

THE COMMERCIAL MOTOR.

THE COMPARATIVE MERITS OF ELECTRIC TRAM CARS AND MOTOR 'BUSES.

MR. E. MANVILLE'S PAPER BEFORE THE AUTOMOBILE CLUB, LONDON.

IN order that a fair comparison may be made, it is essential, in the first place, to realise those conditions which are of primary importance in dealing with the problem of the transportation of large numbers of the public in crowded centres.

There are two such main considerations:—

(1.) What system will provide the travelling public with the best and cheapest facilities for reaching their destinations with the least discomfort and inconvenience to the non-travelling public?

(2.) What system, whilst embodying the first requirement, is the most profitable to the promoters of the undertaking?

Dealing with the first of these two considerations, it is exactly here that the advocates of the motor 'bus have aroused the controversy between it and the electric tramway.

In my opinion, the relative advantages and disadvantages of these two methods of traction may be summarised as follows:—

- (5.) Absence of danger from fire and side-slip.
- (6.) The great improvement of the surface of the roadway.

Disadvantages.

(1.) Running on rails, and thus experiencing delay from other traffic.

(2.) Need for passengers crossing to the middle of the road when entering or leaving cars.

(3.) The need for rails in the roadway objectionable to other traffic.

(4.) In narrow roads interference with other vehicles desiring to stop by the pavement.

I have endeavoured above to enumerate those advantages and disadvantages which occur to me as inherent to the two systems of traction under consideration, and, in discussing the relative merits and demerits, it is essential not only to take into consideration the actual number of advantages and disadvantages which pertain to both systems, but also the relative value of these.

It cannot be denied that, amongst the disadvantages of the motor 'bus, there are some which are of the very first importance. I refer particularly to such items as the danger of side-slip, the prevalence of which is so well known that it requires no further comment from me; danger of fire is one that has already asserted itself on several occasions, and though, so far, it has not led to serious accidents, as in the case of side-slip, it obviously may do so, owing to the necessity of carrying about large quantities of highly inflammable motor spirit. The first of these serious disadvantages is entirely

tramway system under suitable conditions is so much less than that of operating an equivalent service of motor omnibuses that both a better service can be given and cheaper fares charged to users of tramway systems running under suitable conditions than can be granted by a similar motor-'bus system.

Reviewing then, impartially, the statements set forth above, I think it must be conceded that the balance of advantages, both to the travelling and non-travelling public, pertain to the tramway system rather than to the motor 'buses. I should like to point out here that one of the advantages of the motor 'bus, i.e., its ability to get from point to point quicker than a tram car, may, in the future well be turned to a disadvantage unless great care is exercised in the control of the drivers. I allude to the abuse of that very facility of avoiding other traffic and passing it, which even now leads to great obstructions of this other traffic on the road, and which, with the increase in the future of motor 'buses plying on particular routes, may, if not carefully looked after, become a public scandal, and be of far greater importance than the mere presence of tram rails on similar roadways. I will not dwell further on the relative advantages and disadvantages of these two systems from the point of view of both the travelling and non-travelling public, but will assume, for the sake of argument, that they may be both regarded as equally meritorious and advantageous from all points of view, excepting that of cost, which, in that case, must prove a prevailing factor in the consideration

