

Chairman,—The reason for change on the C.P.R. is with a view to safety. In some accidents on that line there was considerable loss of life owing to the acetylene in the tanks taking fire. The acetylene was a splendid light in the coaches, and the Pintsch gas is also highly satisfactory. It is being used with a special mantle installed by the Safety Car Heating & Lighting Co.

There is also the question of lighting railway shops. Can we get any information about the lighting of the C.P.R. Angus shops or the G.T.R. Stratford shops?

Mr. J. Duguid,—I do not believe they have reached that point at Stratford, but perhaps Mr. Fleming is better informed of what lighting they intend to adopt.

Mr. Fleming,—In the Angus shops at Montreal they used direct current open arc lamps in the high bays. Now in nearly all your factory construction you have a high bay with a clear storey and windows on either side. You have also running below this clear storey, cranes. That, of course, prevents the lamps being dropped to any degree. Therefore you have to put them up in the clear storey. Now let us consider a moment the character of the arc lamps which they had already installed. You have two carbons. The light comes in a horizontal direction. There is a reflector on your arc which throws some of the rays down but the majority of your light goes right out the windows in your clear storey and does not go below where you need it. Now that, together with the low efficiency of the arc lamp, lead the Angus shops to make some change. A 69 blower Nernst lamp with metal reflector (dome in shape), replaced the others. The light was more satisfactory and the current consumption was reduced about 25 or 30%. The cost of maintenance remained about the same, leaving out the mechanical cost of repairs to the arc lamps.

At Stratford shops it is a little too soon to talk about the proposition. The consulting engineers connected with the shops have recommended to Mr. Patterson that he use the Cooper-Hewitt lamps. The Nernst lamps have been considered and some of the gentlemen directly connected with the work are in favor of Nernst lamps. I think, however, if a Cooper-Hewitt lamp can be obtained, which will start automatically, and the price is satisfactory, it will be the best proposition for factory lighting where you have those extremely high bays and where you have two tiers of crane bays from 55 to 60 feet. Now, however, where you have smaller bays and a lower ceiling, there is no question about it that the Nernst lamp is the better proposition. But if you happen to have, as some companies do, girls working for you and install the Cooper-Hewitt light,