

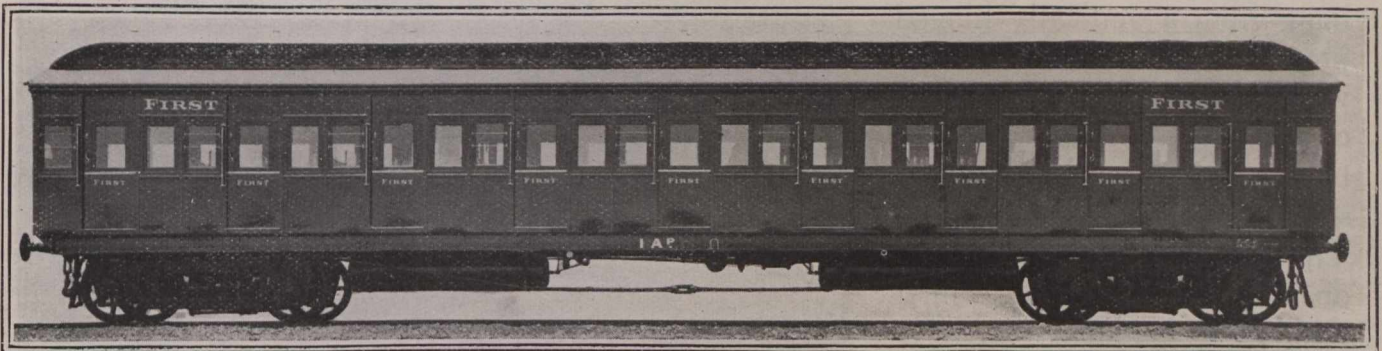
The Tait Suburban Car.

A very large traffic is dealt with by the Victorian Railways Commissioners on their suburban lines at Melbourne, Australia. The number of suburban passengers carried on these lines during the year ended June 30, 1909, was 74,541,251, and the revenue derived therefrom £746,844. About 1,300 suburban trains and 150,000 passengers arrive and leave the central passenger terminal every day. When Thos. Tait, Chairman of the Victorian Railways Commissioners and formerly of the C.P.R. service, was in Europe and America three years ago he inspected various types of suburban carriages then in use, including those which had just been constructed for service on the Hamburg-Altona line and the suburban cars running on the Illinois Central Ry. at Chicago, and as a result of his observations the car, of which illustrations are given in this issue has been designed to meet the requirements of the Melbourne suburban traffic.