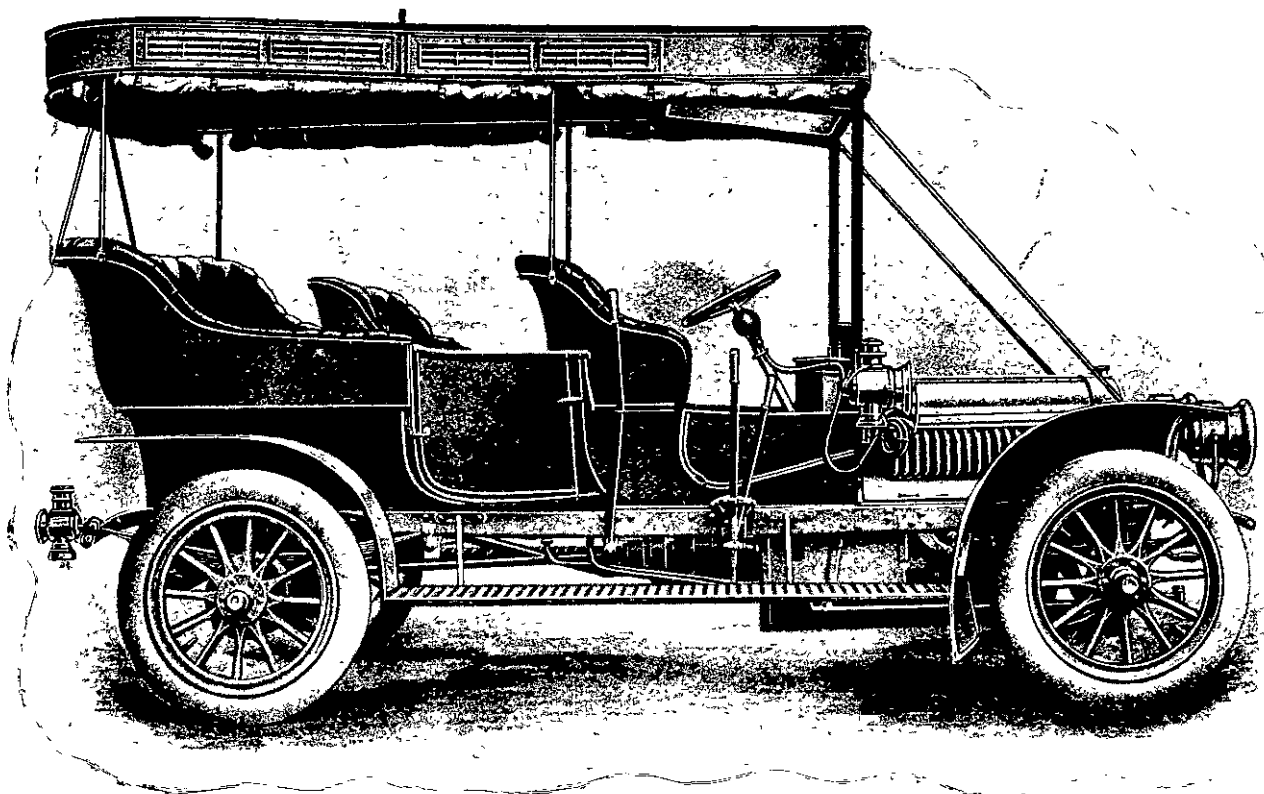


FIG. 3: ARGYLL CAR USED BY T.R.H. THE PRINCE AND PRINCESS OF WALES DURING THEIR RECENT TOUR IN INDIA.

MOTOR OMNIBUSES.

Advantages—

(1.) Probably greater speed from point to point, owing to their being free to move about the roads, avoiding other traffic en route.

(2.) Ability to vary the service from one road to another, thus enabling the most profitable routes to be ascertained without loss of capital.

(3.) Ability to draw up by the pavement so as to facilitate passengers entering or alighting, without proceeding to the middle of the road.

(4.) The absence of any rails in the roadway.

(5.) Where the roads are exceptionally narrow, non-interference with other vehicles desiring to stop by the pavement.

Disadvantages—

(1.) High cost of operation.

(2.) Great noise and corresponding inconvenience to other users of the road and residents.

(3.) Smell, and the prevalence of the smoke of burnt lubricating oil.

(4.) The ever-present danger of side-slip.

(5.) The danger of fire.

(6.) Vibration.

(7.) Danger to other vehicle users on the highway.

(8.) Unreliability.

ELECTRIC TRAMWAYS.

Advantages—

(1.) Lowest known costs of operation.

(2.) Great comfort, cleanliness, and good lighting.

(3.) Comparative absence of noise and vibration.

(4.) Reliability.

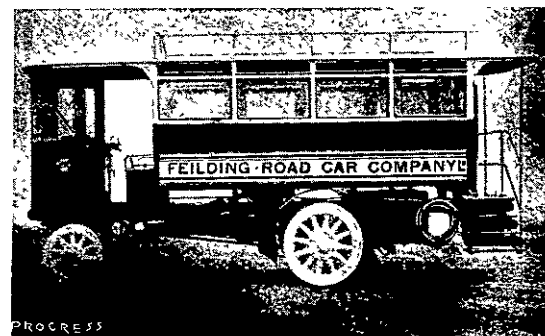
absent from the electric tram car, and the second one, although not entirely absent, cannot, on the rare instances when it occurs, lead to anything in the shape of danger to the public. It cannot, on the other hand, be denied but that the tram car, when run in very narrow roads, leads to obstruction of other vehicles wishing to stop by the roadside; also the tram cars themselves having to keep to fixed lines, are delayed by other traffic interfering with their progression. The noise, smell, and vibration of the motor 'bus, as at present constructed and operated, is daily evident to all, and contrasts most unfavourably in this respect with the comparative quietness, inodorousness and cleanliness, and steady travelling of the electric tram car.

As counterbalancing the installation of rails in the roadway may be mentioned the great improvement in the paving of many roads along which tramways run. It is common knowledge to all of us that the roads leading out from the Metropolis and from other cities and towns in the United Kingdom have been kept in a most disreputable state of repair, owing to the inability of the local authorities to spend a sufficient sum on their upkeep outside of the centres. The principle which has been instituted in enforcing good paving for a portion of the road, as a penalty to be paid for the installation of the tramway system, has very largely benefited other users of the road in this direction, and it must be recollected that the tramway itself derives no advantage from the paving which it has to instal and maintain, the benefit of which accrues entirely to the other users of the road. Last, but not least, the cost of operating an electric

of which system offers the public the greater advantage, and I will now proceed to review the question from that point of view.

COMPARATIVE COSTS OF TRAMWAY AND MOTOR-'BUS SYSTEM.

The total cost, including capital charges, of operating a tramway or a motor-'bus system may vary considerably according to the principles on which the services are conducted. By this I mean that the owners of the transport system, whichever it may be, can run the system only to yield them the most profit with the minimum facilities for the travelling public, or, on the other hand, can run such a system to the advantage of the public with a diminished profit to themselves. The facilities to



ONE OF THE MOTOR 'BUSES FOR THE NEW FELDDING AND DISTRICT SERVICE.