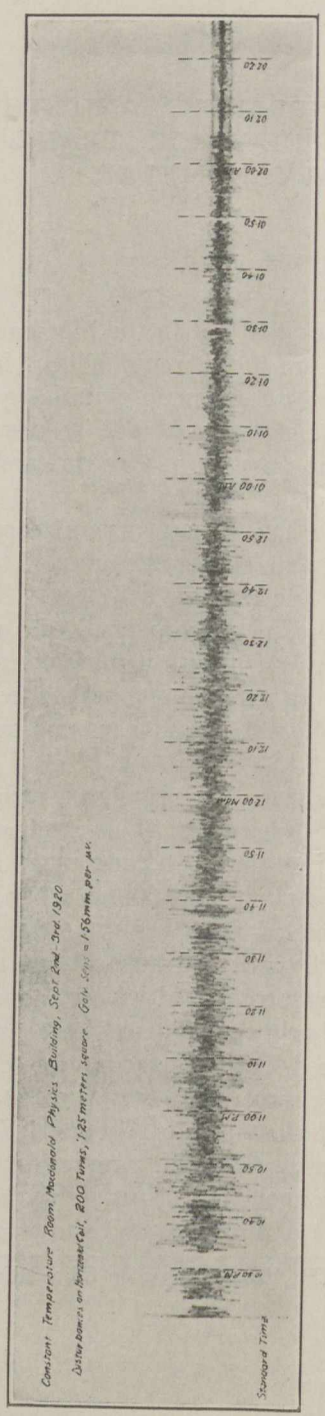

FIG. 1.

nitely that it cannot be either inside the building or in its immediate neighborhood.

When the coil was placed in a vertical plane, on the other hand, there was practically no disturbance, and it was not necessary to use any balancing loop. This was rather unexpected, as the circuit composed of the trolley wire and the rails ought to have an appreciable mutual induction with any circuit in a vertical plane in its neighborhood.

At the time when these observations were made Doctor Eve had been supervising some experiments to determine whether the passage of electric trains through the C.N.R. tunnel under Mount Royal produced any mechanical disturbance in the university buildings straight above it. He suggested that the galvanometer and coil should be set up in the basement of the library, 60 ft. directly above the axis of the tunnel, in order to detect any electrical disturbance.

The coil was accordingly placed with its plane in the axis of the tunnel, and the deflections of the galvanometer registered in the usual manner. In addition to a continual disturbance of small amplitude, large deflections were obtained, which coincided exactly with the times of trains. One of the records obtained is shown in Fig. 2. The times at which trains were heard to pass