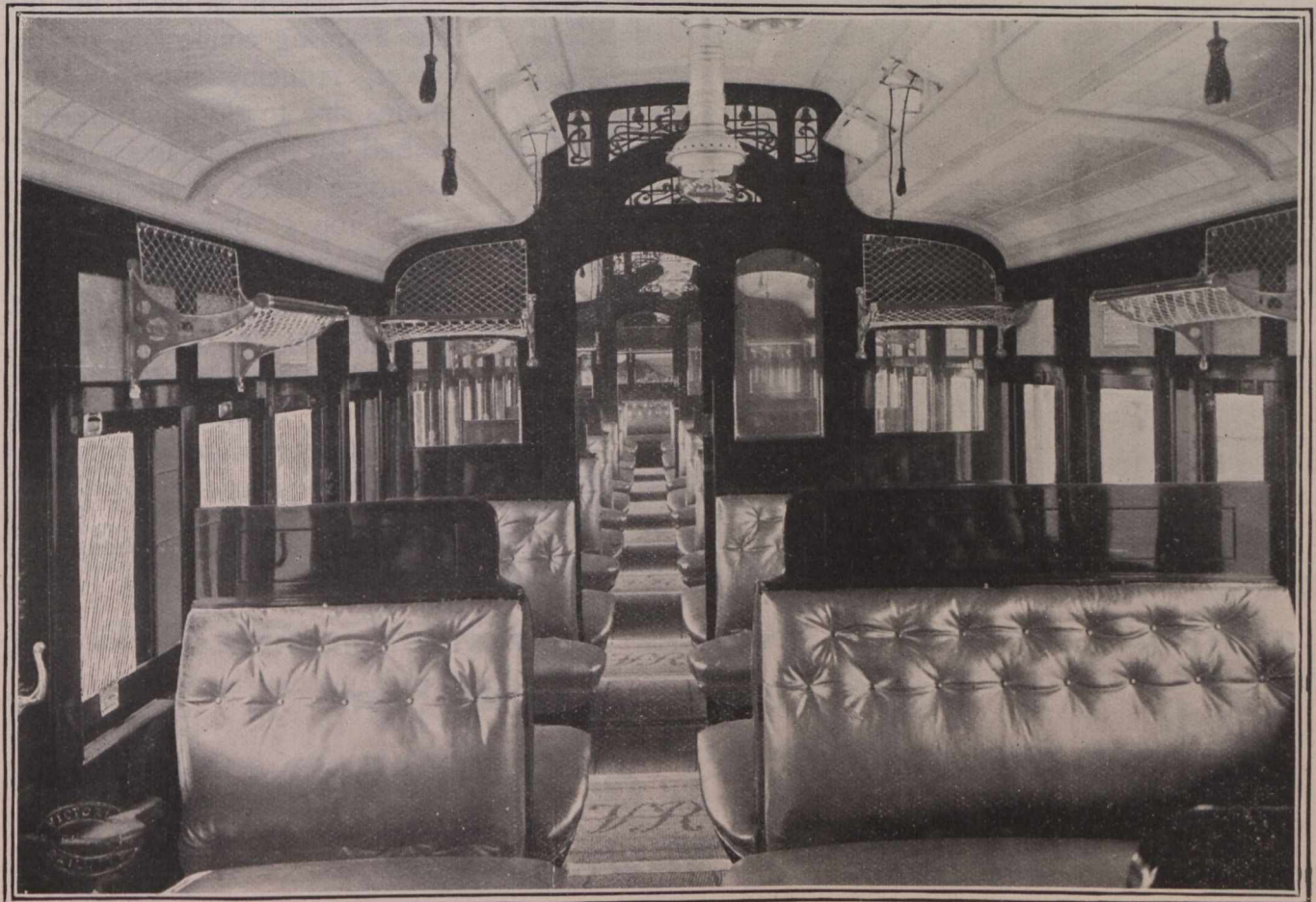
The most notable departures in this car

from the suburban carriage hitherto in use at Melbourne, which is of the ordinary cross-compartment non-corridor type with swinging doors for each compartment, are the provision of a passage-way and the substitution of sliding doors for the swinging doors. The object of the passage-way is to permit of passengers distributing themselves through the car, thus obviating what frequently happens in the cars hitherto used, viz., overcrowding in one compartment when there may be vacant seats in other compartments. In order that the seating accommodation would not be diminished by the provision of this passage-way the cars have been made about a foot wider and this has necessitated the use of sliding doors as there would not be sufficient clearance of other trains on double tracks or of structures if swinging doors were used. Apart from this consideration, however, sliding doors are considered to be an advantage as they will do away with the noise and danger and some of the expense now contingent on the opening and closing of swinging doors, but, what is more im-

portant—in the event of the electrification of the Melbourne suburban lines—one of the principal advantages of electric traction, viz., the possible quick acceleration from stations will not be lost owing to trains having to be started slowly to permit of the swinging doors being closed and fastened. In this connection it may be mentioned that it is intended that passengers shall open and close the sliding doors themselves and that this will permit of some reduction in the station platform staff being effected. It may also be mentioned that, apart from the locomotive driver and fireman, only one man—a guard who travels in the compartment provided for the purpose at the extreme rear end of the train—is employed on the Melbourne suburban trains. The provisions of a passage-way and of a door on each side of the car for each pair of seats combines the advantage of the American car or of a corridor car in enabling passengers to distribute themselves to the best advantage throughout the car with the advantage of quick ingress and egress of passengers afforded by the



Exterior of the Tait Suburban Car.



Interior of the Tait Suburban Car, First Class.