

APPENDIX II.

TABLE 5.—AVERAGE DISTANCES, computed from Tests, in which a Car can be brought to Rest on the Gradients of Parnell Rise, College Hill, and Wellesley Street East, Auckland, and on the Level, from Speeds of Ten and Fifteen Miles per Hour, by the various Braking Arrangements tested. Rail in Good Condition.

Description of Brake.	Length of Stop from 10 Miles per Hour.			
	Down, 1 in 8·77.	Down, 1 in 11·74.	Down, 1 in 14·19.	On Level.
	Feet.	Feet.	Feet.	Feet.
Mechanical track	145	100·5	86	..
Hand-wheel, coasting on track ..	Would not stop	347	136	..
Pneumatic wheel, coasting on track ..	45	36	31	..
Pneumatic wheel only	100	66	55	27·4
Newell electro-magnetic	40·27	29·7	26·4	22·6
Length of Stop from 15 Miles per Hour.				
Mechanical track	310	203	153	..
Hand-wheel, coasting on track ..	Would not stop	781	306·3	..
Pneumatic wheel, coasting on track ..	104	84	77	..
Pneumatic wheel only	345	15·9	120	61
Newell electro-magnetic	90·6	67·4	60	50·9

TABLE 6.—WEIGHT OF CARS USED IN BRAKE-TESTS.

Car No.	Location.	Estimated Weight, Empty.		Actual Weight, Empty.		Excess percentage of Estimated Weight.	Seating Capacity.	Weight of Passengers and Two Officials at 11 ¹ / ₂ stone each.	Gross Weight Fully Loaded.	Mean Actual Weight on Tests, including Obervers.	Overload.	
		Tons.	Pounds.	Tons.	Pounds.						Per Cent. of Normal Load.	Per Cent. of Normal Gross Weight.
75	Auckland ..	10·75	24,080	16·4	36,736	52	52	lb. 8,316	lb. 45,052	lb. 48,888	46	81 ¹ / ₂
9	Christchurch ..	11·65	26,096	15·2	33,992	30	52	8,316	42,308	42,714	4·9	1
20	Dunedin ..	9·6	21,504	10·3	23,072	7 ¹ / ₄	35	5,698	28,770	30,422	29	5 ³ / ₄