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discussion as possible at earliest date.**

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STRAIGHT AIR BRAKE EQUIPMENT.

By J. B. PARHAM, Stud. Can. Soc. C. E.

(To be read before Electrical Section, October 22, 1908.)

The air brake has, for many reasons, come to be regarded as an essential part of the equipment of modern high speed electric cars. Among the more important may be mentioned safety, saving in time, and economy of operation.

Steam roads adopted air brakes because trains could be handled more speedily and much time saved, and for these same reasons electric cars are now being operated on faster schedules than formerly, which means an increase on net efficiency of rolling stock. With the present heavy and increasing traffic to be dealt with, air brake equipment has become a necessity.

Statistics covering the last few years show that a reduction in the quantity of power taken from the line is brought about by the use of air brake apparatus. The average difference in the cost of operating an electric car furnished with hand brakes and one fitted with air brakes, on roads running through large cities where frequent stops are necessary, has been proven by actual test to be between 10% and 15%, the figures being based upon current consumption.

The saving of current is due to the fact that the powerful and instantaneous action of the brake renders it possible to leave the brake shoe clear of the wheel, even when newly adjusted, and allows the motorman to run in "full release" except when he has occasion to use the brakes; whereas, with the hand brakes the