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INTERURBAN ELECTRIC TRACTION SYSTEMS. A.C. VERSUS D.C.

By P. M. Lincoln.

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Electric traction is peculiarly an American institution, that is, it has found its widest application in American communities and has been developed chiefly by American engineers. In America practically every town of over five thousand inhabitants is provided with an electric traction system. In other parts of the world it is only larger centres of population that are so provided.

Practically all the traction work in America has been done by direct current. The alternating current traction system, although it has received considerable attention from American engineers, has not until recently been favourably considered by them. In Europe, on the other hand, the alternating current traction problem has received a large amount of attention. The polyphase induction motor has been developed by European engineers for traction purposes and a number of installations have been made in Europe with apparatus of this character. American engineers have consistently refused to adopt the polyphase induction motor for traction purposes on the ground that it is not suitable for that purpose. The principal reasons for this stand are two in number.

(1). That the polyphase induction motor is inherently a constant speed motor and, therefore, not adapted to traction purposes. Con-