

a lorry, which disabled the hand-brake. I came to a collision with three lorries before the car stopped. I certainly believe an emergency brake, to be effective, should be used as a service brake. The magnetic brake is a very effective brake when in good working-order and the rail in good condition. I have made hundreds of good stops, yet I found it failed me. The air brake is more consistent, according to my experience of it. When you see the pressure of the air-gauge in front of you, you know how much air you have on.

By Mr. Myres: As far as I have seen of it, the air brake is effective. I have used the track brake here since I started driving about two years ago. Some of them vary a bit. I have driven a car with the air brake. As to the failure of the magnetic brake in Glasgow, I say it was a total failure. Sometimes when there is an accident there is a certain amount of recrimination—the motorman blames the brakes, and the proprietors blame the motorman. There was no charge of blame made against me. I was able to satisfy those in authority that it was the brakes that failed. I remained in the service of the Corporation for some two or three years after that. It was not suggested that the fault was mine. I had to give the insurance agents a statement, otherwise I should have been censured by the officials. I found the brake took no effect, and I called on the Inspector to try and see him. There was a partial failure on another occasion. I had the car running all right, tried the brakes, which would not act, probably go along the road a few yards, and then found they would act all right.

PETER KNOWLES duly sworn.

Examined by Mr. Rosser: My name is Peter Knowles. I am a conductor in the employ of the Auckland Tramways Company, and have been with them for about twelve months. I was formerly employed in Glasgow as motorman for about nine years and eight months. I was four or five years on the magnetic brakes. I have had no experience with air brakes, but I have conducted the Auckland car with the air brakes on. From my experience as conductor I am satisfied the motorman could make as quick stops as with the magnetic brakes. I had one direct failure with the magnetic brake, something the same as Campbell was talking of. I was coasting down an incline on the second or third notch, and when putting the controller on the third notch it had no effect. I gave it four or five, and then put on the top notch: it took no effect whatever, but skidded all the time. I stopped the car with the hand-brake. It so happened that everything was clear. It was the first time it happened with me, but I heard that others had the same failure. The car worked all right before and after that particular time, and when I handed the car over to the man who was relieving me it worked all right. I told him about it, and told him to watch the car, but he said he knew, and that it had done the same thing with him before. I would say the magnetic brake was of a very erratic character; you did not know whether you had got it or it had got you. The High Street in Glasgow was the steepest grade. High Street and Duke Street are both together.

By the Chairman: There was no skidding of the wheels; there was no effect at all.

OWEN McGRATH duly sworn.

Examined by Mr. Rosser: My name is Owen McGrath. I am a conductor with the Auckland Electric Tramways Company, and have been with them for over twelve months. I was previously in the employ of the Glasgow Corporation Tramway Board for about seven years, five years as motorman. I have not used the air brake. I have been on Car No. 75 in Auckland. I have been conducting. The magnetic brake is only used for emergency stops and coasting in Glasgow. I once had a magnetic-brake failure on a down grade, but I stopped the car with the hand-brake. It gave me no warning whatever. I have found after failure that the brake will suddenly become good again. I do not know much about the air brake. Improper contact with the finger and loose lead will sometimes upset the magnetic brake. While working on Car No. 75 I considered the air brake very effective, and made good stops. Every one has first to go through the conductor's service in this company, and that is the reason I am conducting now. The magnetic brake will skid on a dirty greasy rail, and dirt on the rail will prevent it acting.

HENRY CARTER duly sworn.

Examined by Mr. Rosser: My name is Henry Carter. I am a motorman in the employ of the Auckland Electric Tramways Company, and have been with them since the inauguration of the system, seven years last January. I have had good experience as a motorman, and worked in North Sydney before that—principally in North Sydney, although I have worked over the whole system. We had the Standard Air Brake and the Christensen Brake. There was no track brake, but sand gear. There were pretty good grades on that system. The steepest is about 1 in 8 and 1 in 10; but in North Sydney there is 1 in 7½ at Balmain, while at Malison Point there is 1 in 13. I found the air brake effective on those grades, and never had a failure. I assisted you in representing the union at the last Commission. I have trained a good many of the motormen in the service here. As a practised driver, I consider the air brake is efficient on the Auckland system. I have used both the cars. The type is the same as the Sydney brake, but the valve operates in the opposite direction—that is the only thing. I am at present an invalid, suffering from the effects of the hand-brakes. I have abdominal strain. I never had any experience of the same thing in Sydney when using the brakes there. There was no strain at all with the air brakes. I had a little experience with magnetic brakes in Sydney, and have driven one a short distance in Wellington. If the magnetic brake were installed in Auckland I consider the danger of strain would be lessened. On College Hill, coming down, you would have to fall back on the hand-brake if you wanted to make a dead stop. If you had the magnetic brake you have to use the hand-brake to make a dead stop also. The condition of the track brakes has improved since