

opinion of the track brake on No. 75 is that it is certainly a very good brake, but I believe that it could be made to work freer. It has not got ball bearings. I think that would be a great improvement. The time occupied in putting on the track brake varies considerably according to what you have to take up. The general method is to take up the slack at the top of the hill until you start, and as soon as you start you put it down as hard as necessary. From my experience on the Auckland system, with the fast time-tables and steep grades, I consider the air brake an eminently satisfactory one. There is room for improvement in the sand gear. In some cars the sand is applied to both rails. I consider it should be on both rails. Taken all through, it is better than it was previously. I consider the best type of track brake is the type that is on No. 75, and also the 80's and 90's cars. I have had occasion to use the air brake in emergency once. I do not think it is possible to throw people off their feet by the application of the air brake. I approve of the air brake that I am working on the Auckland system.

By Mr. Myers: The occasion I referred to was when going down Eden Terrace. The grade is somewhere near equal to Wellesley Street. I made a quick stop, quite satisfactory, in my opinion. I have driven the cars on various routes—in fact, on all runs with the exception of Parnell Rise. I should be prepared to drive down that Rise. I consider it would operate satisfactorily there. I have not noticed whether the sand applies to both rails on all cars. The sand gear may be effective, but on some cars it only works on one rail, I think; though I grant you that on the majority of them it applies to both rails. There has undoubtedly been a great improvement in the sand gear lately, also in the upkeep of the track brakes. In some cases there is an improvement in the hand-brake as well. There is still room for improvement in the track brake. Speaking of my car, I am satisfied with the air brake and track brake. It is the same type that is installed on the 80's and 90's. That type is superior in working, and is more reliable. I suppose the mechanism has chiefly to do with it. I can only speak as to results; I am not an engineer.

By the Chairman: I have had experience on College Hill grades. In Car No. 75 we can bring the car down College Hill or Wellesley Street on the track brake, but a great deal turns on the condition of the rail. I believe that in greasy weather I could successfully bring down the car on that grade with the track brake alone. I am not going as far as saying I could stop. There is a great improvement in the condition of the track brake since the last Commission. I think I can say they are well kept up. I could not say exactly the time it takes to put down that brake. You might be able to do it in a minute, but I could not say for certain. In greasy weather it all depends on the adjustment of the brake—in some cases it is easy and in other cases it is not so. I should be quite prepared to come down College Hill in a heavy car on the air brake alone. I believe that on a greasy line I could stop at a speed of ten miles an hour with sand. I should have most confidence in using the air brake by itself rather than the track brake. I have no idea of the relative stopping-power of these two brakes, but I should feel more confident with the air brake.

By Mr. Fitt: My experience of the value of the different brakes on Parnell Rise is that the air and track brakes are no doubt the best.

By Mr. Rosser: The track brake is not a brake used for stopping. It would be merely an experiment to try and stop with the track brake. It is used for coming down grades. If coming down College Hill or Wellesley Street I should put it down hard, but I would not rely on the track brake entirely to stop the car. With reference to the type of track brake, it is a vertical wheel, not a horizontal. You can apply it quicker in some cases. You can apply it with one hand, but in bad weather on steep grades you have to use two. Occasionally we can do it with one.

HARRY MARSHALL WHITE duly sworn.

Examined by Mr. Rosser: My name is Harry Marshall White. I am a motorman in the employ of the Auckland Electric Tramways Company, and have been in their employ since 1904. I started as a conductor. I have been two and a half years driving. I have driven the cars with the air brake—No. 48. I have driven on the Herne Bay line, in which College Hill occurs every trip. My experience of the air brake on that grade is that it is very good. I have never had any failure to act. It has always been reliable. I had some narrow escapes with vehicular traffic on No. 48. Once in Pitt Street two ladies were crossing a road. It was a drizzly sort of night, with a greasy rail. I made an efficient stop. My opinion is that the air brake is suitable for the Auckland service and grades. I have had the current cut off on the Wellesley Street grade, but I found the car retained its position securely, although the current was cut off two or three minutes. I was going up at the time. If the current goes off, we are instructed to stop at once.

By Mr. Myers: I am satisfied with the vertical track brake. They are mostly vertical—all the new cars are.

By the Chairman: I had to get new blocks on the track brakes, and had to run the car into the barn. The car had the blocks worn a bit. It was not a complete failure, as it held the car. I never had a failure with a track brake on the road.

*The Chairman.*—I should like to say that the Commissioners desire particulars as to the track brakes fitted on the various cars, and also plans showing the section of the line, with grades and curves, especially the grades which are known to be the heaviest.

Commission adjourned.

Commission resumed at 2.15 p.m.