

these rules to every passenger who is in the habit of crossing. On the arrival of a train the inside passengers step out through the *outside* doors upon an independent sidewalk of 10 feet wide, which leads out of the depot, either to the right or left of the central walk, without interfering with incoming passengers. For this reason the whole width of the Bridge is widened out to 100 feet for a length of 500 feet at each terminus. Outside of these sidewalks are the common roadways, securely fenced off. It is proposed to build the cars substantial, but light, entirely of iron and steel.

Another system of running cars suggests itself, which may be termed the *circulating* system. In place of a reciprocating motion of the two trains, the wire rope is kept running around in one direction only, and each car, singly, as it fills with passengers, is to be attached to the rope and started. On its arrival at the opposite end this car is detached, discharged and run over to the other track, and in its turn conveys a load back again. Thus the cars will be kept moving *singly*, in a circular route, always crossing at the ends from one track to the other. At first sight this system seems to recommend itself as the best of the two. But there will be some practical difficulties to overcome, which can only be done experimentally on a large scale. I think I can make this system work successfully, but at present I prefer the other, as one perfectly established, and involving no new and untried features.

By examining the cross-section of the suspended