

phase current. You place that current at a low voltage at the motors. What would be the current at the trolley wire, and how long would be the transmission of current between the stations?

Chairman,—

Regarding the length of transmission, this would be governed by the geographical conditions. There is no very high voltage carried on the third rail systems. It is generally of catenary construction. There has been no loss of lives in catenary constructions. The current is brought at a high voltage and dropped down by the transformers in the cab to an extremely low voltage to the motors. On the third rail system they are using practically the same system as we are using on the traction lines. This, of course, is in small zones.

Mr. Wilson,—

Is there any comparison between the elevated electric roads like in New York City, and the steam roads which will be converted into electric?

Chairman,—

There are no overhead trolley systems in the city you mention. The elevated roads are on the third rail system, and surface roads, underground trolleys.

Mr. Bly,—

I did not hear the first part of the paper, however, when you speak about the voltage, do I understand that the transmission line will carry current at 60 to 100 thousand volts, and you would take it at that voltage and reduce it to a low voltage in the cab for the motors?

Chairman,—

There would be no such excessive voltage as that on the catenary. The excessive voltage has been dropped down to say 2,000 volts. This voltage is maintained over the entire system, and at the pressure it enters the locomotive cab, when by the use of transformers, it is reduced to the required potential for use in the motors.

Chairman,—

Is there any other person anything to say on this subject? If not I will declare the discussion of the paper closed.